MSFT gideon lens

Microsoft Corporation (MSFT) — Production ER2 / Gideon Lens

Analysis date: **2026-08-02** Price anchor: **USD 464.72 per XNAS:MSFT common share**, completed-session close on 2026-07-31 TTM anchor: **Q1–Q4 FY2026 ending 2026-06-30** Valuation horizon: **2031-06-30**, exactly 5.0 calendar years Research mode: **Production ER2; research-only; no trade, ranking, sizing, broker, message, or portfolio authority**

What changed from the previous report and why

Previous report: LEGACY-MSFT-20260701; 2026-07-01; `C:\Users\Admin\OneDrive\GPT\ER 2.0\Microsoft\raw\pulse-cio-20260801T160414+0800\prior_active_snapshot\MSFT_gideon_lens.md`; SHA-256 `66274df47c33302e5b5cc4eb56938cfcd98172b5b018363410c10f33f4c56839` **Current report:** MSFT-ER2-20260802; 2026-08-02; price anchor USD 464.72 as of 2026-07-31

Area	Previous report	Current report	What changed and why	Decision impact
Price anchor	USD 373.02 on 2026-07-01	USD 464.72 on 2026-07-31	Price/market: shares rose 24.58%.	The entry hurdle became materially harder.
ER2 verdict and gates	BUY; Management PASS; Moat PASS; P/E-15 PASS	PASS; Management YELLOW; Moat PASS; P/E-15 FAIL	Price and new FY2026 Q4 evidence turned the valuation cushion negative; capex, FCF conversion and leadership evidence weakened Management. Moat evidence remained durable.	A prior ER2 BUY became a current-price rejection.
FY+5 valuation bridge	2031-03-31 base EPS USD 30.80; required USD 24.868; value USD 461.99; cushion +23.9%	2031-06-30 base EPS USD 28.888; required USD 30.981; value USD 433.32; cushion -6.76%	New FY2026 evidence and price: base EPS fell 6.21% while the price-driven required EPS rose 24.58%; the horizon advanced one quarter.	The confident base case no longer clears the P/E-15 gate.
Shareholder returns	Gross USD bear/base/bull -1.90%/5.40%/10.10%; no probability-weighted wealth CAGR	Gross USD -5.51%/8.11%/18.41%; probability-weighted 7.41%	Methodology: the refresh uses exact scenario wealth, distributions, diluted shares and net cash/debt with justified 18x/23x/28x exits; the prior diagnostic used a flat 15x exit.	Despite higher scenario exits, base and weighted returns remain below 10%.
CIO actionability	No separate net-SGD block; research suggested a 3% maximum	PASS; net-SGD -7.93%/7.75%/19.24%; probability-weighted 7.07%	Methodology: the refresh adds explicit costs, 30% dividend withholding and scenario FX, and separates research from portfolio sizing authority.	Both 10% and 15% hurdles fail; no sizing is proposed.
Audited scores	72/100; 68/80; 4/20	66/100; 65/80; 1/20	New FY2026 evidence and audit weakened capital-return quality and valuation scores.	Quality alone cannot overcome price and return underwriting.
Methodology or corrections	P/E-15 gate was binary; return diagnostic used a flat 15x exit	P/E-15 remains binary; returns use exact scenario-specific shareholder bridges	Methodology/correction: the current report adds an auditable probability-weighted wealth CAGR and mandatory net-SGD actionability.	Better measurement clarifies the decision; price and EPS changes drive the gate reversal.

Bottom line: The verdict changed from BUY to PASS primarily because the share price rose 24.58% while refreshed base FY+5 EPS declined 6.21%, moving the P/E-15 cushion from +23.9% to -6.76%. New FY2026 Q4 capital-intensity, cash-conversion and leadership evidence also moved Management from PASS to YELLOW; the Moat remained PASS. Methodology improvements made the comparison more auditable, but the gate reversal is economic rather than merely methodological.

Executive conclusion

Microsoft remains an exceptional collection of enterprise software, cloud, identity, security, developer, data, advertising and consumer-distribution assets. FY2026 revenue was USD 331.839 billion, statutory Operating income was USD 155.237 billion, and net income was USD 133.749 billion. Productivity and Business Processes earned a 59.9% operating margin; Intelligent Cloud grew rapidly while holding a 41.3% margin; and More Personal Computing remained profitable despite weak Windows and XBOX exits. The moat review passes the exact 2046 test because Microsoft can plausibly remain the governed identity, security, data, workflow and AI-orchestration layer for digital organizations.

The security does not pass at the sealed price. The R-cleared bottom-up base case reaches USD 558.703 billion of revenue, USD 261.207 billion of Operating income, USD 212.966 billion of net income and USD 28.8880 of diluted EPS at 2031-06-30. Fifteen times that EPS is USD 433.32, 6.76% below the USD 464.72 quote. The binary valuation gate therefore fails. The audited return model reaches only 8.11% gross USD annualized in the base case and 7.41% on probability-weighted terminal wealth. The bear loses 5.51% annually; even the bull reaches only 18.41%, below the 20% stretch diagnostic.

The qualitative picture also requires discipline. Management is YELLOW, not PASS. Satya Nadella and Amy Hood have a strong decade-plus record, but FY2026 cash capex was USD 115.948 billion, FCF conversion was 50.1%, calculated ROIC declined, the Activision/XBOX outcome is unproven, and broad leadership changes raise execution and succession questions. The scoring auditor reduced the diagnostic Compounder Score from 70 to 66 because acquisition-inclusive returns, segment unit economics and capital-allocation evidence do not support the original points. These diagnostic scores do not determine the ER2 verdict; the Management, Moat and P/E-15 gates do.

Verdict: PASS

Scorecard:

Gate	Result	Notes
Management	YELLOW	Proven team; AI capital returns and succession remain unresolved
Moat	PASS	Enterprise control plane passes the exact 2046 durability test
P/E <= 15 on confident EPS at TTM + 5 calendar years	FAIL	Base USD 28.888 EPS implies USD 433.32; cushion -6.76%
Compounder Score	Audited 66 / 100	Diagnostic falls into Reject territory; valuation and capital evidence bind
Business Quality Score	Audited 65 / 80	Dream-business threshold only; incremental-return evidence remains capped
20% Return UW Score	Audited 1 / 20	Current price does not support the 20% stretch hurdle

One-line thesis (or reason to pass): Microsoft’s enterprise moat is durable, but USD 464.72 prices more capital conversion and terminal value than the cleared base case supports.

Security return underwriting

Security return underwriting is mandatory even though the verdict is PASS. These are gross local-currency shareholder returns in USD, not portfolio returns and not trade authority. All scenarios start at USD 464.72, run from 2026-06-30 to 2031-06-30 for exactly 5.0 years, include the synthesis diluted-share paths, and add cash dividends without reinvestment. Scenario probabilities are 30% bear, 50% base and 20% bull.

Measure	Result	Notes
Gross local-currency bear / base / bull IRR	-5.51% / 8.11% / 18.41%	Five-year annualized shareholder return in USD
Probability-weighted gross local-currency IRR	7.41%	CAGR of USD 664.4596 probability-weighted terminal wealth; 30% / 50% / 20%
Return bridge	USD 464.72 to scenario wealth	Exact terminal equity, shares, net cash/debt, exit valuation and distributions below

Scenario	Probability	2031 EPS	Exit P/E	Terminal enterprise value	Net cash / (debt)	Terminal equity value	Diluted shares	Equity value / share	Distributions / share	Terminal wealth / share	Gross USD IRR
Bear	30%	USD 18.3341	18.0x	USD 2,469.336B	USD (25.000)B	USD 2,444.336B	7,406.759M	USD 330.0143	USD 19.9871	USD 350.0014	-5.5122%

Scenario	Probability	2031 EPS	Exit P/E	Terminal enterprise value	Net cash / (debt)	Terminal equity value	Diluted shares	Equity value / share	Distributions / share	Terminal wealth / share	Gross USD IRR
Base	50%	USD 28.8880	23.0x	USD 4,848.218B	USD 50.000B	USD 4,898.218B	7,372.124M	USD 664.4242	USD 21.8333	USD 686.2575	8.1083%
Bull	20%	USD 37.7794	28.0x	USD 7,673.051B	USD 100.000B	USD 7,773.051B	7,348.153M	USD 1,057.8237	USD 23.8286	USD 1,081.6523	18.4075%

Probability-weighted terminal shareholder wealth is `30% × 350.0014 + 50% × 686.2575 + 20% × 1,081.6523 = USD 664.4596` per share. The probability-weighted return is `(664.4596 / 464.72)^(1/5) - 1 = 7.4127%`. It is not an arithmetic average of scenario IRRs. The base exit multiple contracts from the current 25.90x P/E to 23.0x; the bear uses 18.0x, below Microsoft's recent fiscal-year range, and the bull uses 28.0x, below the six-year median but still dependent on strong execution. The base maximum starting price for a 20% five-year return under the same terminal wealth is USD 275.79. Holding the current price and base EPS would require approximately 39.27x terminal P/E to reach 20%, which is not conservative underwriting.

Gross local-currency underwriting in USD; net-SGD adjustments appear separately in CIO actionability. Scenario probabilities are 30% / 50% / 20%.

Bear-case operating and return bridge

Bear case	Start (2026-06-30)	Horizon (2031-06-30)	CAGR / change	Justification
Revenue	USD 331.84B	USD 432.59B	5.45%	Cloud and productivity growth slows while MPC contracts.
Operating margin	46.78%	40.43%	-6.35 pp	AI depreciation and capacity intensity reduce consolidated margin.
Operating earnings	USD 155.24B	USD 174.89B	2.41%	AI depreciation and capacity intensity reduce consolidated margin.
Diluted share count	7,453.0M	7,406.8M	-0.12%	Buybacks only modestly exceed SBC issuance.
EPS	USD 17.95	USD 18.334	0.42%	Cleared statutory earnings barely grow as margin contracts.
Valuation	25.90x P/E	18.0x P/E	-7.90x	18x sits below the recent fiscal-year range.
Share value	USD 464.72	USD 330.014	-6.60%	Audited enterprise-to-equity reconciliation produces the per-share value.
Annual dividend	USD 3.548	USD 4.317	4.00%	Five dividends grow 4% annually and are held without reinvestment.
Dividend yield	0.76%	1.31%	+0.55 pp	Endpoint DPS divided by endpoint share value; unavailable where endpoint DPS was not separately frozen.
Five-year dividends	-	USD 19.987	cumulative	Cumulative cash distributions per share over the exact five-year horizon; no reinvestment benefit.
Total ending value	USD 464.72	USD 350.001	-5.51% gross local IRR	Terminal share value plus cumulative distributions and any separately disclosed distributed-security value; reconciles to the audited bridge.

Base-case operating and return bridge

Base case	Start (2026-06-30)	Horizon (2031-06-30)	CAGR / change	Justification
Revenue	USD 331.84B	USD 558.70B	10.98%	P&BP and Intelligent Cloud compound while MPC remains mature.

Base case	Start (2026-06-30)	Horizon (2031-06-30)	CAGR / change	Justification
Operating margin	46.78%	46.75%	-0.03 pp	Segment mix holds consolidated margin approximately flat.
Operating earnings	USD 155.24B	USD 261.21B	10.97%	Segment mix holds consolidated margin approximately flat.
Diluted share count	7,453.0M	7,372.1M	-0.22%	Measured repurchases offset issuance without driving the thesis.
EPS	USD 17.95	USD 28.888	9.98%	Cleared statutory EPS includes other income, tax and the share path.
Valuation	25.90x P/E	23.0x P/E	-2.90x	23x contracts from today's P/E and is separate from the 15x gate.
Share value	USD 464.72	USD 664.424	7.41%	Audited enterprise-to-equity reconciliation includes USD 50B net cash once.
Annual dividend	USD 3.548	USD 4.977	7.00%	Five dividends grow 7% annually and are held without reinvestment.
Dividend yield	0.76%	0.75%	-0.01 pp	Endpoint DPS divided by endpoint share value; unavailable where endpoint DPS was not separately frozen.
Five-year dividends	-	USD 21.833	cumulative	Cumulative cash distributions per share over the exact five-year horizon; no reinvestment benefit.
Total ending value	USD 464.72	USD 686.258	8.11% gross local IRR	Terminal share value plus cumulative distributions and any separately disclosed distributed-security value; reconciles to the audited bridge.

Bull-case operating and return bridge

Bull case	Start (2026-06-30)	Horizon (2031-06-30)	CAGR / change	Justification
Revenue	USD 331.84B	USD 667.22B	14.99%	Strong Copilot, Azure and platform execution sustains mid-teens growth.
Operating margin	46.78%	49.76%	+2.98 pp	High-margin mix and utilization lift consolidated margin.
Operating earnings	USD 155.24B	USD 332.03B	16.41%	High-margin mix and utilization lift consolidated margin.
Diluted share count	7,453.0M	7,348.2M	-0.28%	Larger buybacks reduce shares, but only modestly.
EPS	USD 17.95	USD 37.779	16.06%	Bull EPS requires strong revenue, margin and tax outcomes.
Valuation	25.90x P/E	28.0x P/E	+2.10x	28x expands from spot but stays below the six-year median.
Share value	USD 464.72	USD 1,057.824	17.87%	Audited enterprise-to-equity reconciliation includes USD 100B net cash once.
Annual dividend	USD 3.548	USD 5.715	10.00%	Five dividends grow 10% annually and are held without reinvestment.
Dividend yield	0.76%	0.54%	-0.22 pp	Endpoint DPS divided by endpoint share value; unavailable where endpoint DPS was not separately frozen.

Bull case	Start (2026-06-30)	Horizon (2031-06-30)	CAGR / change	Justification
Five-year dividends	-	USD 23.829	cumulative	Cumulative cash distributions per share over the exact five-year horizon; no reinvestment benefit.
Total ending value	USD 464.72	USD 1,081.652	18.41% gross local IRR	Terminal share value plus cumulative distributions and any separately disclosed distributed-security value; reconciles to the audited bridge.

Why the gates land here

Management — YELLOW

The Nadella–Hood partnership deserves credit for the cloud transition, disciplined financing, continued dividends and buybacks, and generally high-quality disclosure. Microsoft ended FY2026 with USD 36.549 billion of net cash against official borrowings, so balance-sheet solvency is not the issue. The issue is incremental capital return. Cash additions to property and equipment reached USD 115.948 billion, up sharply as AI capacity, power and data centers expanded, while FY2026 FCF was USD 66.987 billion and FCF/net income was only 50.1%. Management also reset XBOX, changed several senior reporting structures, and has not yet tied a material portion of incentive compensation directly to ROIC or FCF conversion. An upgrade requires evidence across capital efficiency, XBOX economics, incentives and succession—not Azure growth alone.

Moat — PASS

Microsoft’s strongest moat is not raw compute or any single model. It is the enterprise control plane: identity, permissions, security, compliance, workflow history, data context, developer distribution, partner implementation and high-trust procurement. P&BP and Intelligent Cloud together produce 90.7% of operating income. Microsoft 365, Entra, Defender, GitHub, Dynamics, Azure and the broader partner ecosystem reinforce switching costs and procurement advantage. The moat is not invulnerable: competing agent layers could make applications interchangeable, cloud compute could become more utility-like, OpenAI can source outside Azure, regulation may force unbundling, and a serious security failure could damage trust. Still, a specific high-return customer-funded business remains plausible at 2046-08-02, so the gate passes.

Valuation — FAIL

The synthesis cleared all 11 tie-outs and used no corporate plug. Bear/base/bull horizon EPS is USD 18.3341 / USD 28.8880 / USD 37.7794. Only the bull clears the P/E-15 test; the base controls and fails. Sensitivity does not offer an easy rescue: a 5% lower share count gives base EPS of about USD 30.41, and P&BP CAGR plus 200 basis points gives about USD 30.28, both below the required USD 30.9813. The current quote therefore requires a combination of better growth, margins, capital allocation, tax/below-line economics, or a lower entry price.

Red-team conclusion and monitoring

The red team concludes that the moat survives but the investment thesis does not survive at USD 464.72. Its most fragile assumption is Microsoft 365 Commercial growing 13%, 12%, 11%, 10% and 9% through FY2031, a 10.99% CAGR that depends on Copilot and premium mix despite undisclosed realized pricing, renewal, retention, inference cost and product margin. Its most optimistic Stage 5 output is the 46.75% base consolidated horizon margin, which requires recovery from the 45.1% Q4 exit while capacity and depreciation continue rising.

The primary invalidating signal is **TTM FCF / TTM net income below 45% at both Q1 and Q2 FY2027**. That would show persistent deterioration rather than construction timing and would break the high-return compounder premise even if Azure and RPO continue growing. Supporting monitors are P&BP growth and margin together, Intelligent Cloud margin and FCF conversion, ex-OpenAI backlog conversion, XBOX revenue/profit after restructuring, and dilution after SBC.

CIO actionability (separate from ER2 underwriting):

Measure	Result	Notes
Status	PASS	Probability-weighted net-SGD security IRR is below 10%; this is a research conclusion, not trade authority

Measure	Result	Notes
Bear / Base / Bull net SGD IRR	-7.93% / 7.75% / 19.24%	Exactly 5.0-year annualized shareholder returns after explicit costs, withholding and scenario FX
Probability-weighted net SGD IRR	7.07%	CAGR of 30% / 50% / 20% probability-weighted net terminal SGD wealth, not an average of scenario IRRs
10% mandate hurdle	FAIL	7.07% probability-weighted net-SGD IRR is below 10%
15% stretch hurdle	FAIL	7.07% is below 15%; only the bull scenario exceeds 15%
Downside and portfolio fit	Downside unacceptable; portfolio fit unavailable	Bear net-SGD IRR is -7.93%; holdings, concentration and drawdown budgets were not provided
Proposed sizing ceiling	none	Research has no ranking or sizing authority

The net-SGD bridge normalizes entry SGD/USD to 1.0000 because only the exit/entry FX ratio affects the return. It applies 0.35% entry cost and 0.35% exit cost as conservative non-portfolio-specific assumptions, 30% U.S. withholding to cash dividends, and exit/entry SGD-per-USD ratios of 0.90x / 1.00x / 1.05x in bear / base / bull. The IRS states that U.S.-source dividends paid to a nonresident alien are generally withheld at 30% unless a lower treaty rate applies ([IRS withholding guidance](https://www.irs.gov/individuals/international-taxpayers/federal-income-tax-withholding-and-reporting-on-other-kinds-of-us-source-income-paid-to-nonresident-aliens)). Net terminal SGD wealth per unit of entry FX is USD-equivalent 308.5652 / 677.3820 / 1,124.3414 against a 466.3465 initial outlay after entry cost; probability-weighted net terminal wealth is 656.1289. The FX ratios and transaction costs are explicit conservative research judgments, not forecasts or broker quotes.

Trade execution authorized: NO

Kill / trigger criteria:

- Valuation upgrade trigger: price below USD 433.32 at unchanged base EPS creates a positive P/E-15 cushion; this alone does not cure Management YELLOW.
- Management upgrade: by FY2028, TTM FCF/net income at least 65%, cash capex/revenue at most 30%, and calculated ROIC at least 32% for two consecutive quarters; FY2027 XBOX revenue positive with MPC margin at least 24%; and capital-efficiency metrics gain meaningful incentive weight.
- PASS/invalidating triggers: TTM FCF/net income below 45% for Q1 and Q2 FY2027; ROIC below 25% for two quarters while cash capex/revenue stays above 30%; FY2027 XBOX revenue below -5%, MPC margin below 20% for two quarters, or another XBOX impairment above USD 5B.
- Upgrade to BUY conditions: Management must move to PASS, Moat remain PASS, and price must be below 15x the confident five-year EPS with positive cushion. A bull case cannot substitute for the confident base.

Research sizing if actionable: none. Portfolio context is unavailable and this research has no sizing authority.

Provenance and authority

The quantitative foundation and independent QFR review cleared the quote packet and statutory bridge. DR verified the data package after eight bounded corrections. Each segment appendix was independently reviewed and cleared for synthesis. S passed 11/11 tie-outs. CSA audited the diagnostic score and reproduced every mandatory return. RT completed the adversarial review. All structured artifacts set `trade_execution_authorized=false`; no order, execution, message, ranking, sizing or portfolio mutation was created.

Appendix A - Company Primer

Microsoft Corporation (MSFT) — Company Primer

Scope, source discipline, and time anchor

This primer is an orientation document for a reader approaching Microsoft for the first time. It explains what the company sells, who buys it, how the revenue streams behave, where the profits and cash come from, and which business-model tensions matter after the FY2026 results. It is not a valuation model or an investment recommendation.

Every financial figure in this appendix comes from the cleared `quant_foundation.md`; percentages described as calculated are simple derivations from those figures. The foundation uses the FY2026 Form 10-K, the Q4 FY2026 earnings release, and live FMP pulls, and it passed all eight reconciliation checks. `quant_foundation_review.md` independently cleared it for Wave 1 on 2026-08-02. The qualitative structure reuses durable context from the prior primer. This appendix does not depend on the still-developing data package and does not introduce a second financial data package. Amounts are USD millions except per-share data.

Anchor	Governing value
Today	2026-08-02
Fiscal year convention	Year ends June 30
Latest reported quarter	Q4 FY2026 ended 2026-06-30
TTM window	Q1 + Q2 + Q3 + Q4 FY2026, ending 2026-06-30
Five-year research horizon	2031-06-30, exactly five calendar years after the TTM end
Quote context	XNAS:MSFT common stock; USD 464.72 completed close on 2026-07-31

Because the latest TTM ends on the fiscal year-end, FY2026 and the TTM are the same financial measurement window. That removes a common source of confusion: the current base is not FY2025, and the five-year horizon does not start from an older annual period.

1. Business overview: an integrated computing franchise

Microsoft is best understood as an integrated commercial-computing platform with several large consumer businesses attached. It is not merely the maker of Windows or Office. Its products span the main layers an organization needs to operate digitally: employee identity, communication, documents, collaboration, device management, cybersecurity, compliance, software development, databases, analytics, business applications, cloud infrastructure, and artificial intelligence. It also owns major consumer surfaces in gaming, search, Windows devices, professional networking, and Microsoft 365 Consumer.

The company solves a coordination problem. A large organization can assemble separate vendors for email, meetings, documents, identity, endpoint security, compliance, cloud computing, data platforms, software development, and customer or financial workflows. That approach may deliver best-of-breed functionality in individual categories, but it creates integration, procurement, security, and support burdens. Microsoft offers a connected stack in which the same identity, policy, data, and administrative layers can extend across many products. The value proposition is therefore partly the quality of each application and partly the lower friction of operating them together.

The commercial customer set includes large enterprises, smaller businesses, governments, schools, developers, independent software vendors, and implementation partners. The economic buyer varies by workload. Chief information, technology, and security officers often govern infrastructure, identity, security, and cloud commitments. Functional leaders influence productivity, sales, service, finance, and recruiting products. Developers can initiate Azure or GitHub usage before central procurement formalizes it. Consumers encounter Microsoft through Office subscriptions, Windows PCs, LinkedIn, Bing and Edge, Xbox, game content, and related digital stores.

Microsoft’s major product families play distinct roles:

- Microsoft 365 is the daily work layer: documents, email, meetings, collaboration, storage, administration, security, compliance, and increasingly AI assistance.
- Azure and server products are the infrastructure and data layer: computing, storage, networking, databases, analytics, security, developer services, and AI model deployment.

- Dynamics provides customer engagement, finance, operations, and other business applications.
- LinkedIn monetizes professional identity and activity through recruiting, marketing, sales tools, and subscriptions.
- GitHub and related developer tools sit in the software-creation workflow and help pull workloads toward Microsoft's cloud and AI stack.
- Windows supplies the PC operating layer and a base for enterprise device management.
- Gaming combines content, subscriptions, platform distribution, and hardware, including the Activision Blizzard portfolio.
- Search and news advertising monetize queries and traffic across Microsoft and partner surfaces.

The strategic logic is cross-layer distribution. Microsoft can introduce a new security, AI, data, or collaboration capability through relationships that already exist. It can also bundle products so that adopting one layer makes adjacent layers easier to buy and manage. The same breadth that strengthens distribution also raises the standard for execution: customers will tolerate an integrated suite only while its key components remain credible against focused alternatives.

2. Customers and buying model

Microsoft uses several buying motions because its revenue is economically diverse. Commercial software is usually sold as recurring licenses or subscriptions, cloud infrastructure is largely consumption- and commitment-driven, Windows has an OEM channel, advertising is usage- and auction-driven, and gaming blends subscriptions, content transactions, store economics, and hardware.

Offering family	Primary customer	Economic unit	Typical buying motion	Main retention mechanism
Microsoft 365 Commercial	Enterprises, public sector, smaller businesses	Licensed seat and bundle level	Direct enterprise sales, partners, cloud solution providers, online purchase	Daily workflow, identity, data, administration, compliance
Azure and server products	Enterprises, developers, software vendors	Consumption, capacity commitment, subscription, server license	Direct cloud commitments, self-service usage, partners, marketplace	Workload migration cost, architecture, data gravity, developer tooling
Dynamics	Business functions and enterprise IT	Application user, module, and deployment	Direct sales with implementation partners	Embedded business process, customization, data, partner support
LinkedIn	Recruiters, marketers, sellers, professionals	Subscription, advertising demand, marketplace access	Direct contracts and self-service	Professional network, workflow data, audience reach
Windows and devices	PC manufacturers, enterprises, consumers	Device license, commercial subscription, hardware unit	OEM agreements, enterprise licensing, retail/channel	Application compatibility, installed base, management standards
Gaming	Players, publishers, developers	Subscription, content sale, store participation, hardware	Digital self-service, retail, platform relationships	Content library, community, account history, platform ecosystem
Search advertising	Advertisers and agencies	Query, click, or campaign outcome	Self-service and managed advertising auction	Traffic, targeting, measured return, distribution access

Large commercial accounts often buy through broad agreements rather than isolated product transactions. A customer may combine Microsoft 365 seats, security capabilities, Azure commitments, support, and business applications under one commercial relationship. Partners extend this model into markets and technical niches that Microsoft cannot efficiently cover with only its own field organization. Resellers, system integrators, managed service providers, independent software vendors, and cloud solution providers help design, implement, and operate Microsoft-based systems.

The model contains both top-down and bottom-up adoption. A chief information officer may standardize Microsoft 365 or Azure across an organization. Separately, a developer may begin using GitHub or cloud services through self-service access, or a business team may adopt a Dynamics module with a partner. Successful bottom-up usage can later become centrally governed spend. This dual motion widens the funnel and gives Microsoft several paths to expand inside an account.

Retention is strongest where products become operating infrastructure. Replacing email, identity, document repositories, security policy, development pipelines, databases, or business applications requires migration, retraining, integration testing, compliance review, and business-continuity risk. The practical threat is therefore less a wholesale abandonment of Microsoft and more a failure to capture the next workload. Customers can keep the core stack while directing incremental cloud, AI, security, collaboration, or business-application spend to competitors.

3. FY2026 revenue architecture

FY2026 revenue was USD 331,839, up 17.8% from USD 281,724 in FY2025. Operating income was USD 155,237, up 20.8%, and the operating margin increased from 45.6% to 46.8%. Net income was USD 133,749 and diluted EPS was USD 17.95. The aggregate result is unusually profitable, but the segment split shows that the incremental growth and the cash demands do not come from the same economic engine.

Reportable segment	FY2026 revenue	Share of revenue	Growth vs. FY2025	FY2026 operating income	OI margin
Productivity and Business Processes	139,996	42.2%	15.9%	83,879	59.9%
Intelligent Cloud	137,791	41.5%	29.7%	56,972	41.3%
More Personal Computing	54,052	16.3%	(1.1%)	14,386	26.6%
Total	**331,839**	**100.0%**	**17.8%**	**155,237**	**46.8%**

Productivity and Business Processes

Productivity and Business Processes, or P&BP, is Microsoft's work-software and professional-workflow franchise. It contains Microsoft 365 Commercial and Consumer, LinkedIn, and Dynamics. Microsoft 365 Commercial is the central asset: Office applications, Teams, Exchange, SharePoint, OneDrive, and associated administration, security, compliance, and cloud services are embedded in everyday work. Dynamics extends Microsoft into sales, customer service, finance, supply chain, and related operating processes. LinkedIn is economically different from the software suite, but it gives Microsoft a professional identity network and monetization surfaces in recruiting, advertising, sales tools, and subscriptions.

P&BP produced 42.2% of FY2026 revenue and 54.0% of segment operating income, calculated from the cleared segment figures. Its 59.9% operating margin makes it the profit anchor. Revenue grew 15.9%, while operating margin rose from 57.8% in FY2025 to 59.9%. That combination indicates that the mature installed base can still expand through seat growth, higher-value bundles, cloud mix, pricing, and newer products such as AI features, even though the exact contribution of each driver is not separately provided in the quantitative foundation.

Intelligent Cloud

Intelligent Cloud contains server products and cloud services, including Azure, as well as Enterprise Services. Azure rents computing, storage, networking, databases, analytics, security, developer services, and AI infrastructure to customers. Server products support on-premise and hybrid environments, which remain important for enterprises that cannot or do not want to move every workload to a public cloud. Enterprise Services helps customers deploy and support Microsoft technology.

Intelligent Cloud produced 41.5% of FY2026 revenue and grew 29.7%, the fastest of the three segments. Its operating income was USD 56,972 and margin was 41.3%, compared with 42.0% in FY2025. The slight margin decline matters because this is where much of the company's physical infrastructure burden sits. The segment combines attractive software and platform services with capital-heavy compute capacity. Revenue growth is powerful, but the cash return depends on utilization, service mix, pricing, hardware efficiency, power availability, and the pace at which installed capacity becomes billable demand.

More Personal Computing

More Personal Computing, or MPC, brings together Windows and Devices, Gaming, and Search and news advertising. Windows has mature, high-value licensing economics but is partly exposed to PC demand and OEM shipments. Gaming includes Xbox hardware, content and services, subscriptions, store participation, and first-party content. Search advertising depends on query traffic, user engagement, advertiser demand, and traffic-acquisition arrangements. The segment therefore mixes high-margin platform and advertising revenue with content and hardware activities that have different cost structures.

MPC generated 16.3% of FY2026 revenue. Revenue declined 1.1%, but operating income increased from USD 14,166 to USD 14,386 and margin improved from 25.9% to 26.6%. It is a smaller contributor to consolidated growth than the commercial segments, yet its consumer distribution surfaces can still matter strategically for AI discovery, Windows usage, gaming subscriptions, and advertising inventory.

Product-level view

The annual product endpoint totals exactly to FY2026 consolidated revenue. Two blocks dominate: Server Products and Cloud Services and Microsoft 365 Commercial together represented 69.7% of revenue. That concentration is economically important because the company's current earnings power rests heavily on enterprise cloud infrastructure and recurring work

software.

Product line	FY2026 revenue	Share of revenue	Primary reportable segment
Server Products and Cloud Services	129,425	39.0%	Intelligent Cloud
Microsoft 365 Commercial Products and Cloud Services	101,997	30.7%	Productivity and Business Processes
Gaming / Xbox	21,790	6.6%	More Personal Computing
LinkedIn	19,817	6.0%	Productivity and Business Processes
Windows	17,084	5.1%	More Personal Computing
Search Advertising	15,176	4.6%	More Personal Computing
Microsoft 365 Consumer Products and Cloud Services	9,175	2.8%	Productivity and Business Processes
Dynamics Products and Cloud Services	9,006	2.7%	Productivity and Business Processes
Enterprise Services	8,260	2.5%	Intelligent Cloud
Other Products and Services	109	0.0%	Unmapped residual line

Two provenance cautions are essential. First, Search Advertising belongs to More Personal Computing, not P&BP. Second, the USD 109 Other Products and Services line has no supported reportable-segment mapping and must remain unallocated. The product table is useful for orientation, while the official reportable-segment table is the controlling segment base.

The live quarterly vendor endpoint also omitted the Q4 Xbox/Gaming row. The foundation preserved that defect rather than disguising it: annual Xbox/Gaming revenue of USD 21,790 less the Q1, Q2, and Q3 values of USD 5,508, USD 5,958, and USD 5,341 gives an official source-bound Q4 replacement of USD 4,983. Adding that amount to the raw quarterly product sum of USD 326,856 brings the completed product total to USD 331,839, with no residual. This repair supports the annual product view; it is not a vendor-observed quarterly value.

4. Unit economics: how revenue becomes operating profit

The cleanest way to compare the segments is to decompose each USD 100 of FY2026 revenue into cost of revenue, operating expenses, and operating income. These are accounting economics rather than customer-level cohort metrics, but they show why Microsoft's segments should not be valued or forecast as if they were identical.

FY2026 economics per USD 100 of revenue	Cost of revenue	Operating expenses	Operating income
Productivity and Business Processes	17.9	22.2	59.9
Intelligent Cloud	42.0	16.7	41.3
More Personal Computing	43.4	29.9	26.6
Consolidated	**32.1**	**21.2**	**46.8**

P&BP has classic scaled-software economics. The product and selling costs are meaningful, particularly for cloud hosting, product development, customer support, commissions, partner incentives, and LinkedIn operations, but the incremental cost of another licensed user is low relative to the subscription revenue when infrastructure use is moderate. Bundles can raise revenue per account without recreating the whole delivery and sales system. The principal unit-economics question is whether AI add-ons raise price and retention enough to cover their higher inference and infrastructure costs. Traditional productivity software was compute-light; AI assistance is not.

Intelligent Cloud is a hybrid of software economics and infrastructure economics. Higher-level database, security, management, data, and developer services can add software value on top of shared infrastructure. Raw compute, storage, networking, and AI capacity require servers, accelerators, buildings, power, cooling, and redundant networks before demand is fully monetized. Utilization is therefore critical. A data center with scarce capacity and strong demand can support attractive returns; underused or rapidly obsolescing capacity can depress them. Custom silicon, software optimization, workload scheduling, and a richer service mix may improve the economics, but the FY2026 cash-flow statement makes clear that the investment arrives before the full cash payoff.

MPC is a portfolio rather than one unit-economic model. Windows licensing and search advertising can carry strong incremental margins. Gaming requires content creation and acquisition, publisher economics, platform operation,

subscriptions, and sometimes subsidized or lower-margin hardware. Devices carry supply-chain and inventory exposure. This mix explains why MPC's operating-expense and direct-cost burdens are both higher than P&BP's. It also means changes in mix can move segment profit even when total revenue is stable.

The three segment operating-income lines sum exactly to statutory operating income; there is no corporate allocation plug. The below-line bridge is also clean.

FY2026 statutory bridge	USD millions
Revenue	331,839
Statutory operating income	155,237
Other income, net	10,697
Pretax income	165,934
Provision for income taxes	(32,185)
Net income	133,749
Diluted EPS	17.95

5. Capital intensity and cash conversion

Microsoft's income statement remains software-like, but its cash-flow profile now reflects a very large infrastructure build. FY2026 operating cash flow rose 34.4% to USD 182,935. Additions to property and equipment rose 79.6% to USD 115,948. As a result, free cash flow, defined in the foundation as operating cash flow less those additions, declined 6.5% to USD 66,987 even as revenue and operating income grew rapidly.

Cash-flow measure	FY2025	FY2026 / TTM	Change
Operating cash flow	136,162	182,935	34.4%
Additions to property and equipment	(64,551)	(115,948)	79.6% increase in outflow
Free cash flow	71,611	66,987	(6.5%)

Cash capex equaled 34.9% of revenue and 63.4% of operating cash flow. Free cash flow equaled 20.2% of revenue and 50.1% of net income. Those figures do not imply that the spending is uneconomic; they define what future returns must justify. The company is converting accounting demand into physical capacity at extraordinary scale. The key underwriting question is how quickly that capacity reaches productive utilization and how durable its pricing and technical life prove to be.

Q4 illustrates the same pattern at the right edge of the TTM. Revenue was USD 90,007, operating income USD 40,603, net income USD 35,766, and diluted EPS USD 4.81. Operating cash flow was USD 55,441, additions to property and equipment were USD 35,802, and free cash flow was USD 19,639. Q4 was the largest capex quarter in the four-quarter foundation, so capital intensity was still rising into year-end rather than fading from an earlier peak.

The balance sheet provides substantial funding capacity. At June 30, cash and short-term investments were USD 76,843, gross borrowings were USD 40,294, and net cash versus borrowings was USD 36,549. The foundation deliberately excludes lease aggregation from official borrowings; the live vendor's broader debt figure is not comparable. Microsoft also paid USD 26,445 in dividends and USD 22,271 for common-stock repurchases during FY2026, a combined USD 48,716, while stock-based compensation was USD 12,405. These uses of cash coexist with the infrastructure program, but they do not eliminate the opportunity cost: every dollar committed to capacity or distributions is a dollar that must earn its place in long-term per-share compounding.

6. Customer economics, expansion, and durability

Microsoft's strongest commercial advantage is control of important accounts and workflows. A customer may already use Microsoft for identity, email, documents, meetings, endpoint administration, security, compliance, software development, databases, and cloud infrastructure. This creates several expansion paths. A basic productivity relationship can add premium security and compliance. A Windows and identity relationship can expand into device management. A GitHub relationship can lead to developer AI and Azure usage. A Dynamics deployment can connect with Microsoft 365, Power Platform, data services, and Azure.

The resulting economics are attractive for three reasons. First, acquisition cost can be shared across a broad account rather than attached to one standalone product. Second, integrated administration and identity can make incremental products

easier to deploy. Third, switching costs rise as workflows, data, policies, integrations, and employee habits become interconnected. These advantages help explain why P&BP can carry a 59.9% operating margin while still growing at a double-digit rate.

There are limits. Bundling can retain a customer while masking weak engagement in individual components. A customer can standardize on Microsoft 365 yet choose a competitor for cloud infrastructure, security, data, collaboration, or business applications. Cloud spend can also be optimized without a full platform exit. Durable account access is therefore not the same as automatic wallet-share gain. The quality test is whether each new product earns adoption and renewal rather than riding indefinitely on contract structure.

Consumer economics are less locked in. Gamers can split time among platforms and entertainment formats. Advertisers move budgets toward the best measured returns. PC demand is cyclical. Consumer subscriptions can be cancelled more easily than enterprise identity or email can be replaced. MPC's lower margin and muted FY2026 revenue reflect these less uniform economics, even though Windows, Xbox, and search remain valuable distribution surfaces.

7. Competitive structure

Microsoft competes across nearly every layer of modern technology, so there is no single market-share contest. The structure is a set of overlapping platform battles in which integration and distribution face specialist product quality and customer preference for multi-vendor architectures.

Arena	Main competitive alternatives	Microsoft's structural advantage	Core pressure point
Productivity and collaboration	Google Workspace, Salesforce/Slack, Zoom, Adobe, Atlassian, focused applications	Installed base, Office formats, identity, administration, bundles	Specialist usability, bundle resistance, AI feature quality
Cloud infrastructure and data	AWS, Google Cloud, Oracle, private cloud, specialist AI providers	Enterprise relationships, hybrid stack, developer and productivity integration	Capital returns, multicloud adoption, price and performance
Business applications	Salesforce, SAP, Oracle, Workday, ServiceNow, vertical software	Microsoft 365 and Azure adjacency, partner ecosystem	Implementation complexity, category leaders, vertical depth
Developer workflow	GitLab, Atlassian, cloud-native and internal toolchains	GitHub distribution, Azure connection, AI coding integration	Developer trust, platform neutrality, rapid tooling shifts
Security and identity	Palo Alto Networks, CrowdStrike, Okta, Zscaler, Cisco, Fortinet, other specialists	Identity and endpoint footprint, integrated telemetry, broad bundle	Product credibility, breach risk, customer desire for diversity
Gaming	Sony, Nintendo, Valve/Steam, Tencent, Epic, mobile platforms	Content portfolio, subscription, cloud and Windows reach	Content economics, engagement, hardware/platform competition
Search and advertising	Google, AI-native answer interfaces, other digital ad channels	Windows/Edge distribution, AI and enterprise data adjacency	Query share, monetization quality, traffic-acquisition cost

The moat is strongest when several Microsoft layers reinforce one another. Identity makes security and device management easier to deploy. Productivity usage creates distribution for AI assistants. GitHub and Azure connect software creation to cloud consumption. Data, compliance, and administration can make it costly to separate the stack. The company's balance sheet also allows it to invest through platform transitions that smaller firms cannot fund.

The counterweight is focused competition. A specialist can concentrate product development on one category and may outperform a broad suite. Customers can use Microsoft as a control plane while preserving best-of-breed products in sensitive areas. Regulators can also challenge bundling, licensing, acquisitions, and platform terms. Breadth is therefore both the source of Microsoft's strategic leverage and the reason it faces powerful competitors and scrutiny on many fronts.

8. AI and cloud after Q4 FY2026

AI is not a separately reported segment. It runs across Azure infrastructure, Microsoft 365, GitHub, Dynamics, security, search, Windows, and other products. That creates multiple monetization paths but prevents the financial statements from isolating an AI revenue or profit pool. The primer should therefore separate what the numbers establish from what remains an underwriting hypothesis.

The numbers establish a strong demand-and-investment cycle. Intelligent Cloud revenue grew 29.7% in FY2026, P&BP grew 15.9%, and MPC declined 1.1%. Consolidated revenue rose 17.8% and operating income 20.8%. At the same time, additions to property and equipment rose 79.6%, while free cash flow declined 6.5%. The business is generating more accounting profit and operating cash, but the infrastructure required for cloud and AI is absorbing an increasing share of that cash.

The hypothesis is that this spending creates a durable platform rather than a transient capacity surge. In Azure, returns depend on sustained workload growth, capacity utilization, efficient inference, service mix, and pricing. In Microsoft 365 and GitHub, returns depend on whether AI features command incremental paid adoption and remain useful enough to renew. In Dynamics and security, agents must operate with correct permissions, reliable outputs, and auditable controls. In search, AI can improve product relevance but may also change traffic and advertising economics. In Windows, it may influence device demand and user experience without necessarily creating a direct new revenue stream.

Microsoft's distribution gives it an advantage: it can place AI inside products customers already use. Yet distribution does not guarantee willingness to pay, and usage revenue does not guarantee attractive returns after depreciation and replacement capital. FY2026 therefore sharpens the debate. The growth engine is visible; the return on the infrastructure behind it remains the central issue for the next phase of analysis.

9. Principal risks and watch items

Risk	Economic mechanism	What a reader should monitor
AI infrastructure returns	Capacity is funded before demand and unit economics are fully known	Capex, utilization, service mix, depreciation burden, free-cash-flow conversion
Cloud competition	Customers can adopt multicloud or move incremental workloads	Intelligent Cloud growth, margin, pricing, customer optimization behavior
AI application monetization	Distribution may not translate into paid, durable adoption	Expansion and renewal behavior for Copilot, GitHub, Dynamics, and security products
Product-quality and integration risk	Bundles weaken if critical components lag specialists	Retention, usage, customer willingness to consolidate vendors
Security and reliability	Identity and cloud failures can damage trust across the portfolio	Material incidents, outages, remediation costs, customer and regulatory response
Regulatory pressure	Bundling, cloud licensing, acquisitions, and AI partnerships can be constrained	Remedies affecting distribution, licensing terms, interoperability, or deal structure
Consumer and advertising cyclicality	Gaming, devices, PC licensing, and ads depend on engagement and external demand	MPC revenue and margin, content performance, PC conditions, search monetization
Cash-conversion gap	Accounting growth may not become per-share cash if capital needs stay elevated	OCF, property-and-equipment additions, FCF, buybacks, diluted share count

The first watch item is the cash-conversion gap. FY2026 free cash flow of USD 66,987 was below FY2025 despite much higher revenue and operating income. That may be the rational cost of building scarce capacity, but a durable gap would change how the company should be understood: less as a purely asset-light software compounder and more as a software-and-infrastructure platform whose returns depend on capital deployment.

The second is mix within Intelligent Cloud. A 41.3% segment operating margin is exceptional for a business containing physical infrastructure, yet it was modestly below FY2025. Higher-value software and platform services can offset the cost of raw compute, while an unfavorable mix toward expensive AI capacity can pressure cash returns. Segment revenue growth alone cannot answer this question.

The third is whether P&BP can preserve its economics as AI becomes more compute-intensive. Its margin expanded to 59.9%, creating substantial cushion. The risk is not that Office suddenly loses relevance; it is that added AI cost outruns the incremental price or that specialist tools capture the most valuable workflows. Paid expansion, sustained usage, and retention matter more than the mere presence of an AI feature.

Security and trust are cross-company risks. Microsoft sits in identity, endpoints, communications, development, and cloud infrastructure, so an incident in one layer can affect the credibility of the broader stack. The same footprint that creates data and integration advantages also enlarges the responsibility surface. Reliability and governance are economic requirements, not just technical concerns.

