

Appian Corporation

 Neutral

Q3'23: Litigation dominates the many variables

Key Points

- APPN reported a slightly better top line and much reduced Adj. EBITDA losses at \$(5.3)mn vs. FactSet consensus of \$(13.9mn).
- Q4'23E cloud growth was guided to decelerate to 19% - 21% Y/Y, a significant step-down from 27% Y/Y in Q3'23.
- With the PEGA lawsuit ongoing and cloud decelerating, we see little to do here. We reiterate Neutral and move our TP from \$45 to \$42.

Earnings Recap

- Appian reported a better Q3'23 with revenue of \$137.1mn vs. consensus of \$135.3mn and Adj. EBITDA losses improving to \$(5.3)mn vs. consensus of \$(13.9)mn and vs. \$(24.7)mn in the prior quarter. Cloud revenue grew 27% Y/Y to \$77.2mn, ahead of guidance of \$75.5mn - \$76.5mn. Total subscription revenue grew ~20% Y/Y as term license grew just ~1% Y/Y while management called out a partial impact from some customers converting to cloud.
- While we think Appian takes a typically quite conservative approach to guidance, we think management's choice to leave FY'23E top-line guidance unchanged despite a Q3 beat and guiding cloud to grow just 19% - 21% Y/Y reflects a material impact from the macro headwinds cited on the call (e.g. caution around federal government shutdown risk, executive changes at certain customers, restructurings, layoffs, deal slippage, higher budget scrutiny, elongated sales cycles).
- We think Appian's Q3'23 Adj. EBITDA performance and Q4'23E guidance show it is nicely set up to deliver on its target for better than (10)% Adj. EBITDA margins in H2'23E. We are pleased to hear Appian's focus on prioritizing cost efficiency projects including building out its offshore R&D center located in Chennai, and we hope that Appian can continue to deliver consistently narrowing Adj. EBITDA losses in coming years towards achieving its long-term 20% non-GAAP operating margin target.

Earnings changes: We raise our FY'23E sales by ~0.2% to \$540.6m, Adj. EBITDA margin by 73 bps to ~(11.1)%, and non-GAAP EPS by \$0.02 to \$(1.10), reflecting the co.'s updated guide.

Valuation: We lower our sum-of-parts-derived TP to \$42. Our software segment DCF implies 5.8x FY'24E EV/Sales vs. our est. is that it trades at 5.8x EV/FY'24E Software Sales and vs. the platform and automation group at 7.0x FY'2E EV/Sales.

Catalyst: Q4'23E earnings and oral arguments in PEGA's appeal on Nov. 15.

Investment Thesis and Recommendation

We reiterate Neutral. Appian has shown significant improvements in Adj. EBITDA losses, though steeply decelerating cloud growth introduces more uncertainty. Nevertheless, we think the Pega lawsuit dominates the debate and see little to do until fundamentals improve or the litigation is resolved.

Software & Services United States



**Frederick
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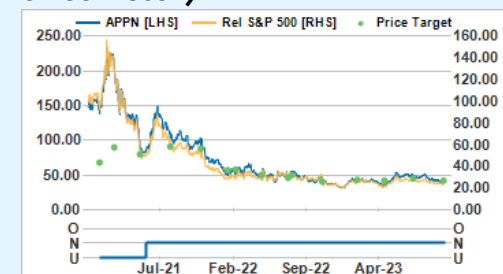
**Adam
Bojanowski**

APPN US	Neutral
Price (at 2 Nov 2023)	USD41.72
12-month target	USD42.00
12 month TSR (%)	0.7
Market Cap (Local) (m)	3,050
Market Cap (USD) (m)	3,050
30-day avg turnover (USD)(m)	11.2

Investment Fundamentals

Year end 31 Dec	2022A	2023E	2024E	2025E
Revenue (m)	468.0	540.6	607.5	698.7
EBITDA (m)	(76.0)	(59.9)	(25.5)	2.4
EBITDA growth (%)	(100.4)	21.1	57.4	NM
EBIT (m)	(83.3)	(70.8)	(35.2)	(8.5)
EBIT growth (%)	(90.8)	15.0	50.3	75.9
Reported profit (m)	(150.9)	(130.1)	(56.4)	(33.0)
Adjusted profit (m)	(89.2)	(80.2)	(32.1)	(5.1)
EPS adj [\$]	(1.2)	(1.1)	(0.4)	(0.1)
EPS adj growth (%)	(81.0)	10.8	60.4	84.3
ROA (%)	(15.2)	(11.3)	(5.3)	(1.2)
ROE (%)	(47.0)	(81.6)	(92.2)	(31.2)
EV/EBITDA (x)	(37.1)	(47.4)	(112.7)	1,198.8
Net debt/equity (x)	(55.3)	(116.5)	(385.4)	(761.8)
P/BV (x)	20.8	60.2	165.2	229.0

APPN US rel S&P 500 performance, & rec history



Source: FactSet, Macquarie Research, Nov 2023 (all figures in USD unless noted, TP in USD)

Key Risks to Investment Thesis

Risks include: global economic conditions, competitive landscape, new customer acquisition, customer renewals, customer expansion, regulations, litigations, intellectual property rights, cybersecurity attacks, foreign currency fluctuations, channel partnerships, significant government exposure, digital transformation trends, customer concentration, acquisitions and integration, cross-selling and up-selling motions, founder's majority ownership, and more.