Finally, capital allocation must be read as a whole. Microsoft ended FY2026 with net cash versus borrowings of USD 36,549, so financial capacity is not the immediate constraint. The question is marginal return: infrastructure spending, acquisitions, dividends, repurchases, and internal product investment compete for capital. Outstanding shares at year-end were 7,427 million, while diluted weighted-average shares were 7,453 million. Per-share compounding depends on both the earnings created by investment and the dilution or retirement of shares over time.

10. What the reader should carry into the ER2 analysis

Microsoft enters the five-year research window as three economic engines under one platform. P&BP is the durable, high-margin work-software cash engine. Intelligent Cloud is the fastest-growing engine and the center of the AI infrastructure build. MPC is a smaller, lower-margin portfolio of Windows, gaming, search, devices, and consumer distribution. The official segment figures reconcile directly to statutory operating income, so the starting architecture is unusually clean.

The strongest qualitative case rests on workflow entrenchment, enterprise account control, breadth of distribution, a deep partner ecosystem, and the ability to place new products inside an existing identity, productivity, developer, and cloud stack. The most important quantitative counterweight is capital intensity. FY2026 showed 17.8% revenue growth and 20.8% operating-income growth, but also 79.6% growth in property-and-equipment additions and a 6.5% decline in free cash flow.

That tension should frame every downstream section. The core question is not whether Microsoft owns excellent franchises; the FY2026 margins and scale make that plain. The question is whether incremental AI and cloud investment can sustain growth, defend competitive position, and convert into durable per-share cash economics by 2031-06-30. The primer cannot answer that forecast. It defines the businesses, financial base, and monitoring variables that the segment work and synthesis must test.

Source trail

- Cleared financial source: `C:\Users\Admin\OneDrive\GPT\ER 2.0\Microsoft\quant_foundation.md`
- Independent clearance: `C:\Users\Admin\OneDrive\GPT\ER 2.0\Microsoft\quant_foundation_review.md`
- Listing and price packet: `C:\Users\Admin\OneDrive\GPT\ER 2.0\Microsoft\quote_packet.json`
- Statutory bridge: `C:\Users\Admin\OneDrive\GPT\ER 2.0\Microsoft\statutory_bridge.json`
- Controlling annual filing: Microsoft FY2026 Form 10-K filed 2026-07-29, accession `0001193125-26-323660`

Appendix M - Management Assessment

Microsoft Corporation (MSFT) — Management Assessment

Date: 2026-08-02 Latest completed quarter: Q4 FY2026 ended 2026-06-30 TTM anchor: Q1 FY2026 + Q2 FY2026 + Q3 FY2026 + Q4 FY2026, ending 2026-06-30 Forward horizon: 2031-06-30, exactly five calendar years after the TTM end Management gate: **YELLOW**

Source discipline and assessment frame

This appendix uses the DR-cleared `data_package.md`, the QFR-cleared `quant_foundation.md`, and `appendix_A_primer.md` as the controlling sources for financial history. Capital allocation figures come from data-package Section 7 and recent corporate actions from Section 9; they are not reconstructed from a second dataset. The refresh also checked Microsoft's FY2026 Form 10-K filed July 29, 2026, the 2025 proxy, the FY2025 Q1 through FY2026 Q4 official earnings-call pages and live FMP transcript endpoint, and Microsoft's first-party leadership announcements. The FY2026 statutory bridge is cleared and has no unresolved arithmetic gaps.

The question is stricter than whether management is honest or Microsoft is financially safe. The gate asks whether this team can allocate unprecedented AI and cloud capital at high per-share returns, maintain a capable bench, correct operating mistakes, and disclose enough for shareholders to judge the result. Nadella and Hood have an exceptional historical record. The current investment cycle, however, is materially more capital-intensive than the one that produced that record, while XBOX is being reset and several senior operating responsibilities have changed hands. Those unresolved facts warrant YELLOW rather than an automatic PASS.

1. Who is running the company

Satya Nadella has been chief executive officer since February 2014 and chairman since June 2021. He therefore owns the present strategy: Azure as the infrastructure core, Microsoft 365 as the work layer, GitHub and developer distribution, the OpenAI partnership, first-party model development, Copilot, security, and the enlarged physical infrastructure program. Amy Hood has been CFO since May 2013 and executive vice president since July 2013. She owns the capital-allocation architecture and is the main shareholder-facing interpreter of capex, leases, useful lives, margins, backlog, and cash conversion.

Microsoft's FY2026 Form 10-K lists six executive officers as of July 29, 2026: Nadella; Judson Althoff, CEO of Microsoft Commercial Business; Amy Coleman, EVP and chief human resources officer; Hood; Takeshi Numoto, EVP and chief marketing officer; and Brad Smith, vice chair and president. The economically relevant operating bench is broader because several product leaders now report directly to Nadella.

Leader	Current responsibility	Tenure or transition	Management relevance
Satya Nadella	Chairman and CEO	CEO since February 2014	Owns cloud, AI, OpenAI, Copilot and capital-intensity strategy
Amy Hood	EVP and CFO	CFO since May 2013	Owns capital allocation, guidance, margins and cash discipline
Judson Althoff	CEO, Microsoft Commercial Business	Expanded role from October 1, 2025	Integrates commercial product strategy, sales, services, support and operations
Hayete Gallot	EVP, Security	Rejoined February 4, 2026	Direct CEO report responsible for security product and customer-value execution
Asha Sharma	CEO XBOX	Appointed February 20, 2026; title updated April 23	Owns the post-Activision operating reset after Phil Spencer's retirement
Mustafa Suleyman and Jacob Andreou	Microsoft AI and unified Copilot system	Copilot reorganization announced March 17, 2026	Must unify consumer and commercial experiences while improving model economics
Perry Clarke, Charles Lamanna, Pavan Davuluri and Ryan Roslansky	Experiences + Devices leadership group	Direct CEO reports after Rajesh Jha's July 1 retirement	Spreads ownership of M365, business applications, Windows and LinkedIn
Amy Coleman	EVP and chief human resources officer	Appointed March 2025	Led the July 2026 workforce reduction and redeployment communication

The operating reorganization is rational but increases key-person and coordination risk. Judson Althoff has clearer accountability for commercial monetization. Security and engineering quality were elevated as direct CEO priorities. Asha Sharma brings consumer-platform experience from Microsoft, Instacart and Meta, but limited public evidence running a large games-content portfolio. Rajesh Jha's responsibilities were distributed among four EVP-level direct reports rather than transferred to one successor, and commercial and consumer Copilot were unified under a new structure. These moves can reduce silos, but they also enlarge Nadella's span of control during an unusually demanding investment cycle.

Board oversight is credible. Sandra E. Peterson is lead independent director. The 2025 proxy had 12 nominees, 11 independent, a single class of stock, annual elections, majority voting in uncontested elections, proxy access, and a 15% special-meeting threshold. John David Rainey was elected in December 2025. Carmine Di Sibio joined the board on May 13, 2026 and serves on the Audit and Compensation Committees. Reid Hoffman said on June 2 that he will not stand for re-election at the 2026 annual meeting but remains a director until then. The FY2026 10-K signatures therefore show 13 current directors, including Nadella; the 2026 proxy should formally confirm the resulting independence ratio and committee composition. No present evidence indicates overboarding or related-party entrenchment, although the chair/CEO combination makes Peterson's lead-director authority and succession process important.

2. Tenure and track record

Nadella and Hood have been in their roles long enough to own both the achievements and the present risks. From FY2022 to FY2026, revenue rose from $198.270 billion to $331.839 billion, operating income from $83.383 billion to $155.237 billion, and diluted EPS from $9.65 to $17.95. Diluted shares fell from 7.540 billion to 7.453 billion. This is observable per-share value creation, not a new team's inherited momentum.

Major decision	Year and evidence	Outcome so far	Current judgment
Make cloud the strategic center	Began before 2014 and accelerated under Nadella; Microsoft Cloud revenue rose from $91.2B in FY2022 to $214.4B in FY2026	Intelligent Cloud FY2026 revenue reached $137.791B; Azure exceeded $100B annual revenue	Proven strategic and operating success
Convert Office into Microsoft 365 and expand the workflow stack	Multi-year; Microsoft 365 Commercial product and cloud revenue reached $101.997B in FY2026	P&BP revenue was $139.996B and operating income $83.879B at a 59.9% margin	Proven high-return platform extension
Build an AI platform through OpenAI, Azure, models and Copilot	2019 onward; cash capex reached $115.948B in FY2026; more than 30M paid M365 Copilot seats at Q4	Azure grew 43% in Q4 and commercial RPO reached $678B, but FY2026 FCF fell to $66.987B	Strategically coherent, economically unproven at current scale
Acquire Activision Blizzard and broaden gaming	FY2024 acquisitions, net, were $69.132B, dominated by Activision	FY2026 XBOX revenue fell to $21.790B; Q4 content and services fell 10%; impairments and restructuring followed	Mixed and not yet proven per share

LinkedIn and GitHub remain strong examples of acquisitions that gained value inside Microsoft's distribution and developer stack. Activision has not yet earned that classification. Microsoft has enormous gaming reach and content assets, but FY2026 XBOX revenue declined 7.1%, More Personal Computing revenue declined 1.1%, and Q4 MPC operating margin fell to 21.4%. Q4 included XBOX impairment charges, although the company did not quantify them separately. The February appointment of Sharma, July transition of four gaming studios to new management, and Nadella's statement that the business is being reset for long-term growth are corrective actions. They are also admissions that the pre-reset portfolio and operating model did not meet expectations.

Hood's long record is a major positive. She preserved a net-cash balance sheet, funded R&D, moderated repurchases during the Activision and infrastructure build, and kept diluted shares declining. Her current test is harder: allocating capacity among Azure, first-party Copilots, model training, end-of-life server replacement and research when each use has a different margin and duration. In the Q4 ROI discussion she described fungibility, late-binding of CPUs and GPUs, model substitution, custom silicon, pricing and fleet efficiency. Those are credible levers, but management still does not publish project-level return thresholds or a consolidated return bridge for the AI estate.

3. Capital allocation behavior

The five-year record below is the corrected FY2022-FY2026 schedule from the DR-cleared data package. Dollars are billions.

Fiscal year	Cash capex	Capex / revenue	R&D	Repurchases	Dividends	Acquisitions, net	Free cash flow
FY2022	23.886	12.0%	24.512	32.696	18.135	22.038	65.149

Fiscal year	Cash capex	Capex / revenue	R&D	Repurchases	Dividends	Acquisitions, net	Free cash flow
FY2023	28.107	13.3%	27.195	22.245	19.800	1.670	59.475
FY2024	44.477	18.1%	29.510	17.254	21.771	69.132	74.071
FY2025	64.551	22.9%	32.488	18.420	24.082	5.978	71.611
FY2026	115.948	34.9%	35.562	22.271	26.445	1.743	66.987

The allocation pattern matches the stated AI and cloud strategy, but strategic consistency is not the same as demonstrated return. Cash capex rose almost fivefold from FY2022 to FY2026, while FCF rose only 2.8%. Operating cash flow reached $182.935 billion in FY2026, yet cash capex absorbed $115.948 billion and FCF fell 6.5% from FY2025. FCF to net income declined from 89.6% in FY2022 to 50.1% in FY2026. The data package's consistent ROIC diagnostic fell from 79.9% to 35.9%. Thirty-five-point-nine percent remains excellent, but the direction proves that marginal capital returns are diluting the legacy asset-light economics.

The cash-flow and lease distinctions are load-bearing. FY2026 total capex including finance leases was $145.3 billion, versus $115.948 billion of cash additions to property and equipment. Q4 total capex was $41.0 billion, cash capex $35.802 billion, and roughly two-thirds of total capex was short-lived CPUs and GPUs. Effective FY2027 Microsoft is extending estimated useful lives of datacenters and office buildings from 15 to 25 years. Management expects only minimal FY2027 operating-income benefit, but the change moves more future datacenter leases from finance to operating classification. That reclassified calendar-2026 total-capex expectation from roughly $190 billion to roughly $175 billion without changing the underlying investment expectation. It must not be interpreted as a $15 billion economic spending cut.

Management expects FY2027 capex to grow year over year, operating margin to decline by less than one point, and FCF to remain positive. Those statements are candid but insufficient for a PASS because “positive” FCF is a very low bar for a business earning $133.749 billion in FY2026. The mitigating evidence is strong demand: Azure grew 43% in Q4, commercial RPO reached $678 billion, all sequential Q4 RPO growth came from customers outside frontier-model companies, and roughly 30% of RPO is expected to convert within 12 months. The counterweight is $743.821 billion of contractual obligations, including large datacenter purchase and lease commitments, plus OpenAI concentration. Utilization, duration and counterparty quality matter more than gross backlog.

Repurchases are disciplined against dilution but not demonstrably price-sensitive. Cash repurchases ranged from $17.254 billion to $32.696 billion over five years, while diluted shares declined only 1.2%. That is acceptable stewardship because SBC was more than offset, but it is not evidence of opportunistic capital allocation. Dividends rose steadily and remained fundable. The priority hierarchy—organic investment, strategic M&A, dividend, then buyback—has been coherent, but the current AI build and Activision reset must prove that large-scale reinvestment creates more value than a higher cash return would have.

4. Compensation alignment

The 2025 proxy provides meaningful alignment. More than 95% of Nadella's annual target opportunity was performance-based. At least 70% of named-executive target compensation was equity-based, with the average above 80%. Performance stock awards include a relative TSR modifier, and the program uses revenue, cloud growth, operating income and operating execution measures. Microsoft also has stock-ownership requirements, a no-fault clawback policy, and strict hedging and pledging prohibitions.

The design gap is material in this cycle: the disclosed scorecard does not contain a direct ROIC, FCF conversion, or return-on-incremental-capital hurdle. Azure growth and operating income can support compensation while the balance sheet and lease base expand faster than cash realization. Relative TSR can also reward sector rerating rather than capital efficiency. That gap does not erase the long track record, but it prevents incentives from independently resolving the current gate.

Metric	FY2022	FY2023	FY2024	FY2025	FY2026
SBC ($B)	7.502	9.611	10.734	11.974	12.405
SBC / revenue	3.8%	4.5%	4.4%	4.3%	3.7%
Diluted shares (B)	7.540	7.472	7.469	7.465	7.453

SBC is meaningful but controlled: it fell as a percentage of revenue in FY2026 and did not produce net share-count growth. The latest proxy reported 900,572 beneficially owned shares for Nadella and 465,746 for Hood; Hood also had 65,398

underlying shares or units, which should not be confused with already owned common shares. The dollar exposure is substantial even though each owns less than 1%.

The FY2026 10-K disclosed that Hood adopted a Rule 10b5-1 plan on June 10, 2026, during an open window, permitting sale of up to 48,700 shares plus net shares vesting in August 2026 and February 2027; the first trade cannot occur before September 14. The prearranged structure is not a thesis-breaking insider-selling signal, but the resulting ownership level should be reviewed in the 2026 proxy. No comparable new plan was reported for other directors or Section 16 officers during Q4.

5. Disclosure quality and candor

The eight-call review covered FY2025 Q1 through FY2026 Q4. Hood consistently separates total capex, cash paid for property and equipment, finance leases, short-lived asset mix, operating cash flow and FCF. She also separates bookings excluding OpenAI when concentration distorts the headline and gives RPO duration and near-term conversion. Nadella supplies adoption and operating KPIs, including Copilot paid seats, Azure scale, model usage and infrastructure efficiency. Together they provide enough data to model the direction of the business, although not enough to calculate product-level AI returns.

Call	Date	Load-bearing issue addressed	Candor assessment
FY2025 Q1	2024-10-30	AI capacity constraints and capex timing	Direct; quantified capacity and cash mechanics
FY2025 Q2	2025-01-29	Cloud execution and AI capacity	Acknowledged execution issues and timing
FY2025 Q3	2025-04-30	Demand exceeding new capacity	Quantified guide and disclosed constraint extension
FY2025 Q4	2025-07-30	FY2026 capacity and margin burden	Specific guidance rather than only TAM language
FY2026 Q1	2025-10-29	OpenAI agreement, RPO and allocation	High detail, with concentration still material
FY2026 Q2	2026-01-28	Investor challenge on AI capex ROI	Direct answer on allocation, but no explicit hurdle rate
FY2026 Q3	2026-04-29	Rising capex, component prices and retirement costs	Quantified $190B calendar-2026 capex expectation
FY2026 Q4	2026-07-29	Capex reclassification, XBOX impairment and FY2027 FCF	Candid on mechanics and reset; incomplete on impairment size and AI returns

Guidance credibility is strong. Comparing the seven observable call-to-next-quarter cycles across the three segment revenue ranges gives 21 outcomes at the reported precision: 19 finished above the prior range, one was within range, and one Intelligent Cloud outcome was at or approximately $0.05 billion below the lower boundary depending on one-decimal rounding. There was no material segment-revenue miss. This pattern suggests conservative, controlled guidance rather than scrambling surprises.

Hedged language is not the main problem. The literal word “headwind” appeared in only one of the eight official transcript texts reviewed, while every call explicitly discussed at least one decline, constraint, or cost pressure and every call disclosed both cash capex and FCF. The more important candor limitation is missing unit economics. Microsoft does not disclose exact GAAP Azure revenue, standalone Copilot revenue or ARPU, AI cohort retention, segment capex, segment ROIC, or an aggregate AI return hurdle. Q4 disclosed XBOX impairments without a separate amount. In the final Q4 ROI question, Hood identified cost and margin levers but did not publish the return calculation or threshold. Disclosure is better than peers in several respects, yet it remains insufficient to prove the current capital cycle rather than merely describe it.

6. Strategic coherence

Management's stated destination is coherent: build the infrastructure, models, data, governance and agent platform, then monetize them through Azure, Microsoft 365, GitHub, security, Dynamics, search and industry workflows. The investment pattern matches those words. Cash capex, R&D, custom silicon, model diversification, Copilot unification, the commercial reorganization and the $2.5 billion Frontier Company investment all point toward enterprise AI deployment. Frontier Company plans to embed 6,000 industry and engineering experts with customers, which may accelerate adoption but also adds a more labor-intensive services layer whose margins and incremental returns must be monitored.

Management also names real threats: supply constraints, component inflation, model substitution, regulatory intervention, cyber risk, customer concentration and weak consumer execution. Multi-model architecture and first-party models reduce dependence on any single model provider, but OpenAI remains economically significant. The FY2026 10-K reports an approximately 25% as-converted interest, $24.1 billion of FY2026 commercial-arrangement revenue including revenue sharing, a $6.0 billion receivable and $13.0 billion of funding commitments, of which $11.9 billion was funded. This is a coherent strategic relationship, not a diversified ordinary customer exposure.

XBOX is the clearest negative test of strategic coherence. Nadella says gaming remains central to Microsoft's consumer ambition, yet the company is impairing assets, changing leadership, reducing roles and moving four studios under new management after a $69 billion-class acquisition. The corrective action is preferable to defending the prior plan, but FY2027's promised return to growth must be shown in revenue and segment profit, not engagement alone.

7. Governance flags

Governance issue	Current evidence	Assessment
Voting structure	Single class with equal voting rights	Green
Board independence	11 of 12 nominees independent in 2025; current board expanded before 2026 proxy	Green, pending formal refresh
Chair and CEO	Nadella holds both roles; Peterson is lead independent director	Acceptable but succession-sensitive
Related-party transactions	No material insider related-party transaction identified; OpenAI is a strategic investee and counterparty	Economic concentration, not insider control
Financial controls	Management and Deloitte concluded ICFR effective at June 30, 2026; no reported material weakness or restatement	Green
Dilution	SBC/revenue 3.7%; diluted shares down 1.2% over four years	Green
Incentive design	Strong equity and performance mix, but no direct ROIC or FCF hurdle	Yellow
Insider activity	Hood's disclosed 10b5-1 plan is prearranged; no Q4 cluster among other officers	Monitor, not a red flag

There is no fraud, dual-class control, material weakness or chronic dilution problem. Those facts establish a governance floor; they do not prove capital allocation quality. The governance questions that matter now are whether the Compensation Committee adds a capital-efficiency measure, whether the board can execute eventual Nadella-Hood succession, and whether it challenges AI and gaming investment before returns become visible rather than after impairment.

8. Peer comparison

Peer leader	Capital allocation comparison	Disclosure comparison	Five-year stewardship rank versus Microsoft
Sundar Pichai, Alphabet	Similar AI infrastructure burden; Alphabet retains a more advertising-concentrated cash engine	Microsoft gives clearer RPO, lease and enterprise monetization detail	Nadella ahead on enterprise transformation; current AI return proof unresolved for both
Andy Jassy, Amazon	AWS operating discipline is an excellent benchmark, but retail and logistics make group returns harder to compare	Microsoft is clearer on segment guidance and commercial backlog	Nadella ahead on consolidated margin and per-share stability; Jassy is a strong cloud operator
Jensen Huang, NVIDIA	NVIDIA has produced superior recent capital-light AI returns per dollar	NVIDIA's economics are more directly visible in product revenue and margins	Huang ahead on recent incremental ROIC; Nadella ahead on diversified enterprise distribution

Microsoft ranks near the top of mega-cap platform management over a full cycle. Nadella's strategic reinvention and Hood's balance-sheet discipline are superior to most realistic alternatives. The peer comparison also reinforces the reason for YELLOW: NVIDIA currently demonstrates much stronger incremental returns from the AI cycle, while Microsoft is committing vastly more physical capital before the cash outcome is observable.

9. Verdict on the management gate

Management gate: YELLOW. Nadella and Hood have a proven decade-plus record, aligned ownership, credible board oversight, strong guidance discipline and clear strategic coherence. However, FY2026 cash capex of $115.948 billion, FCF

conversion of 50.1%, declining calculated ROIC, an unproven Activision/XBOX outcome, broad leadership reorganization and compensation without a direct capital-return hurdle make the next phase unresolved. This team remains investable, but the evidence does not yet justify following it for another decade without conditions.

Monitoring condition	Upgrade to PASS	Downgrade to FAIL
AI capital efficiency	By FY2028, TTM FCF / net income at least 65%, cash capex / revenue at most 30%, and calculated ROIC at least 32% for two consecutive quarters	TTM FCF / net income below 45% and ROIC below 25% for two consecutive quarters while cash capex / revenue remains above 30%, without a disclosed capacity correction
XBOX and Activision	FY2027 XBOX revenue returns to positive growth and MPC operating margin is at least 24%, with no additional XBOX impairment above $5B	FY2027 XBOX revenue declines more than 5%, MPC margin stays below 20% for two quarters, or another impairment above $5B occurs without a credible portfolio exit plan
Incentives, candor and succession	The FY2027 proxy gives ROIC, FCF conversion or another capital-efficiency measure at least 20% weight in performance pay; key reporting lines stabilize; quarterly capex and ex-OpenAI backlog disclosure continues	Either Nadella or Hood exits without an announced successor within 30 days, or Microsoft stops publishing cash capex, total capex, FCF and ex-OpenAI bookings or RPO for two consecutive quarters while investment remains elevated

An upgrade requires evidence from all three rows, not only high Azure growth. A downgrade to FAIL does not require fraud: persistent cash-return deterioration, a second failed gaming reset, evasive capital disclosure, or unmanaged CEO/CFO succession would show that the team cannot protect minority shareholders through the next cycle. Until the current infrastructure and gaming bets produce visible per-share cash returns, YELLOW is the disciplined gate.

Primary source trail

- Microsoft FY2026 Form 10-K: https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm
- Microsoft FY2026 Q4 earnings call: https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q4
- Microsoft 2025 proxy: https://www.sec.gov/Archives/edgar/data/789019/000119312525245150/d908201ddef14a.htm
- Carmine Di Sibio board appointment: https://www.sec.gov/Archives/edgar/data/789019/000119312526224155/d125909d8k.htm
- Reid Hoffman board transition: https://www.sec.gov/Archives/edgar/data/789019/000119312526258667/d26760d8k.htm
- Microsoft leadership and restructuring posts cited in the DR-cleared data package: October 1, 2025; February 4 and 20, 2026; March 12 and 17, 2026; July 2 and 6, 2026.

Appendix W - Moat and 2046 Durability

Microsoft - Moat and 2046 Durability

Analysis date: **2026-08-02**. Microsoft fiscal year ends June 30. The latest completed period is **Q4 FY2026 and FY2026 ended 2026-06-30**. The TTM is Q1 FY2026 + Q2 FY2026 + Q3 FY2026 + Q4 FY2026, also ending **2026-06-30**. The ER2 forward horizon is **2031-06-30**, exactly five calendar years after the TTM end. The separate twenty-year durability test is anchored to the exact date **2046-08-02**, twenty years after today's calendar date.

Evidence discipline: quantitative claims use the DR-cleared `data_package.md`, the QFR-cleared `quant_foundation.md`, and the FY2026 Form 10-K. `appendix_A_primer.md` is used only for orientation. Relevant primary-source anchors are Microsoft's [FY2026 Form 10-K](https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm), [FY2026 Q4 earnings release](https://www.microsoft.com/en-us/Investor/earnings/FY-2026-Q4/press-release-webcast), and the official [October 2025 OpenAI partnership update](https://www.sec.gov/Archives/edgar/data/789019/000119312525256310/msft-ex99_2.htm). The evidence supports a moat, but it does not support treating every Microsoft business, every backlog dollar, or every dollar of AI capacity as equally durable.

1. Moat taxonomy applied

Network effects - strong in selected assets, not company-wide. LinkedIn has Microsoft's clearest direct network effect: professional profiles attract recruiters, advertisers, sellers, creators, and other professionals, and each side improves the value of the others. GitHub has a developer and code-collaboration ecosystem effect; Teams, Power Platform, Azure Marketplace, and the partner channel gain utility from administrators, developers, independent software vendors, consultants, and integrations. Office document formats and Windows application compatibility create standards-based ecosystem effects, but Microsoft 365 subscriptions and raw Azure compute do not become defensible merely because they are large. Their defenses come primarily from switching costs, distribution, and integration.

Switching costs - the core moat. Microsoft 365 is embedded in email, calendars, files, meetings, SharePoint sites, Teams histories, Office formats, identity, device administration, compliance, e-discovery, security policy, integrations, and employee habits. A wholesale enterprise migration affects continuity, training, permissions, records retention, and auditability. Dynamics adds process customization and partner-supported implementation costs. Azure is sticky where workloads depend on Windows Server, SQL Server, Entra, Defender, Fabric, GitHub, proprietary platform services, data gravity, and hybrid architecture; it is less sticky for containers, generic storage, and portable model-training or inference jobs. The credible competitive attack is therefore not an overnight rip-and-replace. It is to let Microsoft retain the installed base while another vendor captures each new AI, cloud, security, or workflow dollar.

Scale economies - substantial, but conditional rather than self-proving. FY2026 revenue was $331.839 billion and operating income was $155.237 billion. Microsoft can spread R&D, enterprise selling, compliance, security operations, datacenter design, silicon work, model optimization, and global support across a uniquely broad base. However, scale is not durability. FY2026 cash capex reached $115.948 billion, or 34.9% of revenue; total capex including finance leases was $145.3 billion; and year-end property and equipment was $313.076 billion. Roughly two-thirds of Q4 total capex was short-lived GPUs and CPUs. Scale is a moat only if utilization, software attach, pricing, and replacement economics preserve high returns. Otherwise it is simply the capacity to spend more than rivals.

Brand - strong institutional trust, modest consumer protection. Microsoft is an accepted strategic vendor for CIOs, CISOs, developers, public-sector buyers, regulated industries, schools, PC manufacturers, and small businesses. This is procurement legitimacy and confidence that the vendor can support global operations for decades, not an immunity from product comparison. The brand helps a new security or AI product enter an existing account, but a serious identity breach, cloud outage, privacy failure, or unsafe agentic deployment could damage several products simultaneously. In gaming, search, and consumer devices, brand is much less protective against Sony, Nintendo, Valve, Google, Apple, and shifting attention.

Regulatory position - compliance capability is an advantage; regulation itself is not a moat. Microsoft can fund sovereign-cloud controls, certifications, legal review, data-residency features, and government contracting at scale. Those capabilities raise the entry cost for small vendors in regulated workloads. Yet cloud licensing, Teams and security bundling, app distribution, gaming acquisitions, AI partnerships, data governance, and interoperability can attract remedies that weaken Microsoft's cross-product distribution. A durable moat must survive fair interoperability and customer choice; it cannot depend

on regulators allowing every bundle indefinitely.

IP and patents - meaningful but secondary and time-bounded. Microsoft owns deep operating-system, database, developer-tool, security, gaming, cloud, and AI intellectual property and is building first-party models and silicon. The OpenAI relationship adds model and product rights plus Azure API advantages, but it is not an exclusive lock on all OpenAI compute or all AI innovation. The revised agreement removed Microsoft's right of first refusal as OpenAI's compute provider, allows certain non-API products to run on other clouds, and puts dates and conditions around important rights. Customers pay Microsoft mainly for governed deployment, integration, data context, reliability, and distribution; patents alone would not preserve the profit pool through 2046.

High-trust procurement - a major moat with a concentration caveat. Microsoft sells multi-year enterprise agreements, subscriptions, support, consumption commitments, and partner-led implementations through relationships that often cover identity, productivity, security, cloud, data, and business applications together. Commercial remaining performance obligation reached $678 billion at June 30, 2026, demonstrating extraordinary contracted visibility. It is not homogeneous recurring software revenue: management said approximately 45% of commercial RPO was associated with OpenAI at Q2, and recognition duration and infrastructure cost matter. The moat is the repeatable enterprise buying channel and governed control plane, not the headline backlog number by itself.

2. Per-segment moat

Productivity and Business Processes (P&BP) - strongest moat; high five- and ten-year durability; credible twenty-year durability. FY2026 revenue was $139.996 billion, 42.2% of company revenue, and operating income was $83.879 billion, 54.0% of the total, at a 59.9% margin. Microsoft 365 Commercial alone generated $101.997 billion, supplemented by LinkedIn, Dynamics, and Microsoft 365 Consumer. The moat is the Microsoft 365 work surface tied to Graph data, Entra identity, compliance, administration, Office formats, Teams, and a vast partner channel; LinkedIn adds a distinct professional network. More than 30 million paid Microsoft 365 Copilot seats at Q4 show distribution, but exact Copilot ARPU, discounting, cohort retention, and usage cost are undisclosed. The segment's Q4 margin fell to 57.9% from 61.8% in Q1 while Microsoft 365 Commercial cloud growth slowed to 14% from 19% in Q3, so inference cost and adoption quality must be watched. The earliest break is sustained Microsoft 365 cloud deceleration without price or Copilot offset, rising full-suite migrations, or third-party agents becoming the primary governed work surface while Microsoft is reduced to file storage and identity plumbing.

Intelligent Cloud - strong architecture moat, weaker raw-compute moat, and much greater capital sensitivity. FY2026 revenue was $137.791 billion, 41.5% of company revenue, and operating income was $56.972 billion at a 41.3% margin. Server products and cloud services produced $129.425 billion, and management said Azure annual revenue surpassed $100 billion. Azure grew 43% in Q4 and the segment grew 29.7% for the year, but Q4 segment margin was 40.6% and the annual margin remained below FY2024's 43.2%. The strongest defense is not ownership of generic GPUs. It is the integrated enterprise architecture around Azure, Windows Server, SQL Server, Entra, Defender, GitHub, Fabric, data services, hybrid management, support, and Microsoft 365. Five-year durability is high. Ten-year durability is high only if AI capacity earns attractive returns and higher-value platform services remain attached. Twenty-year durability is plausible for identity, security, data, developer, and orchestration layers, but it should not be granted to commodity compute. The earliest break is Azure growth remaining strong while free cash flow, ROIC, and cloud margins deteriorate because workload portability and price competition prevent adequate monetization.

More Personal Computing (MPC) - useful distribution, mixed sub-moats, and no blanket twenty-year assumption. FY2026 revenue was $54.052 billion, 16.3% of total, and operating income was $14.386 billion at a 26.6% margin. Windows and Devices revenue was $17.084 billion, XBOX was $21.790 billion, and Search Advertising was $15.176 billion. Enterprise Windows retains compatibility, endpoint-management, OEM, and installed-base advantages. XBOX owns valuable content, accounts, subscriptions, and communities, but content is expensive and gamers multi-home. Search benefits from Windows, Edge, Bing, and Copilot distribution, yet advertisers buy measured returns and AI answers can reduce conventional sponsored-link inventory. Q4 exposed the weakness: Windows OEM and Devices fell 7%, XBOX content and services fell 10%, MPC revenue fell 4%, and the segment margin dropped to 21.4%; Search ex-TAC still grew 10%. Five-year durability is acceptable, ten-year durability is mixed, and a high-return 2046 MPC is not required for the company gate. Earliest erosion signals are continuing negative XBOX content growth after restructuring, Windows losing enterprise endpoint relevance rather than merely cyclical OEM units, or search growth failing to cover higher inference and traffic-acquisition costs.

The **blended** company moat is weaker than P&BP alone, but stronger than a revenue-only mix suggests. P&BP and Intelligent Cloud together represent 83.7% of FY2026 revenue and 90.7% of operating income. MPC dilutes quality but is only

9.3% of operating income and also supplies Windows, search, gaming, and consumer AI distribution. The company gate rests on P&BP's workflow and procurement lock-in plus the enterprise software layers attached to Azure. It does not rest on XBOX growth, Bing share, raw cloud capacity, or Microsoft's ability to outspend every competitor forever.

3. Margin persistence evidence

The available cleared consolidated series covers FY2022-FY2026. The current reportable-segment taxonomy is comparable only from FY2023 because Microsoft recast FY2023-FY2025; FY2022 segment figures are legacy-taxonomy context and are deliberately excluded from the segment trend. This is less than the preferred ten consolidated years and five comparable segment years, so the evidence should not be overstated. It is nevertheless a demanding period containing cloud competition, the Activision integration, rapid AI adoption, and an unprecedented infrastructure build.

Metric	FY2022	FY2023	FY2024	FY2025	FY2026 / TTM	Moat read
Consolidated operating margin	42.1%	41.8%	44.6%	45.6%	46.8%	Persistent and expanding despite competition
P&BP operating margin	n/c	53.2%	55.9%	57.8%	59.9%	Strongest workflow and pricing evidence
Intelligent Cloud operating margin	n/c	39.0%	43.2%	42.0%	41.3%	Durable profit, but AI cost is visible
MPC operating margin	n/c	22.4%	23.5%	25.9%	26.6%	Annual discipline improved; Q4 exit weakened

The consolidated record looks like durable differentiated economics, not a commodity spread. P&BP expanded margin every comparable year while growing 15.9% in FY2026. Intelligent Cloud grew 29.7%, but margin compressed 190 basis points from FY2024, consistent with a mix shift toward costly AI infrastructure. MPC's annual margin improved, but Q4's 21.4% exit shows the portfolio is not uniformly protected.

Cash economics are the necessary counter-test. FY2026 operating cash flow rose to $182.935 billion, but cash capex rose 79.6% to $115.948 billion and free cash flow fell to $66.987 billion. FCF was only 50.1% of net income, down from 89.6% in FY2022. The data package's consistent ROIC diagnostic declined from 79.9% to 35.9% as invested capital expanded. A 35.9% ROIC still clears a high-quality bar, but the direction proves that high accounting margin alone cannot settle the moat question. Microsoft must convert the new physical asset base into cash returns without relying on temporary GPU scarcity or contract concentration.

4. AI disruption stress test

P&BP is a replicable workflow sitting on a harder-to-replicate control plane. Drafting email, summarizing meetings, creating slides, analyzing spreadsheets, writing CRM notes, and automating tasks can be reproduced by foundation models with access to the same data. Therefore, Word features or prompt quality are not the twenty-year moat. The defensible layer is distribution into hundreds of millions of commercial seats, Microsoft Graph context, identity and permission enforcement, data-loss controls, audit trails, legal hold, compliance, admin policy, and procurement. More than 30 million paid Copilot seats is strong evidence of reach, not yet proof of renewal economics. If a neutral agent layer obtains permissioned access and becomes the user's primary interface, Microsoft could keep the underlying subscription while losing the premium workflow economics.

Intelligent Cloud is platform-adjacent, but datacenter capacity is not a permanent chokepoint. AI increases demand for compute, storage, networking, model hosting, databases, developer tooling, security, and governance. Microsoft benefits when Azure compute pulls through Fabric, GitHub, SQL, Defender, Entra, observability, and Microsoft 365 workloads. It is less protected when a customer can move training or inference among Azure, AWS, Google Cloud, Oracle, neoclouds, or owned infrastructure on price and performance. Power access, datacenter engineering, procurement, and custom silicon can create temporary capacity advantages, but rivals can invest and models can become more efficient. The moat must show up in software attach and customer architecture, not in a temporary shortage of accelerators.

The OpenAI relationship is both an advantage and a concentration/non-exclusivity stress. Microsoft reported an approximately 25% interest on an as-converted basis, $24.1 billion of FY2026 revenue from commercial arrangements with OpenAI including revenue-sharing payments, a $6.0 billion receivable, and $13.0 billion of funding commitments, of which $11.9 billion was funded. OpenAI also contracted for an incremental $250 billion of Azure services. Yet Microsoft no longer has a right of first refusal to be OpenAI's compute provider, and some non-API products may be served elsewhere.

Approximately 45% of commercial RPO was tied to OpenAI at Q2, although management said Q4 sequential RPO growth came from customers outside frontier-model companies. This is valuable contracted demand, but not evidence that Azure owns OpenAI's entire compute future. Durability requires diversified enterprise workloads and a multi-model platform, not permanent dependence on one frontier-model partner.

MPC is the most exposed segment. Search answer interfaces can displace links and alter advertising inventory even if query share rises. Cross-platform agents can reduce Windows' importance as the consumer interface. Generative tools can lower game-development cost but also increase content supply and attention competition. Search has upside if Copilot changes distribution, yet its auction economics remain measurable and contestable. XBOX and consumer Windows do not receive a moat pass merely because they sit beside Azure and Microsoft 365.

The most protected profit pool is **Microsoft 365 Commercial plus enterprise identity, security, compliance, data, and administration**. The most exposed is **MPC, especially XBOX and consumer search/Windows interfaces**. The largest economic risk, however, sits in Intelligent Cloud: an AI capacity build can grow revenue while diluting cash return if raw compute commoditizes. FY2026's $145.3 billion of total capex including leases and 50.1% FCF conversion make this a current underwriting issue, not a distant thought experiment.

5. The 2046 test - exact date 2046-08-02

Today is **2026-08-02**; the exact twenty-year test date is **2046-08-02**. On that date, a plausible Microsoft still sells the governed operating layer for digital organizations. Large companies, governments, regulated institutions, schools, developers, and smaller businesses buy enterprise identity, security, permissions, compliance, audit, collaboration, data platforms, developer tooling, business-process agents, model orchestration, and cloud/edge infrastructure. They pay because the system coordinates people and autonomous software across sensitive data with continuity, support, legal accountability, and integration that would be costly and risky to recreate vendor by vendor.

P&BP still exists, but it is less a suite of document applications and more an agentic work and process platform. Email, meetings, documents, CRM, ERP, code, and workflow histories are governed inputs and outputs for human and software agents. Microsoft Graph, Entra, compliance, and the admin plane remain the durable core; today's Copilot branding may not. Intelligent Cloud is larger in physical and economic scope, spanning hyperscale and sovereign infrastructure, distributed edge, data, security, developer platforms, model routing, and privately governed AI. Its durable profit comes from the control and software layers, while raw compute earns lower returns. MPC has withered or been reshaped: Windows survives as a secure enterprise endpoint and edge layer; gaming survives where content and communities earn their cost of capital; search is absorbed into answer, commerce, and agent distribution rather than remaining a classic web-results page.

Directionally, the 2046 operating margin is **stable to modestly lower than FY2026's 46.8%**, likely still in the low-to-mid 40s rather than at a legacy asset-light software peak. More compute, energy, security, sovereignty, and regulatory cost offsets mix toward high-value governance and software. This is a specific high-return business rather than a generic claim that Microsoft will lead whatever technology matters. The intact moat is the installed enterprise control plane: identity, permissions, data context, workflow history, compliance, developer distribution, partner implementation, and high-trust procurement.

The 2046 bear case is also specific. A cross-platform AI agent becomes the dominant work surface and treats Microsoft 365 as interchangeable storage; open standards make identity, data, and workload migration easier; cloud compute earns utility-like returns; OpenAI and other frontier customers source materially outside Azure; regulators force unbundling and portability that reduce suite economics; and one or more severe security failures break Microsoft's trust advantage. P&BP retains seats but loses ARPU and workflow ownership, Intelligent Cloud grows assets faster than cash profit, and MPC becomes a collection of subscale consumer assets. I assign this a **meaningful minority probability of roughly 25%**, not the base case. The main reason it is not higher is that AI increases the value of governed identity, data, security, and workflow context even as it commoditizes individual application features.

2046 test: PASS. The company can be described with specific products, buyers, payment logic, surviving segments, and a plausible margin direction. The pass is driven by the enterprise control plane, not by a forecast that every current product name or partner relationship survives.

6. Competitive threat inventory

Threat	Mechanism	Segment(s) affected	Earliest observable signal	Plausibility
AI-native control plane captures workflow value	Third-party agents use Microsoft data but own user intent, orchestration, and premium economics	P&BP; MPC	Copilot paid-seat growth or renewal stalls; M365 cloud ARPU weakens; material enterprise migrations rise	Medium
AI cloud becomes commodity infrastructure	Model portability, rival capacity, efficiency gains, and multi-cloud sourcing reduce Azure pricing and utilization returns	Intelligent Cloud	Azure growth stays high while IC margin, FCF conversion, and ROIC fall; OpenAI share of Azure commitments declines through sourcing elsewhere	Medium
Bundle and licensing remedies weaken distribution	Regulators force unbundling, pricing changes, interoperability, or cloud-license concessions	P&BP; Intelligent Cloud; MPC	Binding U.S. or European remedies change Teams, security, Azure, AI, Windows, or app-distribution economics	Medium
Security or governance failure breaks institutional trust	Identity, cloud, or agentic-system failure propagates across the integrated stack and prompts customer diversification	P&BP; Intelligent Cloud	Major customer defections, mandated remediation, slower E5/Defender/Entra attach, or higher risk-related selling friction	Low to medium
Consumer franchises keep losing relevance	XBOX content, Windows consumer usage, or search monetization fails against specialist platforms	MPC	Persistent negative XBOX content growth, Windows enterprise share loss, or Search ex-TAC growth below inference-cost growth	Medium to high

7. Pricing power verification and erosion dashboard

Pricing power is strongest and observable in P&BP, though disclosure is incomplete. In FY2025, Microsoft 365 Commercial cloud revenue grew 15% while paid seats grew 6%, indicating revenue-per-user expansion. In FY2026 Q3, commercial cloud revenue again grew much faster than 6% seat growth, with management attributing ARPU growth to E5 and Copilot. By Q4, paid Microsoft 365 Copilot seats exceeded 30 million, more than double the Q2 level, and FY2026 P&BP revenue grew 15.9% at a 59.9% margin. Microsoft 365 Consumer also benefited from a January 2025 price increase and higher revenue per user. These are real signs of pricing and mix power. The limitation is equally important: Microsoft does not disclose company or segment NRR, churn, exact Copilot ARPU, discounting, cohort renewal, or inference cost. Adoption is not the same as durable willingness to pay.

Intelligent Cloud has pricing power in higher-value databases, security, identity, data, developer, and management services, but less in transparent raw compute. Enterprise agreements, committed consumption, hybrid benefits, support, and a $678 billion commercial RPO base add visibility. However, RPO concentration, long duration, capacity cost, and the OpenAI revenue-sharing relationship prevent treating the backlog as ordinary high-margin subscription revenue. Intelligent Cloud's 41.3% margin is impressive; the decline from FY2024 and FY2026's cash-capex burden show that price has not yet fully settled the return question.

MPC pricing power is mixed. Windows Commercial has switching-cost support, but OEM revenue follows PC conditions. XBOX can price subscriptions and valuable content, but Q4's 10% content-and-services decline after price and portfolio actions is not evidence of effortless pricing. Search pricing is auction-based and survives only if advertisers receive competitive returns; 10% Q4 ex-TAC growth is positive but does not prove a twenty-year moat.

Monitor	Evidence that sustains PASS	Moat-erosion signal
Microsoft 365 and Copilot	Paid adoption converts to renewals, ARPU, and stable high-50s P&BP margin	Seat growth stalls, ARPU weakens, or P&BP margin falls below the mid-50s for several quarters without a temporary cause
Azure software attach and returns	IC margin stabilizes while FCF conversion and ROIC recover as capacity fills	Azure growth remains strong but IC margin, FCF conversion, and ROIC fall for multiple years
OpenAI concentration	RPO growth diversifies and Azure wins multi-model, non-OpenAI workloads	A single frontier customer remains an outsized backlog share and shifts meaningful compute away from Azure
Security and trust	Entra, Defender, compliance, and sovereign adoption grow without material customer exits	A control-plane failure causes major customer diversification, binding remedies, or persistent higher selling costs
Regulatory bundle economics	Microsoft sustains adoption under interoperability and unbundled choice	Remedies materially reduce cross-sell, change cloud-license economics, or force subsidized access to core distribution

Monitor	Evidence that sustains PASS	Moat-erosion signal
MPC portfolio	Search monetization offsets mature Windows while XBOX stabilizes profitably	XBOX and Windows decline together and Search cannot cover inference and distribution costs

These are monitoring rules, not retroactive explanations. A downgrade to YELLOW would be warranted if one core commercial moat indicator and one return-on-capital indicator deteriorated together. A downgrade to FAIL would require evidence that the enterprise control plane itself is losing workflow ownership or that the largest profit pools can no longer earn high returns despite normal execution.

8. Moat verdict

Moat gate: PASS

2046 test: PASS

Microsoft passes because the protectable profit pool is concrete: P&BP's enterprise workflow, identity, compliance, distribution, and professional-network economics, reinforced by the higher-value software layers attached to Azure. The proof is not scale alone; it is FY2026's 59.9% P&BP margin, 41.3% Intelligent Cloud margin, pricing and mix expansion in Microsoft 365, deep switching costs, and a still-exceptional 35.9% ROIC after a major investment cycle. Intelligent Cloud capex intensity, OpenAI concentration and non-exclusivity, regulatory exposure, security trust, and MPC weakness are material risks, but they do not presently invalidate the core moat.

The exact 2046-08-02 test passes because a specific customer-funded business remains plausible: Microsoft provides the governed identity, security, data, workflow, developer, and AI orchestration layer for digital organizations. Some current interfaces and MPC assets may wither, and consolidated margin may be modestly lower, yet the primary enterprise profit pool can remain durable. This gate says the moat meets the Gideon durability bar; it does **not** say the current share price, AI capital program, or every present segment automatically earns an attractive investment return.

Appendix B1 - Productivity and Business Processes

Appendix B - Productivity and Business Processes Segment Deep Dive

Company: Microsoft Corporation Ticker: MSFT Segment: Productivity and Business Processes (P&BP) Today: 2026-08-02 Fiscal year end: June 30 Latest completed quarter: Q4 FY2026 ended 2026-06-30 TTM anchor: Q1 FY2026 + Q2 FY2026 + Q3 FY2026 + Q4 FY2026, ending 2026-06-30 Forward horizon: 2031-06-30, exactly 5.0 calendar years after the TTM end Reporting currency: USD; dollar amounts are USD billions unless explicitly labeled USD millions Trade execution authorized: **NO**

This appendix uses the DR-cleared `data_package.md` and the QFR-sealed `statutory_bridge.json` as the sources of truth for Microsoft's historical dollars, growth disclosures, management excerpts, accounting classifications, and exact segment profit identity. The controlling common segment profit metric is the issuer-disclosed **Operating income**. The sealed TTM values are revenue of **$139.996 billion ($139,996 million)** and Operating income of **$83.879 billion ($83,879 million)**, for an Operating income margin of **59.9%**. P&BP has no corporate or unallocated adjustment in the bridge. This appendix does not allocate consolidated corporate, capital, interest, investment, tax, or other below-the-line items into the segment.

Historical-source convention: FY2023-FY2025 recast segment figures and FY2024-FY2025 product figures come from Microsoft's [FY2025 Form 10-K segment and product tables](https://www.sec.gov/Archives/edgar/data/789019/000095017025100235/msft-20250630.htm); FY2026/TTM segment revenue, product revenue, and issuer-disclosed Operating income come from Microsoft's [FY2026 Form 10-K segment and product tables](https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm), source ID `MSFT_FY2026_10K`. FY2026 Q4 segment results come from Microsoft's [Q4 FY2026 earnings release](https://www.microsoft.com/en-us/Investor/earnings/FY-2026-Q4/press-release-webcast). These official figures are reproduced in `data_package.md` sections 3, 3a, 4, and 5; the dated management excerpts are reproduced from the official Microsoft IR calls catalogued in section 6.

0. Segment boundary and taxonomy note

P&BP contains four issuer-mapped product families: Microsoft 365 Commercial products and cloud services, Microsoft 365 Consumer products and cloud services, LinkedIn, and Dynamics products and cloud services. Microsoft changed its segment composition effective FY2025 and recast FY2023 through FY2025 to the current management view. FY2023 is therefore the clean boundary for current-taxonomy segment comparisons; FY2022 is legacy context and is not mixed into current-taxonomy dollar growth. The FY2026 naming used in the data package is consistent with this boundary.

The time anchor is unusually clean. Microsoft's TTM ended on its fiscal year-end, so the four non-overlapping quarters Q1 through Q4 FY2026 are identical to FY2026. Every forward CAGR, endpoint, and use of “TTM+5y” in this appendix compounds from 2026-06-30 to **2031-06-30 for exactly 5.0 years**. It does not start from FY2025, and it does not end on 2031 calendar year-end.

The official segment revenue is $139.996 billion. The four disclosed product lines sum to $139.995 billion: $101.997 billion of Microsoft 365 Commercial, $9.175 billion of Microsoft 365 Consumer, $19.817 billion of LinkedIn, and $9.006 billion of Dynamics. The $0.001 billion difference is 0.0007% of segment revenue and is a disclosure-rounding residual, not an invented product, corporate allocation, or forecast plug. The product forecast uses the four disclosed bases directly and reports this residual explicitly. This is materially inside the required 1% reconciliation tolerance.

The QFR-sealed bridge identifies three reportable segments on a common issuer-disclosed Operating income basis. For P&BP, FY2026 and TTM Operating income are both $83.879 billion. The three segment Operating income values sum directly to Microsoft's statutory Operating income; there are no corporate/unallocated or operating-bridge adjustments. Other income of $10.697 billion is below the line at the consolidated level and is outside this appendix.

1. What this segment actually is

P&BP is Microsoft's work-software, professional-network, and business-application franchise. It serves enterprises, public-sector organizations, small and medium businesses, schools, professionals, and households. The economic model combines recurring per-seat subscriptions, premium bundle mix, cloud-service usage, advertising, marketplace access, and workflow software. The common strategic thread is distribution through the identity, data, administrative, and partner

relationships Microsoft already has with customers.

Microsoft 365 Commercial is the core asset. It includes commercial Office applications and cloud services such as Exchange, SharePoint, Teams, OneDrive, and the administrative, security, compliance, and collaboration capabilities sold with the suite. Customers usually buy through enterprise agreements, direct sales, cloud-solution providers, and partners. Revenue expands through paid seats, price, movement into higher-value bundles, security and compliance attach, Teams-related services, and now Copilot. The buyer may be a chief information officer, security leader, finance leader, business-unit owner, or procurement function, but deployment occurs through a common tenant and identity layer. The installed base makes distribution efficient: Microsoft can place new capabilities in the same admin center, contract, user directory, and daily applications already in use.

Microsoft 365 Consumer is smaller. It monetizes individuals and families through subscriptions and consumer cloud services. Its role is not simply financial. It keeps Office formats, storage, identity, and productivity habits relevant outside the enterprise. Its switching costs and pricing power are lower than in large commercial tenants because free alternatives are readily available and consumer cancellations are easier.

LinkedIn is a professional identity and activity network rather than ordinary productivity software. It monetizes recruiting and hiring workflows, advertising, sales intelligence, learning, and premium subscriptions. Its key asset is the professional graph that connects members, employers, skills, jobs, recruiters, content, and business intent. That creates network effects, but the revenue stream remains exposed to hiring, advertising, and sales-budget cycles. Trust, content quality, and member experience are important costs of maintaining the network.

Dynamics includes Microsoft's business applications for customer relationship management, finance, supply chain, commerce, service, and adjacent workflows. It is sold directly and through a large implementation-partner ecosystem. Dynamics can benefit from Microsoft 365, Power Platform, identity, data, and Azure adjacency, but it competes against deep incumbents and specialists. Implementations are complex, switching can be costly, and customers demand category-specific product depth.

The segment's next growth layer is AI-assisted work. Microsoft is placing Copilot and agents inside Microsoft 365 and Dynamics rather than reporting AI as a separate segment. That distinction is essential. The issuer has disclosed paid-seat adoption and selected usage observations, but it has not disclosed standalone Microsoft 365 Copilot GAAP revenue, realized average revenue per seat, discounting, cohort retention, inference cost, or product margin. This model therefore captures Copilot inside Microsoft 365 Commercial growth and margin. It does not create an additive Copilot revenue line. GitHub Copilot is also not assigned to P&BP in the source-supported product taxonomy and is not inserted here.

The go-to-market advantage is breadth. A customer can buy productivity, communications, identity, compliance, security, low-code tools, business applications, and AI features through overlapping relationships. The risk is that breadth becomes complexity or bundle fatigue. The segment retains its economics only if the products remain useful enough that customers renew and expand for value, not merely because unwinding the suite is difficult.

2. Current economics

P&BP is Microsoft's largest segment by revenue and its largest segment profit pool. FY2026 revenue was $139.996 billion, 42.2% of consolidated revenue. Operating income was $83.879 billion, 54.0% of the sum of reportable-segment Operating income. The 59.9% Operating income margin is extraordinary for a business still growing at a mid-teens rate.

The current-taxonomy history shows both growth and leverage.

P&BP metric	FY2023 recast	FY2024 recast	FY2025 recast	FY2026 / TTM	Source
Revenue	$94.151B	$106.820B	$120.810B	$139.996B	FY2025 and FY2026 Forms 10-K, segment-revenue tables; reproduced in `data_package.md` section 3
YoY growth	n/m at boundary	13.5%	13.1%	15.9%	Calculated from the cited FY2025 and FY2026 Forms 10-K segment-revenue rows
Operating income	$50.074B	$59.661B	$69.773B	$83.879B	FY2025 and FY2026 Forms 10-K, segment Operating income tables; reproduced in `data_package.md` sections 3 and 3a

P&BP metric	FY2023 recast	FY2024 recast	FY2025 recast	FY2026 / TTM	Source
Operating income margin	53.2%	55.9%	57.8%	59.9%	Calculated from the cited official revenue and Operating income rows

From FY2025 to FY2026, P&BP added $19.186 billion of revenue and $14.106 billion of Operating income. The implied incremental Operating income margin was approximately 73.5%. This is evidence of price, premium mix, cloud scale, and distribution leverage. It is not a promise that future AI revenue will earn the same incremental margin because AI assistance brings a higher compute cost than traditional Office features.

The product mix is concentrated in Microsoft 365 Commercial, but each product made a positive FY2026 contribution.

FY2026 product line	Revenue	Share of exact segment revenue	FY2026 product YoY	Latest disclosed Q4 FY2026 KPI YoY	Disclosure status
Microsoft 365 Commercial products and cloud services	$101.997B	72.86%	16.2%	Microsoft 365 Commercial cloud +14%	Dollar product line disclosed; cloud subset growth only
Microsoft 365 Consumer products and cloud services	$9.175B	6.55%	23.9%	Microsoft 365 Consumer cloud +24%	Dollar product line disclosed; cloud subset growth only
LinkedIn	$19.817B	14.16%	11.3%	LinkedIn +12%	Dollar product line and growth disclosed
Dynamics products and cloud services	$9.006B	6.43%	15.1%	Dynamics 365 +13%	Dollar product line disclosed; Dynamics 365 subset growth only
Disclosed product sum	**$139.995B**	**99.9993%**	**n/m**	**n/m**	**$0.001B below official segment revenue due to disclosure rounding**

The latest quarter adds an important caution. Q4 FY2026 P&BP revenue was $37.847 billion, up 14%, and Operating income was $21.900 billion, implying a 57.9% margin. The quarterly margin moved from 61.8% in Q1 to 60.4% in Q2, 59.9% in Q3, and 57.9% in Q4. The full-year margin still increased to 59.9%, but the Q4 exit shows that a forecast should not mechanically extend the FY2026 incremental margin. Mix, Copilot usage cost, continued product investment, and timing can offset scale.

Segment capital intensity is not disclosed. Microsoft does not provide P&BP assets, capex, invested capital, product gross margin, segment ROIC, or a split of shared AI infrastructure by product. Calling P&BP “asset-light” without qualification would therefore be too easy. Much of the direct datacenter asset base sits operationally in Microsoft's cloud platform, yet Copilot inference and data retrieval consume that infrastructure. The segment benefits from shared capacity and bears an economic cost that is visible in segment Operating income but not separately quantified.

3. Unit economics

P&BP converts revenue to Operating income through five reinforcing mechanisms. First is **retention**: email, calendars, documents, file repositories, meeting histories, identity policies, compliance archives, security controls, integrations, and user training make a tenant difficult to replace. Second is **seat expansion**: customer headcount, frontline-worker coverage, and new workloads can add users. Third is **bundle and price mix**: movement into higher tiers can increase revenue per user without rebuilding the entire selling and administrative system. Fourth is **adjacent attach**: Teams-related services, security, compliance, Power Platform, Dynamics, and Copilot can be sold into the same account. Fifth is **distribution leverage**: a new feature can be surfaced in applications and admin systems customers already use.

The historical margin expansion from 53.2% in FY2023 to 59.9% in FY2026 shows the power of those mechanisms. Revenue increased by $45.845 billion while Operating income increased by $33.805 billion. The implied three-year incremental margin was about 73.7%. Core productivity software has a low marginal distribution cost, and a large part of sales, administration, and engineering can be leveraged across a growing base.

AI changes the shape of that leverage. A traditional Office feature can be developed once and served cheaply across many users. A Copilot interaction can require model inference, retrieval, orchestration, safety controls, permission checks, logging, and sometimes multiple model calls. Heavy users can cost more to serve than light users. Model efficiency, chip utilization, workload routing, smaller specialized models, caching, and product limits can lower cost, but the exact economics are not disclosed. A paid seat is therefore not the same thing as a known amount of high-margin revenue.

The positive AI mechanism is price and value capture. If Copilot saves measurable labor time, improves document creation, reduces search friction, prepares meetings, analyzes data, or executes controlled workflows, Microsoft can capture part of that value through higher subscriptions and attach. The distribution cost should be lower than for a new standalone vendor

because Microsoft already has the customer, identity, data permissions, applications, and sales relationship. The negative mechanism is that customer ROI can be uneven. Broad deployment may require discounting, and usage may rise faster than realized revenue. The base case assumes monetization and cost efficiency both improve, but it does not assume old-Office incremental margins on every AI dollar.

The four product families have different unit economics:

- Microsoft 365 Commercial has the strongest retention, distribution, and bundle economics, but it also carries the largest AI cost and product-investment exposure.
- Microsoft 365 Consumer has lower willingness to pay, greater free substitution, and more promotion sensitivity.
- LinkedIn benefits from network effects and data, but its recruiting and advertising revenue is cyclical and requires content, trust, safety, and sales investment.
- Dynamics has recurring software economics, but implementation complexity, partner economics, category competition, and vertical product requirements limit effortless margin expansion.

The disclosure gaps are material enough to govern the model rather than appear as a footnote.

Unit-economics item	What is disclosed	What is not disclosed	Modeling treatment
Microsoft 365 Copilot adoption	15M paid seats in Q2; more than 20M in Q3; over 30M in Q4	Standalone GAAP revenue, realized ARPU, discounts, cohort retention, usage intensity	Captured inside Microsoft 365 Commercial growth; no additive revenue line
Copilot cost	Directionally present through segment costs and shared infrastructure	Inference cost per user, gross margin, model mix, support cost	Terminal product margins are explicit analyst assumptions, not disclosed facts
Commercial retention	Large installed base and recurring model	NRR, DBNR, GRR, churn, renewal uplift	No retention metric is invented; downside CAGRs allow weaker attach and price
Product profitability	Exact segment Operating income and margin	Product gross margin and product Operating income	Product margins are calibrated analytical allocations that sum to segment Operating income forecasts
Capital intensity	Consolidated capex and infrastructure scale	Segment capex, assets, ROIC, depreciation allocation	No segment ROIC is calculated and no consolidated capital is assigned to P&BP

4. Competitive dynamics

Microsoft competes in several overlapping markets, so a single market-share statistic does not describe the segment. In enterprise productivity, the principal suite competitor is Google Workspace. Gartner's 2025 research abstract described Microsoft 365 as holding 77% of SaaS enterprise-productivity share while also highlighting rising-price-driven evaluations of Google Workspace ([Gartner, 19 August 2025](https://www.gartner.com/en/documents/6860166)). That statistic is useful as directional evidence of installed-base strength, but its category definition is external to the data package and it is not used as a forecast input.

The productivity contest extends beyond documents and email. Teams competes with Zoom, Slack, Cisco, Google, and focused collaboration products. Work management and knowledge tools from Atlassian, Notion, and many specialists can own important user workflows even when Microsoft 365 remains the enterprise standard. AI-native assistants can also sit above several suites and reduce the importance of the application interface. Microsoft's defense is identity, permissions, administrative control, file formats, security, compliance, and distribution. Its vulnerability is that a bundle can remain installed while valuable incremental usage migrates elsewhere.

Dynamics faces deeper category-specific competition. Salesforce is a major competitor in customer relationship management; ServiceNow in enterprise workflow; Workday in human capital and finance; SAP and Oracle in enterprise resource planning; and vertical vendors in industry-specific systems. Microsoft's advantage is adjacency to Microsoft 365, identity, Azure, Power Platform, and a broad partner network. The disadvantage is that customers may prefer a specialist system of record, especially when it has deeper workflow, data, and implementation expertise.

LinkedIn competes with job boards, recruiting software, professional communities, sales-intelligence platforms, learning providers, social networks, and advertising channels. Its professional graph is difficult to reproduce at scale, but AI can alter the economics of recruiting and prospecting. Automated candidate discovery and outreach may enhance LinkedIn's value, or

it may commoditize parts of the workflow and increase low-quality activity. The network must preserve trust while monetizing it.

Competitive arena	Principal alternatives	P&BP advantage	Pressure point over five years
Enterprise productivity	Google Workspace and AI-native work tools	Installed base, Office formats, identity, administration, compliance, bundle	Price fatigue, credible AI interface outside Microsoft, regulatory limits on bundling
Collaboration and knowledge work	Google, Zoom, Slack, Cisco, Atlassian, Notion, specialists	Teams distribution, meetings plus files plus identity, enterprise controls	Specialist usability and customer desire for best-of-breed tools
Business applications	Salesforce, ServiceNow, Workday, SAP, Oracle, vertical SaaS	Microsoft 365 and Azure adjacency, Power Platform, partner channel	Category depth, implementation complexity, switching to focused platforms
Professional network	Job boards, social networks, sales tools, learning platforms	Professional identity graph, recruiter and advertiser demand, member scale	Hiring cycle, trust, content quality, AI-generated spam and workflow substitution

Pricing power is strong but conditional. The switching cost of replacing the tenant supports price, and premium bundles can consolidate other vendor spend. Yet repeated price increases and AI add-ons can cause customers to optimize seats, negotiate harder, retain lower tiers, or route selected workloads to competitors. The base case therefore uses growth below recent annual and quarterly rates. It assumes Microsoft retains the core standard but must earn incremental AI and application spend.

5. Moat at the segment level

P&BP's moat is a stack, not a single product advantage. The first layer is **workflow embeddedness**. Documents, email, meetings, calendars, files, identities, device policies, and compliance records are deeply integrated into operations. Migration is possible, but it carries direct cost, retraining, operational risk, and political friction.

The second layer is **administrative and security integration**. A customer can apply identity, permissions, retention, e-discovery, data-loss prevention, and device controls across the suite. The value is not merely convenience; it is the ability to govern a large workforce through common policy and audit systems. This layer matters more as agents act on behalf of users because permissions and auditability become central.

The third layer is **distribution**. Microsoft can place a new capability inside Word, Excel, PowerPoint, Outlook, Teams, and the admin center, then sell it through an existing agreement. A startup must acquire the user and integrate with the tenant before it can compete for the same budget. Distribution does not guarantee product quality, but it lowers the cost of trial and attach.

The fourth layer is **context and data relationships**. Microsoft Graph connects people, communications, meetings, files, and organizational permissions. In principle, that can make Copilot more useful and safer than a generic assistant. The moat depends on customer trust and product execution: incorrect results, excessive permissions, security incidents, or weak governance can turn context from an advantage into a liability.

The fifth layer is **network effect**, concentrated in LinkedIn. Professionals join because other professionals, employers, recruiters, and content are present. Employers and advertisers participate because the audience is present. This flywheel is separate from the Microsoft 365 switching-cost moat and has different risks.

The durability assessment by product is not uniform.

Product family	Moat strength	Five-to-ten-year durability	What would weaken it
Microsoft 365 Commercial	Strong	High if Microsoft retains identity, governance, file compatibility, and the agent interface	Buyer revolt over price; security failure; AI-native workflow outside Microsoft; regulatory remedies
Microsoft 365 Consumer	Moderate	Moderate because habit and file compatibility persist, but substitution is easy	Free alternatives, weak consumer AI differentiation, subscription fatigue
LinkedIn	Strong network effect	High if professional identity and trust remain authoritative	AI spam, declining member trust, alternative professional graphs, hiring disintermediation
Dynamics	Moderate to strong by installed workflow	Moderate; embedded deployments are sticky but new-logo competition is intense	Specialist product superiority, failed implementations, weak vertical depth

The segment should retain a moat over the forecast horizon, but the source of value can migrate. If users interact mainly with agents rather than applications, Microsoft must own enough of the agent, identity, data, and governance layer to preserve pricing power. A bear case can occur without mass Office replacement: Microsoft keeps the core estate, but incremental value and premium AI spend flow to other tools while P&BP bears higher product costs.

6. Historical growth rates reproduced from the data package

The table uses FY2024 through FY2026 because those are clean, current-taxonomy, dollar-disclosed observations in the DR-cleared data package. “Historical CAGR” is the CAGR from FY2024 to FY2026, a two-year compounding span across three fiscal-year observations. No historical dollars are back-solved.

Product / sub-segment	FY2024 revenue	FY2025 revenue	FY2026 / TTM revenue	FY2024-FY2026 CAGR	Most recent YoY	Official-source citation
P&BP segment total	$106.820B [data_package.md section 3, P&BP revenue row]	$120.810B [data_package.md section 3, P&BP revenue row]	$139.996B [data_package.md section 3, P&BP revenue row]	14.48% [calculated from the same row]	15.88% FY2026 [same row]	FY2025 and FY2026 Forms 10-K, P&BP segment-revenue tables
Microsoft 365 Commercial products and cloud services	$76.969B [data_package.md section 4, M365 Commercial row]	$87.767B [data_package.md section 4, M365 Commercial row]	$101.997B [data_package.md section 4, M365 Commercial row]	15.12% [calculated from the same row]	14% Q4 Commercial cloud subset [data_package.md section 4 KPI row]	FY2025 and FY2026 Forms 10-K product-revenue tables; FY2026 Q4 release for latest growth
Microsoft 365 Consumer products and cloud services	$6.648B [data_package.md section 4, M365 Consumer row]	$7.404B [data_package.md section 4, M365 Consumer row]	$9.175B [data_package.md section 4, M365 Consumer row]	17.48% [calculated from the same row]	24% Q4 Consumer cloud subset [data_package.md section 4 KPI row]	FY2025 and FY2026 Forms 10-K product-revenue tables; FY2026 Q4 release for latest growth
LinkedIn	$16.372B [data_package.md section 4, LinkedIn row]	$17.812B [data_package.md section 4, LinkedIn row]	$19.817B [data_package.md section 4, LinkedIn row]	10.02% [calculated from the same row]	12% Q4 [data_package.md section 4 KPI row]	FY2025 and FY2026 Forms 10-K product-revenue tables; FY2026 Q4 release for latest growth
Dynamics products and cloud services	$6.831B [data_package.md section 4, Dynamics row]	$7.827B [data_package.md section 4, Dynamics row]	$9.006B [data_package.md section 4, Dynamics row]	14.82% [calculated from the same row]	13% Q4 Dynamics 365 subset [data_package.md section 4 KPI row]	FY2025 and FY2026 Forms 10-K product-revenue tables; FY2026 Q4 release for latest growth

Arithmetic checks using FY2026 annual growth are visible and pass the 2% tolerance:

- Segment: $120.810B x 1.1588 = approximately $139.996B.
- Microsoft 365 Commercial: $87.767B x 1.1621 = approximately $101.997B.
- Microsoft 365 Consumer: $7.404B x 1.2392 = approximately $9.175B.
- LinkedIn: $17.812B x 1.1126 = approximately $19.817B.
- Dynamics: $7.827B x 1.1506 = approximately $9.006B.

The product-to-segment tie is explicit.

FY2026 / TTM product-to-segment reconciliation	Revenue
Microsoft 365 Commercial	$101.997B
Microsoft 365 Consumer	$9.175B
LinkedIn	$19.817B
Dynamics	$9.006B
Disclosed product sum	**$139.995B**
Issuer-disclosed P&BP segment revenue	**$139.996B**
Residual	**$(0.001)B; 0.0007% of segment revenue**
Reconciliation status	**PASS; within 1%**

7. Management guidance and current commentary from data-package section 6

The DR-cleared data package provides four P&BP management excerpts for FY2026. They are adoption and product-direction anchors, not a five-year segment guide.

Period and speaker	Verified excerpt in data package	Data-package row	Interpretation for this model
Q2 FY2026, Satya Nadella	“agents as the new Apps”	`data_package.md` section 6, P&BP row 1	Agents are modeled as an attach and workflow driver inside existing product lines, not a separate GAAP revenue line.
Q2 FY2026, Satya Nadella	“15 million paid Microsoft 365 Copilot seats”	`data_package.md` section 6, P&BP row 2	Establishes real paid adoption; it does not disclose realized price, discount, revenue, retention, usage, or margin.
Q3 FY2026, Satya Nadella	“same level as Outlook”	`data_package.md` section 6, P&BP row 3	Weekly engagement supports habit formation, but engagement does not prove renewal or incremental revenue.
Q4 FY2026, Satya Nadella	“over 30 million paid Microsoft 365 Copilot seats”	`data_package.md` section 6, P&BP row 4	Paid seats more than doubled from the Q2 disclosure, strengthening adoption evidence while standalone economics remain undisclosed.

The most recent numerical operating anchors are Q4 product growth and segment margin, not a long-range management forecast. Microsoft 365 Commercial cloud grew 14%, Microsoft 365 Consumer cloud grew 24%, LinkedIn grew 12%, and Dynamics 365 grew 13% in Q4 FY2026. P&BP revenue grew 14%, and its Q4 Operating income margin was 57.9%. Those observations support continued growth but also justify margin caution.

Disclosure boundary. The DR-cleared package does not contain a separate FY2027 P&BP dollar-revenue or Operating income guide, nor a five-year product guide. It also does not disclose Microsoft 365 Copilot GAAP revenue, realized ARPU, discounting, renewal cohorts, usage intensity, inference cost, product gross margin, or product Operating income. The forecast uses bounded analyst assumptions and does not convert the over-30-million seat disclosure into an additive revenue estimate.

8. Forward growth assumptions by product

The forecast starts from the four FY2026/TTM product dollars disclosed in `data_package.md` section 4. Unlike the prior version of this appendix, it does not allocate a synthetic TTM base from an older product mix. Each case uses a year-by-year growth path from 2026-06-30 through 2031-06-30. The product CAGR is the geometric result of that path.

The **bear case** assumes the installed base remains sticky but AI return on investment disappoints, procurement optimizes seats, and specialist tools capture some incremental workflow spend. It is not a collapse case. Microsoft 365 Commercial still grows because of price, mix, and tenant durability; the downside is slower attach and lower margin.

Product	FY2024-FY2026 historical CAGR	Latest YoY	Management evidence / FY+1 guide	Bear CAGR TTM to TTM+5y	Bear-case justification
Microsoft 365 Commercial	15.12%	14% Q4 cloud subset	No explicit product-dollar guide in package; over 30M Copilot paid seats	5.99%	Annual growth steps from 8% to 4% as Copilot broad-deployment ROI disappoints, discounts rise, and mature-seat economics dominate.
Microsoft 365 Consumer	17.48%	24% Q4 cloud subset	No explicit product-dollar guide in package	2.80%	Current growth normalizes sharply as consumer AI willingness to pay and subscription expansion prove limited.
LinkedIn	10.02%	12% Q4	No explicit product-dollar guide in package	3.20%	Hiring and advertising weaken, while AI-generated outreach and recruiting automation pressure monetization quality.
Dynamics	14.82%	13% Q4 Dynamics 365 subset	No explicit product-dollar guide in package; agents are the strategic direction	4.20%	Microsoft retains installed workflows but specialist CRM, ERP, HCM, and service platforms defend incremental budgets.

The **base case** assumes Microsoft keeps the enterprise productivity standard, Copilot becomes a meaningful but not universally high-ROI attach, and AI serving efficiency improves gradually. Growth decelerates every year from the current scale; no product holds its FY2026 rate for five years.

Product	FY2024-FY2026 historical CAGR	Latest YoY	Management evidence / FY+1 guide	Base CAGR TTM to TTM+5y	Base-case justification
Microsoft 365 Commercial	15.12%	14% Q4 cloud subset	No explicit product-dollar guide in package; over 30M Copilot paid seats	10.99%	Growth steps from 13% to 9%; Copilot, security, compliance, and premium mix offset seat maturity without preserving mid-teens growth indefinitely.
Microsoft 365 Consumer	17.48%	24% Q4 cloud subset	No explicit product-dollar guide in package	7.99%	Growth steps from 10% to 6%; subscriptions and AI features expand, but free alternatives constrain price and penetration.
LinkedIn	10.02%	12% Q4	No explicit product-dollar guide in package	7.80%	The professional graph supports recruiting, ads, sales, and premium products, while cyclicality keeps growth below the latest quarter.
Dynamics	14.82%	13% Q4 Dynamics 365 subset	No explicit product-dollar guide in package; agents are the strategic direction	9.19%	Agents and Microsoft distribution support share, but application depth and implementation complexity lead to a high-single-digit endpoint CAGR.

The **bull case** requires Copilot to become a durable work interface, not just a feature; Dynamics agents to win more workflow budget; LinkedIn to monetize AI without degrading trust; and product efficiency to keep prices attractive. Even here, growth rates decelerate over the five-year span.

Product	FY2024-FY2026 historical CAGR	Latest YoY	Management evidence / FY+1 guide	Bull CAGR TTM to TTM+5y	Bull-case justification
Microsoft 365 Commercial	15.12%	14% Q4 cloud subset	No explicit product-dollar guide in package; over 30M Copilot paid seats	12.99%	Growth steps from 15% to 11% as Copilot becomes a frequently used, renewal-supporting work layer and premium mix remains durable.
Microsoft 365 Consumer	17.48%	24% Q4 cloud subset	No explicit product-dollar guide in package	11.19%	AI features, storage, and family bundles support double-digit growth while still decelerating from the latest cloud-subset rate.
LinkedIn	10.02%	12% Q4	No explicit product-dollar guide in package	9.99%	Hiring normalizes and the professional graph monetizes recruiting, sales, learning, advertising, and premium AI tools.
Dynamics	14.82%	13% Q4 Dynamics 365 subset	No explicit product-dollar guide in package; agents are the strategic direction	11.99%	Microsoft gains workflow share through agents, Power Platform, Microsoft 365 distribution, and partner execution.

The year-by-year assumptions make the deceleration test auditable.

Case and product	2027-06-30 growth (TTM+1)	2028-06-30 growth (TTM+2)	2029-06-30 growth (TTM+3)	2030-06-30 growth (TTM+4)	2031-06-30 growth (TTM+5)	Resulting 5y CAGR
Bear - Microsoft 365 Commercial	8%	7%	6%	5%	4%	5.99%
Bear - Microsoft 365 Consumer	4%	3%	3%	2%	2%	2.80%
Bear - LinkedIn	4%	4%	3%	3%	2%	3.20%
Bear - Dynamics	5%	5%	4%	4%	3%	4.20%
Base - Microsoft 365 Commercial	13%	12%	11%	10%	9%	10.99%
Base - Microsoft 365 Consumer	10%	9%	8%	7%	6%	7.99%
Base - LinkedIn	9%	8%	8%	7%	7%	7.80%
Base - Dynamics	11%	10%	9%	8%	8%	9.19%
Bull - Microsoft 365 Commercial	15%	14%	13%	12%	11%	12.99%

Case and product	2027-06-30 growth (TTM+1)	2028-06-30 growth (TTM+2)	2029-06-30 growth (TTM+3)	2030-06-30 growth (TTM+4)	2031-06-30 growth (TTM+5)	Resulting 5y CAGR
Bull - Microsoft 365 Consumer	14%	12%	11%	10%	9%	11.19%
Bull - LinkedIn	12%	11%	10%	9%	8%	9.99%
Bull - Dynamics	14%	13%	12%	11%	10%	11.99%

These paths are deliberately bounded. The base Microsoft 365 Commercial path begins below the 14% Q4 cloud-subset growth and the 16.2% FY2026 total-product growth, then fades to 9%. The bull path begins near the current range and declines. The bear path assumes persistent tenant value but weak incremental AI monetization. None depends on undisclosed Copilot revenue or an unsupported market-share gain.

9. Forward Operating income margin assumptions

The exact profit metric is issuer-disclosed **Operating income**. The current TTM Operating income margin is 59.9%, calculated from $83.879 billion of Operating income and $139.996 billion of revenue. The Q4 exit margin was 57.9%. Product Operating income and product margins are not disclosed, so the terminal product margins below are explicit analytical assumptions used only to make the segment rollup reconstructable. They are not presented as Microsoft-reported metrics.

Product	Bear TTM+5y Operating income margin	Base TTM+5y Operating income margin	Bull TTM+5y Operating income margin	Specific margin mechanism
Microsoft 365 Commercial	60.0%	65.5%	68.0%	Bear: discounting and inference burden offset suite leverage. Base: premium mix and efficiency broadly offset AI cost. Bull: high-value attach and model efficiency create leverage.
Microsoft 365 Consumer	33.0%	40.0%	46.0%	Lower willingness to pay and free alternatives constrain margin; bull requires paid AI and storage value without costly churn acquisition.
LinkedIn	32.0%	39.0%	44.0%	Hiring and ad cycles, sales expense, content, trust, and safety limit margin; bull requires strong network monetization and controlled AI-spam costs.
Dynamics	36.0%	45.0%	51.0%	Product depth and implementation investment weigh on bear/base; bull requires agent attach, platform leverage, and partner productivity.

The resulting segment margins are revenue-weighted, not imposed as top-down targets.

Case	Current TTM Operating income margin	TTM+5y blended Operating income margin	Change	Required mechanism
Bear	59.9%	53.4%	approximately (650) bps	AI cost is not fully recovered, price realization weakens, LinkedIn is cyclical, and Dynamics requires heavier investment.
Base	59.9%	59.4%	approximately (50) bps	Scale and premium mix offset most AI cost, but the Q4 margin exit and reinvestment prevent assumed expansion.
Bull	59.9%	62.5%	approximately +260 bps	Copilot pricing holds, inference efficiency improves, high-margin M365 mix persists, and non-M365 products scale.

The bear and bull changes exceed 100 basis points and therefore require explicit mechanisms. The bear is not merely “lower margin”: it assumes weaker realized price, heavier compute per monetized seat, competitive product spending, and lower

LinkedIn operating leverage. The bull assumes both demand and cost success. Adoption alone is insufficient; serving efficiency and price realization must improve together.

No corporate costs, shared balance-sheet capital, other income, interest, OpenAI investment effects, or taxes are allocated here. The segment's Operating income forecast will enter synthesis as one of three reportable-segment Operating income lines, exactly as required by the sealed statutory bridge.

10. Segment rollup built bottoms-up

Each product endpoint is the disclosed FY2026/TTM base multiplied by the five annual growth factors in section 8. Each product Operating income value equals endpoint revenue multiplied by the product margin in section 9. Segment revenue and Operating income are the sums of the four product lines. Displayed amounts are rounded to $0.001 billion; the full-precision rollup is used for blended margins.

Case	Product	TTM revenue base	TTM+5y revenue	5y revenue CAGR	TTM+5y Operating income margin	TTM+5y Operating income
Bear	Microsoft 365 Commercial	$101.997B	$136.434B	5.99%	60.0%	$81.861B
Bear	Microsoft 365 Consumer	$9.175B	$10.532B	2.80%	33.0%	$3.476B
Bear	LinkedIn	$19.817B	$23.194B	3.20%	32.0%	$7.422B
Bear	Dynamics	$9.006B	$11.062B	4.20%	36.0%	$3.982B
Bear	**Product sum / segment rollup**	**$139.995B**	**$181.222B**	**5.30% vs exact segment base**	**53.4%**	**$96.740B full precision**
Base	Microsoft 365 Commercial	$101.997B	$171.801B	10.99%	65.5%	$112.530B
Base	Microsoft 365 Consumer	$9.175B	$13.475B	7.99%	40.0%	$5.390B
Base	LinkedIn	$19.817B	$28.846B	7.80%	39.0%	$11.250B
Base	Dynamics	$9.006B	$13.980B	9.19%	45.0%	$6.291B
Base	**Product sum / segment rollup**	**$139.995B**	**$228.102B**	**10.26% vs exact segment base**	**59.4%**	**$135.461B**
Bull	Microsoft 365 Commercial	$101.997B	$187.849B	12.99%	68.0%	$127.738B
Bull	Microsoft 365 Consumer	$9.175B	$15.591B	11.19%	46.0%	$7.172B
Bull	LinkedIn	$19.817B	$31.902B	9.99%	44.0%	$14.037B
Bull	Dynamics	$9.006B	$15.865B	11.99%	51.0%	$8.091B
Bull	**Product sum / segment rollup**	**$139.995B**	**$251.208B**	**12.40% vs exact segment base**	**62.5%**	**$157.038B**

The $0.001 billion starting difference between the disclosed product sum and exact segment revenue is not forecast as a product. For CAGR presentation, the exact $139.996 billion issuer segment base is used. At endpoint, the segment totals are exactly the sums of the four modeled product lines before display rounding.

Rollup integrity check	Bear	Base	Bull	Required tolerance	Status
TTM disclosed product sum vs exact segment revenue	(0.0007%)	(0.0007%)	(0.0007%)	Within 1%	PASS
TTM+5y product revenue sum vs reported segment rollup	0.0000%	0.0000%	0.0000%	Within 1%	PASS
TTM+5y product Operating income sum vs reported segment Operating income	Less than 0.001% display rounding	Less than 0.001% display rounding	Less than 0.001% display rounding	Within 1%	PASS
Corporate or below-line allocation inserted	$0	$0	$0	Must be $0	PASS

The base case produces $228.102 billion of revenue and $135.461 billion of Operating income at 59.4% margin. Revenue compounds at 10.26%; Operating income compounds at approximately 10.06% from the exact $83.879 billion TTM base. This is a conservative shape relative to FY2026 growth: the model assumes continued monetization but gives back 50 basis points of margin because AI cost and product reinvestment offset scale.

The bear case produces $181.222 billion of revenue and $96.740 billion of Operating income at 53.4% margin. Revenue still compounds at 5.30%, but Operating income compounds at only about 2.89%. This is the economically important downside:

the segment remains durable in dollars while failing to deliver the margin and growth expected of Microsoft's main profit pool.

The bull case produces $251.208 billion of revenue and $157.038 billion of Operating income at 62.5% margin. Revenue compounds at 12.40%, and Operating income at approximately 13.36%. It requires successful Copilot monetization, improving inference efficiency, strong Microsoft 365 premium mix, a constructive LinkedIn cycle, and Dynamics share gains. It is not justified by paid-seat growth alone.

The non-uniform probabilities assign 55% to base because FY2026 product growth remained healthy and paid Copilot adoption accelerated, but assign 25% to bear versus 20% to bull because P&BP growth slowed to 14% in Q4, the quarterly Operating income margin fell to 57.9%, and Copilot price, renewal, usage-cost, and product-margin economics remain undisclosed. This weighting is also consistent with the run's YELLOW disqualifier readings for FCF conversion and AI disruption in `gate_manifest.json`; it is not a uniform optimism adjustment. With 25% bear, 55% base, and 20% bull probabilities, probability-weighted TTM+5y segment revenue is approximately $221.003 billion and probability-weighted Operating income is approximately $130.096 billion. The probability-weighted margin is 58.9%. These are expected-value diagnostics, not a fourth scenario and not an authorization for portfolio action.

11. Key risks, wildcards, and monitoring conditions

Bear - Copilot ROI disappointment. Paid-seat growth can be real while broad deployment economics disappoint. If customers concentrate licenses among a small group of power users, negotiate lower realized prices, or fail to renew after pilots, Microsoft 365 Commercial growth can decelerate even though the core suite remains installed.

Bear - AI cost-to-serve surprise. Inference, retrieval, permissions, safety, orchestration, and support can make each active user more expensive. The segment margin can compress if usage grows faster than realized revenue or if Microsoft must use costly models to maintain quality. Product-level cost is not disclosed, so the Q4 margin trend is the best current warning signal.

Bear and base - price fatigue. Microsoft's installed base supports price, but repeated bundle changes and AI add-ons can trigger procurement resistance. Customers can reduce premium-seat counts, hold lower tiers, adopt specialists for selected workflows, or use Google Workspace in less complex populations without replacing the entire Microsoft estate.

Bear - agent-interface displacement. The deepest disruption is not loss of Office file compatibility. It is an external agent becoming the main interface to work while Microsoft products recede into commoditized data and identity back ends. Microsoft must keep the agent, permission, context, and governance layers valuable enough to preserve its economic share.

Base - LinkedIn cyclicality and trust. Recruiting, advertising, and sales budgets are cyclical. AI-generated outreach can increase volume but reduce user trust. LinkedIn's network effect remains strong only if members and buyers continue to regard the professional graph and activity as authoritative.

Base - Dynamics execution. Dynamics can grow through agents and Microsoft distribution, but enterprise applications demand category depth and reliable implementations. Failed projects, weak vertical capabilities, or partner constraints can prevent distribution from becoming durable share.

Bull - Copilot becomes the governed enterprise work interface. The strongest upside occurs if over 30 million paid seats are an early stage of broad, recurring adoption; weekly engagement converts into renewal; and Microsoft can use Graph, identity, and admin controls to deliver better governed assistance than standalone tools.

Bull - efficiency improves faster than price normalizes. Model routing, smaller models, silicon efficiency, caching, and product design can lower the cost per useful task. If those gains outpace pricing pressure, Microsoft can expand Operating income margin even as usage rises.

Monitoring item	Bear signal	Base-consistent signal	Bull signal
P&BP revenue growth	Sustained below high single digits	Normalizes around low double digits	Remains low-to-mid teens at larger scale
P&BP Operating income margin	Moves toward low-50s	Holds around high-50s to about 60%	Sustains above 61% with disclosed efficiency evidence
Microsoft 365 Commercial cloud growth	Falls below high single digits without a recession	Decelerates gradually from 14% Q4	Holds low-to-mid teens with broad attach
Copilot disclosure	Seat growth slows and economics remain opaque	Paid seats grow; limited economics disclosed	Renewal, usage, price, or efficiency evidence becomes measurable
LinkedIn	Growth falls to low single digits; trust degrades	Mid-to-high-single-digit growth through cycle	Double-digit growth with healthy member engagement

Monitoring item	Bear signal	Base-consistent signal	Bull signal
Dynamics 365	Low-single-digit growth and share pressure	High-single to low-double-digit growth	Sustained low-to-mid-teens growth with agent adoption

The decisive monitoring variable is not the seat count alone. It is whether paid adoption produces durable revenue and Operating income without degrading customer trust or segment margin. A sustained P&BP margin below the mid-50s while Microsoft 365 Commercial growth falls below high single digits would make the bear case more likely. Conversely, sustained low-to-mid-teens core growth with margin above 61% and clearer renewal or cost-efficiency evidence would support the bull case.

Ending scenario summary

Case	Segment TTM+5y Revenue	Exact profit metric	Segment TTM+5y Profit Margin	Segment TTM+5y Profit	Probability
Bear	$181.222B	Operating income	53.4%	$96.740B	25%
Base	$228.102B	Operating income	59.4%	$135.461B	55%
Bull	$251.208B	Operating income	62.5%	$157.038B	20%

P&BP remains Microsoft's clearest high-margin compounding engine, but the FY2026 evidence argues for discipline rather than extrapolation. The exact TTM base is strong: $139.996 billion of revenue, $83.879 billion of issuer-disclosed Operating income, and a 59.9% margin. The product base is now fully current through Q4 FY2026 and reconciles to the segment within 0.0007%. Copilot adoption is accelerating, with over 30 million paid seats disclosed in Q4, yet the issuer still does not disclose the revenue, realized pricing, retention, usage cost, or product margin needed to claim proven AI unit economics. The base case therefore allows continued double-digit segment compounding while holding terminal margin slightly below the FY2026 level. The bull requires evidence that adoption converts into price, renewal, and cost efficiency. The bear does not require Office displacement; it requires only that incremental AI economics fall short of the expectations embedded in this unusually profitable segment.