Company Description

Appian is a low-code application development and automation platform focusing on business process management. Appian's platform includes pre-built automation technologies for common enterprise needs, which Appian developers leverage using visual interface and proprietary SAIL programming language. The company's automation technologies include workflow automation, rules engine, robotic process automation, case management capabilities, and data layer.

Figure 1 - Appian's Q3'23 Results vs. Macquarie and Consensus Expectations

Q3'23 Reported Results vs. Estimates (\$mn, except margin and per share data)	Macquarie Estimates	Consensus Estimates	Reported Results	Results vs. Consensus	Cons. Implied Growth Y/Y (%)	Reported Growth Y/Y (%)
Total Revenue	\$ 134.9	\$ 135.4	\$ 137.1	1.3%	14.9%	16.3%
Subscription	\$ 101.8	\$ 102.9	\$ 103.8	0.8%	19.0%	20.0%
Non-GAAP Gross Margin	73.1%	74.5%	75.0%	46 bps	172 bps	217 bps
Non-GAAP Operating Margin	-12.9%	-12.4%	-5.6%	679 bps	850 bps	1529 bps
Non-GAAP EBITDA	\$ (13.7)	\$ (13.9)	\$ (5.3)	61.7%	39.1%	76.6%
Non-GAAP EBITDA Margin	-10.1%	-10.3%	-3.9%	640 bps	910 bps	1551 bps
Non-GAAP EPS	\$ (0.25)	\$ (0.26)	\$ (0.20)	-22.4%	39.5%	53.0%
Cash from Operations	\$ (37.2)	\$ (34.1)	\$ (65.0)	-90.9%	22.1%	-48.7%
Free Cash Flow	\$ (39.2)	\$ (33.8)	\$ (65.5)	-93.5%	24.6%	-45.9%
Total Billings	\$ 146.0	\$ 146.4	\$ 139.5	-4.7%	13.1%	7.8%

Source: Company Data, FactSet, Macquarie Research, November 2023

Figure 2 - Appian's Q4'23E Guidance vs. Macquarie and Consensus Expectations and Changes to Macquarie's Estimates

Q4'23E Guidance vs. Estimates (\$mn, except margin and per share data)	Macquarie Pre- Earnings Estimates	Consensus Estimates	Macquarie Post- Earnings Estimates	Midpt. of Company's Guidance	Changes to Our Estimates (\$)	Changes to Our Estimates (%)
Total Revenue	\$ 141.9	\$ 142.9	\$ 140.5	\$140.5mn	\$ (1.3)	-0.9%
Subscription	\$ 110.4	\$ 110.9	\$ 110.7		\$ 0.3	0.3%
Non-GAAP Gross Margin	74.1%	75.3%	75.2%			108 bps
Non-GAAP Operating Margin	-9.4%	-9.0%	-12.7%			-332 bps
Non-GAAP EBITDA	\$ (9.6)	\$ (10.5)	\$ (14.1)	-\$14.1mn	\$ (4.5)	-46.8%
Non-GAAP EBITDA Margin	-6.8%	-7.4%	-10.0%	-10.0%		-325 bps
Non-GAAP EPS	\$ (0.20)	\$ (0.19)	\$ (0.24)	(\$0.27)	\$ (0.04)	-18.1%
Cash from Operations	\$ 15.4	\$ (0.7)	\$ 33.6		\$ 18.3	119.0%
Free Cash Flow	\$ 12.5	\$ (3.8)	\$ 31.7		\$ 19.1	152.9%
Total Billings	\$ 184.7	\$ 176.5	\$ 189.5		\$ 4.8	2.6%

Source: Company Data, FactSet, Macquarie Research, November 2023

Figure 3 - Macquarie's Changes to Appian Key Metrics vs. Consensus and Guidance

	Total Revenue (\$ mn)				Adjusted EBITDA Margin (%)				Non-GAAP EPS (\$)			
	Prior	Consensus	Updated	Guidance (Mid-point)	Prior	Consensus	Updated	Guidance (Mid-point)	Prior	Consensus	Updated	Guidance (Mid-point)
FY2023E	\$539.7	\$541.2	\$540.6	\$540.5	-11.8%	-12.0%	-11.1%	-11.1%	(\$1.11)	(\$1.10)	(\$1.10)	(\$1.10)
FY2024E	\$630.4	\$628.0	\$607.5		-5.2%	-4.9%	-4.2%		(\$0.67)	(\$0.61)	(\$0.43)	
FY2025E	\$748.1	\$746.4	\$698.7		-0.2%	1.1%	0.3%		(\$0.27)	(\$0.06)	(\$0.07)	