Appendix B2 - Intelligent Cloud

Intelligent Cloud - Segment Deep Dive

Company: Microsoft Corporation (MSFT) Segment: Intelligent Cloud Analysis date and information cutoff: 2026-08-02 SGT Latest completed period: Q4 FY2026 and FY2026 ended 2026-06-30 TTM anchor: Q1 FY2026 + Q2 FY2026 + Q3 FY2026 + Q4 FY2026, ending 2026-06-30 Forward horizon: 2031-06-30, exactly 5.0 calendar years after the TTM end Reporting currency: USD. Dollar figures are billions unless explicitly marked as millions. Exact segment profit basis: **Operating income**, issuer-disclosed Scope discipline: this appendix forecasts Intelligent Cloud only. It assigns no corporate, unallocated, other-income, tax, or other below-the-line item to the segment.

Microsoft historical figures, growth disclosures, accounting classifications, and management commentary in this appendix come from the DR-cleared `data_package.md`, the QFR-cleared `quant_foundation.md`, and the sealed `statutory_bridge.json`. Their controlling primary sources are the [Microsoft FY2026 Form 10-K filed 2026-07-29](https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm), the [Microsoft FY2025 Form 10-K](https://www.sec.gov/Archives/edgar/data/789019/000095017025100235/msft-20250630.htm) for the recast segment history, and Microsoft's dated FY2026 quarterly releases and earnings calls. The exact TTM base is revenue of **$137.791 billion** and Operating income of **$56.972 billion**, for a **41.3% Operating income margin**. Azure growth is a growth-rate disclosure, and management's statement that Azure exceeded $100 billion in FY2026 is a threshold disclosure. Neither is converted into an invented exact standalone GAAP Azure revenue series.

0. Segment boundary and taxonomy note

Intelligent Cloud is one of Microsoft's three reportable segments. Its disclosed business boundary comprises Server products and cloud services, including Azure, and Enterprise and partner services. Microsoft changed segment composition effective FY2025 and recast FY2023 through FY2025 to the current management view. Accordingly, FY2023 through FY2026 are comparable at the reportable-segment level; FY2022 is legacy-taxonomy context and is not used in the current-taxonomy growth calculation. The current appendix retains the useful business analysis in the prior draft but replaces its earlier TTM and horizon with the completed FY2026 window and the exact 2031-06-30 endpoint.

The product-disclosure boundary is narrower than the reportable-segment boundary. For FY2026, Microsoft disclosed $129.425 billion for Server products and cloud services and $8.260 billion for Enterprise and partner services. Those two source-bound product lines sum to $137.685 billion, only $0.106 billion below exact Intelligent Cloud revenue. The difference is 0.077% of segment revenue and therefore well inside the required 1% product-to-segment tolerance. The company also reported a $0.109 billion company-level `Other` product line, but the controlling source did not assign that line to a reportable segment. This appendix does not place it in Intelligent Cloud or use it as a plug.

Azure is contained inside Server products and cloud services, but exact standalone Azure GAAP revenue is not disclosed. Management said Azure surpassed $100 billion in FY2026, while the annual product table disclosed $129.425 billion for the broader Server products and cloud services line. The model therefore forecasts that broader disclosed line. It uses Azure's quarterly growth and FY2027 guide as constraints on the near-term path, without subtracting the $100 billion threshold from the broader line or inferring an exact server-products remainder. This is the central disclosure rule for the appendix.

Controlling taxonomy sources: [Microsoft FY2026 Form 10-K, Item 1 and Note 18](https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm) and [Microsoft FY2025 Form 10-K, recast Segment Results](https://www.sec.gov/Archives/edgar/data/789019/000095017025100235/msft-20250630.htm). The issuer maps Server products and cloud services and Enterprise and partner services to Intelligent Cloud; it does not map the company-level `Other` product line to a reportable segment.

1. What this segment actually is

Intelligent Cloud is Microsoft's infrastructure, platform, database, developer, security, hybrid-server, and enterprise-support engine. Azure supplies compute, storage, networking, databases, analytics, application platforms, AI accelerators, model hosting, security, observability, and developer services. Server products support customers that operate on-premises or hybrid estates through products such as Windows Server and SQL Server and through management and licensing arrangements that connect those estates to Azure. Enterprise and partner services provide support and service relationships that help customers deploy and operate Microsoft technology.

The customers are large enterprises, smaller businesses, governments, schools, independent software vendors, developers, digital-native companies, and frontier-model companies. The economic buyer can be a chief information officer procuring a multiyear Azure commitment, a developer beginning with self-service consumption, a database or infrastructure team modernizing a workload, a security leader buying integrated controls, or an AI company reserving large amounts of accelerator capacity. That diversity makes demand broad, but it also means the revenue mix ranges from software-like services to capital-heavy raw compute.

Pricing is correspondingly mixed. Azure usage is primarily consumption based, reserved-capacity based, or supported by committed cloud spend. Platform services can be priced by transactions, capacity, data processed, users, or other workload units. Server products have license, subscription, maintenance, and hybrid-use economics. Enterprise services are more labor and support intensive. The segment therefore cannot be reduced to one seat price or one customer cohort calculation.

Go-to-market is a combination of Microsoft's direct enterprise field organization, cloud marketplace, self-service developer adoption, systems integrators, resellers, managed service providers, and broad enterprise agreements. The strategic advantage is the ability to connect Azure to Microsoft 365, Entra identity, Defender security, GitHub, Dynamics, Fabric, Power Platform, Windows Server, and SQL Server. A customer already using those products can consolidate procurement, identity, policy, data, and support around Microsoft. The commercial risk is that customers may keep the Microsoft application layer while placing incremental infrastructure, data, or AI workloads on AWS, Google Cloud, Oracle, a specialist data platform, or a neocloud.

Intelligent Cloud is not identical to Azure, and AI is not a reportable segment. Microsoft's AI business annual revenue run rate exceeded $37 billion in Q3 FY2026, but management described that KPI across the company. It cannot be assigned wholly to Intelligent Cloud. GitHub, Microsoft 365 Copilot, security, Dynamics, search, and other AI products cross segment boundaries. This appendix uses cross-company AI KPIs as demand and attach evidence, not as additive Intelligent Cloud GAAP revenue.

2. Current economics

The exact FY2026 and TTM segment result is unusually strong for a business carrying a rapidly expanding physical infrastructure base. Revenue increased 29.7% to $137.791 billion. Operating income increased 27.8% to $56.972 billion, but the Operating income margin declined from 42.0% to 41.3%. That combination is the key starting fact: growth accelerated, profit dollars rose sharply, and margin absorbed higher AI and cloud delivery costs.

FY2026 / TTM metric	Exact value	Source-bound interpretation
Revenue	$137.791B	Official Intelligent Cloud segment revenue
Cost of revenue	$57.876B	Official segment cost of revenue
Operating expenses	$22.943B	Official segment operating expenses
Operating income	$56.972B	Issuer-disclosed segment profit basis
Operating income margin	41.3%	$56.972B divided by $137.791B
Revenue growth	29.7%	Versus FY2025 current-taxonomy revenue
Operating income growth	27.8%	Versus FY2025 Operating income

Source: [Microsoft FY2026 Form 10-K, Note 18 Segment Information, Intelligent Cloud table](https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm), reproduced in `data_package.md` Section 3 and `quant_foundation.md` P2. The margin identity is exact apart from displayed rounding: $137.791 billion less $57.876 billion less $22.943 billion equals $56.972 billion.

The product mix is overwhelmingly Server products and cloud services. The disclosed product line represented 93.9% of exact segment revenue, while Enterprise and partner services represented 6.0%. The product-table coverage shortfall was only 0.077%, but it remains a disclosure difference rather than an invitation to assign the company-level Other line.

Disclosed product line	FY2024 revenue	FY2025 revenue	FY2026 revenue	Share of exact FY2026 segment revenue	Disclosure status
Server products and cloud services	$79.828B	$98.435B	$129.425B	93.9%	Dollar disclosed; includes Azure
Enterprise and partner services	$7.594B	$7.760B	$8.260B	6.0%	Dollar disclosed
Mapped product subtotal	$87.422B	$106.195B	$137.685B	99.923%	Sum of the two disclosed mapped lines

Disclosed product line	FY2024 revenue	FY2025 revenue	FY2026 revenue	Share of exact FY2026 segment revenue	Disclosure status
Exact Intelligent Cloud segment	$87.464B	$106.265B	$137.791B	100.0%	Official reportable-segment total

Source: [Microsoft FY2026 Form 10-K, Revenue by Product and Service Offering and Note 18 Segment Information](https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm), reproduced in `data_package.md` Sections 3-4. The product table supplies FY2024-FY2026 dollars; the segment table controls the exact segment total.

The right-edge quarterly trend remained very strong, while profitability showed the cost of the infrastructure ramp. Revenue growth accelerated from 28% in Q1 to 32% in Q4. Azure and other cloud services growth accelerated to 43% in Q4. Segment margin fell from 43.3% in Q1 to 39.7% in Q3 before recovering to 40.6% in Q4; the Q4 margin remained below the full-year 41.3% rate.

FY2026 quarter	Segment revenue	Segment YoY	Operating income	Operating income margin	Azure and other cloud services YoY
Q1	$30.897B	28%	$13.391B	43.3%	40%
Q2	$32.907B	29%	$13.873B	42.2%	39%
Q3	$34.681B	30%	$13.753B	39.7%	40%
Q4	$39.306B	32%	$15.955B	40.6%	43%

Sources: Microsoft Investor Relations releases for [Q1 FY2026](https://www.microsoft.com/en-us/Investor/earnings/FY-2026-Q1/press-release-webcast), [Q2 FY2026](https://www.microsoft.com/en-us/Investor/earnings/FY-2026-Q2/press-release-webcast), [Q3 FY2026](https://www.microsoft.com/en-us/Investor/earnings/FY-2026-Q3/press-release-webcast), and [Q4 FY2026](https://www.microsoft.com/en-us/Investor/earnings/FY-2026-Q4/press-release-webcast), reproduced in `data_package.md` Sections 4-5. Azure percentages are growth-only disclosures; the table contains no Azure dollar estimate.

Capital intensity is not disclosed by segment, so consolidated evidence is the only permitted financial proxy. FY2026 cash capex was $115.948 billion, total capex including finance leases was $145.3 billion, and Q4 alone carried $35.802 billion of cash capex and $41.0 billion of total capex. Company free cash flow was $66.987 billion, only 50.1% of net income, despite much stronger operating cash flow. Approximately two-thirds of total capex in Q2 through Q4 related to short-lived assets such as GPUs and CPUs. These figures cannot be allocated numerically to Intelligent Cloud, but they are economically relevant because Azure and AI capacity are major users of the infrastructure. Sources: [Microsoft FY2026 Form 10-K, cash-flow statement](https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm) and [Microsoft FY2026 Q4 earnings call dated 2026-07-29](https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q4).

The segment's current economics are therefore best summarized as high growth, high reported Operating income, and a less visible cash return. The income statement proves that the installed platform is profitable. It does not prove that every new accelerator cluster or datacenter earns an attractive lifetime return.

3. Unit economics

Intelligent Cloud combines software economics with utility-like infrastructure economics. For each $100 of FY2026 revenue, cost of revenue absorbed about $42.0, operating expenses about $16.7, and Operating income about $41.3. The direct-cost share is far higher than in Microsoft's productivity software segment because cloud delivery requires hardware, depreciation, power, networking, support, and datacenter operations.

FY2026 economics per $100 of Intelligent Cloud revenue	Amount
Cost of revenue	$42.0
Operating expenses	$16.7
Operating income	$41.3

Source: [Microsoft FY2026 Form 10-K, Note 18 Segment Information, Intelligent Cloud table](https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm), reproduced in

`quant_foundation.md` P2. This is a segment accounting decomposition, not a customer cohort or product gross-margin disclosure.

Revenue becomes profit through five linked mechanisms. First, Microsoft monetizes physical compute, storage, networking, accelerators, and power through consumption and commitments. Second, utilization spreads fixed infrastructure cost and depreciation across more billable work. Third, software attach adds higher-value database, analytics, security, management, developer, and AI platform services on top of the same infrastructure. Fourth, enterprise commitments and the surrounding Microsoft stack reduce customer acquisition friction and improve capacity planning. Fifth, engineering efficiency, workload scheduling, custom silicon, model optimization, and fleet utilization can reduce cost per unit of useful compute.

The inverse mechanisms can destroy incremental returns. Capacity is ordered and built before all revenue is recognized. Power, networking, memory, accelerators, buildings, and leases may become committed while customer demand is still concentrated or uncertain. Short-lived GPUs and CPUs depreciate quickly and face technical obsolescence. Long-lived buildings can remain economically useful, but the servers inside them may need frequent replacement. A price war or rapid price-performance improvement benefits demand while lowering revenue per unit. When utilization falls, the same depreciation and operating cost burden is spread across fewer paid workloads.

The FY2027 accounting change must not be confused with better economics. Microsoft will extend the estimated useful lives of datacenters and office buildings from 15 years to 25 years. Management expects only a minimal FY2027 Operating income benefit. The change affects the timing of depreciation for long-lived assets; it does not create cash, improve utilization, or extend the economic life of short-lived accelerators. Likewise, management's reduction of its calendar-2026 total-capex expectation to approximately $175 billion reflects a shift of more future datacenter leases from finance to operating classification. It is not evidence that the same capacity suddenly costs less in economic terms.

The capacity plan is enormous. Microsoft disclosed 31 new datacenters in Q4, 88 during FY2026, and a plan to roughly double total capacity over two years. Property and equipment reached $313.076 billion at year-end, while contracted obligations included substantial datacenter leases, construction commitments, and purchase commitments. Because segment assets, segment capex, utilization, and segment ROIC are not disclosed, the analyst cannot calculate a clean Azure incremental return on invested capital. The appropriate substitute is a monitoring framework: Azure growth, segment margin, cash capex, depreciation, free-cash-flow conversion, power availability, capacity additions, and backlog conversion must improve together.

Sources for the useful-life, capex-classification, datacenter, and capacity statements: Amy Hood and Satya Nadella on the [Microsoft FY2026 Q4 earnings call dated 2026-07-29](https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q4); the PP&E balance is from the [Microsoft FY2026 Form 10-K balance sheet and property note](https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm).

Enterprise and partner services has different unit economics. It supports customer relationships and adoption but is more people intensive and likely lower margin than the platform line. Microsoft does not disclose the product's gross margin or Operating income. The scenario model therefore uses explicitly labeled product-margin assumptions only to reconstruct the segment forecast. Those assumptions are not presented as historical facts.

OpenAI adds both utilization support and concentration risk. The [Microsoft FY2026 Form 10-K](https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm) reported an approximate 25% interest on an as-converted basis, $24.1 billion of company revenue from commercial arrangements with OpenAI inclusive of revenue-sharing payments, a $6.0 billion receivable, and $13.0 billion of funding commitments, of which $11.9 billion had been funded. On the [Q2 FY2026 earnings call dated 2026-01-28](https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q2), management said approximately 45% of commercial remaining performance obligations were from OpenAI. None of those company-level amounts is allocated to Intelligent Cloud in this appendix. Economically, however, they show that a major customer is also an investee, model partner, infrastructure counterparty, and source of backlog. Ordinary arm's-length SaaS retention assumptions are not adequate for that relationship.

Several conventional SaaS unit metrics are true non-disclosures: segment NRR, gross retention, churn, CAC, payback, product gross margin, product Operating income, segment capex, segment assets, segment utilization, and segment ROIC. A high RPO balance cannot substitute for all of them because contract duration, cancellation terms, customer concentration, and infrastructure cost determine the value of backlog.

4. Competitive dynamics

The primary hyperscale competitors are AWS and Google Cloud. Oracle Cloud Infrastructure competes in databases and AI capacity, while IBM and Red Hat remain relevant in hybrid environments. Snowflake, Databricks, and specialist data platforms compete above raw infrastructure. Broadcom's VMware portfolio, private cloud, and on-premises systems remain substitutes for some workloads. Neoclouds can win accelerator-intensive training or inference demand when capacity, price, or specialized performance matters more than an integrated enterprise stack.

Competition intensified into the FY2026 year-end rather than easing. Amazon reported Q2 2026 AWS sales of $42.2 billion, up 37%, and AWS Operating income of $16.6 billion. Amazon's company free cash flow turned to a $7.6 billion outflow for the trailing year, primarily because of higher AI property and equipment spending. Alphabet said Q2 2026 Google Cloud revenue grew 82% and backlog reached $514 billion, with demand for AI infrastructure and AI solutions driving the result. These disclosures show that Microsoft's acceleration is part of an industry-wide AI capacity and demand cycle, not proof of unchallenged share gains.

Competitor evidence available by 2026-08-02	Latest primary-source observation	Implication for Intelligent Cloud
AWS	Q2 2026 sales $42.2B, up 37%; Operating income $16.6B	Strong growth and high profit keep price, custom-silicon, and platform pressure intense
Google Cloud	Q2 2026 Cloud revenue growth 82%; backlog $514B	Google is scaling AI infrastructure, models, data, security, and agents rapidly
Oracle and neoclouds	Exact comparable segment economics not used	Capacity availability and database gravity can win specific workloads
Private and hybrid infrastructure	No single comparable revenue measure	Regulation, latency, sovereignty, and legacy estates preserve non-public-cloud alternatives

Sources: [Amazon Q2 2026 results](https://ir.aboutamazon.com/news-release/news-release-details/2026/Amazon-com-Announces-Second-Quarter-Results/default.aspx) and [Google CEO Q2 2026 earnings remarks](https://blog.google/company-news/inside-google/message-ceo/alphabet-earnings-q2-2026/). The Google Cloud segment includes Google Workspace, while Intelligent Cloud includes server products and services; margins and growth are not perfectly comparable.

Microsoft's pricing power does not come from undifferentiated compute. It comes from enterprise standardization, procurement reach, hybrid compatibility, identity, security, developer tools, data services, and the ability to sell a full stack. Azure can be easier to adopt for an organization already using Microsoft 365, Entra, Defender, GitHub, Windows Server, SQL Server, and Dynamics. Enterprise agreements and committed spend also make procurement less transactional.

The weak point is commodity compute. A sophisticated AI buyer can compare accelerator availability, interconnect, model choice, price-performance, power, and software portability across clouds. Open models, Kubernetes, abstraction layers, and independent data platforms can reduce switching cost. The cloud providers respond with custom chips and proprietary higher-level services, but that creates a continuing investment race. In the bear case, revenue remains large while price-performance improvements and excess capacity transfer more of the economic surplus to customers.

Market-share precision is intentionally omitted. Microsoft does not disclose exact standalone Azure GAAP revenue, and third-party infrastructure-market estimates apply definitions that may differ from the segment and product lines used here. The investment conclusion does not require a false exact share number. It requires evidence that Microsoft can sustain growth and margin while AWS, Google, Oracle, and specialist providers are also expanding capacity.

5. Moat at the segment level

Intelligent Cloud has a substantial moat, but the moat is strongest above raw compute. The first layer is enterprise switching cost. Moving production databases, identity, security policy, regulated data, developer pipelines, and critical applications is expensive and risky. Migration requires architecture work, data movement, testing, retraining, governance, and business-continuity planning. Customers can optimize or multicloud individual workloads, but wholesale displacement is difficult.

The second layer is Microsoft stack adjacency. Azure connects naturally to Windows Server, SQL Server, Entra, Defender, Microsoft 365, GitHub, Dynamics, Fabric, and Power Platform. Those relationships provide distribution, identity context, security telemetry, and procurement access. The customer may prefer a specialist for one workload, yet Microsoft's integrated control plane can still win a broad share of spend.

The third layer is global scale. A hyperscaler needs datacenters, power, fiber, engineering talent, security operations, sovereign offerings, and a balance sheet capable of funding years of investment. Microsoft can make multiyear capacity commitments that most software vendors cannot. Scale also supports redundancy, regional availability, specialized hardware, and a marketplace ecosystem.

The fourth layer is developer and data gravity. Once applications, databases, pipelines, observability, identity, and AI services are built around Azure, incremental services become easier to adopt. GitHub gives Microsoft an unusually broad developer distribution point. Fabric and Azure data services can move the moat higher up the stack, where switching costs and value-added margins are stronger than in raw compute.

The moat is weaker for portable training workloads, commodity storage, or a large model company capable of negotiating across multiple providers. Capacity shortages can temporarily create pricing power, but shortages are not a durable moat. Hardware lead times can reverse, custom chips can change cost curves, and customers can redesign workloads. A partner such as OpenAI can amplify Azure demand and product credibility while also gaining negotiating leverage because of its scale and strategic importance.

Over five to ten years, the segment moat depends on converting infrastructure into an enterprise operating layer. A durable outcome would show growing usage of higher-level data, security, developer, and AI platform services; strong utilization; broad customer diversification; and stable or improving margin after depreciation. A weak outcome would show Azure growth sustained mainly by a few frontier-model customers, falling segment margin, poor free-cash-flow conversion, and an increasing share of revenue coming from price-transparent compute.

The moat therefore passes at the segment level, but it is capital-cycle exposed. The base case assumes Microsoft retains enterprise account control and attaches software value to the capacity build. The bear case assumes that part of the AI infrastructure becomes economically commoditized. The bull case requires proof that capacity, custom silicon, models, data, security, and applications reinforce one another rather than merely increasing revenue and depreciation together.

6. Historical growth rates

The following history is reproduced from the DR-cleared data package. FY2023 through FY2026 are comparable at the segment level. Product dollars are available cleanly for FY2024 through FY2026. No Azure standalone dollars are back-solved.

Product or sub-segment	FY2023 revenue	FY2024 revenue	FY2025 revenue	FY2026 revenue	Historical CAGR	Most recent YoY	Data-package citation
Intelligent Cloud segment	$72.944B	$87.464B	$106.265B	$137.791B	23.6% over FY2023-FY2026	29.7%	FY2025 10-K Segment Results; FY2026 10-K Note 18
Server products and cloud services	n/d	$79.828B	$98.435B	$129.425B	27.3% over FY2024-FY2026	31.5%	FY2026 10-K product-revenue table
Enterprise and partner services	n/d	$7.594B	$7.760B	$8.260B	4.3% over FY2024-FY2026	6.4%	FY2026 10-K product-revenue table
Azure and other cloud services	n/d GAAP dollars	n/d GAAP dollars	n/d GAAP dollars	More than $100B threshold only	n/d dollar CAGR	43% in Q4 FY2026	FY2026 Q4 release and 2026-07-29 call

The CAGR spans are explicit. The segment CAGR has three compounding intervals from FY2023 to FY2026. The product CAGRs have two intervals from FY2024 to FY2026 because older product dollars are not present in the cleared package under a clean current disclosure basis.

Sources: [Microsoft FY2025 Form 10-K, recast Segment Results](https://www.sec.gov/Archives/edgar/data/789019/000095017025100235/msft-20250630.htm); [Microsoft FY2026 Form 10-K, Note 18 and Revenue by Product and Service Offering](https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm); and the [Microsoft FY2026 Q4 release](https://www.microsoft.com/en-us/Investor/earnings/FY-2026-Q4/press-release-webcast) and [earnings call dated 2026-07-29](https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q4) for the Azure growth and threshold disclosures.

Historical arithmetic check	Calculation	Result
Segment FY2025 growth	$87.464B multiplied by 1.215	$106.269B versus $106.265B; PASS within rounding

Historical arithmetic check	Calculation	Result
Segment FY2026 growth	$106.265B multiplied by 1.2967	$137.794B versus $137.791B; PASS within rounding
Server and cloud FY2025 growth	$79.828B multiplied by 1.2331	$98.436B versus $98.435B; PASS within rounding
Server and cloud FY2026 growth	$98.435B multiplied by 1.3148	$129.422B versus $129.425B; PASS within rounding
Enterprise services FY2025 growth	$7.594B multiplied by 1.0219	$7.760B; PASS
Enterprise services FY2026 growth	$7.760B multiplied by 1.0644	$8.260B; PASS
FY2026 product coverage	$129.425B plus $8.260B	$137.685B, 99.923% of exact segment revenue; PASS within 1%

Azure's four FY2026 quarterly growth observations were 40%, 39%, 40%, and 43%. Those percentages do not form a dollar series and are not compounded into a fabricated Azure base. The model instead uses them to test whether the broader Server products and cloud services forecast decelerates plausibly from an exceptionally strong exit rate.

True non-disclosure is material here. Exact standalone Azure GAAP revenue, historical Azure dollars, Azure gross margin, Azure Operating income, segment RPO, product-level RPO, product capex, and product utilization are not disclosed. The $100 billion statement provides a floor, not an exact value. Any forecast claiming, for example, that Azure was precisely $105 billion and server products precisely $24.425 billion would exceed the source record.

7. Management guidance

The data package supplies four short Intelligent Cloud excerpts that define the demand and disclosure boundary. They are reproduced below without re-fetching the Microsoft transcript.

Period and speaker	Verified excerpt from data package	Topic	Modeling interpretation
Q1 FY2026, 2025-10-29, Satya Nadella	"commercial RPO increased over 50%"	Contracted demand	Visibility is strong, but concentration and duration determine quality
Q1 FY2026, 2025-10-29, Amy Hood	"demand remains significantly ahead of the capacity"	Supply constraint	Capacity delivery can move quarterly Azure growth and near-term utilization
Q3 FY2026, 2026-04-29, Amy Hood	"AI business annual revenue run rate surpassed $37 billion"	AI monetization	Validates scale but spans segments and cannot be assigned wholly to Azure
Q4 FY2026, 2026-07-29, Satya Nadella	"Azure surpassed $100 billion"	Azure scale	Establishes a threshold, not an exact standalone GAAP revenue amount

Sources: Microsoft earnings calls dated [2025-10-29 (Q1 FY2026)](https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q1), [2026-04-29 (Q3 FY2026)](https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q3), and [2026-07-29 (Q4 FY2026)](https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q4), as verified and reproduced in `data_package.md` Section 6.

The completed Q4 result and FY2027 outlook add the quantitative constraints. Azure and other cloud services grew 43% in Q4 FY2026. On the 2026-07-29 call, management guided Q1 FY2027 Intelligent Cloud revenue to $40.95-$41.25 billion, or 33%-34% growth, and guided Azure growth to approximately 45% in constant currency. The 45% guide applies to Azure growth, not the broader Server products and cloud services dollar line. The segment range is a one-quarter guide, not a full-year FY2027 guide. Because mature server products and Enterprise services grow more slowly, the five-year model uses lower full-year rates for the disclosed dollar lines and makes the required post-Q1 deceleration explicit.

FY2027 or capacity statement	Disclosure scope	Required model treatment
Q1 FY2027 Intelligent Cloud revenue $40.95-$41.25B; growth 33%-34%	Reportable segment, one quarter	Hard near-term segment anchor; not extrapolated as a five-year CAGR
Q1 FY2027 Azure growth about 45% in constant currency	Azure growth rate only	Constrains near-term deceleration; does not create exact Azure dollars
FY2027 Server products revenue expected to decline in the mid-single digits	Transactional Server products KPI inside the broader server/cloud line	Prevents the Azure guide from being applied to the entire disclosed product line
FY2027 capex expected to grow	Consolidated company	Maintains capacity and depreciation pressure; no segment capex allocation
FY2027 full-year Operating margin down less than one point	Consolidated company	Supports near-term caution; not used as an exact Intelligent Cloud guide

FY2027 or capacity statement	Disclosure scope	Required model treatment
FY2027 free cash flow expected to remain positive	Consolidated company	Prevents an automatic liquidity bear case but does not prove attractive ROI
Datacenter and office-building lives move from 15 to 25 years	Long-lived assets	Minimal FY2027 OI benefit; keep accounting timing separate from cash economics
Calendar-2026 total capex expectation about $175B	Consolidated and classification affected	Lease-classification change is not treated as genuine cash efficiency
Total capacity planned to roughly double in two years	Company infrastructure	Supports growth but raises utilization, power, and obsolescence risk

Source: Amy Hood's outlook and Satya Nadella's operating remarks on the [Microsoft FY2026 Q4 earnings call dated 2026-07-29](https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q4). The Q1 segment range, Q1 Azure constant-currency guide, FY2027 Server products reminder, capex outlook, margin outlook, FCF statement, useful-life change, lease-classification effect, and capacity plan all come from that dated call.

Commercial RPO reached $678 billion at Q4, compared with total RPO of $684 billion. Management said sequential growth came from customers outside frontier-model companies, which is a favorable diversification signal. However, approximately 45% of commercial RPO had been attributed to OpenAI at Q2. The model therefore gives backlog meaningful weight but does not treat every RPO dollar as homogeneous ARR. Sources: [Microsoft FY2026 Form 10-K revenue note](https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm), the [Q2 FY2026 call dated 2026-01-28](https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q2), and the [Q4 FY2026 call dated 2026-07-29](https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q4).

The guidance is unusually strong on demand and unusually incomplete on unit returns. Microsoft discloses the Q1 FY2027 Intelligent Cloud revenue range above but no full-year FY2027 segment revenue range, product gross margins, Azure revenue dollars, Azure utilization, or segment capex budget. The base case is therefore anchored to the disclosed product lines, the one-quarter segment guide, the Azure growth path, and a conservative margin trajectory rather than to an exact full-year management segment forecast that does not exist.

8. Forward growth assumptions

The forecast begins from the exact 2026-06-30 TTM segment revenue of $137.791 billion and ends on 2031-06-30. The two disclosed mapped product lines cover $137.685 billion, leaving the source-disclosure difference of $0.106 billion, or 0.077%. The rollup forecasts the two disclosed lines directly and does not scale them, assign the company-level Other line, or invent a residual product. The resulting product subtotal is the forward segment estimate and remains reconciled to the exact starting segment base well inside the required 1% tolerance.

The scenarios forecast Server products and cloud services and Enterprise and partner services separately. Azure's Q1 FY2027 guide informs the early Server products and cloud services path, but the forecast remains lower than Azure because the disclosed line includes mature server products. Probabilities are 30% bear, 50% base, and 20% bull. The base receives the highest weight because Q4 Intelligent Cloud growth of 32%, Azure growth of 43%, the Q1 segment guide of 33%-34%, and the Q1 Azure guide of about 45% all support near-term demand. Bear remains a material 30% because the Stage 1 FCF-conversion and AI-capital-cycle checks are YELLOW, while bull receives only 20% because it requires both sustained high utilization and terminal margin expansion despite hyperscaler capacity growth.

Bear case growth

Product	Historical CAGR	Latest YoY or guide	Bear CAGR to 2031-06-30	2031 mapped revenue	Bear rationale
Server products and cloud services	27.3% over FY2024-FY2026	Azure Q4 43%; Q1 FY2027 guide about 45% CC	8.5%	$194.742B	Strong first year fades as supply catches up, pricing tightens, and AI ROI matures
Enterprise and partner services	4.3% over FY2024-FY2026	FY2026 YoY 6.4%; no FY2027 product guide	0.2%	$8.342B	Support work stagnates as partners absorb delivery and customers optimize

The bear case does not ignore near-term contracted demand. Server products and cloud services grows 24% in FY2027 before slowing to 10%, 5%, 3%, and 2%. The first-year rate is below Azure's guide because the disclosed line contains mature server products; it is also below the Q1 segment guide, so the bear case explicitly requires a sharp Q2-Q4 deceleration after the guided quarter. The later fade assumes capacity becomes available across hyperscalers, customers improve workload efficiency, price-performance falls, and some frontier-model demand shifts among providers. Enterprise

services is flat in FY2027, declines 1% in FY2028, then grows 0%, 1%, and 1%. This is not a collapse case; it is a return-on-capital disappointment case.

Base case growth

Product	Historical CAGR	Latest YoY or guide	Base CAGR to 2031-06-30	2031 mapped revenue	Base rationale
Server products and cloud services	27.3% over FY2024-FY2026	Azure Q4 43%; Q1 FY2027 guide about 45% CC	15.1%	$261.657B	Capacity and enterprise AI sustain growth, followed by orderly scale deceleration
Enterprise and partner services	4.3% over FY2024-FY2026	FY2026 YoY 6.4%; no FY2027 product guide	3.4%	$9.761B	Support and adoption services grow slowly with a much larger installed cloud base

The base path for Server products and cloud services is 30%, 18%, 13%, 9%, and 7%. This is a substantial deceleration from Azure's current rate, but it is not a cliff. It recognizes that capacity is constrained, commercial RPO is large, and the segment exited FY2026 with accelerating growth. It also recognizes that a $129.425 billion product line cannot compound indefinitely near 40%. Enterprise services grows 5%, 4%, 3%, 3%, and 2%, reflecting implementation and support demand without treating a people-intensive service line as the main compounding engine.

Bull case growth

Product	Historical CAGR	Latest YoY or guide	Bull CAGR to 2031-06-30	2031 mapped revenue	Bull rationale
Server products and cloud services	27.3% over FY2024-FY2026	Azure Q4 43%; Q1 FY2027 guide about 45% CC	21.0%	$335.457B	AI capacity is absorbed, software attach rises, and pricing remains rational
Enterprise and partner services	4.3% over FY2024-FY2026	FY2026 YoY 6.4%; no FY2027 product guide	5.4%	$10.742B	The enlarged estate supports more premium support and deployment work

The bull Server products and cloud services path is 33%, 25%, 20%, 16%, and 12%. Even the first year remains below the Azure guide because the broader product line includes server products. The case requires high utilization, rapid enterprise adoption, broad customer diversification beyond OpenAI, successful Fabric and developer attach, and no destructive price war. Enterprise services grows 7%, 6%, 5%, 5%, and 4%.

The year-by-year schedule makes the deceleration test explicit.

Case and product	FY2027 growth	FY2028 growth	FY2029 growth	FY2030 growth	FY2031 growth	Five-year CAGR
Bear Server products and cloud services	24%	10%	5%	3%	2%	8.5%
Bear Enterprise and partner services	0%	(1%)	0%	1%	1%	0.2%
Base Server products and cloud services	30%	18%	13%	9%	7%	15.1%
Base Enterprise and partner services	5%	4%	3%	3%	2%	3.4%
Bull Server products and cloud services	33%	25%	20%	16%	12%	21.0%
Bull Enterprise and partner services	7%	6%	5%	5%	4%	5.4%

The base case does not assume Azure remains at 43% or 45% for five years. If the entire Server products and cloud services line compounded at 43% for five years, it would exceed $770 billion, before Enterprise services. That would require a vastly larger market and little pricing pressure. The base path instead front-loads growth and fades it toward 7% by FY2031. The bear case assumes a sharper fade because of overcapacity and customer optimization. The bull case requires confirming evidence that AI workload growth and higher-level services remain strong even after industry supply expands.

9. Forward Operating income margin assumptions

The exact starting metric is issuer-disclosed **Operating income** of $56.972 billion and a 41.3% margin, sourced from [Microsoft FY2026 Form 10-K, Note 18 Segment Information](https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm) and sealed in `statutory_bridge.json`. There is no corporate or below-the-line allocation in the segment result, and none is introduced

in the forecast. Product-level margins are not disclosed, so the product margins below are explicit modeling assumptions used only to reconstruct the segment endpoint.

Product	Historical margin evidence	Bear 2031 margin	Base 2031 margin	Bull 2031 margin	Main mechanism
Server products and cloud services	Product margin n/d; exact segment margin 41.3%	35.0%	41.5%	45.0%	Utilization, depreciation, pricing, mix, software attach, and custom silicon
Enterprise and partner services	Product margin n/d; people-intensive delivery	10.0%	15.0%	18.0%	Labor mix, support leverage, partner delivery, and premium-service mix
Blended Intelligent Cloud	Exact current margin 41.3%	34.0%	40.5%	44.2%	Revenue-weighted mapped product assumptions

The bear margin falls more than 700 basis points from the current level. The mechanism is not generic maturation. Capacity comes online after scarcity eases; price-performance falls; component and power costs remain high; accelerator depreciation rises; and OpenAI or other large customers exert bargaining power. Enterprise services provides little offset because its margin is assumed to be lower and its revenue nearly flat.

The base margin ends about 80 basis points below the current rate. It first absorbs the FY2027 depreciation and capacity ramp, then recovers as utilization and higher-level services improve. Scale offsets much of the infrastructure burden, but the model does not assume that AI compute immediately earns the same margin as mature server software. The terminal 41.5% Server products and cloud services assumption is close to the current segment margin rather than an aggressive software-margin expansion.

The bull margin expands by about 290 basis points. That requires high fleet utilization, successful custom silicon and model optimization, a larger share of databases, analytics, security, developer, and AI platform services, and rational industry pricing. It also requires the long-lived datacenter base to be used productively while short-lived accelerators are refreshed without repeated economic write-offs.

The illustrative segment margin path is deliberately more conservative than a straight-line scale-leverage story.

Case	FY2027 margin	FY2028 margin	FY2029 margin	FY2030 margin	FY2031 margin
Bear	39.0%	37.0%	35.5%	34.5%	34.0%
Base	39.5%	39.0%	39.5%	40.0%	40.5%
Bull	40.5%	41.5%	42.5%	43.5%	44.2%

The useful-life change is not used to manufacture margin expansion. Management expects only a minimal FY2027 Operating income benefit, and short-lived accelerators remain a separate economic issue. Similarly, lower finance-lease capex presentation does not reduce the revenue that the capacity must earn.

Margin is a high-sensitivity variable. One percentage point of 2031 margin equals approximately $2.03 billion of Operating income in the bear case, $2.72 billion in the base case, and $3.46 billion in the bull case. Monitoring Azure growth without segment margin, depreciation, cash capex, and free cash flow would therefore miss the main earnings risk.

10. Segment rollup

The historical anchor is exact and sealed: $137.791 billion of TTM revenue and $56.972 billion of Operating income. Forecast product revenue is built from the two disclosed mapped lines. Their source-disclosure difference versus exact segment revenue is 0.077%, so no residual product, scale factor, or company-level Other assignment is needed. Product-margin assumptions are applied directly to the disclosed-line forecasts. There are no corporate, unallocated, interest, investment, tax, or other below-the-line rows.

TTM reconciliation at 2026-06-30	Revenue	Difference versus exact segment	Difference percent	Status
Server products and cloud services	$129.425B	n/a	n/a	Source disclosed
Enterprise and partner services	$8.260B	n/a	n/a	Source disclosed
Mapped product subtotal	$137.685B	$(0.106)B	(0.077%)	PASS within 1%
Exact Intelligent Cloud segment	$137.791B	$0.000B	0.000%	Controlling base
Exact Intelligent Cloud Operating income	$56.972B	n/a	n/a	Issuer-disclosed profit basis

The 2031 product rollup is as follows. Each segment total is the direct sum of the two forecast product lines.

Case	Product	2031 revenue	2031 Operating income margin	2031 Operating income
Bear	Server products and cloud services	$194.742B	35.0%	$68.160B
Bear	Enterprise and partner services	$8.342B	10.0%	$0.834B
Bear	**Segment total**	**$203.084B**	**34.0%**	**$68.994B**
Base	Server products and cloud services	$261.657B	41.5%	$108.588B
Base	Enterprise and partner services	$9.761B	15.0%	$1.464B
Base	**Segment total**	**$271.418B**	**40.5%**	**$110.052B**
Bull	Server products and cloud services	$335.457B	45.0%	$150.956B
Bull	Enterprise and partner services	$10.742B	18.0%	$1.934B
Bull	**Segment total**	**$346.199B**	**44.2%**	**$152.889B**

The arithmetic is direct. Bear revenue is $194.742 billion plus $8.342 billion, or $203.084 billion; Operating income is $68.160 billion plus $0.834 billion, or $68.994 billion. Base revenue is $261.657 billion plus $9.761 billion, or $271.418 billion; Operating income is $108.588 billion plus $1.464 billion, or $110.052 billion. Bull revenue is $335.457 billion plus $10.742 billion, or $346.199 billion; Operating income is $150.956 billion plus $1.934 billion, or $152.889 billion. Displayed differences of up to $0.001 billion are rounding only.

Rollup check	Bear	Base	Bull
Segment revenue CAGR from exact TTM base	8.1%	14.5%	20.2%
TTM product-to-segment source difference	0.077%; no plug	0.077%; no plug	0.077%; no plug
Product Operating income sum difference	$0.000B	$0.000B	$0.000B
Corporate or below-line allocation	None	None	None
Probability	30%	50%	20%

At the stated probabilities, probability-weighted 2031 Intelligent Cloud revenue is $265.874 billion and probability-weighted Operating income is $106.302 billion, implying a 40.0% weighted margin. This is a scenario diagnostic, not a separate case and not a statutory consolidation. The synthesis agent should use the individual scenario outputs and the exact Operating income label.

The base case nearly doubles exact segment revenue, reaching 1.97 times the TTM base, while leaving terminal margin slightly below the FY2026 rate. That is demanding on growth but conservative on profitability. The bear case still grows because the starting demand, Q1 FY2027 segment and Azure guides, and backlog are too strong to make an immediate contraction the central downside. Its failure is poor incremental economics. The bull case requires both strong growth and margin expansion and therefore deserves the lowest weight alongside the bear-to-base uncertainty around infrastructure returns.

11. Key risks and wildcards

AI capacity return - bear and base. The largest risk is that Microsoft builds capacity faster than diversified, high-margin demand develops. Revenue can grow while incremental ROIC and free cash flow disappoint. The evidence needed is not only Azure growth; it is sustained segment margin, improving free-cash-flow conversion, high utilization, and a falling cost per useful unit without destructive pricing.

OpenAI concentration and related-party complexity - bear. OpenAI is a customer, strategic partner, investee, source of RPO, funding commitment, and revenue-sharing counterparty. Approximately 45% of commercial RPO was attributed to OpenAI on the [Q2 FY2026 call dated 2026-01-28](https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q2). The [FY2026 Form

10-K](https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm) company revenue disclosure of $24.1 billion cannot be allocated to this segment, but it demonstrates material exposure. A contract revision, demand shift, financing change, or platform diversification could affect capacity planning and economics in several ways at once.

Depreciation and useful-life optics - bear and base. Extending building lives may lower future reported depreciation timing without improving cash returns. Short-lived GPUs and CPUs remain exposed to technical obsolescence. The model should treat a margin improvement accompanied by weak cash conversion cautiously.

Power, components, and construction - all cases. AI capacity depends on power interconnection, networking, memory, accelerators, cooling, construction, and local approvals. Shortages can constrain revenue in the near term; aggressive procurement can create overcapacity later. Higher component prices can raise capex before pricing adjusts.

Hyperscaler price and performance competition - bear. AWS and Google Cloud both accelerated sharply by the FY2026 year-end. Custom chips, model portfolios, and cloud abstraction can reduce Azure's differentiation at the infrastructure layer. The strongest warning would be high Azure growth paired with persistent segment-margin erosion.

Server-products mix - base and bear. The broader disclosed line includes mature server products as well as Azure. Without exact product dollars, Azure strength can obscure weakness or resilience in the legacy line. The forecast avoids an invented split, but the nondisclosure leaves mix uncertainty.

Backlog duration and conversion - bear and base. Commercial RPO is large but not equivalent to near-term annual recurring revenue. Customer concentration, contract duration, infrastructure commitments, and recognition timing matter. A widening gap between RPO growth, revenue growth, and cash returns would weaken the thesis.

Software attach - bull. Fabric, data, security, GitHub, developer services, databases, and agent platforms can move economics above commodity compute. The bull case requires evidence that these higher-value services grow as a share of workload value and improve margin, not merely drive more infrastructure consumption.

Security, reliability, and sovereignty - all cases. Azure is critical infrastructure. Material security failures or outages could damage trust across the Microsoft stack. Sovereign-cloud requirements can deepen local switching costs but also raise duplication, compliance, and capital costs.

True non-disclosures - all cases. Exact Azure GAAP revenue, Azure margin, product Operating income, segment capex, segment assets, utilization, NRR, churn, CAC, payback, product RPO, and segment ROIC remain undisclosed. The absence of these metrics is not filled with analyst precision. It is reflected in wider scenario ranges and a 30% bear probability.

Monitoring signal	Bear indication	Base indication	Bull indication
Azure growth after Q1 FY2027	Falls rapidly below 20%	Orderly fade with broad enterprise demand	Remains above 30% longer than expected
Intelligent Cloud margin	Sustained below 37%	Troughs near 39% and recovers toward 40.5%	Rises above 42% with strong utilization
Cash capex and free cash flow	Capex rises while FCF conversion stays near 50% or worse	Capex growth moderates as OCF scales	FCF inflects despite continued capacity growth
RPO concentration	OpenAI remains dominant or terms weaken	Non-frontier customers diversify backlog	Broad enterprise backlog converts faster
Product mix	Raw compute and services dominate	Balanced infrastructure and platform attach	Data, security, developer, and AI platform attach expands
Capacity utilization	New supply produces margin pressure	Supply is absorbed over several quarters	Capacity remains scarce and efficiently monetized

Final scenario summary:

Case	Segment TTM+5y Revenue	Exact profit metric	Segment TTM+5y Profit Margin	Segment TTM+5y Profit	Probability
Bear	$203.084B	Operating income	34.0%	$68.994B	30%
Base	$271.418B	Operating income	40.5%	$110.052B	50%
Bull	$346.199B	Operating income	44.2%	$152.889B	20%

Intelligent Cloud remains a high-quality growth segment, but it is no longer analytically sufficient to call it an asset-light cloud franchise. The exact FY2026 result combines 29.7% revenue growth, 27.8% Operating income growth, a 41.3% margin, and

an unprecedented infrastructure build. The current demand evidence is powerful: Azure grew 43% in Q4, Q1 FY2027 growth is guided to about 45% in constant currency, and backlog is large. The uncertainty lies in the return on the capacity required to serve that demand.

The base case assumes Microsoft converts enterprise distribution, hybrid switching costs, developer reach, data gravity, and software attach into a 14.5% segment revenue CAGR while preserving roughly a 40.5% terminal Operating income margin. The bear case does not deny demand; it assumes that the economics of the build deteriorate as supply, depreciation, pricing, and customer concentration catch up. The bull case requires Azure to become the durable enterprise AI operating layer and to monetize capacity with increasingly software-like value. Across all cases, the exact profit metric remains issuer-disclosed Operating income, and no corporate or below-line allocation enters the segment forecast.

Appendix B3 - More Personal Computing

More Personal Computing - Segment Deep Dive

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Analysis date: 2026-08-02. Company: Microsoft Corporation. Ticker: MSFT. Segment: More Personal Computing, or MPC. Microsoft closes its fiscal year on June 30. The forecast base is the TTM made up of Q1, Q2, Q3, and Q4 FY2026, ending 2026-06-30; because that window is also FY2026, there is no annual-versus-TTM mismatch. The exact five-calendar-year endpoint is 2031-06-30. Microsoft historical dollars, growth rates, management excerpts, and accounting classifications in this appendix come from the DR-cleared `data_package.md`, the QFR-cleared `quant_foundation.md` where the data package does not reproduce segment cost and operating-expense rows, and the QFR-sealed `statutory_bridge.json`. Dollar amounts are USD millions unless shown as billions. The exact issuer-disclosed segment profit metric is **Operating income**. No corporate, unallocated, statutory-bridge, tax, interest, or other below-line amount is allocated to MPC.

0. Segment boundary and taxonomy note

MPC contains three supported product families: **Windows and Devices**, **XBOX**, and **Search advertising**. Search belongs to MPC. It does not belong to Productivity and Business Processes, and moving it there would erase the only consistently growing MPC product from this segment. The FY2026 filing shortened the former label `Search and news advertising` to `Search advertising` and changed the annual product label `Gaming` to `XBOX`. Those are label changes, not a license to alter the reportable-segment map. Microsoft changed segment composition effective FY2025 and recast FY2023-FY2025 under the current management view. FY2023 onward is therefore the clean segment comparison set. FY2022 remains official legacy-taxonomy context and is not used in current-taxonomy growth calculations. Sources: `data_package.md` Section 1, reporting-structure paragraph and taxonomy note; Section 3, MPC table; Section 4, product table.

The product-to-segment boundary has one important exclusion. The company-wide product table contains **Other Products and Services** revenue of $45m in FY2024, $72m in FY2025, and $109m in FY2026. Neither the controlling filing nor the sealed taxonomy maps this line to a reportable segment. It therefore may not be treated as an MPC product, a corporate segment, or a balancing plug on the available evidence. This appendix excludes it from every product share, growth forecast, margin assumption, and operating-income rollup. The official MPC segment row remains the controlling historical and forecast base.

The three supported MPC product lines almost perfectly reproduce reported segment revenue. The remaining $2m-$3m in each comparable year is source rounding, not an economic forecast line. This is the correct reconciliation; assigning the separate Other Products and Services line to MPC would overstate the segment and violate the sealed taxonomy.

Fiscal year	Official MPC revenue	Supported MPC product sum	Segment less supported products	Product coverage	Other Products and Services treatment
FY2024	$50,838m	$50,835m	$3m	99.994%	$45m excluded; segment assignment withheld
FY2025	$54,649m	$54,647m	$2m	99.996%	$72m excluded; segment assignment withheld
FY2026 / TTM	$54,052m	$54,050m	$2m	99.996%	$109m excluded; segment assignment withheld

All forward product totals use the three supported FY2026 product dollars. They are checked against the controlling $54,052m segment base, and the 0.004% initial rounding difference is far inside the required 1% reconciliation tolerance. No unsupported fourth product is created.

1. What this segment actually is

MPC is Microsoft's consumer distribution and personal-computing portfolio. It is not one coherent subscription business. Windows and Devices monetizes an operating-system standard, enterprise endpoint relevance, OEM relationships, and selected first-party hardware. XBOX combines owned game content, third-party distribution economics, subscriptions, digital transactions, platform services, and hardware. Search advertising monetizes queries and traffic across Bing, Edge, Windows, partner surfaces, and AI-assisted experiences. These businesses share consumer identity and distribution, but they have different customers, price units, cost structures, and competitive failure modes.

Product family	Customer and use case	Revenue model	Go-to-market	Economic center
Windows and Devices	PC OEMs, enterprises, public-sector buyers, and consumers	OEM and commercial licensing, related software, Surface and device revenue	OEM agreements, enterprise licensing, partners, retail and direct channels	High-margin software standard blended with lower-margin hardware
XBOX	Players, publishers, developers, subscribers, and storefront participants	Content sales, subscriptions, in-game transactions, platform economics, hardware	Digital stores, subscriptions, cross-platform distribution, retail hardware	Content and services value offset by studio, amortization and hardware cost
Search advertising	Advertisers, agencies, users and distribution partners	Auction and performance advertising tied to queries and traffic	Self-service and managed ad buying; Windows, Edge, Bing and partner distribution	Intent monetization less traffic-acquisition and AI-query cost

Windows' durable value is its installed base, enterprise compatibility, management tooling, security adjacency, and status as the default desktop operating environment for many organizations. The economic attraction is software licensing: one additional OEM or commercial license does not require a proportional new manufacturing system. Devices complicates that picture because hardware brings components, inventory, logistics, warranty, channel, and product-cycle risk. A Windows and Devices revenue dollar is therefore not homogeneous. Revenue can rise with a low-margin hardware refresh or remain flat while the licensing mix improves.

XBOX is increasingly a content-and-services strategy rather than a console-volume strategy. Satya Nadella's Q1 FY2026 statement on 2025-10-29 that Microsoft was focused on "higher margin content & services" makes that direction explicit. The annual XBOX product line nevertheless includes more than content and services, while the disclosed quarterly KPI covers only XBOX content and services growth. Exact hardware, Game Pass, first-party title, and transaction revenue dollars are not separately disclosed. The segment appendix therefore forecasts the disclosed XBOX product line as one unit and uses content-and-services growth as a directional operating indicator, not as an additive GAAP series.

The operating structure changed during FY2026 and immediately after year-end. Asha Sharma was named EVP and CEO of Microsoft Gaming, later titled CEO XBOX, on 2026-02-20; Phil Spencer's retirement was disclosed. On 2026-07-06 Microsoft eliminated about 4,800 roles, roughly 2.1% of the company workforce, while redeploying staff and transitioning four gaming studios. On the Q4 call management described the objective as resetting the business for long-term growth. These are not ordinary signs of a franchise already executing cleanly. They support a forecast that gives the reset time to work, keeps the base case restrained, and makes a durable XBOX turnaround a bull-case requirement rather than a starting assumption. Sources: `data_package.md` Section 9 operating-actions table and Section 6 MPC commentary.

Search advertising is MPC's structurally faster line. Its revenue is dollar-disclosed annually, while the quarterly KPI is growth excluding traffic-acquisition costs, or ex-TAC. The two measures are not interchangeable: the ex-TAC KPI removes traffic-acquisition costs and therefore is not the exact GAAP growth rate of the broader annual Search advertising product line. Search benefits from Windows and Edge distribution and from Microsoft's ability to embed AI-assisted discovery into consumer surfaces. It also faces the strongest incumbent in the portfolio, changing user behavior as answer engines replace some links, and greater compute cost per query. The line can grow faster than Windows and XBOX without automatically earning a wider margin.

MPC matters strategically beyond its 16.3% share of FY2026 Microsoft revenue. Windows, XBOX, Bing and Edge give Microsoft large consumer surfaces through which it can distribute Copilot, identity, advertising, content, security and cloud-linked experiences. Strategic distribution, however, is not the same as segment profit. The appendix keeps the forecast grounded in disclosed product revenue and issuer-disclosed Operating income rather than capitalizing undemonstrated AI optionality.

2. Current economics - FY2026 and TTM

The exact FY2026 and TTM result is $54,052m of revenue and $14,386m of issuer-disclosed Operating income, a 26.6% margin. Revenue declined 1.1% from FY2025, while Operating income rose $220m, or 1.6%, and margin improved by about 70 basis points from 25.9%. The annual result looks stable, but the quarterly exit was weaker: Q4 revenue declined 4%, Operating income was $2,748m, and the Q4 margin fell to 21.4%. The gap between the 26.6% full-year margin and 21.4% Q4 margin is a warning against extrapolating the annual mix benefit as the new run rate.

FY2026 / TTM metric	Amount	Share of MPC revenue	Specific source
Revenue	$54,052m	100.0%	FY2026 10-K Note 18 segment table; D Section 3 MPC Revenue row
Cost of revenue	$23,481m	43.4%	FY2026 10-K Note 18 segment table; QF P2 MPC Cost of revenue row

FY2026 / TTM metric	Amount	Share of MPC revenue	Specific source
Operating expenses	$16,185m	29.9%	FY2026 10-K Note 18 segment table; QF P2 MPC Operating expenses row
Operating income	$14,386m	26.6%	FY2026 10-K Note 18 segment table; D Section 3a sealed bridge line

The annual improvement came from mix and gross-profit economics, not from lower operating expense. Versus FY2025, MPC revenue fell $597m and cost of revenue fell $1,757m, so gross profit rose by roughly $1,160m. Operating expenses increased $940m, leaving the $220m Operating-income improvement. This pattern is consistent with a better mix toward higher-margin revenue or reduced hardware/content cost being partly reinvested or absorbed by restructuring and product expense. It does not establish product-level margins, which Microsoft does not disclose.

The supported FY2026 product dollars give a nearly complete economic map. XBOX is the largest product line at $21,790m, or 40.3% of official MPC revenue. Windows and Devices is $17,084m, or 31.6%. Search advertising is $15,176m, or 28.1%. Their sum is $54,050m, just $2m below the segment total. The mix is more balanced than a casual "Windows segment" label suggests. Search is already large enough that sustained high-single-digit growth can offset weak XBOX and Windows results, while XBOX is large enough that a prolonged decline can overwhelm several points of Search growth.

Supported product line	FY2026 revenue	Share of official MPC revenue	Latest annual YoY	Q4 operating KPI
Windows and Devices	$17,084m	31.6%	(1.3%)	Windows OEM and Devices revenue declined 7%
XBOX	$21,790m	40.3%	(7.1%)	XBOX content and services revenue declined 10%
Search advertising	$15,176m	28.1%	9.4%	Search advertising ex-TAC grew 10%
Supported product sum	**$54,050m**	**99.996%**	**n/m**	**$2m below official segment revenue due to source rounding**

The last four quarters show a clear sequence. Segment revenue growth moved from positive 4% in Q1 to declines of 3%, 1%, and 4% in Q2-Q4. Windows OEM and Devices growth weakened each quarter from 6% to 1%, then negative 2% and negative 7%. XBOX content and services moved from 1% growth to negative 5%, negative 5%, and negative 10%. Search ex-TAC remained positive at 16%, 10%, 12%, and 10%. Search is therefore the current organic offset, not evidence that the whole segment is healthy.

MPC capital intensity is not separately disclosed. There are no product assets, product gross margins, segment capex, or segment ROIC figures in the package. Windows and Search consume shared engineering and AI infrastructure; XBOX carries studio, content, platform and hardware demands; Devices brings working-capital and supply-chain exposure. Consolidated cash capex and shared data-center economics belong in company synthesis, not in a fabricated segment capital allocation. This appendix captures those pressures through conservative product margins and risk analysis.

3. Unit economics

MPC's unit economics are a blended result of software licenses, hardware, advertising, content and subscriptions. The reported 26.6% Operating-income margin is real and issuer-disclosed. Any product-level margin is an analyst forecast assumption because Microsoft does not reveal the profit of Windows, Devices, XBOX, Game Pass or Search separately.

Windows licensing should carry the strongest incremental economics in the segment. Product engineering, security support, compatibility testing and channel programs are substantial fixed or semi-fixed costs, but an incremental OEM or commercial license has limited direct fulfillment cost. Enterprise standardization can support pricing because customers value compatibility, management and security. Devices dilutes those economics. Surface and related hardware require components, assembly, freight, warranty and inventory, and they compete against vertically integrated premium hardware and lower-cost OEM products. The most important Windows margin variable is therefore mix, not simply PC units. A revenue lift driven by commercial licensing and enterprise refresh is more valuable than a hardware-led lift of the same size.

XBOX revenue becomes profit only after funding content development and acquisition, publisher and platform relationships, subscription content, network operations, storefront infrastructure, marketing, hardware and acquired-intangible amortization. Owned intellectual property can be highly profitable when a title or live service sustains engagement, and digital delivery can

scale well. But content is not a one-time asset that eliminates reinvestment. Studios need continuing talent and budgets, release timing is volatile, and franchises can decay. Console hardware may support the ecosystem without being an attractive standalone margin pool. The Q4 content-and-services decline and the studio transitions make cost discipline and content quality simultaneous requirements: cutting too little leaves an expensive structure, while cutting too deeply can impair the release slate that is supposed to restore growth.

Subscriptions can improve visibility, but the data package provides no standalone Game Pass GAAP revenue for FY2026, subscriber count, churn, average revenue per user, content-cost allocation or cohort profitability. Management's engagement comments do not close those gaps. A recurring billing relationship is not automatically a high-margin SaaS relationship when the subscription must continually license or produce expensive content. The model therefore does not treat XBOX as a conventional software subscription or give it Office-like margins.

Search advertising converts query volume and user intent into auction revenue. Its economics improve with more monetizable queries, better relevance, higher advertiser conversion, stronger pricing, and distribution that does not require excessive traffic-acquisition payment. AI can improve the product and create new commercial formats. It can also raise inference cost, answer a question without producing a paid click, or shift economics toward model and infrastructure providers. The disclosed ex-TAC growth is useful because it indicates underlying advertising momentum after an important distribution-cost concept, but Microsoft does not disclose Search gross margin, query count, revenue per query, traffic-acquisition dollars, or AI cost per query. The forecast recognizes growth but does not assume free AI economics.

At segment level, the margin moved from 22.4% in FY2023 to 23.5% in FY2024, 25.9% in FY2025 and 26.6% in FY2026. That history proves Microsoft can improve the mix and expense structure even after the Activision acquisition. The Q4 exit at 21.4% proves the improvement is not linear. The conservative base case keeps the five-year margin approximately flat at 26.5% rather than carrying the prior annual expansion forward. This lets Search mix and XBOX restructuring offset, rather than erase, the cost and cyclicality inherent in the portfolio.

4. Competitive dynamics

MPC competes in three different arenas, so a single segment market-share statistic would be misleading. The data package contains no verified third-party market-share time series for desktop operating systems, consoles, game distribution or search. This appendix therefore does not invent point estimates. The relevant context is Microsoft's position in each value chain and the mechanism by which that position can strengthen or weaken.

Windows and Devices competes with Apple's macOS and iPadOS, Google's ChromeOS and Android ecosystem, Linux, cloud desktops, browser-first workflows and mobile devices. Windows remains deeply embedded in enterprise endpoint management and application compatibility, but Microsoft does not own the dominant mobile operating-system distribution layer. The likely bear path is slow erosion, not an abrupt Windows collapse: PC units remain cyclical, more activity becomes browser- or mobile-centric, and AI features fail to command incremental licensing value. The bull path is an enterprise refresh in which security, manageability and local AI capabilities support commercial attach and premium pricing. First-party devices remain strategically useful showcases, but hardware differentiation is difficult and margin-accretive scale is not assured.

XBOX competes with Sony PlayStation, Nintendo, Valve's Steam, Epic, mobile storefronts, major publishers, user-generated game platforms and every other use of leisure time. Activision Blizzard expanded content ownership and audience reach, but scale does not remove hit risk or studio execution risk. Microsoft's strategic advantage is the ability to distribute owned content across console, PC, subscription, cloud and other platforms while using Windows and Azure capabilities. The tension is that broader cross-platform reach can weaken the exclusivity that traditionally supported a console platform. The correct economic test is not console unit leadership; it is whether broader distribution raises lifetime content profit after platform fees, subscription economics and content cost.

Search advertising competes most directly with Google and with AI-native answer interfaces, but it also competes for performance budgets with commerce, social and retail-media platforms. Microsoft has distribution through Windows, Edge, Bing and Copilot-related surfaces, along with advertiser tooling and a large enterprise presence. Google has powerful user habit, mobile distribution, advertiser liquidity and the ability to answer AI competition aggressively. Microsoft's current 10% ex-TAC growth shows it can expand despite this structure. It does not demonstrate a durable share break or margin superiority. If AI changes search from a list of monetizable links into longer generated answers, both query economics and ad format must be rebuilt.

Pricing power is strongest where switching cost or measurable return is clearest. Windows commercial licensing has pricing support from compatibility, management and security. XBOX can price compelling franchises and subscriptions, but

customers can shift attention quickly if content quality falls. Search pricing comes from auction demand and advertiser return, not contractual lock-in. Devices has the least structural pricing power because buyers compare specifications and ecosystems. These differences are why the forecast assigns each product a distinct growth and horizon-margin assumption.

Regulation can change distribution and platform economics. Browser defaults, search distribution, app-store terms, gaming platform access and acquisition commitments can all affect monetization. Regulatory action need not remove users to lower profit; a remedy that changes bundling, default placement, storefront fees or content access can transfer economics to partners and customers. This is most relevant to the base and bear cases, where margin expansion is already limited.

5. Moat at the segment level

MPC has a portfolio moat, not a uniform product moat. Windows has durable enterprise compatibility and distribution. XBOX has content intellectual property, player relationships and a multi-surface distribution opportunity. Search has query intent, advertiser infrastructure and Windows/Edge distribution. Microsoft can connect all three through identity, Copilot and cloud infrastructure. Yet every line faces a strong specialist or incumbent, and consumer behavior is less contractually locked in than enterprise productivity or cloud workloads.

Windows has the most durable five-to-ten-year defense. Application compatibility, IT management, security tooling, employee familiarity, OEM support and enterprise procurement make a wholesale operating-system migration costly. The moat protects relevance and licensing economics better than it guarantees growth. A mature standard can remain profitable while losing the next consumer interaction layer. By 2031 the decisive question is whether Windows is still a useful front door to AI-assisted work and security, not merely whether installed PCs continue to boot the operating system.

XBOX has valuable assets but a narrower moat. Established franchises and communities can sustain engagement over long periods; a broad catalog and subscription can lower user acquisition cost; Microsoft can fund development through cycles. However, content moat must be renewed through quality and cadence. Players can use multiple platforms, subscriptions can be cancelled, and third-party distribution may capture part of the economics. The February leadership change, July workforce action and four-studio transition make this a repair story at the current anchor. A clean turnaround may create upside, but the base case should not capitalize it before revenue and margin evidence appears.

Search has a contested distribution and data moat. Queries reveal intent, a large advertiser marketplace reinforces monetization, and product relevance improves with data and engineering. Microsoft's advantage is that it can place search and AI experiences inside Windows, Edge and Copilot surfaces. Its disadvantage is Google's much stronger consumer habit and mobile position, combined with emerging answer interfaces that can disintermediate both incumbents. Search can be MPC's best growth product without becoming an uncontested franchise.

The combined segment moat is therefore **moderate and mixed**. It supports continuing cash generation and a low-single-digit base revenue CAGR, not an automatic company-like double-digit growth rate. The bear case assumes the portfolio remains strategically relevant but loses revenue and margin because Windows and XBOX weaken faster than Search can offset. The bull case requires three separate proofs: a monetizable Windows refresh, a successful XBOX repair, and Search growth that survives AI-query cost and competitive response.

6. Historical growth rates - reproduced from the data package

The table uses the clean current-taxonomy years supplied by the DR-cleared package. FY2024-FY2026 provides three annual observations and two compounding intervals. No product dollar is back-solved. Each amount cites the exact data-package table row. Most recent YoY is FY2026 versus FY2025; current-quarter indicators appear separately because they cover narrower product definitions.

Product / sub-segment	FY2024 revenue	FY2025 revenue	FY2026 / TTM revenue	FY2024-FY2026 CAGR	Most recent annual YoY	Data-package cite
More Personal Computing segment	$50,838m [D Section 3, MPC Revenue row]	$54,649m [D Section 3, MPC Revenue row]	$54,052m [D Section 3, MPC Revenue row]	3.1%	(1.1%)	FY2025 and FY2026 10-K Note 18 segment tables; D Section 3
Windows and Devices	$17,026m [D Section 4, Windows and Devices row]	$17,314m [D Section 4, Windows and Devices row]	$17,084m [D Section 4, Windows and Devices row]	0.2%	(1.3%)	FY2026 10-K Note 18 product table; D Section 4
Gaming / XBOX	$21,503m [D Section 4, Gaming / XBOX row]	$23,455m [D Section 4, Gaming / XBOX row]	$21,790m [D Section 4, Gaming / XBOX row]	0.7%	(7.1%)	FY2026 10-K Note 18 product table; D Section 4
Search and news advertising / Search advertising	$12,306m [D Section 4, Search row]	$13,878m [D Section 4, Search row]	$15,176m [D Section 4, Search row]	11.1%	9.4%	FY2026 10-K Note 18 product table; D Section 4

Visible arithmetic checks: $54,649m multiplied by 0.989 equals approximately $54,052m; $17,314m multiplied by 0.987 equals approximately $17,084m; $23,455m multiplied by 0.929 equals approximately $21,790m; and $13,878m multiplied by 1.094 equals approximately $15,176m. Every row is within rounding tolerance. The FY2026 supported product sum is $17,084m plus $21,790m plus $15,176m, or $54,050m. This is $2m below official segment revenue, a 0.004% residual and a 99.996% reconciliation. The separate $109m Other Products and Services line is intentionally excluded, not used to close the $2m difference.

The quarterly KPI table shows the exit-rate problem more clearly than the annual CAGR. Windows and XBOX weakened into Q4, while Search stayed in double-digit growth. These KPI growth rates are not standalone dollar series and are not added to annual product dollars.

KPI / segment	Q1 FY2026 YoY	Q2 FY2026 YoY	Q3 FY2026 YoY	Q4 FY2026 YoY	Data-package cite
MPC segment revenue	4%	(3%)	(1%)	(4%)	FY2026 Q1-Q4 Microsoft IR releases; D Section 5 MPC YoY row
Windows OEM and Devices revenue	6%	1%	(2%)	(7%)	FY2026 Q1-Q4 Microsoft IR releases; D Section 4 Windows row
XBOX content and services revenue	1%	(5%)	(5%)	(10%)	FY2026 Q1-Q4 Microsoft IR releases; D Section 4 XBOX row
Search advertising ex-TAC	16%	10%	12%	10%	FY2026 Q1-Q4 Microsoft IR releases; D Section 4 Search row

The Q4 XBOX product dollar of $4,983m is an official-primary-source completion calculated in the cleared foundation as annual XBOX revenue of $21,790m less official Q1-Q3 values of $5,508m, $5,958m and $5,341m. It is not a raw quarterly FMP observation and is not used here to fabricate a product-level Q4 growth rate. The disclosed negative 10% KPI applies to XBOX content and services, not the entire XBOX annual product line.

7. Management guidance and current operating actions

Microsoft did not provide a quantitative full-year FY2027 revenue guide for Windows and Devices, XBOX, or Search advertising in the DR-cleared source set. The four verified MPC excerpts are strategic and operational anchors, not numerical guidance. They constrain the forecast as follows.

Period, call date, and speaker	Verified data-package excerpt	Topic	Forecast interpretation
Q1 FY2026, 2025-10-29, Satya Nadella	"focused on our higher margin content & services"	XBOX mix	Supports moving away from hardware dependence, but Q2-Q4 content-and-services declines show that favorable mix did not yet restore growth
Q2 FY2026, 2026-01-28, Satya Nadella	"record PC players"	Gaming reach	Engagement may support long-term content demand; it does not establish revenue, retention or margin
Q3 FY2026, 2026-04-29, Satya Nadella	"set new records for monthly XBOX active users"	Gaming usage	The audience remains large, reducing collapse risk, but active users did not prevent a 5% content-and-services decline that quarter
Q4 FY2026, 2026-07-29, Satya Nadella	"reset the business for long-term growth"	XBOX restructuring	Confirms that portfolio and cost changes were necessary; the base case allows stabilization, while a proven turnaround belongs in bull

The quotes come from `data_package.md` Section 6, More Personal Computing table. They form a coherent but cautious message: Microsoft is prioritizing higher-margin content and services, engagement is healthy, yet financial conversion is weak enough to require a reset. User records are not a substitute for disclosed revenue and profit.

Date	Operating change	Model relevance	Data-package cite
2026-02-20	Asha Sharma named EVP and CEO of Microsoft Gaming, later titled CEO XBOX; Phil Spencer retirement disclosed	New accountability and strategy create turnaround optionality, but also confirm transition risk	D Section 9, operating-actions table

Date	Operating change	Model relevance	Data-package cite
2026-03-12	Experiences and Devices responsibilities moved to a broader leadership group ahead of Rajesh Jha's July retirement	Windows and Devices execution enters a leadership handoff during an AI-PC and product-quality transition	D Section 9, operating-actions table
2026-07-06	About 4,800 company roles eliminated; staff redeployed and four gaming studios transitioned	Can lower cost, but studio change may disrupt release cadence and impair content output	D Section 9, operating-actions table
2026-07-29	Management said it would reset the business for long-term growth	Makes restructuring a current operating fact, not a generic risk	D Section 6, MPC commentary

The absence of numeric guidance is a true non-disclosure after the FY2026 10-K, Q1-Q4 releases and calls were checked by D and DR. The source set also does not disclose product Operating income, gross margin, segment capex, XBOX hardware-versus-content dollars, Game Pass standalone GAAP revenue, Search traffic-acquisition cost dollars, query economics, or Windows license-versus-device dollars. The model treats these as uncertainties. It does not convert engagement comments into additive revenue or infer undisclosed product margins as historical fact.

8. Forward growth assumptions - explicit by product

The starting product dollars are the exact FY2026 annual amounts: Windows and Devices $17,084m, XBOX $21,790m, and Search advertising $15,176m. They sum to $54,050m and reconcile to the $54,052m official segment base within 0.004%. The $109m Other Products and Services line is outside the taxonomy and outside the model. Every CAGR compounds for exactly five years from 2026-06-30 to 2031-06-30.

The base case is deliberately conservative. Windows remains flat, XBOX remains flat after a difficult restructuring period, and Search grows 6%, well below its 11.1% FY2024-FY2026 CAGR and 10% Q4 ex-TAC pace. This produces only 1.8% segment revenue CAGR. It is not a disguised continuation of the stronger pre-Q4 trend.

Base-case growth assumptions

Product	Two-year historical CAGR	Latest annual YoY	Management FY2027 guide	Base CAGR to 2031-06-30	Justification
Windows and Devices	0.2%	(1.3%)	No quantitative product guide	0.0%	Flat growth recognizes the Q4 7% decline and mature PC demand, while enterprise compatibility and refresh prevent sustained erosion
XBOX	0.7%	(7.1%)	No quantitative guide; business reset disclosed	0.0%	The model allows restructuring and content/services focus to halt decline but assumes no net five-year growth before turnaround proof
Search advertising	11.1%	9.4%	No quantitative product guide	6.0%	Search remains the growth engine, but the forecast discounts competition, AI-query cost, distribution economics and ad-cycle sensitivity

Bear-case growth assumptions

Product	Two-year historical CAGR	Latest annual YoY	Management FY2027 guide	Bear CAGR to 2031-06-30	Justification
Windows and Devices	0.2%	(1.3%)	No quantitative product guide	(3.0%)	Q4 weakness persists, AI-PC features fail to raise licensing value, and device or consumer mix shifts away from Microsoft
XBOX	0.7%	(7.1%)	No quantitative guide; reset disclosed	(5.0%)	Studio transitions disrupt releases, content-and-services decline persists, subscriptions cannot offset portfolio contraction, and hardware remains weak
Search advertising	11.1%	9.4%	No quantitative product guide	2.0%	Search keeps some nominal growth, but AI answers reduce monetizable clicks, Google defends distribution and inference cost limits product investment

Bull-case growth assumptions

Product	Two-year historical CAGR	Latest annual YoY	Management FY2027 guide	Bull CAGR to 2031-06-30	Justification
Windows and Devices	0.2%	(1.3%)	No quantitative product guide	2.0%	Enterprise refresh, security and management attach, and useful AI-PC capabilities produce modest pricing and mix improvement without a PC boom
XBOX	0.7%	(7.1%)	No quantitative guide; reset disclosed	4.0%	New leadership repairs cadence and cost, owned franchises travel across platforms, and higher-margin content/services grows after the reset
Search advertising	11.1%	9.4%	No quantitative product guide	10.0%	AI-assisted search sustains query and monetization share, new ad formats work, and traffic growth absorbs the incremental inference burden

The year-by-year endpoint construction below makes the deceleration explicit. It is a constant-CAGR scenario schedule, not a claim that reported annual growth will arrive smoothly. The base path keeps Windows and XBOX flat throughout and compounds only Search at 6%. The bear path extends the negative Q4 direction without assuming an immediate collapse. The bull path lifts XBOX to 4%, above its clean FY2024-FY2026 CAGR but still a bounded repair case, and allows Search to track, rather than exceed, its current ex-TAC pace.

Case and product	FY2027 model	FY2028 model	FY2029 model	FY2030 model	FY2031 / horizon
Bear - Windows and Devices	$16,571m	$16,074m	$15,592m	$15,124m	$14,671m
Bear - XBOX	$20,701m	$19,665m	$18,682m	$17,748m	$16,861m
Bear - Search advertising	$15,480m	$15,789m	$16,105m	$16,427m	$16,756m
Base - Windows and Devices	$17,084m	$17,084m	$17,084m	$17,084m	$17,084m
Base - XBOX	$21,790m	$21,790m	$21,790m	$21,790m	$21,790m
Base - Search advertising	$16,087m	$17,052m	$18,075m	$19,159m	$20,309m
Bull - Windows and Devices	$17,426m	$17,774m	$18,130m	$18,492m	$18,862m
Bull - XBOX	$22,662m	$23,568m	$24,511m	$25,491m	$26,511m
Bull - Search advertising	$16,694m	$18,363m	$20,199m	$22,219m	$24,441m

The base case implies Search rises from 28.1% of current MPC revenue to about 34.3% of modeled horizon revenue. That mix shift is meaningful but not heroic. It is the main reason segment revenue grows at all while Windows and XBOX are flat. In the bear case Search becomes the largest line by 2031 because the other two shrink, but total segment revenue still falls. In the bull case XBOX remains the largest product, which means the result depends on genuine operating repair rather than letting Search alone carry the segment.

9. Forward Operating-income margin assumptions

The exact profit metric is **Operating income**. Current FY2026 and TTM Operating income is $14,386m and the margin is 26.6%. Q4 exited at 21.4%, so the annual margin is not treated as an assured near-term run rate. Microsoft does not disclose product Operating income or product margins. The figures below are explicit horizon assumptions used only to reconstruct the segment forecast.

Product	Historical margin evidence	Bear 2031 Operating-income margin	Base 2031 Operating-income margin	Bull 2031 Operating-income margin	Specific mechanism
Windows and Devices	Product margin not disclosed; segment TTM margin 26.6%	35%	42%	45%	Licensing and commercial attach support margin; devices, weak PC mix and transition cost dilute it
XBOX	Product margin not disclosed; content/services fell 10% in Q4	4%	13%	20%	Bear retains studio, content and hardware burden; base gets cost repair without growth; bull requires digital, content and cross-platform leverage

Product	Historical margin evidence	Bear 2031 Operating-income margin	Base 2031 Operating-income margin	Bull 2031 Operating-income margin	Specific mechanism
Search advertising	Product margin not disclosed; ex-TAC growth was 10% in Q4	20%	28%	34%	Auction scale supports profit, while traffic acquisition, AI inference and competitive distribution absorb part of revenue growth

The bear blended margin falls to 19.0%, 760 basis points below current. The mechanism is not an allocated corporate charge. It is a product mix and product-economics outcome: Windows revenue contracts while its device mix remains unfavorable, XBOX carries an underutilized studio and platform cost base, and Search monetization does not cover the full incremental AI-query and distribution burden. The bear still produces positive Operating income because each business retains valuable assets, but XBOX becomes close to breakeven on the modeled segment basis.

The base blended margin is 26.5%, effectively flat with FY2026. That is conservative relative to the prior three-year annual expansion and constructive relative to the weak Q4 exit. Search mix improves and XBOX restructuring lowers cost, but those benefits are absorbed by product investment, AI serving cost, content reinvestment and the absence of top-line leverage in Windows and XBOX. A flat five-year segment margin is a more defensible central case than assuming every restructuring dollar drops to profit.

The bull blended margin reaches 31.7%, 510 basis points above current. This requires more than revenue growth. XBOX must convert broader distribution and owned content into a 20% product margin after studio and content costs; Search must grow while improving monetization faster than inference and traffic-acquisition costs; and Windows growth must come from licensing, enterprise attach and software mix rather than lower-margin devices. Because all three proofs are required, the bull case receives only a 20% probability.

No product margin is represented as historical disclosure. No corporate or below-line item appears in these assumptions. Synthesis should add this segment's modeled Operating income directly to the other two issuer-disclosed segment Operating-income forecasts, consistent with the sealed statutory bridge, which has no corporate/unallocated or operating adjustment line.

10. Segment rollup - exact bottom-up arithmetic

The rollup compounds each supported product from its FY2026 dollar base for exactly five years, then multiplies unrounded horizon revenue by the scenario product Operating-income margin. The table retains three decimals in USD millions to expose the mechanics; this is calculation precision, not forecast accuracy. Scenario totals use the unrounded formulas, so a total may differ by $0.001m from the sum of individually rounded product cells. The $109m Other Products and Services line does not appear because it is not mapped to MPC. The initial $2m segment-versus-product rounding residual is disclosed in Section 0 and is not forecast as a plug.

Case	Product	FY2026 model base	Five-year CAGR	2031-06-30 revenue	Operating-income margin	2031-06-30 Operating income
Bear	Windows and Devices	$17,084m	(3.0%)	$14,670.612m	35%	$5,134.714m
Bear	XBOX	$21,790m	(5.0%)	$16,860.687m	4%	$674.427m
Bear	Search advertising	$15,176m	2.0%	$16,755.530m	20%	$3,351.106m
Bear	**MPC total**	**$54,052m official segment base**	**(2.2%)**	**$48,286.829m**	**19.0%**	**$9,160.248m**
Base	Windows and Devices	$17,084m	0.0%	$17,084.000m	42%	$7,175.280m
Base	XBOX	$21,790m	0.0%	$21,790.000m	13%	$2,832.700m
Base	Search advertising	$15,176m	6.0%	$20,308.911m	28%	$5,686.495m
Base	**MPC total**	**$54,052m official segment base**	**1.8%**	**$59,182.911m**	**26.5%**	**$15,694.475m**
Bull	Windows and Devices	$17,084m	2.0%	$18,862.116m	45%	$8,487.952m
Bull	XBOX	$21,790m	4.0%	$26,510.867m	20%	$5,302.173m
Bull	Search advertising	$15,176m	10.0%	$24,441.100m	34%	$8,309.974m
Bull	**MPC total**	**$54,052m official segment base**	**5.3%**	**$69,814.083m**	**31.7%**	**$22,100.100m**

Using unrounded product formulas, bear product revenue sums to $48,286.829m and product Operating income to $9,160.248m. Base product revenue sums to $59,182.911m and product Operating income to $15,694.475m. Bull product

revenue sums to $69,814.083m and product Operating income to $22,100.100m. The unrounded reconstruction residual is zero in all three cases; the largest difference caused by summing the displayed three-decimal product cells is $0.001m. Product-to-segment revenue reconciliation is therefore 100% at each forecast endpoint and 99.996% at the disclosed FY2026 starting point.

The base case grows Operating income from the exact $14,386m TTM anchor to $15,694.475m, a 1.8% five-year CAGR, almost the same as revenue growth because the blended margin is held flat. The bear case cuts Operating income to $9,160.248m, an 8.6% annual decline. The bull case grows it to $22,100.100m, a 9.0% CAGR. These are segment contributions only. They contain no tax, interest, investment income, corporate allocation, capital expenditure or share-count assumption.

11. Key risks and wildcards

Bear - XBOX reset fails financially. The content-and-services growth path worsened from positive 1% in Q1 to negative 10% in Q4, despite record engagement comments. If the new leadership structure cannot improve release cadence, product quality and monetization, the studio transition can become a second disruption rather than a cure. The bear model assumes XBOX revenue declines 5% annually and horizon margin falls to 4%. Evidence that would push the base toward bear includes continued double-digit content-and-services declines, further major studio closures without a stronger release pipeline, or a widening gap between active users and revenue.

Bear - Windows becomes a shrinking distribution surface. A 7% Q4 Windows OEM and Devices decline may be cyclical, but the strategic risk is slower erosion of Windows' consumer role as activity shifts to mobile, browser and cloud-native interfaces. If AI assistants are controlled primarily by competing mobile or browser platforms, AI-PC marketing may not create licensing value. The bear assumes a 3% annual decline and a lower 35% modeled product margin. A sustained decline in commercial attach or OEM economics would be more serious than one weak PC quarter.

Bear/Base - AI search improves use but not economics. Search ex-TAC growth remained 10% in Q4 and is the portfolio's strongest current signal. The wildcard is whether generative answers create monetizable commercial intent or simply add inference cost and reduce link inventory. Search user growth without revenue yield and margin evidence would not validate the base. The bear still grants 2% Search growth but cuts the modeled margin to 20%.

Base - restructuring savings are reinvested. The base case assumes the XBOX reset and workforce actions stabilize profit but does not assume a large margin windfall. Savings may be consumed by first-party content, platform work, AI features, product quality and marketing. This is why base horizon margin stays at 26.5% rather than extending the FY2023-FY2026 expansion. A stronger cost outcome is upside only if release and user economics remain healthy.

Base - product disclosure remains too coarse. Microsoft provides annual dollars for Windows and Devices, XBOX and Search, but not their profit, unit volume, product gross margin, subscriber cohorts, Game Pass GAAP revenue, query economics or traffic-acquisition dollars. The disclosed segment Operating income is therefore the only historical profit anchor. If product mix shifts materially, the model can be wrong even while aggregate product revenue is close. Synthesis should preserve scenario breadth rather than over-weight the point estimate.

Base/Bull - Search sustains share and monetization. The base requires Search to compound at 6%, below current growth, and reach roughly one-third of MPC revenue. The bull requires 10% growth and a 34% modeled product margin. Validation would require sustained high-single- or double-digit ex-TAC growth, stable or improving segment profit despite AI-query cost, and credible evidence of advertiser value. A revenue acceleration accompanied by segment-margin deterioration would not fully validate the bull.

Bull - XBOX becomes a cross-platform content compounder. Microsoft's owned content portfolio can reach console, PC and other platforms, and management is explicitly prioritizing content and services. The bull assumes 4% revenue growth and a 20% modeled horizon margin, far below software-suite economics but meaningfully above the base. It requires the reset to improve cadence and cost without damaging franchises. Engagement alone is insufficient; content-and-services revenue and MPC Operating income must turn together.

Bull - Windows refresh is monetizable rather than cosmetic. A security, management and useful local-AI refresh could lift commercial licenses and premium mix. The bull still limits Windows and Devices to 2% CAGR, so it does not require a pandemic-style PC cycle. It does require revenue quality: higher licensing and attach, not merely more low-margin hardware units.

Cross-case - regulation and platform terms. Search defaults, browser integration, game distribution, app-store economics and acquisition remedies can redistribute profit without visibly reducing users. A forced change in distribution or platform fee structure would primarily lower product margins, which is why the margin cases are wider than the revenue cases.

Cross-case - Other Products and Services stays excluded. If Microsoft later supplies a controlling segment assignment for the company-wide Other line, the mapping can be revised prospectively from sourced evidence. Until then, the $109m FY2026 amount remains outside MPC. It cannot be used to make a product table look complete or to close the $2m rounding residual.

Case	Segment revenue at 2031-06-30	Exact profit metric	Segment Operating-income margin	Segment Operating income	Probability
Bear	$48,286.829m	Operating income	19.0%	$9,160.248m	30%
Base	$59,182.911m	Operating income	26.5%	$15,694.475m	50%
Bull	$69,814.083m	Operating income	31.7%	$22,100.100m	20%

The 30% bear weight reflects the weak Q4 exit, the XBOX leadership and studio reset, and the risk that Search growth cannot offset two declining product lines. The 50% base weight recognizes Windows' durable enterprise position and positive Search momentum while requiring no XBOX growth or segment-margin expansion. The 20% bull weight is lower because it requires all three upside mechanisms - Windows refresh monetization, XBOX repair, and Search economics that withstand AI serving cost - to work together.

Bottom line: MPC is a resilient but currently troubled portfolio, not a second Azure or Microsoft 365. FY2026 revenue of $54,052m and issuer-disclosed Operating income of $14,386m are clean anchors, but Q4 exposed weaker Windows, XBOX and margin momentum. Search advertising remains the organic offset and belongs entirely in MPC. XBOX is a restructuring case after leadership, workforce and studio changes; it should earn a turnaround valuation only after content-and-services revenue and profit improve. The conservative base reaches $59,182.911m of revenue and $15,694.475m of Operating income at 2031-06-30, with essentially no margin expansion. The model's discipline is as important as its point estimates: it excludes the unmapped $109m Other Products and Services line, preserves the exact issuer profit metric, reconciles supported product revenue to the segment within 1%, and allocates no corporate or below-line items.

Appendix S - Synthesis (Combined Earnings Model)

Microsoft Corporation — Synthesis and Combined Earnings Model

This appendix mechanically consolidates the three R-cleared reportable-segment forecasts into a statutory earnings and per-listed-unit model. It uses issuer-disclosed **Operating income** as the common segment profit metric, exactly as sealed in `statutory_bridge.json`. No segment profit is relabeled, no corporate allocation is pushed into a segment, and no balancing plug is created. The forecast starts with the reproducible TTM ending 2026-06-30 and ends exactly five calendar years later on 2031-06-30. All financial amounts are USD billions unless a table states USD millions, shares are millions, and per-unit amounts are USD per XNAS:MSFT common share.

1. Anchors

- Today and information date: **2026-08-02**.
- Fiscal year end: **June 30**.
- Latest completed fiscal year: **FY2026 ended 2026-06-30**. It is used for the historical tie-out and happens to cover the same four quarters as TTM.
- TTM anchor: **Q1 FY2026 + Q2 FY2026 + Q3 FY2026 + Q4 FY2026, ending 2026-06-30**.
- Horizon: **2031-06-30**, exactly **5.0 calendar years** after the TTM end. No row compounds for six fiscal years and no forecast is anchored to FY2025.
- Valuation security: **XNAS:MSFT Microsoft common stock**, instrument and listed unit `COMMON_SHARE`, CUSIP 594918104.
- Valuation price: **USD 464.72 per listed common share**, raw exchange close, session 2026-07-31. Raw source SHA-256: `7c1499fb22ffe430ab6735855a296aed29aa7c145414d82bbd50e8c29a879d39`.
- QFR-sealed quote-packet SHA-256: `2ebeabb44bb6168b456c8f5fa7e9ad7c655a0aae92ae372ba7dc419610eb6e1c`. The strict validator ran at 2026-08-02T07:21:18+08:00 and returned `QUOTE_PACKET_VALID`. Actionability expires at **2026-08-04T04:00:00+08:00**.
- Reporting currency and quote currency: **USD and USD**. The dated FX factor on 2026-07-31 is the identity factor **1.000000 USD quoted per USD reported**.
- Historical statutory-bridge SHA-256: `9a7b18b85f488842142d086e116f96e348771ab119454f08e3dd7389e597fbad`. The independent validator returned `STATUTORY_BRIDGE_VALID`; `gate_manifest.json` records the QFR seal, DR clearance for Wave 2, the data-package statutory forecast clearance, and zero unresolved R-review issues for all three segment appendices.

The security-unit bridge is deliberately visible even though every factor is one.

Bridge item	Arithmetic	Result	Evidence
Raw close to packet price	USD 464.72 × price adjustment 1.000000	USD 464.72	`quote_packet.json`; 2026-07-31 raw exchange close
Financial shares to quote-basis shares	7,453.000M × split factor 1.000000	7,453.000M	No intervening split from 2026-06-30 to 2026-07-31
Financial shares per listed unit	Depositary ratio 1.000000 × class factor 1.000000	1.000000	Common share; not an ADR; no class conversion
Listed-unit equivalents	7,453.000M ÷ 1.000000	7,453.000M	QFR-sealed unit bridge
Quote-currency EPS factor	Financial shares per unit 1.000000 × FX 1.000000	1.000000	USD reporting and USD quote currencies

The quote split evidence hash is `4286290979bed4b0d3a6a82a51a4a487ff4d58d8c071c93f12dea94d71c7455e`; the unit-bridge evidence hash is `7c5cc847e6a54a65a75c1c603482f4133a702d6193f5510f755505cd070c23ab`. Because there is no depositary receipt, dual listing, share-class conversion, split, or FX conversion, issuer EPS and listed-unit EPS

differ only through the explicitly displayed factors of one.

2. Segment-level forward assumptions

The table below reproduces, rather than re-derives, the R-cleared Section 10 endpoints and Section 9 margins. Each row retains the exact issuer metric **Operating income**. TTM revenue is the controlling reportable-segment value from `data_package.md` Section 3; small mapped-product disclosure gaps inside the appendices are disclosed and not scaled.

Segment	Exact profit metric	TTM revenue	Bear TTM+5y revenue	Base TTM+5y revenue	Bull TTM+5y revenue	Bear margin	Base margin	Bull margin	Source
Productivity and Business Processes	Operating income	139.996	181.222	228.102	251.208	53.4%	59.4%	62.5%	`appendix_B_productivity_business_processes.md` Sections 8-10
Intelligent Cloud	Operating income	137.791	203.084	271.418	346.199	34.0%	40.5%	44.2%	`appendix_B_intelligent_cloud.md` Sections 8-10
More Personal Computing	Operating income	54.052	48.286829	59.182911	69.814083	19.0%	26.5%	31.7%	`appendix_B_more_personal_computing.md` Sections 8-10

P&BP is the largest modeled horizon profit pool. Its base forecast gives up roughly 50 basis points from the 59.9% TTM margin even as Microsoft 365, LinkedIn, and Dynamics grow. Intelligent Cloud carries the fastest base revenue path, but its 40.5% terminal margin remains below the 41.3% TTM segment margin because utilization, depreciation, power, accelerator refresh, and pricing remain load-bearing. MPC is intentionally conservative: base Windows and XBOX revenue are flat, Search grows 6%, and the segment margin stays near its TTM level rather than treating restructuring as immediate profit.

3. Combined revenue build by case

Microsoft reports three segments whose revenue sums directly to consolidated revenue. The sealed data package contains no corporate revenue elimination or consolidating adjustment. Accordingly, the combined endpoint is the literal sum of the three cleared segment endpoints.

Line	Bear	Base	Bull
P&BP TTM+5y revenue	181.222000	228.102000	251.208000
Intelligent Cloud TTM+5y revenue	203.084000	271.418000	346.199000
MPC TTM+5y revenue	48.286829	59.182911	69.814083
Sum of segment TTM+5y revenue	432.592829	558.702911	667.221083
Corporate eliminations	0.000000	0.000000	0.000000
Combined TTM+5y revenue	**432.592829**	**558.702911**	**667.221083**
TTM-to-horizon growth multiple	1.3036×	1.6837×	2.0107×
Implied 2026-06-30 to 2031-06-30 CAGR	5.45%	10.98%	14.99%

The CAGR arithmetic is `(horizon revenue ÷ 331.839)^(1 ÷ 5) - 1`. Thus bear is `(432.592829 ÷ 331.839)^(1/5) - 1 = 5.446%`; base is `(558.702911 ÷ 331.839)^(1/5) - 1 = 10.982%`; bull is `(667.221083 ÷ 331.839)^(1/5) - 1 = 14.992%`. The displayed 0.109 billion company product line called Other is not a corporate elimination and is not forecast as a plug. It is part of consolidated and reportable-segment history but lacked a supported product-to-segment assignment; the segment appendices therefore use their issuer totals as controlling bases and disclose mapped-product coverage differences below 1%.

4. Combined operating income build by case

`statutory_bridge.json` establishes that Microsoft's reportable-segment metric is already statutory **Operating income**. It has no corporate or unallocated adjustment and no further operating bridge adjustment. The model therefore consolidates the three segment Operating-income forecasts directly. Other income remains below the line in Section 5.

Line	Bear	Base	Bull
P&BP Operating income	96.740000	135.461000	157.038000
Intelligent Cloud Operating income	68.994000	110.052000	152.889000
MPC Operating income	9.160248	15.694475	22.100100
Sum on sealed common metric	174.894248	261.207475	332.027100
Corporate and unallocated adjustments	0.000000	0.000000	0.000000
Consolidated segment-profit metric	174.894248	261.207475	332.027100
Operating bridge adjustments	0.000000	0.000000	0.000000
Combined statutory Operating income	**174.894248**	**261.207475**	**332.027100**
Implied Operating-income margin	**40.43%**	**46.75%**	**49.76%**

Every bridge rule is sourced to `data_package.md` Section 3a. P&BP is independently forecast through product revenue and endpoint product-margin assumptions; Intelligent Cloud is independently forecast from mapped Server products and cloud services plus Enterprise and partner services; MPC is independently forecast from Windows and Devices, XBOX, and Search. Section 3a explicitly says no corporate, unallocated, or operating-adjustment row may be invented. The zero rows above are therefore the mathematical absence of such packet arrays, not analyst-created offsets.

The base combined margin of 46.75% is almost identical to the 46.78% TTM statutory margin. That stability is not imposed top-down: P&BP's 59.4% margin, Intelligent Cloud's 40.5% margin, and MPC's 26.5% margin produce it when weighted by their modeled revenue. Bear margin falls to 40.43% because both P&BP and Intelligent Cloud suffer economic pressure, while bull reaches 49.76% only when software attach, utilization, Copilot pricing, Search economics, and XBOX repair work together.

5. Net income, below-line, tax, and EPS build

The sealed below-line bridge contains one composite issuer line: **Other income (expense), net**. Its FY2026 value is positive 10.697. It includes investment gains or losses, interest income, interest expense, and equity-method effects. Because the sealed packet does not classify those components separately, this synthesis does not invent a separate net-interest allocation. The required net-interest row is marked as contained in the composite line, and pretax arithmetic uses the composite exactly once.

The five-year below-line and tax path is explicit. Bear removes FY2026 gains and allows a modest loss; base normalizes the unusually strong composite line toward 5.0; bull retains, but does not compound, economics around the FY2026 level. Tax rates remain near the FY2026 effective rate of 19.4%, with bear at 21%, base at 20%, and bull at 19% by the horizon.

Horizon year	Bear Other income net	Base Other income net	Bull Other income net	Bear tax rate	Base tax rate	Bull tax rate
2027-06-30	2.0	8.0	10.0	20.5%	19.5%	19.0%
2028-06-30	0.0	7.0	10.0	21.0%	19.5%	19.0%
2029-06-30	(1.0)	6.0	10.5	21.0%	20.0%	19.0%
2030-06-30	(2.0)	5.5	10.5	21.0%	20.0%	19.0%
2031-06-30	(3.0)	5.0	10.7	21.0%	20.0%	19.0%

This schedule is an independent forecast of the already classified composite line, as required by the Section 3a driver ledger. It is not an operating-income plug. The bull endpoint of 10.7 is rounded to the FY2026 10.697 level; the base endpoint is less than half of that value; the bear endpoint is negative.

Line at 2031-06-30	Bear	Base	Bull
Combined statutory Operating income	174.894248	261.207475	332.027100
Net interest income or expense separately classified	Within sealed composite	Within sealed composite	Within sealed composite
Other income (expense), net; sealed composite	(3.000000)	5.000000	10.700000
Pretax income	**171.894248**	**266.207475**	**342.727100**
Tax rate	21.0%	20.0%	19.0%

Line at 2031-06-30	Bear	Base	Bull
Provision for income taxes	(36.097792)	(53.241495)	(65.118149)
Net income	**135.796456**	**212.965980**	**277.608951**
Quote-basis diluted financial shares	7,406.759M	7,372.124M	7,348.153M
Reporting-currency EPS per quote-basis financial share	USD 18.3341	USD 28.8880	USD 37.7794
Financial shares per listed unit	1.000000	1.000000	1.000000
Reporting-currency EPS per listed unit	USD 18.3341	USD 28.8880	USD 37.7794
FX quote currency per reporting currency	1.000000	1.000000	1.000000
Quote-currency EPS per listed unit	**USD 18.3341**	**USD 28.8880**	**USD 37.7794**

The mandatory formulas are applied without abbreviation:

`EPS_REPORTING_PER_QUOTE_BASIS_FINANCIAL_SHARE = NI_REPORTING ÷ QUOTE_BASIS_DILUTED_FINANCIAL_SHARES`

`EPS_QUOTE_PER_LISTED_UNIT = EPS_REPORTING_PER_QUOTE_BASIS_FINANCIAL_SHARE × FINANCIAL_SHARES_PER_LISTED_UNIT × FX_QUOTE_PER_REPORTING`

For base, `USD 212.965980B ÷ 7,372.124M = USD 28.8880` per financial share, then `USD 28.8880 × 1.000000 × 1.000000 = USD 28.8880` per XNAS-listed common share. Bear and bull use the same complete bridge.

6. Explicit five-year diluted-share path

The share model starts from the packet's **7,453.000M quote-basis diluted financial shares**, not from ADR units and not from a stale pre-split basis. FY2026 cash-flow repurchases were 22.271 and SBC was 12.405; FCF was 66.987. Base repurchases of 22.0 per year are therefore close to the historical cash run rate and equal about 32.8% of TTM FCF. Bear repurchases fall to 18.0 because infrastructure spending limits discretionary cash. Bull repurchases rise to 26.0 only with stronger cash economics. SBC dollars rise from 12.9 to 15.1 across five years. Shares retired equal repurchase dollars divided by the assumed average repurchase price; SBC issuance is the disclosed approximation of SBC dollars divided by the same average annual price. No residual is added to force a desired ending share count.

Historical calibration is imperfect by design. Using USD 464.72 as a transparent price proxy, FY2026 repurchases imply `22.271 ÷ 464.72 × 1,000 = 47.923M` shares retired, while SBC implies `12.405 ÷ 464.72 × 1,000 = 26.693M` issued. Applied to FY2025's 7,465M annual diluted denominator, the proxy gives 7,443.770M versus the FY2026 annual weighted average of 7,453M, a 9.230M or 0.124% difference. Timing, withholding, option dilution, and the difference between annual weighted averages and transaction-date shares explain why this is an approximation. The model discloses the difference and does not turn it into a plug.

Case and year	Starting shares	Buyback USD B	Average price USD	Shares retired	SBC USD B	SBC issuance	Ending shares
Bear 2027	7,453.000	18.0	420	42.857	12.9	30.714	7,440.857
Bear 2028	7,440.857	18.0	430	41.860	13.4	31.163	7,430.159
Bear 2029	7,430.159	18.0	440	40.909	13.9	31.591	7,420.841
Bear 2030	7,420.841	18.0	450	40.000	14.5	32.222	7,413.064
Bear 2031	7,413.064	18.0	460	39.130	15.1	32.826	**7,406.759**
Base 2027	7,453.000	22.0	470	46.809	12.9	27.447	7,433.638
Base 2028	7,433.638	22.0	485	45.361	13.4	27.629	7,415.906
Base 2029	7,415.906	22.0	500	44.000	13.9	27.800	7,399.706
Base 2030	7,399.706	22.0	515	42.718	14.5	28.155	7,385.143
Base 2031	7,385.143	22.0	530	41.509	15.1	28.491	**7,372.124**
Bull 2027	7,453.000	26.0	520	50.000	12.9	24.808	7,427.808
Bull 2028	7,427.808	26.0	550	47.273	13.4	24.364	7,404.899
Bull 2029	7,404.899	26.0	580	44.828	13.9	23.966	7,384.037
Bull 2030	7,384.037	26.0	610	42.623	14.5	23.770	7,365.184
Bull 2031	7,365.184	26.0	640	40.625	15.1	23.594	**7,348.153**

The five-year arithmetic closes exactly before display rounding. Bear retires 204.757M and issues 158.516M, so `7,453.000 - 204.757 + 158.516 = 7,406.759M`. Base retires 220.397M and issues 139.522M, so ending shares are 7,372.124M. Bull retires 225.348M and issues 120.501M, so ending shares are 7,348.153M. Even the bull path shrinks shares by only 1.41% over five years, consistent with management's history of offsetting dilution rather than engineering EPS through aggressive repurchases.

7. P/E 15 test

Required EPS at the sealed price is `USD 464.72 ÷ 15 = USD 30.9813` per listed common share. Cushion is `(EPS × 15 - 464.72) ÷ 464.72`.

Case	EPS at TTM+5y	EPS × 15	Quote-packet price	Cushion	Pass?
Bear	USD 18.3341	USD 275.01	USD 464.72	(40.82%)	FAIL
Base	USD 28.8880	USD 433.32	USD 464.72	**(6.76%)**	**FAIL**
Bull	USD 37.7794	USD 566.69	USD 464.72	21.94%	PASS

The **base case controls** the entry-price gate. Bull passing does not rescue a base failure. At USD 464.72, Microsoft requires USD 30.9813 of horizon EPS; the confident base produces USD 28.8880, short by USD 2.0933 per share. Therefore the binary result is **P/E 15 gate: FAIL — cushion (6.76%)**. This is a valuation failure after a cleared arithmetic synthesis, not a failure of the quote, statutory bridge, moat, or model integrity.

8. Reflexivity check against reported financials

The historical reconstruction is unusually clean because FY2026 and TTM are the same four-quarter period and Microsoft's segment metric is statutory Operating income. Segment revenue and Operating income both tie exactly, with no corporate or operating bridge line.

Historical check	Reproduced arithmetic	Reported value	Difference	Status
TTM segment revenue	139.996 + 137.791 + 54.052	331.839	0.000; 0.000%	PASS
TTM segment Operating income	83.879 + 56.972 + 14.386	155.237	0.000; 0.000%	PASS
TTM pretax income	155.237 + 10.697	165.934	0.000	PASS
TTM net income	165.934 - 32.185	133.749	0.000	PASS
FY2026 segment revenue	139.996 + 137.791 + 54.052	331.839	0.000; 0.000%	PASS
FY2026 statutory Operating income	83.879 + 56.972 + 14.386	155.237	0.000; 0.000%	PASS

The statutory packet tolerance is USD 82.9M, and all five packet residuals are zero in both periods. The combined TTM Operating margin is `155.237 ÷ 331.839 = 46.781%`, consistent with the displayed 46.8%. The model compounds from these exact TTM anchors. It does not use the mapped-product subtotal as a replacement for reportable-segment revenue and does not silently scale any product forecast.

The base horizon result is also reflexive in economic shape. Consolidated revenue grows at 10.98%, but Operating income grows from 155.237 to 261.207, a 10.97% CAGR, leaving consolidated margin almost unchanged. That shape is consistent with P&BP strength offset by Intelligent Cloud physical intensity and MPC maturity. It does not assume that Microsoft's historically expanding consolidated margin continues automatically through the AI capital cycle.

9. Latest interim bridge reconciliation

NOT TRIGGERED — four non-overlapping standalone quarters used. The TTM consists of Q1 FY2026, Q2 FY2026, Q3 FY2026, and Q4 FY2026. No cumulative half-year, YTD, or `latest FY - prior YTD + current YTD` bridge is used.

Metric	Q1 FY2026	Q2 FY2026	Q3 FY2026	Q4 FY2026	Four-quarter sum
Revenue	77.673	81.273	82.886	90.007	**331.839**
Operating income	37.961	38.275	38.398	40.603	**155.237**
Net income	27.747	38.458	31.778	35.766	**133.749**

The quarter coverage is July-September 2025, October-December 2025, January-March 2026, and April-June 2026. Each calendar day appears once. Diluted shares are not summed: the controlling TTM annual weighted-average denominator is 7,453M and is separately reconciled to the quote-basis share unit. The exact horizon is 2031-06-30, five years after the 2026-06-30 right edge.

10. Sensitivity — variables that matter most

Each sensitivity starts with base EPS of USD 28.8880 and changes one variable while holding the other model inputs constant. P&BP revenue CAGR is varied around the displayed 10.26% segment CAGR; Intelligent Cloud margin is varied by 200 basis points around its appendix-implied base margin; share count is varied around 7,372.124M; and tax is varied around 20.0%.

Variable	Downside setting	Downside EPS	Base EPS	Upside setting	Upside EPS	EPS range versus base
P&BP revenue CAGR	8.26%	27.6078	28.8880	12.26%	30.2770	(1.2802) to +1.3890
Intelligent Cloud Operating-income margin	Base less 200 bps	28.2989	28.8880	Base plus 200 bps	29.4771	(0.5891) to +0.5891
TTM+5y diluted shares	7,740.731M; plus 5%	27.5124	28.8880	7,003.518M; minus 5%	30.4084	(1.3756) to +1.5204
Tax rate	23.0%	27.8047	28.8880	17.0%	29.9713	(1.0833) to +1.0833

The P&BP CAGR calculation is explicit. At 8.26%, P&BP horizon revenue is `139.996 × 1.0826^5 = 208.188`, yielding about 123.664 of P&BP Operating income at a held 59.4% margin and combined EPS of USD 27.6078. At 12.26%, P&BP revenue is `139.996 × 1.1226^5 = 249.598`, P&BP Operating income is about 148.261, and combined EPS is USD 30.2770. Intelligent Cloud margin changes horizon OI by `271.418 × 2% = 5.428`, which becomes about USD 0.5891 per share after tax.

Share count and P&BP growth are the two largest single-variable drivers in the selected ranges. Neither favorable change alone clears the gate: a 5% lower share count gives USD 30.4084, while P&BP CAGR plus 200 basis points gives USD 30.2770; both remain below required EPS of USD 30.9813. The gate therefore needs a combination of stronger operating delivery, more accretive repurchases, a better tax or below-line result, or a lower entry price. The most important operating monitor is P&BP revenue plus margin durability; the most important capital-allocation monitor is whether buybacks continue to exceed SBC while AI capex consumes cash.

11. Combined earnings summary

Scenario probabilities are **30% bear, 50% base, and 20% bull**. Base receives the highest weight because FY2026 consolidated revenue and Azure demand remain strong. Bear receives more weight than bull because Stage 1 marked FCF conversion and AI disruption YELLOW, FY2026 FCF conversion fell to 50.1%, and infrastructure utilization is not yet proven. Bull stays at 20% because it requires simultaneous growth, margin, capital-efficiency, Copilot monetization, and MPC-repair success.

Case	Revenue	Operating income	OI margin	Net income	EPS USD per listed unit	Probability	EPS × 15	Versus USD 464.72
Bear	432.593	174.894	40.43%	135.796	18.3341	30%	275.01	(40.82%)
Base	558.703	261.207	46.75%	212.966	28.8880	50%	433.32	(6.76%)
Bull	667.221	332.027	49.76%	277.609	37.7794	20%	566.69	21.94%
Probability-weighted diagnostic	542.574	249.477	45.98%	202.744	**27.5001**	**100%**	**412.50**	**(11.24%)**

Probability-weighted EPS is `18.334126 × 30% + 28.888007 × 50% + 37.779420 × 20% = USD 27.500125`. It is an expected-value diagnostic, not a fourth operating case. The weighted revenue, OI, and NI rows are likewise probability-weighted scenario values; the weighted margin is `249.477432 ÷ 542.573521 = 45.980%`.

The base headline at 2031-06-30 is **revenue USD 558.703B, statutory Operating income USD 261.207B, net income USD 212.966B, and EPS USD 28.8880 per listed common share**. The business model remains highly profitable and the moat appendix passes, but the sealed USD 464.72 entry price asks for more than the base model delivers at 15 times horizon EPS.

Tie-out checks

Tie-out 1 — Reported financials and statutory bridge: PASS

For both TTM and FY2026, `83.879 + 56.972 + 14.386 = 155.237` of reportable-segment Operating income. Corporate and unallocated adjustments are zero; operating bridge adjustments are zero; statutory Operating income is 155.237. Adding the sole below-line line gives `155.237 + 10.697 = 165.934` pretax income, and applying the tax provision gives `165.934 - 32.185 = 133.749` net income. Revenue is `139.996 + 137.791 + 54.052 = 331.839`. Every difference is 0.000 and every packet residual is zero versus an allowed USD 82.9M tolerance. Files: `statutory_bridge.json` and `data_package.md` Sections 2, 3, and 3a.

Tie-out 2 — NI, shares, listed unit, and FX equal EPS: PASS

Case	NI and share arithmetic	Reporting EPS	Unit factor	FX factor	Quote EPS
Bear	135.796456B ÷ 7,406.759M	18.3341	1.000000	1.000000	18.3341
Base	212.965980B ÷ 7,372.124M	28.8880	1.000000	1.000000	28.8880
Bull	277.608951B ÷ 7,348.153M	37.7794	1.000000	1.000000	37.7794

Each quote EPS equals reporting EPS times `financial_shares_per_listed_unit = 1` times `FX_quote_per_reporting = 1`. File: `quote_packet.json`; Sections 5 and 6 above.

Tie-out 3 — Segment sum at the horizon: PASS

Bear is `432.592829 ÷ (181.222 + 203.084 + 48.286829) = 100.000%`. Base is `558.702911 ÷ (228.102 + 271.418 + 59.182911) = 100.000%`. Bull is `667.221083 ÷ (251.208 + 346.199 + 69.814083) = 100.000%`. Corporate eliminations are zero. Files: all three appendix B Section 10 tables and Section 3 above.

Tie-out 4 — Product-to-segment rollup: PASS

Segment	Bear product sum versus segment	Base product sum versus segment	Bull product sum versus segment	Status
P&BP	181.222 ÷ 181.222 = 100.000%	228.102 ÷ 228.102 = 100.000%	251.208 ÷ 251.208 = 100.000%	PASS
Intelligent Cloud	203.084 ÷ 203.084 = 100.000%	271.418 ÷ 271.418 = 100.000%	346.199 ÷ 346.199 = 100.000%	PASS
MPC	48.286829 ÷ 48.286829 = 100.000%	59.182911 ÷ 59.182911 = 100.000%	69.814083 ÷ 69.814083 = 100.000%	PASS

Starting mapped-product coverage is 99.9993% for P&BP, 99.923% for Intelligent Cloud, and 99.996% for MPC, all within 1%. The appendices forecast only supported mapped products and disclose the differences rather than plugging them.

Tie-out 5 — Revenue-weighted segment margins: PASS

Segment and case	Operating income ÷ revenue	Calculated margin	Displayed margin	Difference
P&BP Bear	96.740 ÷ 181.222	53.382%	53.4%	(0.018) pp
P&BP Base	135.461 ÷ 228.102	59.386%	59.4%	(0.014) pp
P&BP Bull	157.038 ÷ 251.208	62.513%	62.5%	0.013 pp
Intelligent Cloud Bear	68.994 ÷ 203.084	33.973%	34.0%	(0.027) pp
Intelligent Cloud Base	110.052 ÷ 271.418	40.547%	40.5%	0.047 pp
Intelligent Cloud Bull	152.889 ÷ 346.199	44.162%	44.2%	(0.038) pp
MPC Bear	9.160248 ÷ 48.286829	18.970%	19.0%	(0.030) pp
MPC Base	15.694475 ÷ 59.182911	26.519%	26.5%	0.019 pp
MPC Bull	22.100100 ÷ 69.814083	31.656%	31.7%	(0.044) pp

Every difference is far below the 1 percentage-point tolerance and comes from displayed rounding. Files: appendix B Sections 9 and 10.

Tie-out 6 — Share-count and security-unit path: PASS

Starting financial-statement diluted shares are `7,453.000M × split factor 1 = 7,453.000M` quote-basis financial shares. Dividing by depositary factor 1 and class factor 1 gives 7,453.000M listed-unit equivalents. Five-year rollforwards close: bear `7,453.000 - 204.757 + 158.516 = 7,406.759`; base `7,453.000 - 220.397 + 139.522 =`

`7,372.124`; bull `7,453.000 - 225.348 + 120.501 = 7,348.153`. No path is run in ADR units. File: `quote_packet.json`; Section 6 above.

Tie-out 7 — Growth plausibility: PASS

Segment	FY2023-FY2026 disclosed CAGR	1.2× historical	Base endpoint CAGR	Comparison
P&BP	14.138%	16.966%	10.26%	Below threshold
Intelligent Cloud	23.617%	28.340%	14.50%	Below threshold
MPC	6.442%	7.730%	1.80%	Below threshold

The historical formulas use current-taxonomy segment values from `data_package.md` Section 3: P&BP `(139.996 ÷ 94.151)^(1/3) - 1`; Intelligent Cloud `(137.791 ÷ 72.944)^(1/3) - 1`; MPC `(54.052 ÷ 44.820)^(1/3) - 1`. No base segment CAGR exceeds 1.2 times its disclosed three-year trajectory, so a peer-rate override is unnecessary.

Tie-out 8 — Five-year historical arithmetic for every forward product row: PASS

The displayed CAGR can differ slightly from the appendices' full-precision year path. Even using displayed rounded CAGRs, every endpoint difference is less than 0.1%, well inside 1%.

Segment	Case and product	Reproduced five-year arithmetic	Appendix endpoint	Difference
P&BP	Bear M365 Commercial	101.997 × 1.0599^5 = 136.431	136.434	(0.002%)
P&BP	Bear M365 Consumer	9.175 × 1.0280^5 = 10.533	10.532	0.014%
P&BP	Bear LinkedIn	19.817 × 1.0320^5 = 23.197	23.194	0.014%
P&BP	Bear Dynamics	9.006 × 1.0420^5 = 11.063	11.062	0.008%
P&BP	Base M365 Commercial	101.997 × 1.1099^5 = 171.793	171.801	(0.004%)
P&BP	Base M365 Consumer	9.175 × 1.0799^5 = 13.475	13.475	(0.001%)
P&BP	Base LinkedIn	19.817 × 1.0780^5 = 28.849	28.846	0.011%
P&BP	Base Dynamics	9.006 × 1.0919^5 = 13.978	13.980	(0.014%)
P&BP	Bull M365 Commercial	101.997 × 1.1299^5 = 187.840	187.849	(0.005%)
P&BP	Bull M365 Consumer	9.175 × 1.1119^5 = 15.593	15.591	0.014%
P&BP	Bull LinkedIn	19.817 × 1.0999^5 = 31.901	31.902	(0.003%)
P&BP	Bull Dynamics	9.006 × 1.1199^5 = 15.865	15.865	(0.003%)
Intelligent Cloud	Bear Server and cloud	129.425 × 1.0850^5 = 194.611	194.742	(0.067%)
Intelligent Cloud	Bear Enterprise services	8.260 × 1.0020^5 = 8.343	8.342	0.011%
Intelligent Cloud	Base Server and cloud	129.425 × 1.1510^5 = 261.454	261.657	(0.078%)
Intelligent Cloud	Base Enterprise services	8.260 × 1.0340^5 = 9.763	9.761	0.020%
Intelligent Cloud	Bull Server and cloud	129.425 × 1.2100^5 = 335.695	335.457	0.071%
Intelligent Cloud	Bull Enterprise services	8.260 × 1.0540^5 = 10.744	10.742	0.023%
MPC	Bear Windows and Devices	17.084 × 0.9700^5 = 14.671	14.671	0.000%
MPC	Bear XBOX	21.790 × 0.9500^5 = 16.861	16.861	0.000%
MPC	Bear Search	15.176 × 1.0200^5 = 16.756	16.756	0.000%
MPC	Base Windows and Devices	17.084 × 1.0000^5 = 17.084	17.084	0.000%
MPC	Base XBOX	21.790 × 1.0000^5 = 21.790	21.790	0.000%
MPC	Base Search	15.176 × 1.0600^5 = 20.309	20.309	0.000%
MPC	Bull Windows and Devices	17.084 × 1.0200^5 = 18.862	18.862	0.000%
MPC	Bull XBOX	21.790 × 1.0400^5 = 26.511	26.511	0.000%
MPC	Bull Search	15.176 × 1.1000^5 = 24.441	24.441	0.000%

Files: each appendix B Section 8 year path and Section 10 rollup. The exponent is five in every row.

Tie-out 9 — Recency anchor: PASS

The base first-forward-year revenue is reconstructed from the segment product schedules. P&BP is `101.997 × 1.13 + 9.175 × 1.10 + 19.817 × 1.09 + 9.006 × 1.11 = 156.9463`. Intelligent Cloud is `129.425 × 1.30 + 8.260 × 1.05 = 176.9255`. MPC is `17.084 + 21.790 + 15.176 × 1.06 = 54.96056`. Combined FY2027 revenue is therefore **388.83236**, or `388.83236 ÷ 331.839 - 1 = 17.175%` growth.

The most recent reproducible TTM growth is `331.839 ÷ 281.724 - 1 = 17.789%`. The base first-year rate is 0.614 percentage points lower, or 3.45% lower on a relative growth-rate basis, comfortably within 10%. It is also consistent with the appendix evidence: Q4 consolidated revenue grew 18%; Q1 FY2027 Intelligent Cloud guidance was 33%-34%; P&BP Q4 grew 14%; and MPC Q4 declined 4%. Files: `data_package.md` Sections 2, 5, and 6; appendix B Section 8 schedules.

Tie-out 10 — Period and horizon integrity: PASS

The TTM is four standalone, non-overlapping quarters: Q1, Q2, Q3, and Q4 FY2026. Revenue sums to 331.839, Operating income to 155.237, and net income to 133.749. No cumulative YTD bridge is triggered and no half-year amount overlaps a quarter. The start date is 2026-06-30 and the endpoint is 2031-06-30; the elapsed period is exactly 5.0 calendar years. Every forward product formula in Tie-out 8 uses exponent five. FY2026 is used as a historical label only because it equals the TTM window; no FY2025 or earlier-quarter anchor substitutes for TTM.

Tie-out 11 — Valuation, unit bridge, hashes, and probability arithmetic: PASS

The recomputed quote-packet hash is `2ebeabb44bb6168b456c8f5fa7e9ad7c655a0aae92ae372ba7dc419610eb6e1c`; the recomputed statutory-bridge hash is `9a7b18b85f488842142d086e116f96e348771ab119454f08e3dd7389e597fbad`. The validated price is USD 464.72 per XNAS:MSFT common share, adjustment factor 1, depositary factor 1, class factor 1, split factor 1, and USD-to-USD FX factor 1.

Valuation arithmetic is bear `18.334126 × 15 = 275.0119`, base `28.888007 × 15 = 433.3201`, and bull `37.779420 × 15 = 566.6913`. Base cushion is `(433.3201 - 464.72) ÷ 464.72 = (6.7567%)`. Probabilities sum to `30% + 50% + 20% = 100%`. Weighted EPS is `18.334126 × 0.30 + 28.888007 × 0.50 + 37.779420 × 0.20 = 27.500125`. The base, not bull, controls the binary result.

SYNTHESIS CLEARED — 11/11 TIE-OUTS PASSED

P/E 15 gate: FAIL — cushion (6.76%)

Appendix CS - Compounder Score

Microsoft Corporation (MSFT) - Compounder Score

Analysis date: **2026-08-02** Reporting and quote currency: **USD** Valuation security: **XNAS:MSFT Microsoft common share** Current price: **USD 464.72**, the completed-session close on **2026-07-31** TTM end: **2026-06-30** Forward horizon: **2031-06-30**, exactly **5.0 calendar years** Starting diluted shares: **7,453 million** Trade execution authorized: **NO**

1. Executive Verdict

Microsoft scores **70/100** under the diagnostic CompounderScorer rubric: **69/80** for Business Quality and **1/20** for Price and 20% Return Underwriting. The score-implied classification is **Buy only at lower price**. That classification is diagnostic only. It does not add a fourth ER2 gate, does not override the production ER2 verdict, and does not authorize a trade. The governing ER2 evidence remains separate: Management is **YELLOW**, Moat is **PASS**, and the cleared synthesis reports that the P/E 15 entry gate **FAILS** with a **(6.76%)** base-case cushion.

The evidence supports an exceptional incumbent franchise but not a dream investment at USD 464.72. A five-year median R&D- and lease-adjusted ROIC of **30.95%** remains excellent. Organic five-year ROIIC is approximately **33.82%** on the deliberately conservative reported-NOPAT convention and **35.07%** when both NOPAT and the R&D asset are adjusted consistently. The acquisition-inclusive result falls to **23.50%**, and the balance-sheet change method produces only **20.57%** over five years and **20.50%** over three years. Those lower readings matter because the Activision acquisition, finance leases, datacenter commitments, and capitalized R&D are real capital. Microsoft is still creating value above a reasonable cost of capital, but incremental economics are materially below the legacy headline ROIC.

Cash conversion is the central quality limitation. Five-year cumulative FCF/NOPAT was **73.69%**, yet FY2026 FCF/NOPAT fell to **53.27%** as cash capex reached USD 115.948 billion. FCF compounded only **3.60%** from FY2021 to FY2026 while revenue compounded **14.57%** and normalized NOPAT compounded **17.30%**. Stock-based compensation is controlled at **3.74% of revenue**, and diluted shares declined **0.41% annually** over five years, but SBC consumed **18.52% of FY2026 FCF**. The balance sheet has USD 36.549 billion of conventional net cash and net debt/EBITDA of **(0.18)x**, so solvency is not the issue. The issue is whether unprecedented AI infrastructure and contractual commitments earn enough cash return.

Mandatory security-return underwriting produces finite gross USD annualized shareholder IRRs of **(5.51%) bear, 8.11% base, and 18.41% bull**. Using the synthesis weights of **30% bear, 50% base, and 20% bull**, probability-weighted terminal shareholder wealth is **USD 664.4596 per share** and its five-year CAGR is **7.41%**. This is calculated only as `(probability-weighted terminal wealth / 464.72)^(1/5) - 1`; it is not the arithmetic average of scenario IRRs. Even the bull case does not reach 20%. The base-case price that would produce a 20% return under the same terminal wealth assumptions is approximately **USD 275.79**, or **40.65% below** the current price.

The conclusion is deliberately split. Microsoft clears the evidence bar for a strong dream-business candidate at **69/80**, narrowly above the 65/80 quality threshold. It does not clear the price bar: **1/20** reflects a base IRR below 10%, a negative bear IRR, a 20% case that requires a roughly **39.27x** terminal P/E, and a current FCF yield of only **1.93%**. A great company is not automatically a great security at any price.

2. Data Source Map

The analysis uses the current, gate-cleared Microsoft production chain. The obsolete April/July P&BP file with the longer filename was not used; the R-cleared file named in `gate_manifest.json` controls.

Need	Controlling source	Period / anchor	Use in this score	Confidence
Price, listing, security unit, shares, FX	`quote_packet.json`, SHA-256 `2ebeabb44bb6168b456c8f5fa7e9ad7c655a0aae92ae372ba7dc419610eb6e1c`	USD 464.72 on 2026-07-31; 7,453M shares	Market capitalization, current multiples, return starting value	High
Reconciled TTM financials	`quant_foundation.md`, 8/8 checks passed	TTM/FY2026 ended 2026-06-30	Revenue, OI, NI, OCF, capex, FCF, debt, cash, shares, SBC	High
Historical statements and capital allocation	`data_package.md`, SHA-256 `4a26dedce7242f8fd8b15512e5a330f2404d050ed0833fa16320a448b251debc`	FY2022-FY2026 plus current quarter detail	Growth, ROIC, capex, acquisitions, balance sheet, disclosures	High

Need	Controlling source	Period / anchor	Use in this score	Confidence
P&BP economics and forecast	`appendix_B_productivity_business_processes.md`, R-cleared SHA-256 `5fb5312d077054a5fe28ef910c4c8cdacfae65cf023fe4c89aad1aea65d39fb0`	TTM to 2031-06-30	Runway, margins, Copilot uncertainty, scenario endpoints	High
Intelligent Cloud economics and forecast	`appendix_B_intelligent_cloud.md`, R-cleared SHA-256 `b649c3726f4e5190ad652627b1db3c8c1b3e1c79bcf8adaa58448dc33c4a83c6`	TTM to 2031-06-30	Azure runway, capital intensity, scenario endpoints	High
MPC economics and forecast	`appendix_B_more_personal_computing.md`, R-cleared SHA-256 `a5403765dc1def84563f666d4b043c0dbfc9b49b9c8086c72cd2be47e5d594ff`	TTM to 2031-06-30	Windows, XBOX, Search, scenario endpoints	High
Management quality	`appendix_management.md`, SHA-256 `d78831177ee6ae477e86ff5f735324e1e9416a2e35cf5b1f25127d09bf30558f`	Analysis date 2026-08-02	YELLOW gate, incentives, acquisition and capex discipline	High
Moat durability	`appendix_moat.md`, SHA-256 `4bcf8f041904656b95fe9ecc1b9381566bd42ca448963b4d4f6fdbe792f51760`	2046 test dated 2046-08-02	PASS gate, pricing, switching costs, disruption risks	High
Statutory horizon model	`appendix_synthesis.md`, SHA-256 `d1968848fb503e2a2b84933b8749053cad800952effdea3633d96ca47ecae8f8`	11/11 tie-outs; 2031-06-30	Revenue, OI, NI, EPS, shares, probabilities	High
Annual statement cross-check	Same-run FMP annual income, balance-sheet and cash-flow pulls	FY2021-FY2026	Recalculated CAGRs, ROIIC, SBC and valuation ratios	Medium-high; official filing controls
Historical valuation cross-check	Same-run FMP annual ratios pull, SHA-256 `fbd79f93f15eb21aeeca2f1b2574d8569e1d1958b4e46ae4597a6f2199087869`	Fiscal-year ends FY2021-FY2026	Source-bound exit P/E range	Medium-high
R&D capitalization history	Same-run SEC companyfacts archive, SHA-256 `f8aae2965b20ad0df44bdf7ccbedf797d275b6b8dc030154a7a311361bb7246f`	FY2016-FY2026 R&D facts	Five-year R&D asset and adjusted ROIC	High

The quote packet and synthesis share unit are identical common shares. There is no ADR ratio, share-class conversion, split adjustment, or currency conversion. USD reporting EPS therefore maps directly to USD value per XNAS-listed common share.

3. Key Financial and Quality Metrics

Normalized NOPAT uses a **19% tax rate**, rounded from the recent recurring tax range, rather than FY2022's unusually low effective rate. Conventional invested capital equals equity plus official borrowings less cash and short-term investments. The adjusted version adds lease liabilities and a five-year straight-line R&D asset; goodwill remains included. That is intentionally skeptical because it refuses to describe datacenter leases or internally created software as costless capital.

Metric	Recalculated result	Formula / interpretation
Current market capitalization	USD 3,463.558B	464.72 x 7,453M diluted shares
Conventional enterprise value	USD 3,427.009B	Market cap + 40.294 debt - 76.843 cash and short-term investments
Current P/E	25.90x	Market cap / TTM net income of 133.749B
EV / normalized NOPAT	27.25x	EV / 125.742B NOPAT
EV / statutory operating income	22.08x	EV / 155.237B OI

Metric	Recalculated result	Formula / interpretation
EV / FCF	51.16x	EV / 66.987B FCF
Market cap / FCF	51.70x	Market cap / 66.987B FCF
FCF yield	1.93%	66.987B / market cap
Cash dividend yield	0.76%	FY2026 dividends paid / market cap
Conventional net debt / EBITDA	(0.18)x	Net cash of 36.549B / EBITDA of 207.519B
Five-year revenue CAGR	14.57%	FY2021 168.088B to FY2026 331.839B
Five-year normalized NOPAT CAGR	17.30%	FY2021 to FY2026 at constant 19% tax
Five-year FCF CAGR	3.60%	FY2021 56.118B to FY2026 66.987B
Latest FCF / normalized NOPAT	53.27%	FY2026 66.987B / 125.742B
Five-year cumulative FCF / NOPAT	73.69%	FY2022-FY2026 cumulative cash conversion
Five-year cumulative FCF / net income	71.95%	FY2022-FY2026 cumulative ratio
Five-year cumulative CFO / net income	131.02%	Earnings are supported before growth capex
Five-year median adjusted ROIC	30.95%	R&D- and lease-adjusted, goodwill included
Latest adjusted ROIC	25.61%	FY2026 adjusted NOPAT / adjusted average invested capital
Five-year organic ROIIC	33.82%	Conservative reported-NOPAT numerator / net capex + WC + R&D asset growth
Five-year acquisition-inclusive ROIIC	23.50%	Consistently adjusted NOPAT numerator; includes 100.561B net acquisitions
Five-year balance-sheet ROIIC	20.57%	Delta normalized NOPAT / delta conventional invested capital
Three-year balance-sheet ROIIC	20.50%	FY2023-FY2026 delta calculation
Five-year organic reinvestment rate	44.64%	204.321B cumulative reinvestment / 457.734B cumulative NOPAT
Acquisition-inclusive reinvestment rate	66.61%	304.882B / cumulative NOPAT
Five-year diluted-share CAGR	(0.41%)	7,608M FY2021 to 7,453M FY2026
Three-year diluted-share CAGR	(0.08%)	7,472M FY2023 to 7,453M FY2026
SBC / revenue	3.74%	12.405B / 331.839B
SBC / gross profit	5.50%	12.405B / 225.465B
SBC / operating cash flow	6.78%	12.405B / 182.935B
SBC / free cash flow	18.52%	12.405B / 66.987B

The split between CFO and FCF is economically decisive. CFO/NI above 100% confirms that revenue recognition and working-capital accounting are not fabricating earnings. FCF/NI near 50% in FY2026 confirms that the physical investment needed to deliver AI and cloud demand is real. Accounting quality is high; cash economics are simply more capital-intensive.

4. Rubric Scorecard

Category	Score	Maximum	Skeptical conclusion
Incremental Returns on Capital	20	25	High but falling; M&A- and balance-sheet-inclusive readings are only low-20s
Reinvestment Runway	19	20	Large, multi-product runway; returns on unprecedented AI capacity remain unproven
Durability of Moat	14	15	Enterprise control-plane moat passes 2046; AI interface and commodity compute remain threats
Accounting Honesty and Financial Quality	9	10	Clean bridge and strong CFO; FCF conversion is the deduction
Capital Allocation Discipline	7	10	Strong long record, but Activision and the AI build have not yet proven per-share returns

Category	Score	Maximum	Skeptical conclusion
Price and 20% Return Underwriting	1	20	Base IRR is 8.11%; even bull is only 18.41%
Business Quality Score	**69**	**80**	Strong dream-business evidence, with capital-intensity and management-condition caps
Compounder Score	**70**	**100**	Buy only at lower price under this diagnostic rubric

The sub-score arithmetic is explicit.

Rubric item	Score	Maximum	Evidence
1A. Normalized ROIC is high	5	5	Five-year median adjusted ROIC 30.95%
1B. ROIIC is high	6	8	Organic 33.82%; acquisition-inclusive 23.50%; balance-sheet 20.57%
1C. ROIIC is not deteriorating sharply	1	3	Adjusted ROIC fell from 41.95% in FY2022 to 25.61% in FY2026
1D. Unit economics support returns	3	3	P&BP 59.9% margin, IC 41.3%, high incremental software margins
1E. Cash conversion is real	2	3	Five-year conversion is sound, but FY2026 FCF/NOPAT is 53.27%
1F. ROIC is not an artifact	3	3	It remains 25.61% after adding R&D assets and leases and retaining goodwill
2A. Large remaining opportunity	5	5	Cloud, security, data, agents and enterprise workflow remain large
2B. Proven reinvestment at scale	4	5	Azure and M365 are proven; the current physical-capital scale is not
2C. Organic growth opportunity	4	4	Base segment model supports 10.98% consolidated revenue CAGR
2D. Repeatable expansion playbook	3	3	M365, Azure, GitHub, security, Dynamics and partner distribution
2E. Market structure supports growth	2	2	Enterprise procurement and switching costs favor durable incumbents
2F. Growth avoids ROIC collapse	1	1	Base economics remain value-creating, though the cushion is narrowing
3A. Clear source of advantage	4	4	Identity, permissions, workflow history, compliance and distribution
3B. Pricing power	3	3	M365 price/mix and high margins support pricing evidence
3C. Competitive evidence	3	3	Scale and growth persist against AWS, Google and software specialists
3D. Customer stickiness	2	2	Tenant, data, security and migration costs are substantial
3E. Resilience through stress	2	2	Margins remained high through cloud competition and AI investment
3F. Low disruption risk	0	1	External agents and commodity AI compute create meaningful disruption risk
4A. Clean revenue and earnings	2	2	Statutory bridge has zero residual and 11/11 synthesis tie-outs pass
4B. Cash flow supports earnings	1	2	CFO supports earnings, but capex drives a material FCF shortfall
4C. Conservative SBC and dilution	2	2	SBC recognized as cost; shares shrink modestly
4D. Balance-sheet strength	2	2	Conventional net cash, ample liquidity, no solvency stress
4E. Transparent disclosures	1	1	Segment OI and capex mechanics are clear; product returns remain undisclosed

Rubric item	Score	Maximum	Evidence
4F. No governance/accounting flags	1	1	No material weakness, restatement or dual-class control issue
5A. Rational reinvestment priority	2	2	Strategic coherence is strong, though return proof is pending
5B. Acquisition discipline	1	2	LinkedIn/GitHub strong; Activision outcome mixed
5C. Buyback discipline	1	2	Buybacks offset dilution but are not demonstrably price-sensitive
5D. Incentive alignment	1	2	Equity-heavy pay lacks a direct ROIC or FCF-conversion hurdle
5E. Owner mentality	1	1	Long-duration investment and per-share orientation are evident
5F. Evidence from past decisions	1	1	Cloud and M365 decisions created substantial value
6A. Base IRR at least 20%	0	6	Base gross USD IRR is 8.11%
6B. Conservative exit multiple clears	0	4	A contracted 23x base exit does not clear; 20% needs about 39.27x
6C. Bear case acceptable	0	3	Bear IRR is (5.51%)
6D. Reverse DCF is beatable	0	3	Roughly 23.93% NOPAT CAGR is required under the base EV/NOPAT exit
6E. Multiple does not price perfection	0	2	25.90x earnings and 51.70x FCF price substantial success
6F. Cash returns help	1	2	Dividend yield 0.76% and modest net repurchase support

5. ROIIC and Reinvestment Analysis

The starting point is not FMP's precomputed ROIC. The score rebuilds the denominator. Conventional end invested capital is `equity + official borrowings - cash - short-term investments`. Average invested capital is the average of current and prior year end. Adjusted invested capital adds all identified lease liabilities and a five-year R&D asset. The R&D asset at year end is current R&D plus 80%, 60%, 40%, and 20% of the prior four years' expense. Adjusted operating profit adds current R&D and subtracts straight-line amortization of the prior five cohorts. Goodwill is retained so acquisition premiums remain charged to the business.

Fiscal year	Data-package simple ROIC	R&D- and lease-adjusted ROIC	Interpretation
FY2022	79.9%	41.95%	Asset-light legacy mix and low reported tax inflated the simple figure
FY2023	56.5%	34.95%	Capital base began expanding faster than after-tax operating profit
FY2024	46.3%	30.95%	Activision goodwill and infrastructure investment enter the denominator
FY2025	39.5%	27.14%	Datacenter and lease growth further dilute returns
FY2026	35.9%	25.61%	Still exceptional, but far below the legacy headline

The five-year median adjusted result is 30.95%. The trend, not merely the level, drives the 1C deduction. A company can remain highly profitable while incremental returns deteriorate enough to disappoint shareholders who paid for perfection.

The five-year organic reinvestment bridge from FY2021 to FY2026 is also explicit. Net capex totaled **USD 153.674 billion**, cash working-capital investment totaled **USD 10.363 billion**, and the capitalized R&D asset increased **USD 40.284 billion**. Total organic reinvestment was therefore **USD 204.321 billion**. Normalized reported NOPAT increased **USD 69.110 billion**, producing the conservative **33.82%** organic ROIIC. If the numerator is adjusted consistently for R&D capitalization, the result is **35.07%**. Net acquisitions of **USD 100.561 billion**, dominated by Activision, reduce the acquisition-inclusive adjusted ROIIC to **23.50%**.

The balance-sheet method is an important red-team check. Conventional end invested capital rose from USD 69.878 billion in FY2021 to USD 405.838 billion in FY2026, an increase of USD 335.960 billion. Dividing the USD 69.110 billion normalized-NOPAT gain by that increase gives **20.57%**. The analogous FY2023-FY2026 result is **20.50%**. These measures capture retained capital and accounting balances that the cash bridge may classify differently. They are lower than the organic cash ROIIC and prevent a falsely precise claim that every marginal dollar earns mid-30s returns.

Reinvestment remains value creating, but the burden has changed. Five-year organic reinvestment equals 44.64% of cumulative NOPAT; including acquisitions raises it to 66.61%. Microsoft can absorb capital at scale, which is rare. The risk is that the capital is increasingly physical, contracted, and exposed to utilization and obsolescence rather than merely expensed software development. The main monitoring test is whether adjusted ROIC stabilizes above 25% while FCF conversion recovers toward at least 65%.

6. Runway Analysis

The evidence supports a long runway, but not a single undifferentiated TAM. P&BP's runway comes from pricing, premium bundles, security and compliance attach, Microsoft 365 Copilot, Dynamics agents, LinkedIn monetization, and broader workflow ownership. Microsoft disclosed more than 30 million paid Microsoft 365 Copilot seats by Q4 FY2026. That is genuine distribution evidence, but exact revenue, realized ARPU, discounting, renewal, inference cost, and product margin remain undisclosed. The R-cleared base case therefore compounds P&BP revenue at 10.26% while holding its horizon margin at 59.4%, slightly below TTM.

Intelligent Cloud has the largest dollar runway and the largest capital risk. Azure surpassed USD 100 billion of annual revenue, Q4 Azure growth was 43%, and commercial RPO reached USD 678 billion. The segment's base horizon revenue of USD 271.418 billion implies a 14.5% CAGR, while its 40.5% terminal margin stays below the 41.3% TTM level. This is sensible: capacity demand is powerful, but depreciation, power, accelerators, construction, custom silicon, pricing, workload portability, and fleet utilization determine whether growth creates value. Approximately 45% of commercial RPO was associated with OpenAI at Q2, so backlog quality cannot be treated as homogeneous subscription revenue.

MPC supplies strategic distribution but not a company-wide growth engine. Windows and XBOX weakened into Q4, while Search remained the offset. The base model keeps Windows and XBOX flat and grows Search 6%, producing only 1.8% segment revenue CAGR. The XBOX reset after the Activision acquisition is a capital-allocation test, not free upside. A bull outcome requires Windows refresh monetization, XBOX repair, and Search economics that withstand AI inference and distribution costs.

The aggregate base case reaches USD 558.703 billion of revenue by 2031-06-30, a 10.98% CAGR from USD 331.839 billion. This is a credible runway because it is built from three R-cleared segments and decelerating product paths. The deduction is not lack of demand. It is uncertainty over the return earned on the capacity needed to satisfy that demand. That distinction supports 19/20 rather than a perfect runway score.

7. Moat Analysis

The moat appendix passes both the current moat gate and the exact 2046-08-02 durability test. Microsoft's strongest advantage is the enterprise control plane: identity, permissions, email, files, meetings, workflow history, security, compliance, auditability, administration, developer tooling, and procurement. Those assets create switching costs and make Microsoft a credible distribution point for adjacent products. LinkedIn adds a direct professional-network effect. Azure gains from hybrid compatibility, Windows Server, SQL Server, Entra, Defender, GitHub, Fabric, and the partner ecosystem.

Pricing power is best evidenced in P&BP, where FY2026 revenue grew 15.9% at a 59.9% margin and Microsoft 365 revenue grew faster than seats in relevant periods. Intelligent Cloud pricing is less uniform: higher-level databases, security, identity, developer, and data services are differentiated, while raw compute is contestable. MPC's moat is mixed, with Windows enterprise compatibility stronger than consumer devices, XBOX, or search.

The 1-point moat deduction is for disruption risk. A cross-platform AI agent could own the user interface while treating Microsoft as storage and identity infrastructure. AI compute could become price-transparent and multi-cloud. Regulation could weaken bundling or licensing advantages. A security failure could damage trust across the integrated control plane. These are meaningful but not thesis-destroying today. The moat is concrete enough to explain in one paragraph and durable enough to pass; it is not invulnerable.

8. Accounting and Capital Allocation Analysis

Accounting quality is high. Revenue, three reportable-segment Operating-income lines, statutory Operating income, pretax income, tax, and net income reconcile with zero residual. The synthesis passes 11/11 tie-outs. There is no material weakness, restatement, related-party insider structure, or dual-class governance problem. OpenAI is an economically material investee, customer, partner, and counterparty, but that concentration is disclosed and treated as an underwriting risk rather than hidden accounting.

Cash flow requires a more nuanced judgment. FY2026 operating cash flow of USD 182.935 billion was 136.8% of net income, which argues against low-quality accrual earnings. Cash capex of USD 115.948 billion then reduced FCF to USD 66.987 billion. Total capex including finance leases was higher still. The extension of selected datacenter and office-building useful lives and the shift of future leases from finance to operating classification do not create cash or utilization; the score gives no economic credit for presentation changes.

SBC is a real cost. FY2026 SBC was USD 12.405 billion, or 3.74% of revenue and 18.52% of FCF. Cash repurchases were USD 22.271 billion and dividends were USD 26.445 billion. Diluted shares nevertheless declined only modestly, showing that a meaningful portion of repurchases offsets employee issuance and other dilution. The five-year share-count CAGR of negative 0.41% is positive per-share stewardship, but not aggressive financial engineering. Buybacks receive only 1/2 because the evidence does not show price-sensitive execution at a 25.90x P/E and 1.93% FCF yield.

The conventional balance sheet is strong: USD 76.843 billion of cash and short-term investments, USD 40.294 billion of official borrowings, USD 36.549 billion of net cash, and a 1.23x current ratio. However, that snapshot understates economic commitments. Lease liabilities, construction commitments, purchase commitments, and the broader USD 743.821 billion contractual-obligation schedule make capacity utilization load-bearing. Balance-sheet risk is return dilution, not near-term insolvency.

Capital allocation earns 7/10. Nadella and Hood built Azure and Microsoft 365 into extraordinary franchises, kept the balance sheet sound, funded R&D, and prevented dilution. LinkedIn and GitHub are strong acquired assets. Activision remains mixed, with weaker XBOX results, impairment and restructuring evidence. The current AI build is strategically coherent but not yet proven by FCF or ROIIC. Incentives are equity-heavy and performance-based, yet they lack a direct ROIC or FCF-conversion hurdle. Those gaps are consistent with the Management YELLOW gate.

9. 20% Return Underwriting

Exit valuation and distribution assumptions

The return model uses terminal statutory EPS times scenario-specific P/E. It does not use the ER2 P/E 15 gate as an automatic exit multiple. The current P/E is 25.90x. The same-run fiscal-year-end FMP ratio history spans approximately 20.72x to 38.51x for FY2021-FY2026, with a median near 34.20x. Against that evidence, **18x bear, 23x base, and 28x bull** are conservative and differentiated. Base contracts from today's multiple; bear sits below the observed six-year low; bull is above today's multiple but well below the historical median and requires the stronger operating outcome.

Terminal net cash/debt is an explicit bridge assumption, not hidden in the multiple. Bear ends with **USD 25B net debt** after poor cash conversion and continued commitments. Base ends with **USD 50B net cash**. Bull ends with **USD 100B net cash**. Terminal enterprise value is derived as `terminal equity value - terminal net cash`; a negative net-cash number means debt and therefore raises enterprise value relative to equity value.

Distributions are dividends only and are not reinvested. Buybacks are already reflected in the synthesis diluted-share paths. Starting dividend per share is FY2026 dividends paid of USD 26.445B divided by 7,453M shares, or USD 3.5482. Bear, base, and bull dividend-per-share growth assumptions are 4%, 7%, and 10%, respectively, for five payments through 2031-06-30. This produces cumulative distributions of USD 19.9871, USD 21.8333, and USD 23.8286 per share. No special dividend is assumed.

Operating and valuation bridge

Measure	Bear	Base	Bull
Probability	30%	50%	20%
Current price per share	USD 464.72	USD 464.72	USD 464.72
Horizon start	2026-06-30	2026-06-30	2026-06-30
Horizon end	2031-06-30	2031-06-30	2031-06-30
Exact horizon	5.0 years	5.0 years	5.0 years

Measure	Bear	Base	Bull
Horizon revenue	USD 432.592829B	USD 558.702911B	USD 667.221083B
Revenue CAGR	5.45%	10.98%	14.99%
Horizon statutory Operating income	USD 174.894248B	USD 261.207475B	USD 332.027100B
Horizon OI margin	40.43%	46.75%	49.76%
Horizon net income	USD 135.796456B	USD 212.965980B	USD 277.608951B
Horizon diluted shares	7,406.759M	7,372.124M	7,348.153M
Horizon EPS	USD 18.334126	USD 28.888007	USD 37.779420
Exit valuation method	Statutory EPS x P/E	Statutory EPS x P/E	Statutory EPS x P/E
Exit P/E	18.0x	23.0x	28.0x

Terminal wealth measure	Bear	Base	Bull
Terminal enterprise value	USD 2,469.336208B	USD 4,848.217540B	USD 7,673.050628B
Terminal net cash / (net debt)	USD (25.000000)B	USD 50.000000B	USD 100.000000B
Terminal equity value	USD 2,444.336208B	USD 4,898.217540B	USD 7,773.050628B
Diluted shares	7,406.759M	7,372.124M	7,348.153M
Terminal equity value per share	USD 330.014276	USD 664.424193	USD 1,057.823732
Cumulative dividends / distributions per share	USD 19.987124	USD 21.833325	USD 23.828567
Terminal shareholder wealth per share	USD 350.001400	USD 686.257518	USD 1,081.652298
Gross USD annualized shareholder IRR	**(5.51%)**	**8.11%**	**18.41%**

Every row reconciles. Bear equity equals enterprise value plus negative USD 25B net cash; base and bull equity equal enterprise value plus positive net cash. Equity value per share equals equity value divided by the scenario diluted-share count. Terminal shareholder wealth equals terminal equity value per share plus cumulative dividends. IRR equals `(terminal shareholder wealth / 464.72)^(1/5) - 1`.

Probability-weighted return

Weights sum exactly to **30% + 50% + 20% = 100%**. Probability-weighted terminal shareholder wealth is:

`0.30 x 350.001400 + 0.50 x 686.257518 + 0.20 x 1,081.652298 = USD 664.459639 per share`.

The probability-weighted annualized return is:

`(664.459639 / 464.72)^(1/5) - 1 = 7.412654%`, displayed as **7.41%**.

The method is exactly **CAGR_OF_PROBABILITY_WEIGHTED_TERMINAL_WEALTH**. It is not the probability-weighted arithmetic average of the three scenario IRRs. The arithmetic average would answer a different question because scenario IRRs are nonlinear transformations of wealth.

Why the 20% hurdle fails

At the base terminal wealth of USD 686.2575, the maximum starting price for a 20% five-year return is `686.2575 / 1.2^5 = USD 275.79`. At the actual USD 464.72 price, the shortfall is 40.65%. Alternatively, holding base EPS and dividends, the terminal P/E needed to deliver 20% is approximately **39.27x**, materially above today's 25.90x and above the chosen bull multiple. The reverse-EV diagnostic requires approximately **23.93% annual NOPAT growth** if the exit EV/NOPAT is the base 23.20x; the synthesis base NOPAT CAGR is only about 10.69%, and bull is about 16.42%.

Cash returns do not close the gap. The current dividend yield is 0.76%, and share shrinkage is modest. The 20% case would need a much lower entry price, substantially stronger earnings than the R-cleared bull case, or an aggressive terminal multiple. None is a confident base assumption.

10. Hard Veto Checklist

Hard-veto test	Result	Evidence
ROIIC below cost of capital with no path	PASS	Conservative methods remain near or above 20%

Hard-veto test	Result	Evidence
Reported ROIC is an accounting artifact	PASS	Adjusted ROIC remains 25.61% after leases, R&D and goodwill
Growth requires persistent external financing	PASS	Strong CFO, net cash and ample liquidity
Share count rises materially	PASS	Five-year diluted-share CAGR is (0.41%)
Large acquisitions lack return evidence	WATCH	Activision is mixed; acquisition-inclusive ROIIC is 23.50%
FCF structurally lags earnings	WATCH	FY2026 FCF/NOPAT is 53.27%; multi-year conversion remains 73.69%
Concentration, regulation, dependency or leverage can impair equity	WATCH	OpenAI concentration, regulation and cloud capital intensity matter; leverage is low
20% return requires terminal multiple expansion	**FAIL**	Base needs about 39.27x terminal P/E to reach 20%
Current price needs flawless execution	**FAIL**	Even R-cleared bull produces only 18.41% IRR
Moat cannot be explained clearly	PASS	Enterprise control plane, switching costs and procurement are specific
Accounting or governance impairs trust	PASS	Clean statutory bridge, effective controls, no restatement or dual class
Balance-sheet risk could wipe out equity	PASS	Conventional net cash and very strong interest capacity

The two hard vetoes are valuation vetoes. They do not say Microsoft is a poor business. They say the price does not support the rubric's 20% target without assumptions the evidence does not warrant.

11. Final Decision

Score-implied classification: Buy only at lower price. The 70/100 score is just enough to avoid the rubric's sub-70 Reject bucket because Microsoft earns 69/80 on business quality. It is not Investable now: the valuation score is 1/20, base IRR is 8.11%, bear IRR is negative, and the probability-weighted IRR is 7.41%. The 20% case requires multiple expansion or a price near USD 275.79 under the settled base terminal wealth.

This diagnostic remains separate from ER2. Management YELLOW, Moat PASS, and the P/E 15 FAIL with a (6.76%) cushion determine the production ER2 decision under the framework's gate matrix. The score neither rescues nor worsens that result mechanically. It provides a quantified explanation: the company is high quality, the runway and moat are credible, but cash returns on the current AI build are not yet proven and the security price capitalizes substantial success.

Compounder Score note: **Audited later by CSA; CS diagnostic is 70/100, implying Buy only at lower price because quality is strong but current valuation cannot support the 20% rubric.**

Business Quality Score note: **CS diagnostic is 69/80, above the 65/80 dream-business threshold, capped by declining adjusted ROIC, current FCF conversion, Activision uncertainty, and Management YELLOW conditions.**

20% Return UW Score note: **CS diagnostic is 1/20; gross USD bear/base/bull IRRs are (5.51%)/8.11%/18.41%, and probability-weighted terminal-wealth CAGR is 7.41%, so the 20% stretch hurdle fails.**

The primary monitoring priorities are numerical: recover TTM FCF/net income toward at least 65%, hold adjusted ROIC above 25%, prevent cash capex/revenue from remaining above 30% without improving conversion, stabilize Intelligent Cloud margin near 40%, keep P&BP margin in the high-50s, and demonstrate positive XBOX growth without another material impairment. A lower quote can improve security return immediately; operating evidence must improve the quality of terminal wealth rather than merely raise revenue.

12. Machine-Readable JSON

The binding structured artifact is `compounder_score.json` in the same Microsoft directory. It contains the core score fields, category and subcategory scores, threshold tests, recalculated metrics, hard vetoes, exact source hashes, and the complete `security_return_underwriting` object. Scenario weights sum to 100, every gross USD IRR is finite, and the probability-weighted method is `CAGR_OF_PROBABILITY_WEIGHTED_TERMINAL_WEALTH`.

The Markdown and JSON bind to the same decisive values: current price USD 464.72; dates 2026-06-30 to 2031-06-30; weights 30/50/20; terminal wealth per share USD 350.001400/USD 686.257518/USD 1,081.652298; gross USD IRRs (5.5122%)/8.1083%/18.4075%; weighted terminal wealth USD 664.459639; and weighted CAGR 7.412654%.

`trade_execution_authorized` is false.

Appendix CSA - Scoring Audit

Microsoft Corporation (MSFT) - Scoring Audit

Analysis date: **2026-08-02** Reporting and return currency: **USD** Valuation security: **XNAS:MSFT common share** Current price: **USD 464.72** at the completed 2026-07-31 session TTM end: **2026-06-30** Forward horizon: **2031-06-30**, exactly **5.0 years** Trade execution authorized: **NO**

This audit is bound to `appendix_compounder_score.md` SHA-256 `358e4b3bc836229276f42fc1bae17d7b806136204148a2fc96094d5734cbea51` and `compounder_score.json` SHA-256 `a9b1db0ecbf77047756a2356a8d88d67cddd5f345b9d5377f9ce38d4ee0e557d`. It also uses the cleared QF, D, three R-cleared segment appendices, Management, Moat, and Synthesis artifacts identified in `gate_manifest.json`; the sealed quote packet hash is `2ebeabb44bb6168b456c8f5fa7e9ad7c655a0aae92ae372ba7dc419610eb6e1c`, and the statutory bridge hash is `9a7b18b85f488842142d086e116f96e348771ab119454f08e3dd7389e597fbad`. The obsolete longer-name P&BP appendix is not an input. No score is allowed to borrow support from a stale report.

1. Original vs Audited Scores

Item	Original	Audited	Notes
Business Quality Score / 80	69/80	65/80	Four points removed from ROIIC, unit-economics proof, and reinvestment discipline
Valuation / 20% Return UW Score / 20	1/20	1/20	Return arithmetic is correct and the single cash-return point is supportable
Total Score / 100	70/100	66/100	Audited category arithmetic is 17 + 19 + 14 + 9 + 6 + 1
Classification	Buy only at lower price	Reject	The literal diagnostic rule says Reject below 70 or when a hard veto exists

The original Markdown and JSON agree on the original scores, classification, price, dates, and required returns. Original gross USD IRRs were **-5.512211668057909% bear**, **8.10832794645695% base**, and **18.40751392248503% bull**. The original probability-weighted gross USD return was **7.41265425011639%**, using 30%/50%/20% scenario probabilities and the required terminal-wealth method. The audit reproduces those values and preserves them as the audited IRRs because the scenario arithmetic closes.

The score-implied classification does not control the ER2 verdict. It is diagnostic only. However, the diagnostic label must follow its own published rules. The audited total is below 70, and the hard-veto screen contains two valuation failures. Either condition independently maps to **Reject** under the scorer's literal threshold language. Calling this `Buy only at lower price` would ignore the scorer's own Reject rule even though a lower price could plainly improve prospective returns.

2. Score Reductions and Reasons

Only three rubric decisions change. The remaining original deductions are preserved rather than counted again.

Rubric item	Original	Audited	Audit action and reason
1B. ROIIC is high	6/8	4/8	The controlling evidence clusters in the 15%-25% band once acquisitions and the full adjusted balance-sheet change are considered
1D. Unit economics support returns	3/3	2/3	Consolidated and segment margins are strong, but segment capital, Azure/Copilot unit costs, product margins, retention, and segment ROIC are undisclosed
5A. Rational reinvestment priority	2/2	1/2	Strategic coherence is supported, but unprecedented AI capacity and Activision have not yet demonstrated high per-share cash returns

The 1B reduction is the largest and is formula-driven. Five-year organic ROIIC is **33.8241993489%** on reported normalized NOPAT and **35.0694005321%** on an R&D-consistent numerator. Those are good results, but they are not the only valid readings. Acquisition-inclusive five-year ROIIC is **23.5022641532%**; conventional balance-sheet ROIIC is **20.5709042743%** over five years and **20.4974851499%** over three years. Extending the scorer's own adjusted-capital method through the balance-sheet change, including lease liabilities and the capitalized R&D asset, produces approximately **16.2619063506%**. The acquisition-inclusive and balance-sheet measures are more relevant to a company that spent USD 100.561 billion on net acquisitions during the measurement window and materially expanded lease-financed infrastructure. The 15%-25% rubric band therefore controls, yielding 4/8. This is a reduction, not a zero cap: ROIIC was calculated and remains above a reasonable cost of capital.

The following table reconstructs every subcategory. `Supported` means the governing files support the awarded points; `Partly supported` means evidence exists but is incomplete and the audited score reflects that limitation.

Rubric item	Evidence status	Original	Audited	Auditor conclusion
1A. Normalized ROIC high	Supported	5/5	5/5	Five-year median adjusted ROIC is 30.9486% with goodwill included
1B. ROIIC high	Calculation adjustment	6/8	4/8	Acquisition-inclusive and balance-sheet readings are 16.3%-23.5%
1C. ROIIC not deteriorating sharply	Supported	1/3	1/3	Adjusted ROIC fell from 41.95% to 25.61%
1D. Unit economics support returns	Partly supported	3/3	2/3	Strong margins, but critical product and segment capital data are absent
1E. Cash conversion real	Supported	2/3	2/3	Five-year conversion is adequate; FY2026 conversion is weak
1F. ROIC not an artifact	Supported after audit repair	3/3	3/3	Goodwill-included and goodwill-excluded calculations both remain high
2A. Large remaining opportunity	Supported	5/5	5/5	Actual cloud scale, RPO, product adoption, and segment growth support runway
2B. Proven reinvestment at scale	Partly supported	4/5	4/5	Historic platforms are proven; current physical-capital scale is not
2C. Organic growth opportunity	Supported	4/4	4/4	Three R-cleared segment builds support the base path
2D. Repeatable expansion playbook	Supported	3/3	3/3	M365, Azure, GitHub, security, Dynamics, and partner distribution are observable
2E. Market structure supports growth	Supported	2/2	2/2	Enterprise procurement and switching costs favor incumbency
2F. Growth avoids ROIC collapse	Partly supported	1/1	1/1	Returns are falling but remain value creating under conservative methods
3A. Clear source of advantage	Supported	4/4	4/4	Identity, permissions, workflow, compliance, and distribution are specific
3B. Pricing power	Supported	3/3	3/3	M365 price/mix and sustained P&BP margins provide observable evidence
3C. Competitive evidence	Supported	3/3	3/3	Scale and growth persist against large named competitors
3D. Customer stickiness	Supported	2/2	2/2	Migration, governance, data, and workflow costs are substantial
3E. Resilience through stress	Supported	2/2	2/2	Margins remained high through cloud competition and AI investment

Rubric item	Evidence status	Original	Audited	Auditor conclusion
3F. Low disruption risk	Supported deduction	0/1	0/1	Agent interfaces and commodity compute remain credible threats
4A. Clean revenue and earnings	Supported	2/2	2/2	Statutory bridge residuals are zero and synthesis passes 11/11
4B. Cash flow supports earnings	Supported deduction	1/2	1/2	CFO supports earnings, but cash capex depresses FCF materially
4C. Conservative SBC and dilution	Supported	2/2	2/2	SBC is quantified and modeled through the diluted-share path
4D. Balance-sheet strength	Supported	2/2	2/2	USD 36.549 billion conventional net cash and ample liquidity
4E. Transparent disclosures	Partly supported	1/1	1/1	Statutory and capex disclosure is strong despite product-return gaps
4F. No governance/accounting flags	Supported	1/1	1/1	No material weakness, restatement, or dual-class control issue
5A. Rational reinvestment priority	Partly supported	2/2	1/2	Strategy is coherent; current-cycle cash return is unproven
5B. Acquisition discipline	Partly supported	1/2	1/2	LinkedIn and GitHub help; Activision remains unresolved
5C. Buyback discipline	Partly supported	1/2	1/2	Repurchases offset dilution but are not shown to be price sensitive
5D. Incentive alignment	Partly supported	1/2	1/2	Pay lacks a direct ROIC or FCF-conversion hurdle
5E. Owner mentality	Supported	1/1	1/1	Long-duration investment and per-share stewardship are visible
5F. Evidence from past decisions	Supported	1/1	1/1	Cloud and Microsoft 365 created substantial value
6A. Base IRR at least 20%	Supported zero	0/6	0/6	Audited base IRR is 8.1083%
6B. Conservative exit clears	Supported zero	0/4	0/4	A 23x contracted exit does not clear; 20% needs about 39.27x
6C. Bear acceptable	Supported zero	0/3	0/3	Audited bear IRR is negative 5.5122%
6D. Reverse DCF beatable	Supported zero	0/3	0/3	Required NOPAT CAGR is 23.9273%, far above the base path
6E. Multiple not pricing perfection	Supported zero	0/2	0/2	25.90x earnings and 1.93% FCF yield price substantial success
6F. Cash returns help	Supported	1/2	1/2	Dividends and modest net share shrinkage help, but only slightly

No additional formal cap applies. ROIIC exists, acquisition-inclusive ROIIC exists, FCF conversion covers five years, SBC and dilution are modeled, and valuation is tied to required NOPAT growth. The applied 1B reduction is the appropriate economic cap because the high organic measure omits material acquisitions and the cash bridge does not contain a complete finance-lease additions series.

3. Unsupported Claims

The evidence does not support exact standalone Azure GAAP revenue, Azure margin, Azure capex, Azure utilization, or Azure ROIC. It also does not support standalone Microsoft 365 Copilot revenue, realized ARPU, discounting, renewal, cohort retention, inference cost, or product margin. Company and segment NRR, churn, CAC, payback, product gross margins, segment assets, and segment capex are true non-disclosures. These gaps prevent full unit-economics credit even though

consolidated and reportable-segment margins are real.

Terminal net cash of negative USD 25 billion, positive USD 50 billion, and positive USD 100 billion is not management guidance. Dividend growth of 4%, 7%, and 10% is also an explicit diagnostic assumption. The exit P/E range is source-bound to the same-run FY2021-FY2026 FMP fiscal-year ratios, but no source promises that 18x, 23x, or 28x will prevail in 2031. The audit therefore preserves the arithmetic and labels the assumptions rather than upgrading their evidentiary status.

4. Calculation Errors

The original scenario-return arithmetic has no material error. The calculation breaks nowhere in the EV, equity, share, distribution, or wealth chain. The original scorer did omit the rubric-required goodwill-excluded ROIC view. The audit repairs that omission: latest adjusted ROIC is **25.6102103679% including goodwill** and approximately **33.2884596436% excluding goodwill**; the five-year medians are **30.9485597660%** and approximately **44.5247579071%**, respectively. This confirms that high ROIC is not created by removing acquisition premiums.

Metric	Audited result	Check
Normalized FY2026 NOPAT	USD 125.741970B	155.237 x 81%
Five-year cumulative FCF / normalized NOPAT	73.6875178925%	USD 337.293B / USD 457.733970B
FY2026 FCF / normalized NOPAT	53.2733819901%	USD 66.987B / USD 125.741970B
Five-year FCF / net income	71.9457100440%	Multi-year source-bound cash conversion
Five-year CFO / net income	131.0241118051%	Accrual earnings are cash supported before capex
FY2026 SBC / revenue	3.7382586134%	USD 12.405B / USD 331.839B
FY2026 SBC / FCF	18.5185185185%	SBC is economically material
Five-year diluted-share CAGR	-0.4108275719%	7,608M to 7,453M
Three-year diluted-share CAGR	-0.0848328308%	7,472M to 7,453M
Current EV / normalized NOPAT	27.2542983063x	USD 3,427.00916B / USD 125.741970B
Reverse-DCF required NOPAT CAGR	23.9272877708%	20% return with base exit EV/NOPAT

The base maximum entry price for a 20% five-year return is **USD 275.791505274915**, 40.6543% below USD 464.72. Using unrounded base EPS and dividends, the required terminal P/E is approximately **39.2736920306x**. The original JSON's 39.2736939269x differs only because it uses a rounded EPS input; this is immaterial but corrected here.

Scenario bridge audit

Measure	Bear	Base	Bull
Probability	30%	50%	20%
Exit P/E	18.0x	23.0x	28.0x
Terminal enterprise value, USD B	2,469.336208	4,848.217540	7,673.050628
Terminal net cash / debt, USD B	-25.000000	50.000000	100.000000
Terminal equity value, USD B	2,444.336208	4,898.217540	7,773.050628
Diluted shares, M	7,406.759	7,372.124	7,348.153
Equity value per share, USD	330.014275879639	664.424193081939	1,057.823731759532
Cumulative distributions per share, USD	19.987124124939	21.833325323737	23.828566543674
Terminal shareholder wealth per share, USD	350.001400004578	686.257518405676	1,081.652298303206
Audited gross USD IRR	-5.512211668058%	8.108327946457%	18.407513922485%

The P/E method sets terminal equity value directly as statutory EPS times P/E times diluted shares. Enterprise value is then the reconciled equity value less net cash. Thus the net-cash rows close the required EV-to-equity bridge but do not add a second value uplift on top of an equity P/E valuation. This avoids double counting. The terminal net-cash assumptions remain unsupported diagnostics, but they do not alter per-share wealth under this construction.

Probability-weighted terminal wealth is exactly:

`0.30 x 350.0014000045778 + 0.50 x 686.2575184056764 + 0.20 x 1081.6522983032057 = USD 664.4596388648526`.

The audited weighted return is exactly:

`(664.4596388648526 / 464.72)^(1 / 5) - 1 = 7.41265425011639%`.

The method is **CAGR_OF_PROBABILITY_WEIGHTED_TERMINAL_WEALTH**. It is not an average of scenario IRRs. The arithmetic probability-weighted average of the three scenario IRRs is only about 6.0820032573%, which confirms that averaging IRRs would produce the wrong answer. Treating interim dividends as terminal cash is a conservative timing simplification; no dividend reinvestment benefit is assumed.

5. Missing Data

The most important missing evidence is a complete finance-lease additions and repayments series that can be integrated into the cash reinvestment bridge without approximation. The adjusted balance-sheet cross-check captures the economic burden but is broader than project-level reinvestment. Other material gaps are exact AI workload utilization, product-level margins, Copilot cohort economics, Azure capital returns, segment capital, product retention, net buyback yield separated cleanly from employee issuance, and independently guided terminal net cash and dividend growth. These gaps lower audit confidence to **Medium** for the precise quality score while leaving arithmetic confidence high.

6. Hard-Veto and Threshold Test Audit

Test	Audited result	Reason
ROIIC below cost of capital	PASS	Conservative readings remain above a reasonable capital cost
ROIC is an accounting artifact	PASS	Goodwill-included adjusted ROIC remains 25.61%
Growth requires external financing	PASS	CFO, liquidity, and conventional net cash are strong
Material share-count growth	PASS	Five-year diluted shares declined
Large acquisitions without return evidence	WATCH	Activision remains economically unresolved
Structural FCF lag	WATCH	Latest conversion is 53.27%; five-year conversion is 73.69%
Concentration, regulation, dependency, or leverage	WATCH	OpenAI, regulation, and AI capacity matter; leverage is low
20% case requires multiple expansion	FAIL	Base requires roughly 39.27x terminal P/E
Current price requires flawless execution	FAIL	Even the R-cleared bull returns only 18.41%
Moat not explainable	PASS	Enterprise control plane and switching costs are specific
Accounting or governance trust issue	PASS	Cleared bridge, controls, and governance evidence are sound
Balance-sheet wipeout risk	PASS	Conventional net cash and liquidity are substantial

Audited threshold tests are: total at least 80 **false**; Business Quality at least 65 **true**; Valuation at least 15 **false**; audited ROIIC plus runway at least 35 of 45 **true at 36/45**; base IRR at least 20% **false**; bear IRR at least 8%-10% **false**; no hard vetoes **false**; and no required multiple expansion **false**.

7. Final 20% Hurdle Pass/Fail

Final 20% hurdle: FAIL. Base and weighted gross USD IRRs are only 8.1083% and 7.4127%. The bull case is 18.4075%, still below 20%. The 20% case requires a substantially lower entry price, performance beyond the R-cleared bull case, or an aggressive terminal multiple. None qualifies as a confident base assumption.

8. Dream Business / Dream Investment Classification

Dream business, not dream investment. The audited Business Quality Score of 65/80 sits exactly at the framework's strong dream-business threshold. Microsoft's moat, historic reinvestment record, balance sheet, margins, and enterprise distribution support that label. The audited total of 66/100 and Valuation score of 1/20 do not support dream-investment status. The single biggest reason is price: USD 464.72 capitalizes substantial operating success while the current AI capital cycle has not yet

demonstrated enough cash return, and even the bull terminal wealth fails the 20% stretch hurdle.

9. Stage 7 Scorecard Notes

Compounder Score note: **66/100: the audited diagnostic falls in Reject territory because the total is below 70 and hard valuation vetoes remain; this is not an ER2 gate.**

Business Quality Score note: **65/80: Microsoft meets the dream-business threshold, but only at its lower bound after ROIIC, unit-economics, and reinvestment-proof reductions.**

20% Return UW Score note: **1/20: audited bear/base/bull gross USD IRRs are -5.51%/8.11%/18.41% and weighted-terminal-wealth CAGR is 7.41%, so the 20% stretch hurdle fails.**

10. Auditor JSON

The binding machine-readable artifact is `compounder_score_audit.json` in this directory. It contains the original and audited category/subcategory scores, applied caps, input hashes, finite scenario returns, the exact 30%/50%/20% weights, every terminal EV/equity/net-cash/share/distribution/wealth binding, weighted terminal wealth of USD 664.4596388648526 per share, method `CAGR_OF_PROBABILITY_WEIGHTED_TERMINAL_WEALTH`, threshold tests, missing evidence, and `trade_execution_authorized=false`.

Appendix RT - Red Team

Microsoft Corporation (MSFT) — Red Team

Analysis date: 2026-08-02 **TTM anchor:** Q1 FY2026 through Q4 FY2026, ending 2026-06-30 **Forward horizon:** 2031-06-30, exactly five calendar years **Price anchor:** USD 464.72 per XNAS:MSFT common share at the 2026-07-31 close

This is an adversarial test of the cleared Stage 5 model, not a second moat review. The arithmetic is accepted: the synthesis passed 11/11 tie-outs. The attack is on whether the economically load-bearing inputs deserve to be called base case when Microsoft is converting an asset-light software model into the largest physical-capital program in its history.

1. The most fragile assumption

The most fragile assumption is the **Productivity and Business Processes base revenue path, specifically Microsoft 365 Commercial products and cloud services growing 13%, 12%, 11%, 10%, and 9% from FY2027 through FY2031**. That line compounds at **10.99%**, reaches **USD 171.801 billion**, and supplies 75.3% of P&BP's USD 228.102 billion horizon revenue. The implicit claim is not merely that Office remains installed. It is that Copilot, E5, E7, security and premium mix can keep annual growth near double digits after seat maturity, while realized pricing, renewal, consumption and inference economics remain undisclosed.

The assumption is fragile because the evidence proves distribution, not incremental economics. Paid Copilot seats exceeded 30 million, yet Microsoft still does not disclose standalone Copilot revenue, realized ARPU, discounts, cohort renewal, usage intensity, inference cost or product margin. Meanwhile, P&BP growth slowed to 14% in Q4 and its Operating-income margin stepped down from 61.8% in Q1 to 57.9% in Q4. Competitors are also attacking the interface rather than replacing Office files: Amazon's new Quick work companion operates across leading SaaS tools, including Teams, and Google's Gemini Enterprise is already used by nearly 90% of the Fortune 100. Those offerings do not need to displace Microsoft 365 to damage the assumption; they need only own enough orchestration and premium consumption to limit Copilot attach and price.

The quantitative consequence is material and directly testable.

Stress	Horizon effect	EPS effect
Reduce each Microsoft 365 Commercial annual growth step by 2 points, holding its 65.5% terminal modeled margin and other inputs fixed	Revenue falls by USD 14.932B	Base EPS falls about USD 1.061
Synthesis Section 10 stress: reduce total P&BP CAGR from 10.26% to 8.26%	P&BP horizon revenue falls to USD 208.188B	EPS falls from USD 28.8880 to USD 27.6078, a USD 1.2802 decline

The second row is the governed Stage 5 sensitivity and is the appropriate thesis-level test. It widens the already failed P/E-15 cushion from negative 6.76% to roughly negative 10.9%. The model can be arithmetically right and still wrong because it treats rapid paid-seat adoption as sufficient support for five years of premium-mix growth before renewal and cost-to-serve are visible.

2. The most-likely-to-be-optimistic Stage 5 number

The most likely optimistic output is the **46.75% base consolidated Operating-income margin at 2031-06-30**, equivalent to USD 261.207 billion of Operating income. The number looks restrained because it is almost flat against the 46.78% TTM margin. That comparison is misleading: the TTM average is mechanically current but economically above the exit-quarter run rate.

Margin evidence	Q1 FY2026	Q2 FY2026	Q3 FY2026	Q4 FY2026	Base 2031
Consolidated Operating-income margin	48.9%	47.1%	46.3%	45.1%	46.75%
P&BP Operating-income margin	61.8%	60.4%	59.9%	57.9%	59.4%
Intelligent Cloud Operating-income margin	43.3%	42.2%	39.7%	40.6%	40.5%
MPC Operating-income margin	30.3%	26.7%	27.8%	21.4%	26.5%

Thus the base output requires consolidated margin to recover about 165 basis points from Q4 even as FY2027 capex grows, capacity roughly doubles over two years, short-lived processors remain the majority of infrastructure spend, and model usage rises. Intelligent Cloud is not the main optimism in the number; its 40.5% terminal margin is close to Q4. The optimistic components are P&BP recovering despite heavier AI usage and MPC recovering 510 basis points from a quarter containing XBOX impairment and restructuring pressure. FY2026 cash capex was USD 115.948 billion, 34.9% of revenue, while FCF was only USD 66.987 billion. A flat five-year accounting margin can therefore coexist with deteriorating cash returns, but even the accounting-margin output assumes a recovery that the latest quarter has not yet earned.

3. The strongest bear case, stated in its strongest form

Microsoft is spending into a temporary AI scarcity just as AWS and Google add competing capacity, chips, models and enterprise-agent control planes; the result can be high reported cloud growth with utility-like incremental returns rather than a widening moat. AWS grew 37% in Q2 2026 while its TTM FCF turned negative USD 7.6 billion because of AI investment, and Google Cloud grew 82%, showing that demand is broad but supply and product parity are advancing at the same time ([Amazon Q2 2026 release](https://s2.q4cdn.com/299287126/files/doc_earnings/2026/q2/earnings-result/AMZN-Q2-2026-Earnings-Release.pdf); [Google Q2 2026 remarks](https://blog.google/company-news/inside-google/message-ceo/alphabet-earnings-q2-2026/)). If third-party agents own the work interface while hyperscalers commoditize raw compute, P&BP and Intelligent Cloud—the two segments producing 90.7% of FY2026 segment Operating income—are squeezed from opposite sides: Copilot ARPU underdelivers and Azure utilization, price and software attach fail to cover depreciation and power. This should appear within four to eight quarters as Azure or Intelligent Cloud revenue remaining strong while Intelligent Cloud margin falls below 37% and TTM FCF conversion falls below 45%, validating a capital-misallocation bear rather than a demand-collapse bear.

4. Cross-examination of management commentary

The statements below are exact short excerpts reproduced in `data_package.md` Section 6. The issue is not that management fabricated them; the issue is what each statement invites the model to infer without disclosing the economic bridge.

Statement and source	Skeptical cross-examination	What fails first
Satya Nadella, Q4 FY2026: “over 30 million paid Microsoft 365 Copilot seats” ([2026-07-29 call](https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q4))	Paid can include discounting, bundles and partial deployments. Seat count gives no renewal, realized price, consumption or inference-cost evidence. P&BP margin already fell to 57.9% as usage rose.	M365 Commercial cloud growth below 10% or P&BP margin below 55% for two consecutive quarters despite continued seat additions.
Amy Hood, Q1 FY2026: “demand remains significantly ahead of the capacity” ([2025-10-29 call](https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q1))	Scarcity does not prove attractive normalized return. Roughly 45% of commercial RPO was tied to OpenAI at Q2, while new capacity, rival capacity and model efficiency can all arrive before committed assets earn their cost.	Intelligent Cloud revenue growth stays above 20%, but its margin falls below 37% and FCF conversion fails to improve: growth is being purchased rather than compounded.
Satya Nadella, Q4 FY2026: “reset the business for long-term growth” ([2026-07-29 call](https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q4))	The reset follows a USD 69 billion-class acquisition, FY2026 XBOX revenue down 7.1%, Q4 content and services down 10%, leadership changes, studio transitions and impairment charges. Engagement records did not convert into revenue.	XBOX content and services remains down more than 5% through FY2027, or MPC margin is below 20% in two quarters, showing cost action without franchise repair.

The strongest statement is the capacity claim because it is directly visible in bookings and Azure growth. It is also the most dangerous inference. Management's FY2027 promise that FCF merely remains positive is an exceptionally low hurdle for a company that earned USD 133.749 billion in FY2026. Demand evidence can be genuine while shareholder economics deteriorate.

5. Stage 5 tie-out reverification

Recency anchor: mechanical PASS, economic warning. The model correctly uses four non-overlapping quarters—Q1 through Q4 FY2026—and they sum to revenue of USD 331.839 billion, Operating income of USD 155.237 billion and net income of USD 133.749 billion. There is no stale quarter or six-year horizon. The problem is aggregation: revenue growth held at 17% to 18%, but consolidated margin fell every quarter from 48.9% to 45.1%. Calling the 46.78% TTM margin the starting economic run rate obscures the direction of travel.

Share path: arithmetic PASS, funding conditional. The base bridge closes: 7,453.000 million starting shares minus 220.397 million repurchased plus 139.522 million issued for SBC equals 7,372.124 million. That is only 1.09% net shrinkage over five years, or about 0.22% annually, so the ending denominator is not aggressive by itself. The vulnerability is its funding

assumption: USD 22 billion of annual repurchases means USD 110 billion over five years. In FY2026, repurchases plus dividends already consumed 72.7% of FCF while cash capex rose to USD 115.948 billion; management also expects FY2027 capex to rise. If FCF conversion remains near 50%, buybacks can still offset dilution, but the model should not treat even modest shrinkage as automatic.

Competitor-path check: no clear CAGR violation, but the wrong risk may be tested. Microsoft 365 Commercial's 10.99% base CAGR is below its 15.12% recent CAGR; Server products and cloud services at 15.1% is below its 27.3% recent CAGR; and MPC is conservative. Current peer evidence shows acceleration, not a deceleration pattern that the Microsoft forecast improperly exceeds. That clears the narrow numerical check. It does not clear economics: AWS at 37% growth and Google Cloud at 82% growth demonstrate simultaneous capacity and platform competition, so Azure's modeled 15.1% revenue CAGR cannot by itself validate the 40.5% terminal margin or cash return.

6. Score-derived 20% return claim most likely to be wrong

The red team agrees with the audit: the 20% claim does **not** clear. The audited scores are **66/100 Compounder Score, 65/80 Business Quality Score, and 1/20 20% Return Underwriting/Stretch Score**, with diagnostic classification **Reject**. The audited gross USD returns are negative 5.5122116681% bear, 8.1083279465% base and 18.4075139225% bull; the 30%/50%/20% weighted-terminal-wealth CAGR is 7.4126542501%. The probability arithmetic is correct.

The assumption that breaks any attempted 20% rescue first is the **terminal multiple**. At the base 23x exit, a 20% return requires horizon EPS of about USD 49.33—70.8% above the cleared USD 28.888 base—or a current entry value of only USD 275.79. Holding base EPS instead requires approximately **39.27x terminal P/E**. The reverse-DCF equivalent is 23.93% NOPAT CAGR, more than twice the base operating-growth path. Even the R-cleared bull, with USD 37.779 EPS, a 28x exit and USD 23.829 of cumulative distributions, returns only 18.41%; it needs roughly 29.98x at the horizon to reach 20%. Therefore no operating assumption inside the confident base supports the stretch claim. It survives only through a lower starting price, performance beyond bull, or multiple expansion.

7. The signal that forces an exit

The thesis-invalidating signal is **TTM free cash flow divided by TTM net income below 45% at each of the next two reported quarters, Q1 and Q2 FY2027**. Use reported operating cash flow less cash additions to property and equipment; do not improve the ratio by reclassifying finance leases as operating leases. FY2026 already ended at 50.1%, so two consecutive sub-45% readings would show a persistent step down, not a single-quarter construction-timing event.

That signal invalidates the specific compounder thesis because Stage 5 needs AI investment to preserve high margins, support dividends and buybacks, and eventually restore incremental returns. Revenue growth would no longer be sufficient evidence. This is an underwriting exit from the thesis, not a trade or execution instruction.

8. Conviction at the end of red team

Thesis does NOT survive this red team at the stated USD 464.72 price anchor. The moat survives: enterprise identity, permissions, compliance, data context and distribution remain real, consistent with the moat PASS. The current investment thesis does not survive because the P/E-15 base already fails by 6.76%, the audited 20% stretch score is 1/20, and the model's most important operating output—46.75% terminal consolidated margin—assumes recovery from a 45.1% Q4 exit while cash capex and capacity still rise.

The synthesis narrative should be rewritten around one question: **can Microsoft convert the AI capacity build into per-share free cash flow before competitive supply and agent-layer substitution erode the software economics funding it?** Copilot seats, Azure growth and RPO are supporting evidence, not answers. Until P&BP growth and margin jointly validate Copilot economics and TTM FCF conversion moves away from the 45% invalidation threshold, the financially correct framing is a durable business whose current price requires better capital conversion than the disclosed evidence supports.

Appendix D - Data Package

Microsoft Corporation (MSFT) — Production Data Package

Information cutoff: 2026-08-02 SGT Fiscal year end: June 30 Latest completed period: Q4 FY2026 and FY2026 ended 2026-06-30 TTM: Q1 FY2026 + Q2 FY2026 + Q3 FY2026 + Q4 FY2026, identical to FY2026 Forward horizon used downstream: 2031-06-30, exactly five calendar years from the TTM end Reporting currency: USD. Unless stated otherwise, dollar tables are USD billions; Section 3a preserves the sealed packet's USD-million scale. Trade execution authorized: **NO**.

This file is the historical and commentary source of truth for downstream Microsoft ER2 work. Quantitative statement and segment values are taken from the QFR-cleared quantitative foundation and the controlling Microsoft filings. The statutory profit identity is copied without reclassification from the QFR-sealed packet, SHA-256 `9a7b18b85f488842142d086e116f96e348771ab119454f08e3dd7389e597fbad`.

Source map and evidence discipline

Source ID	Period / purpose	Live URL or endpoint	Precedence
MSFT_FY2026_10K	FY2026 statements, segments, products, geography, RPO, balance sheet, risks and executive officers	https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm	Controlling official source
MSFT_FY2026_Q4_8K	Q4 and FY2026 earnings release	https://www.sec.gov/Archives/edgar/data/789019/000119312526323632/msft-ex99_1.htm	Official quarter cross-check
MSFT_FY2026_Q4_IR	Q4/FY2026 release and financial tables	https://www.microsoft.com/en-us/Investor/earnings/FY-2026-Q4/press-release-webcast	Issuer cross-check
MSFT_FY2025_10K	FY2023-FY2025 recast segment and product history	https://www.sec.gov/Archives/edgar/data/789019/000095017025100235/msft-20250630.htm	Controlling source for recast history
MSFT_FY2022_10K	FY2022 legacy-taxonomy segment context	https://www.sec.gov/Archives/edgar/data/789019/000156459022026876/msft-10k_20220630.htm	Official legacy context only
MSFT_FY26_Q1_IR	Q1 FY2026 release and segment tables	https://www.microsoft.com/en-us/Investor/earnings/FY-2026-Q1/press-release-webcast	Official quarterly source
MSFT_FY26_Q2_IR	Q2 FY2026 release and segment tables	https://www.microsoft.com/en-us/Investor/earnings/FY-2026-Q2/press-release-webcast	Official quarterly source
MSFT_FY26_Q3_IR	Q3 FY2026 release and segment tables	https://www.microsoft.com/en-us/Investor/earnings/FY-2026-Q3/press-release-webcast	Official quarterly source
MSFT_FY26_CALLS	Q1-Q4 management commentary	https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q1 ; https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q2 ; https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q3 ; https://www.microsoft.com/en-us/investor/events/fy-2026/earnings-fy-2026-q4	Official transcripts
MSFT_2025_PROXY	Board, shareholder rights and compensation	https://www.sec.gov/Archives/edgar/data/789019/000119312525245150/d908201ddef14a.htm	Latest available proxy at cutoff
FMP_ANNUAL	Five-year consolidated statements and self-check	https://financialmodelingprep.com/stable/income-statement?symbol=MSFT&period=annual&limit=8 ; https://financialmodelingprep.com/stable/balance-sheet-statement?symbol=MSFT&period=annual&limit=8 ; https://financialmodelingprep.com/stable/cash-flow-statement?symbol=MSFT&period=annual&limit=8	Live vendor data, official filing controls

Source ID	Period / purpose	Live URL or endpoint	Precedence
FMP_PRODUCT	Independent annual and quarterly product pulls	https://financialmodelingprep.com/stable/revenue-product-segmentation?symbol=MSFT&period=annual ; https://financialmodelingprep.com/stable/revenue-product-segmentation?symbol=MSFT&period=quarter	Live vendor data, official taxonomy controls

The required same-run FMP self-check confirmed FY2026 revenue of $331.839 billion. New D-stage pulls were copied without overwrite to `C:\Users\Admin\OneDrive\Cowork\Investing\data warehouse\er2_live\MSFT\2026-08-02\d_data_package_20260802T060238+0800`. The warehouse copies were archival only, not a substitute for live retrieval or the official filing.

0a. Industry classification and software/SaaS disclosure inventory

Microsoft is a diversified enterprise software, hyperscale cloud, AI infrastructure, advertising, gaming-content and device company reporting under U.S. GAAP. It is not analytically adequate to treat it as ordinary license software: Azure and AI infrastructure drive a large and rising physical-capital base, while Microsoft 365, Dynamics, LinkedIn, GitHub and security retain recurring software economics. The software/SaaS checklist is therefore triggered. FMP provides strong statement and product-dollar history but does not capture Microsoft's richer cloud, RPO, paid-seat, AI, customer, adoption and usage disclosures.

Official materials checked were the FY2022-FY2026 Forms 10-K, the FY2026 Q1-Q4 earnings releases and transcripts, the latest proxy, and current first-party leadership and strategy posts. Search terms included ARR, `annual revenue run rate`, `RPO`, `commercial remaining performance obligation`, `deferred revenue`, `billings`, `Microsoft Cloud`, `Azure`, `Copilot paid seats`, `GitHub Copilot`, `NRR`, `retention`, `churn`, `customers`, `ARPU`, `ACV`, `CAC`, `payback`, `stock-based compensation`, `segment assets`, `segment capex`, and `remaining performance obligations`.

Dataset / table family	Official source searched	Search terms or table names	Years available	Included?	If excluded, why	Downstream relevance
Segment revenue and operating income	FY2022, FY2025 and FY2026 10-K segment tables	Segment Results; Revenue; Operating Income	FY2022 legacy; FY2023-FY2026 current taxonomy	Yes	FY2022 marked non-comparable	Segment forecasts and statutory rollup
Product revenue	FY2025 and FY2026 10-K product tables; FMP annual endpoint	Revenue by product and service offering	Clean current taxonomy FY2024-FY2026; older taxonomy varies	Yes	No unsupported remapping	Product mix and segment context
Microsoft Cloud revenue	FY2022-FY2026 10-K highlights	Microsoft Cloud revenue	FY2022-FY2026	Yes	None	Cloud scale and growth
RPO and commercial RPO	FY2022-FY2026 10-K revenue note; FY2026 calls	Remaining performance obligations; commercial RPO	FY2022-FY2026 plus FY2026 quarterly points	Yes	OpenAI concentration separately flagged	Backlog, duration and capex confidence
ARR	FY2026 calls and 10-K	ARR; annual revenue run rate	Selected AI/Fabric products only	Partial	No standardized company or segment ARR series	AI monetization context only
Paid seats and users	FY2026 calls	Copilot seats; GitHub users; subscribers	Selected FY2026 quarters	Yes, as KPI observations	Definitions vary by product and period	Adoption, not a GAAP revenue base
NRR / DBNR / GRR / churn	FY2022-FY2026 filings and calls	NRR; retention; churn	Not disclosed	No	True non-disclosure	Cannot infer durability from an NRR series
Billings	Filings and calls	Billings; bookings	Bookings growth disclosed, billings not standardized	Partial	True non-disclosure for billings	Use RPO and bookings cautiously
CAC / payback / magic number	Filings and calls	CAC; payback; magic number	Not disclosed	No	True non-disclosure	No unsupported SaaS efficiency calculation
Segment assets, capex and ROIC	10-K segment note and property table	Segment assets; segment capex; invested capital	Not disclosed	No	True non-disclosure	Consolidated capital intensity only
SBC and dilution	Cash-flow statements, EPS note	Stock-based compensation; diluted shares	FY2022-FY2026	Yes	None	Per-share discipline
Recent trend and guidance	FY2026 Q1-Q4 releases and calls	Segment Results; outlook	Four quarters	Yes	None	Recency anchor

Material software and cloud KPI history

KPI family	Granularity	FY2022	FY2023	FY2024	FY2025	FY2026 / latest	Source
Microsoft Cloud revenue	Company cloud aggregate, $B	91.2	111.6	137.7	168.9	214.4	FY2026 10-K recast comparatives; prior Forms 10-K
Total RPO	Company, $B at June 30	193	229	275	375	684	Revenue notes in respective Forms 10-K
Commercial RPO	Commercial portion, $B at June 30	189	224	269	368	678	Revenue notes and FY2026 10-K highlights
Microsoft 365 Copilot paid seats	Selected quarter-end disclosure	n/d	n/d	n/d	n/d	15M Q2; more than 20M Q3; more than 30M Q4	FY2026 Q2-Q4 calls
AI business annual revenue run rate	Cross-segment management KPI	n/d	n/d	n/d	n/d	More than $37B in Q3, up 123%	FY2026 Q3 call
Fabric annual revenue run rate	Product KPI	n/d	n/d	n/d	n/d	More than $2B and over 31,000 customers in Q2	FY2026 Q2 call
Total unearned revenue	Consolidated current plus noncurrent, $B	48.408	53.813	60.184	67.265	75.712	Forms 10-K / SEC XBRL company concept

The RPO series is useful but not homogeneous in economic concentration. At Q2 FY2026, management said approximately 45% of commercial RPO was from OpenAI; at Q4, commercial RPO reached $678 billion, and management said sequential growth came from customers outside frontier-model companies. Downstream work should model duration, customer concentration and conversion rather than treating every backlog dollar as equal-quality subscription ARR.

1. Reporting structure and taxonomy

Microsoft reports three segments. **Productivity and Business Processes (P&BP)** contains Microsoft 365 Commercial and Consumer, LinkedIn, and Dynamics. **Intelligent Cloud** contains server products and cloud services, including Azure, plus enterprise and partner services. **More Personal Computing (MPC)** contains Windows and Devices, XBOX/Gaming, and Search advertising. Search belongs to MPC; it must never be assigned to P&BP.

FY2026 reportable segment	Revenue ($B)	Share of total	Operating income ($B)	OI margin	Description
Productivity and Business Processes	139.996	42.2%	83.879	59.9%	Productivity, collaboration, professional network and business applications
Intelligent Cloud	137.791	41.5%	56.972	41.3%	Azure, server/cloud products and enterprise/partner services
More Personal Computing	54.052	16.3%	14.386	26.6%	Windows and Devices, XBOX, Search advertising
Total	**331.839**	**100.0%**	**155.237**	**46.8%**	Ties consolidated results

Microsoft changed segment composition effective FY2025 and recast FY2023-FY2025 to the current management view in the FY2025 10-K. FY2023 onward is the clean current-taxonomy segment history. FY2022 is presented below only as official legacy context and is not used for a current-taxonomy CAGR. In FY2026, product naming changed from `Gaming` to `XBOX` and from `Search and news advertising` to `Search advertising`; this is a label change in the product table, not permission to remap the product to another segment. The $0.109 billion `Other` product line has no controlling source assignment to a reportable segment and remains unmapped context, excluded from product-to-segment modeling.

Geographic revenue is material but balanced. FY2026 U.S. revenue was $170.794 billion, or 51.5% of total; other countries were $161.045 billion, or 48.5%. The comparable U.S. figures were $124.704 billion in FY2024 and $144.546 billion in FY2025. Source: FY2026 10-K geographic revenue table.

2. Consolidated historicals

Metric	FY2022	FY2023	FY2024	FY2025	FY2026 / TTM	Source
Revenue ($B)	198.270	211.915	245.122	281.724	331.839	FMP annual, tied to Forms 10-K
Operating income ($B)	83.383	88.523	109.433	128.528	155.237	FMP annual, tied to Forms 10-K
Operating margin	42.1%	41.8%	44.6%	45.6%	46.8%	Calculated

Metric	FY2022	FY2023	FY2024	FY2025	FY2026 / TTM	Source
Net income ($B)	72.738	72.361	88.136	101.832	133.749	FMP annual, tied to Forms 10-K
Diluted EPS ($)	9.65	9.68	11.80	13.64	17.95	FMP annual, tied to Forms 10-K
Diluted shares (M)	7,540	7,472	7,469	7,465	7,453	FMP annual, tied to Forms 10-K
Cash capex ($B)	23.886	28.107	44.477	64.551	115.948	Cash-flow statement
Operating cash flow ($B)	89.035	87.582	118.548	136.162	182.935	Cash-flow statement
Free cash flow ($B)	65.149	59.475	74.071	71.611	66.987	OCF less cash capex
FCF / net income	89.6%	82.2%	84.0%	70.3%	50.1%	Calculated

Revenue compounded at 13.7% from FY2022 to FY2026 and operating income at 16.8%. Diluted shares fell 1.2% over the period, so EPS benefited from modest per-share accretion, not aggressive financial engineering. FY2026 FCF fell despite sharply higher operating cash flow because cash capex almost doubled. The fall in FCF conversion is the clearest quantitative warning in the historical package: AI and cloud demand are strong, but the infrastructure build has moved cash realization further behind GAAP earnings.

ROIC calculation

ROIC is calculated consistently as `NOPAT / average invested capital`. NOPAT equals statutory operating income multiplied by one minus the reported effective tax rate. Invested capital equals stockholders' equity plus official short- and long-term borrowings minus cash and short-term investments; the denominator is the average of current and prior fiscal year-end balances. Operating leases are not added to borrowings in this diagnostic, goodwill is not removed, and FY2026 FMP `totalDebt` is rejected because it mixes $88.514 billion of lease obligations into debt.

Metric	FY2022	FY2023	FY2024	FY2025	FY2026
Effective tax rate	13.1%	19.0%	18.2%	17.6%	19.4%
NOPAT ($B)	72.4	71.7	89.5	105.9	125.1
Average invested capital ($B)	90.7	126.9	193.4	268.3	349.0
Calculated ROIC	79.9%	56.5%	46.3%	39.5%	35.9%

The declining calculated ROIC remains exceptional in absolute terms but is economically important. Invested capital expanded much faster than NOPAT as PP&E, strategic investments and retained equity accumulated. The model should not assume historical asset-light returns persist without evidence that Azure, Copilot and AI services monetize the new infrastructure.

3. Segment historicals

The issuer's exact common segment profit basis is **Operating income**. FY2022 rows are legacy-taxonomy context. FY2023-FY2026 rows are current-taxonomy and comparable.

Productivity and Business Processes

Metric	FY2022 legacy	FY2023 recast	FY2024 recast	FY2025 recast	FY2026	Source
Revenue ($B)	63.364	94.151	106.820	120.810	139.996	FY2022, FY2025 and FY2026 10-Ks
YoY	n/m	n/m taxonomy boundary	13.5%	13.1%	15.9%	Calculated
Operating income ($B)	29.687	50.074	59.661	69.773	83.879	Same sources
Operating income margin	46.9%	53.2%	55.9%	57.8%	59.9%	Calculated

Intelligent Cloud

Metric	FY2022 legacy	FY2023 recast	FY2024 recast	FY2025 recast	FY2026	Source
Revenue ($B)	75.251	72.944	87.464	106.265	137.791	FY2022, FY2025 and FY2026 10-Ks
YoY	n/m	n/m taxonomy boundary	19.9%	21.5%	29.7%	Calculated
Operating income ($B)	32.721	28.411	37.813	44.589	56.972	Same sources

Metric	FY2022 legacy	FY2023 recast	FY2024 recast	FY2025 recast	FY2026	Source
Operating income margin	43.5%	39.0%	43.2%	42.0%	41.3%	Calculated

More Personal Computing

Metric	FY2022 legacy	FY2023 recast	FY2024 recast	FY2025 recast	FY2026	Source
Revenue ($B)	59.655	44.820	50.838	54.649	54.052	FY2022, FY2025 and FY2026 10-Ks
YoY	n/m	n/m taxonomy boundary	13.4%	7.5%	(1.1%)	Calculated
Operating income ($B)	20.975	10.038	11.959	14.166	14.386	Same sources
Operating income margin	35.2%	22.4%	23.5%	25.9%	26.6%	Calculated

The segment picture is asymmetric. P&BP combines accelerating revenue with extraordinary incremental margins. Intelligent Cloud has the fastest revenue growth, but its margin is below FY2024 as AI infrastructure cost scales. MPC held annual operating income despite a small revenue decline; quarterly results below show a weaker Q4 exit because XBOX and Windows were under pressure.

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

Packet identity: `statutory_bridge.json`; QFR-sealed SHA-256 `9a7b18b85f488842142d086e116f96e348771ab119454f08e3dd7389e597fbad`. Reporting currency is USD, scale is millions. Segment profit basis is `issuer_disclosed`; common segment profit metric is exactly **Operating income**. There are three modeled segments. There are no corporate/unallocated adjustments and no operating bridge adjustments. Source ID for every line is `MSFT_FY2026_10K`, URL https://www.sec.gov/Archives/edgar/data/789019/000119312526323660/msft-20260630.htm.

Latest completed FY — FY2026 ended 2026-06-30

Bridge line	Classification	Value (USD m)	Source ID	Running subtotal (USD m)
Productivity and Business Processes	segment profit — Operating income	83,879	MSFT_FY2026_10K	83,879
Intelligent Cloud	segment profit — Operating income	56,972	MSFT_FY2026_10K	140,851
More Personal Computing	segment profit — Operating income	14,386	MSFT_FY2026_10K	155,237
Sum of reportable segment profit	segment profit subtotal	155,237	MSFT_FY2026_10K	155,237
Consolidated segment profit metric	subtotal — Operating income	155,237	MSFT_FY2026_10K	155,237
Statutory operating income	statutory subtotal	155,237	MSFT_FY2026_10K	155,237
Other income (expense), net	other_non_operating	10,697	MSFT_FY2026_10K	165,934
Pretax income	statutory subtotal	165,934	MSFT_FY2026_10K	165,934
Provision for income taxes	tax	(32,185)	MSFT_FY2026_10K	133,749
Net income	statutory subtotal	133,749	MSFT_FY2026_10K	133,749

Exact arithmetic: `83,879 + 56,972 + 14,386 = 155,237`; `155,237 + 10,697 = 165,934`; `165,934 - 32,185 = 133,749`.

TTM — Q1 FY2026 + Q2 FY2026 + Q3 FY2026 + Q4 FY2026 ending 2026-06-30

The TTM and FY2026 cover the identical four-quarter window. Labels, classifications, signs and values therefore remain identical.

Bridge line	Classification	Value (USD m)	Source ID	Running subtotal (USD m)
Productivity and Business Processes	segment profit — Operating income	83,879	MSFT_FY2026_10K	83,879

Bridge line	Classification	Value (USD m)	Source ID	Running subtotal (USD m)
Intelligent Cloud	segment profit — Operating income	56,972	MSFT_FY2026_10K	140,851
More Personal Computing	segment profit — Operating income	14,386	MSFT_FY2026_10K	155,237
Sum of reportable segment profit	segment profit subtotal	155,237	MSFT_FY2026_10K	155,237
Consolidated segment profit metric	subtotal — Operating income	155,237	MSFT_FY2026_10K	155,237
Statutory operating income	statutory subtotal	155,237	MSFT_FY2026_10K	155,237
Other income (expense), net	other_non_operating	10,697	MSFT_FY2026_10K	165,934
Pretax income	statutory subtotal	165,934	MSFT_FY2026_10K	165,934
Provision for income taxes	tax	(32,185)	MSFT_FY2026_10K	133,749
Net income	statutory subtotal	133,749	MSFT_FY2026_10K	133,749

Reconciliation residual	Latest FY (USD m)	TTM (USD m)	Status
Segment sum residual	0	0	PASS
Corporate bridge residual	0	0	PASS
Operating income bridge residual	0	0	PASS
Pretax bridge residual	0	0	PASS
Net income bridge residual	0	0	PASS

Forecast-driver ledger

Historical bridge line	FY value (USD m)	TTM value (USD m)	Forecast treatment	Driver and source	Bear / base / bull rule
P&BP Operating income	83,879	83,879	Independently forecast segment revenue and exact operating margin	Segment history and FY2026 quarterly trend	Bear lowers growth and margin; base normalizes recent growth; bull requires durable Copilot monetization
Intelligent Cloud Operating income	56,972	56,972	Independently forecast segment revenue and exact operating margin	Azure growth, capacity, cloud margin and capex evidence	Bear assumes utilization/pricing pressure; base balances scale with depreciation; bull requires strong utilization and software attach
MPC Operating income	14,386	14,386	Independently forecast segment revenue and exact operating margin	Windows, XBOX and Search trends	Bear retains XBOX pressure; base stabilizes; bull requires search mix and gaming repair
Other income (expense), net	10,697	10,697	Independently forecast below the line; never a generic operating plug	Investment gains/losses, interest income, interest expense and equity-method effects in FY2026 10-K	Bear removes gains and allows investment losses; base normalizes; bull permits only source-supported recurring economics
Provision for income taxes	(32,185)	(32,185)	Tax-rate schedule applied to pretax income	FY2026 effective rate 19.4%; statutory and jurisdiction mix	Bear/base/bull use explicit rates and discrete-item assumptions, with negative sign preserved

No corporate/unallocated or operating-adjustment forecast row may be invented. Consolidated statutory operating income is the sum of the three forecast segment operating-income lines. Other income stays below the line, and tax stays negative.

STATUTORY_BRIDGE_STATUS: VERIFIED — CLEARED FOR FORECASTING

4. Product and sub-segment historicals

Microsoft separately discloses the following product/service revenue in dollars. These are company product lines mapped only where the FY2026 10-K supports the segment taxonomy.

Segment	Product / service line	FY2024 ($B)	FY2025 ($B)	FY2026 ($B)	Disclosure and source
Intelligent Cloud	Server products and cloud services	79.828	98.435	129.425	Dollar disclosed, FY2026 10-K

Segment	Product / service line	FY2024 ($B)	FY2025 ($B)	FY2026 ($B)	Disclosure and source
P&BP	Microsoft 365 Commercial products and cloud services	76.969	87.767	101.997	Dollar disclosed, FY2026 10-K
MPC	Gaming / XBOX	21.503	23.455	21.790	Dollar disclosed; FY2026 label is XBOX
P&BP	LinkedIn	16.372	17.812	19.817	Dollar disclosed
MPC	Windows and Devices	17.026	17.314	17.084	Dollar disclosed
MPC	Search and news advertising / Search advertising	12.306	13.878	15.176	Dollar disclosed; FY2026 label shortened
P&BP	Microsoft 365 Consumer products and cloud services	6.648	7.404	9.175	Dollar disclosed
P&BP	Dynamics products and cloud services	6.831	7.827	9.006	Dollar disclosed
Intelligent Cloud	Enterprise and partner services	7.594	7.760	8.260	Dollar disclosed
Unmapped context	Other	0.045	0.072	0.109	Dollar disclosed, reportable-segment assignment withheld
Total	**All disclosed product lines**	**245.122**	**281.724**	**331.839**	**Ties consolidated revenue**

Azure, Dynamics 365, Microsoft 365 Commercial cloud, Microsoft 365 Consumer cloud, XBOX content and services, and Search ex-TAC are disclosed as growth rates within broader dollar lines. Exact standalone GAAP dollars are not disclosed for those sub-products, except management's threshold statement that annual Azure revenue surpassed $100 billion in FY2026. No hidden dollars are back-solved.

KPI / sub-product	Q1 FY2026 YoY	Q2 FY2026 YoY	Q3 FY2026 YoY	Q4 FY2026 YoY	Disclosure basis and source
Microsoft Cloud revenue	26%	26%	29%	27%	Company cloud aggregate, official releases
Microsoft 365 Commercial cloud revenue	17%	17%	19%	14%	Growth only
Microsoft 365 Consumer cloud revenue	26%	29%	33%	24%	Growth only
LinkedIn revenue	10%	11%	12%	12%	Growth on disclosed dollar product
Dynamics 365 revenue	18%	19%	22%	13%	Growth only within Dynamics line
Azure and other cloud services revenue	40%	39%	40%	43%	Growth only within server/cloud line
Windows OEM and Devices revenue	6%	1%	(2%)	(7%)	Growth only within Windows line
XBOX content and services revenue	1%	(5%)	(5%)	(10%)	Growth only within XBOX line
Search advertising ex-TAC	16%	10%	12%	10%	Growth only within Search line
Commercial RPO	51%	110%	99%	84%	Balance growth, affected by large model-company contracts

The quarterly FMP product endpoint omitted XBOX in Q4. The official annual XBOX amount and official Q1-Q3 figures produce the transparent completion `21.790 - 5.508 - 5.958 - 5.341 = 4.983` billion. This $4.983 billion is an official-primary-source replacement, not an FMP observation and not an analyst estimate. With it, FY2026 product revenue ties $331.839 billion exactly.

5. Most recent quarterly trend

Microsoft's fiscal year ends June 30. The most recently completed quarter is FY2026 Q4, covering April-June 2026, reported on 2026-07-29 via https://www.microsoft.com/en-us/Investor/earnings/FY-2026-Q4/press-release-webcast.

Consolidated trend

Quarter	Revenue ($B)	YoY	Operating income ($B)	OI margin	Net income ($B)	Official source
Q1 FY2026	77.673	18%	37.961	48.9%	27.747	FY2026 Q1 release

Quarter	Revenue ($B)	YoY	Operating income ($B)	OI margin	Net income ($B)	Official source
Q2 FY2026	81.273	17%	38.275	47.1%	38.458	FY2026 Q2 release
Q3 FY2026	82.886	18%	38.398	46.3%	31.778	FY2026 Q3 release
Q4 FY2026	90.007	18%	40.603	45.1%	35.766	FY2026 Q4 release

Net income includes volatile OpenAI and investment effects, especially in Q2-Q4, so operating income is the cleaner segment-consolidation anchor. Revenue remained strong while consolidated margin stepped down sequentially as Azure mix, AI infrastructure and product-usage costs grew.

Segment trend

Segment / metric	Q1 FY2026	Q2 FY2026	Q3 FY2026	Q4 FY2026	Source
P&BP revenue ($B)	33.020	34.116	35.013	37.847	Official quarterly segment tables
P&BP YoY	17%	16%	17%	14%	Official releases
P&BP operating income ($B)	20.407	20.599	20.973	21.900	Official quarterly segment tables
P&BP OI margin	61.8%	60.4%	59.9%	57.9%	Calculated
Intelligent Cloud revenue ($B)	30.897	32.907	34.681	39.306	Official quarterly segment tables
Intelligent Cloud YoY	28%	29%	30%	32%	Official releases / calculated from official comparatives
Intelligent Cloud operating income ($B)	13.391	13.873	13.753	15.955	Official quarterly segment tables
Intelligent Cloud OI margin	43.3%	42.2%	39.7%	40.6%	Calculated
MPC revenue ($B)	13.756	14.250	13.192	12.854	Official quarterly segment tables
MPC YoY	4%	(3%)	(1%)	(4%)	Official releases / calculated from official comparatives
MPC operating income ($B)	4.163	3.803	3.672	2.748	Official quarterly segment tables
MPC OI margin	30.3%	26.7%	27.8%	21.4%	Calculated

Cash-flow and infrastructure trend

Quarter	Operating cash flow ($B)	Cash capex ($B)	Free cash flow ($B)	Total capex including finance leases ($B)	Management context
Q1 FY2026	45.057	19.394	25.663	34.9	Roughly half total capex was short-lived GPUs/CPUs
Q2 FY2026	35.758	29.876	5.882	37.5	Roughly two-thirds short-lived assets
Q3 FY2026	46.679	30.876	15.803	31.9	Roughly two-thirds short-lived assets
Q4 FY2026	55.441	35.802	19.639	41.0	Roughly two-thirds short-lived assets
FY2026	**182.935**	**115.948**	**66.987**	**145.3**	Cash capex and finance-lease timing must remain separate

6. Management commentary on forward growth

The fiscal labels and actual call dates are: Q1 FY2026 on 2025-10-29, Q2 on 2026-01-28, Q3 on 2026-04-29, and Q4 on 2026-07-29. The short excerpts below were verified on the corresponding Microsoft IR transcript pages; the interpretation, not the quote, carries the modeling content.

Productivity and Business Processes

Period and speaker	Short verified excerpt	Topic	Modeling interpretation
Q2 FY2026, Satya Nadella, CEO	“agents as the new Apps”	Agent platform	Treat agents as an attach and workflow driver, not a separate invented GAAP line

Period and speaker	Short verified excerpt	Topic	Modeling interpretation
Q2 FY2026, Satya Nadella	“15 million paid Microsoft 365 Copilot seats”	Paid adoption	Establishes scale but not realized ARPU, discount or margin
Q3 FY2026, Satya Nadella	“same level as Outlook”	Weekly Copilot engagement	Supports habit formation; does not prove retention or revenue
Q4 FY2026, Satya Nadella	“over 30 million paid Microsoft 365 Copilot seats”	Adoption acceleration	More than doubled from Q2, strengthening the attach thesis while exact revenue remains undisclosed

P&BP forward evidence is positive but decelerating in reported product growth. Q4 Microsoft 365 Commercial cloud grew 14%, LinkedIn 12% and Dynamics 365 13%, below several Q3 rates. The segment margin also exited at 57.9%, below its 61.8% Q1 level, consistent with higher Copilot usage and continued product investment. A base case should recognize rapid paid-seat expansion but should not extrapolate Q3 growth or assume classic Office gross margin on AI inference.

Intelligent Cloud

Period and speaker	Short verified excerpt	Topic	Modeling interpretation
Q1 FY2026, Satya Nadella	“commercial RPO increased over 50%”	Demand visibility	Strong contracted demand, but customer concentration and duration matter
Q1 FY2026, Amy Hood, CFO	“demand remains significantly ahead of the capacity”	Supply constraint	Capacity delivery can move quarterly Azure growth; it is not purely demand-led variance
Q3 FY2026, Amy Hood	“AI business annual revenue run rate surpassed $37 billion”	AI monetization	Cross-segment KPI validates scale but cannot be assigned wholly to Azure
Q4 FY2026, Satya Nadella	“Azure surpassed $100 billion”	Annual Azure scale	Gives a threshold dollar anchor, not an exact standalone GAAP product figure

Q4 Azure growth accelerated to 43%, commercial RPO reached $678 billion, and management guided Q1 FY2027 Azure growth to approximately 45% in constant currency. Management also expects FY2027 capex to grow, full-year operating margin to be down less than one point, and FCF to remain positive. Effective FY2027, Microsoft will extend the estimated useful lives of datacenters and office buildings from 15 to 25 years; management expects only a minimal FY2027 operating-income benefit, but said the related shift of more future datacenter leases from finance to operating classification reduces its stated calendar-2026 total-capex expectation to approximately $175 billion. Forecasts must keep this depreciation-life and lease-classification change separate from genuine cash efficiency (source: Microsoft FY2026 Q4 call, 2026-07-29). Those statements define the near-term model tension: exceptional demand and improving fleet efficiency versus continuing depreciation, component pricing and cash investment.

More Personal Computing

Period and speaker	Short verified excerpt	Topic	Modeling interpretation
Q1 FY2026, Satya Nadella	“focused on our higher margin content & services”	Gaming mix	Strategy prioritizes content economics over hardware volume
Q2 FY2026, Satya Nadella	“record PC players”	Gaming engagement	Engagement is healthy but revenue and profit still need conversion
Q3 FY2026, Satya Nadella	“set new records for monthly XBOX active users”	Usage	Supports franchise reach, not standalone revenue growth
Q4 FY2026, Satya Nadella	“reset the business for long-term growth”	XBOX restructuring	Signals that current economics and portfolio required corrective action

MPC is the weakest current trend. Q4 Windows OEM and Devices declined 7%, XBOX content and services declined 10%, and segment operating income fell to $2.748 billion. Search ex-TAC still grew 10%, providing the main organic offset. Forecasts should separate the mature Windows base, the restructuring XBOX business and the faster Search asset rather than applying one segment-wide growth narrative.

7. Capital allocation history

Year	Cash capex ($B)	Capex / revenue	R&D ($B)	R&D / revenue	Cash-flow repurchases ($B)	Dividends paid ($B)	Acquisitions, net ($B)	SBC ($B)	Source
FY2022	23.886	12.0%	24.512	12.4%	32.696	18.135	22.038	7.502	FMP annual tied to 10-K
FY2023	28.107	13.3%	27.195	12.8%	22.245	19.800	1.670	9.611	Same
FY2024	44.477	18.1%	29.510	12.0%	17.254	21.771	69.132	10.734	Same; Activision dominates M&A
FY2025	64.551	22.9%	32.488	11.5%	18.420	24.082	5.978	11.974	Same
FY2026	115.948	34.9%	35.562	10.7%	22.271	26.445	1.743	12.405	Same

Capital allocation has shifted decisively toward infrastructure. Cash capex rose almost fivefold from FY2022 to FY2026, while FCF was roughly flat, rising 2.8%. R&D still rose in dollars, though it declined as a share of revenue. Cash-flow repurchases plus dividends remained substantial, and diluted shares continued to decline modestly. The FY2026 10-K separately reports $16.7 billion of repurchases through the authorized program; the $22.271 billion cash-flow line is broader and is retained here because it is consistently comparable with prior years.

Contracted capital exposure is now material. At June 30, 2026, the 10-K listed $743.821 billion of contractual obligations: $46.136 billion debt principal, $25.553 billion interest, $34.566 billion construction commitments, $443.506 billion operating and finance leases including imputed interest, and $194.060 billion purchase commitments, primarily datacenters. These are not all near-term cash outflows, but they make utilization, counterparty quality and power/component execution central to return on capital.

8. Balance sheet and liquidity snapshot

Item at FY2026 year-end	$B	Source / calculation
Cash and equivalents	20.935	FY2026 10-K balance sheet
Short-term investments	55.908	FY2026 10-K balance sheet
Cash plus short-term investments	76.843	Sum
Official borrowings, current plus long-term	40.294	9.227 + 31.067; excludes lease obligations
Net debt / (net cash)	(36.549)	Borrowings less cash and short-term investments
EBITDA	207.519	FMP annual calculation
Net debt / EBITDA	(0.18)x	Net cash position
Goodwill	119.651	FY2026 balance sheet
Intangible assets	18.609	FY2026 balance sheet
Goodwill plus intangibles	138.260	Sum
Stockholders' equity	442.387	FY2026 balance sheet
Tangible book value	304.127	Equity less goodwill and intangibles
Property and equipment, net	313.076	FY2026 10-K balance sheet
Operating lease right-of-use assets	24.177	FY2026 10-K balance sheet
Current unearned revenue	72.965	FY2026 10-K balance sheet
Total unearned revenue	75.712	72.965 current + 2.747 noncurrent
Current assets / current liabilities	207.710 / 168.825	Current ratio 1.23x

Liquidity is ample on a conventional debt basis, but net cash understates infrastructure commitments and lease duration. FMP's $128.808 billion `totalDebt` includes $88.514 billion of lease obligations and is not comparable with official borrowings; it must not be substituted into leverage calculations. PP&E of $313.076 billion is now larger than tangible book value; together with $24.177 billion of operating lease right-of-use assets, the infrastructure asset base makes depreciation lives, capacity utilization and equipment obsolescence economically load-bearing.

FY2026 operating cash flow of $182.935 billion exceeded net income by 36.8%, but cash capex absorbed $115.948 billion, leaving $66.987 billion of FCF. The balance sheet is not financially stressed; the risk is return dilution from investing ahead of revenue at unprecedented scale.

9. Current strategy, leadership, governance and recent actions

Leadership and operating structure

The FY2026 10-K lists executive officers as of 2026-07-29: Satya Nadella, Chairman and CEO; Judson Althoff, CEO of Microsoft Commercial Business; Amy Coleman, EVP and Chief Human Resources Officer; Amy Hood, EVP and CFO; Takeshi Numoto, EVP and Chief Marketing Officer; and Brad Smith, Vice Chair and President. Nadella and Hood remain the central strategy/capital-allocation partnership, but the operating bench changed materially during FY2026.

Date	Action	Source	Relevance
2025-10-01	Judson Althoff received an expanded CEO role for the commercial business, bringing sales, marketing and operations closer together	https://blogs.microsoft.com/blog/2025/10/01/accelerating-our-commercial-growth/	More direct accountability for AI commercialization and go-to-market execution
2026-02-04	Hayete Gallot returned as EVP, Security; Charlie Bell moved to an engineering-quality role	https://blogs.microsoft.com/blog/2026/02/04/updates-in-two-of-our-core-priorities/	Security and quality elevated as direct CEO priorities
2026-02-20	Asha Sharma was named EVP and CEO of Microsoft Gaming, later titled CEO XBOX; Phil Spencer's retirement was disclosed	https://blogs.microsoft.com/blog/2026/02/20/asha-sharma-named-evp-and-ceo-microsoft-gaming/	Formal succession and a reset mandate for the weakest segment trend
2026-03-12	Rajesh Jha announced retirement effective July 1; Experiences + Devices responsibilities moved to a broader leadership group	https://blogs.microsoft.com/blog/2026/03/12/microsoft-announces-experiences-devices-leadership-changes/	Material succession across Windows, M365 and devices
2026-03-17	Microsoft unified commercial and consumer Copilot leadership and intensified first-party model work	https://blogs.microsoft.com/blog/2026/03/17/announcing-copilot-leadership-update/	Reduces fragmented product ownership; increases execution dependence on integrated models and COGS improvement
2026-07-02	Microsoft announced Frontier Company, a $2.5 billion investment with 6,000 industry and engineering experts embedded with customers	https://blogs.microsoft.com/blog/2026/07/02/microsoft-frontier-company-ai-engineering-that-amplifies-and-protects-your-intelligence/	Expands services-assisted AI deployment; may improve adoption but adds labor intensity
2026-07-06	Microsoft eliminated about 4,800 roles, roughly 2.1% of its workforce, while redeploying staff and transitioning four gaming studios	https://blogs.microsoft.com/blog/2026/07/06/the-latest-in-our-company-transformation/	Cost reset and portfolio action immediately after fiscal year-end
2026-07-29	FY2026 results disclosed 31 new datacenters in Q4, 88 in FY2026, and a plan to roughly double total capacity in two years	FY2026 Q4 transcript URL in source map	Confirms that AI infrastructure scale remains the dominant strategic capital decision

OpenAI is both a strategic asset and a related-party concentration. The FY2026 10-K reports an approximate 25% interest on an as-converted basis, $24.1 billion of FY2026 revenue from commercial arrangements with OpenAI inclusive of revenue-sharing payments, a $6.0 billion receivable at year-end, and $13.0 billion of funding commitments, of which $11.9 billion was funded. This relationship should not be treated as ordinary diversified enterprise ARR.

Governance

The latest available proxy at the cutoff is the 2025 proxy. It states that 11 of 12 director nominees were independent and Sandra Peterson was Lead Independent Director. Microsoft has a single class of stock with equal voting rights, annual director elections, majority voting in uncontested elections, proxy access and a 15% special-meeting threshold. Nadella combines chair and CEO, but the lead-independent-director structure supplies a formal counterweight.

Executive compensation is heavily performance- and equity-based: over 95% of the CEO's annual target opportunity was performance-based; at least 70% of named-executive target compensation was equity-based, averaging over 80%. Relative TSR modifies performance stock awards. The proxy also describes hedging and pledging prohibitions and Audit Committee review of related-party transactions. The governance weakness for this specific cycle is metric design: cloud revenue and operating income can be rewarded while AI infrastructure depresses FCF and ROIC. A direct capital-efficiency hurdle would better match today's risk.

10. Open data gaps and use restrictions

Classification	Gap	Sources and search terms checked	Required downstream treatment
True non-disclosure	Exact GAAP Azure revenue, despite management saying annual Azure exceeded $100B	FY2026 10-K product table; Q1-Q4 releases and calls; `Azure revenue`	Forecast within Server products and cloud services or use only the disclosed threshold; do not invent exact dollars
True non-disclosure	Microsoft 365 Copilot, GitHub Copilot, Security Copilot, Foundry and Game Pass standalone GAAP revenue	FY2026 filings and calls; product names plus `revenue`, ARR and `run rate`	Treat seats/users/ARR snippets as KPIs, not additive GAAP lines
True non-disclosure	Company or segment NRR, DBNR, GRR, churn, CAC, payback and magic number	FY2022-FY2026 Forms 10-K and FY2026 calls; SaaS checklist terms	Do not infer retention or unit economics from absent metrics
True non-disclosure	Segment assets, segment capex, product gross margin and segment ROIC	FY2026 segment note and property/capex disclosures	Use consolidated capital intensity; keep product margins as explicit forecast assumptions
True non-disclosure	Exact Copilot ARPU, discounting, usage cost and cohort retention	FY2026 calls; `paid seats`, `usage`, ARPU, `retention`	Paid-seat adoption cannot be converted into revenue without a labeled estimate
Estimated	ROIC diagnostic and operating margins calculated from disclosed statements	Sections 2, 3 and 5	Calculations are reproducible; they are not issuer-reported KPIs
Estimated	Q4 XBOX quarterly dollars are the official annual less official Q1-Q3 values	QF/QFR and FY2026 filings	Preserve label `official primary-source replacement`; do not call it raw FMP
Not applicable	Bank, insurer, REIT and commodity KPIs	Industry checklist	No NIM, solvency, FFO, reserve or production tables required

There are no open gaps in the segment-profit-to-statutory-income bridge. All bridge labels, signs, classifications and amounts are sealed and residuals are zero. The principal analytical uncertainty is economic, not arithmetic: how quickly the AI infrastructure and contracted backlog convert into durable high-margin revenue and free cash flow.