Source: Company Data, FactSet, Macquarie Research, November 2023

Figure 4 - Macquarie's Appian Sum-of-Parts Valuation Analysis

Combined Sum-of-Parts Valuation	
DCF Derived Software EV	2,770.3
Less: Est. Net Debt (FY'23E end)	6.3
Est. Software Equity Value	2,764.0
Software Per-Share Value	\$37.8
Est. Shares (FY'23E end)	73.1
Professional Services Per-Share Value	\$4.3
Combined Per-Share Value	\$42

Source: Company Data, FactSet, Macquarie Research, November 2023

Figure 5 - Macquarie's Appian Professional Services Valuation Analysis

Appian Professional Services Valuation Analysis APPN-US			
	FY2023E	FY2024E	FY2025E
Revenue	133.3	133.6	150.2
Non-GAAP COGS	(94.9)	(100.2)	(112.6)
Non-GAAP Gross Income	38.4	33.4	37.5
Non-GAAP Gross Margin	28.8%	25.0%	25.0%
Est. Non-GAAP OpEx	(18.4)	(12.0)	(13.0)
Est. Non-GAAP Op. Income	20.0	21.4	24.6
Est. Non-GAAP Op. Margin (%)	15.0%	16.0%	16.4%
Est. Tax Expense	4.4	4.7	5.4
Est. Tax Rate	22.0%	22.0%	22.0%
Est. Net Income	15.6	16.7	19.2
EPS	\$0.20	\$0.22	\$0.24
GAAP Diluted Shares	73.1	73.8	74.7
Dilutive Impact	3.7	3.7	3.7
Non-GAAP Diluted Shares	76.8	77.5	78.4
Valuation			
FY'24E Pro. Serv EPS			\$0.22
FY'2E Pro. Serv. Peer Group P/E			20.2x
Pro. Serv. Per Share Value			\$4.3

Source: Company Data, FactSet, Macquarie Research, November 2023

Figure 6 - Macquarie's Appian Application Development and IT Services Peer Group Relative Valuation Analysis

Application Development and IT Services Peer Group										
		FY'1E			FY'2E			FY'3E		
		Gross Margin	Op. Margin	P/E	Gross Margin	Op. Margin	P/E	Gross Margin	Op. Margin	P/E
IBM	IBM	56.2%	17.4%	15.5x	56.5%	18.0%	14.9x	57.0%	18.7%	14.1x
Accenture	ACN	32.4%	15.6%	25.2x	32.2%	15.9%	23.2x	32.1%	16.2%	20.8x
Cognizant	CTSH	34.5%	14.0%	14.4x	35.4%	14.8%	13.8x	35.3%	15.2%	12.7x
HCL	532281-IN	32.8%	18.3%	22.0x	33.2%	18.7%	19.5x	33.5%	18.9%	17.7x
Wipro	507685-IN	28.0%	15.1%	18.3x	28.3%	16.0%	16.3x	28.3%	16.3%	14.8x
EPAM	EPAM	31.1%	15.7%	22.7x	31.3%	16.0%	21.8x	31.9%	16.2%	18.8x
Endava	DAVA-US	32.1%	12.5%	26.8x	35.1%	16.6%	18.6x	31.8%	16.4%	15.0x
Grid Dynamics	GDYN-US	37.0%	11.2%	33.2x	37.9%	12.7%	27.4x	39.6%	13.9%	21.1x
Globant	GLOB	37.7%	15.5%	31.0x	37.6%	15.8%	25.9x	37.0%	15.5%	21.3x
Mindtree	532819-IN	NA	NA	NA	NA	NA	NA	NA	NA	NA
Average		35.7%	15.0%	23.2x	36.4%	16.0%	20.2x	36.3%	16.4%	17.4x

Source: FactSet, Macquarie Research, November 2023

Figure 7 - Macquarie's Appian Software Business Discounted Cash Flow Valuation Analysis

Appian Discounted Cash Flow Analysis (\$ mn)										
APPN-US	FY2023E	FY2024E	FY2025E	FY2026E	FY2027E	FY2028E	FY2029E	FY2030E	FY2031E	FY2032E
Subscription revenue	407.3	473.9	548.5	625.7	703.3	778.7	849.1	911.6	963.4	1,001.9
Non-GAAP Sub. COGS	(43.5)	(47.4)	(54.9)	(62.6)	(70.3)	(77.9)	(84.9)	(91.2)	(96.3)	(100.2)
Est. Non-GAAP Sub. OpEx	(454.6)	(483.1)	(526.7)	(568.7)	(603.0)	(627.5)	(640.6)	(640.8)	(627.6)	(601.1)
Depreciation	10.9	9.7	10.9	11.6	12.0	12.2	12.1	11.7	11.0	10.0
CapEx	(10.2)	(8.5)	(9.8)	(10.5)	(11.0)	(11.3)	(11.3)	(11.2)	(10.7)	(10.0)
Income taxes	2.4	0.0	0.0	0.0	(1.9)	(6.9)	(15.5)	(28.2)	(45.1)	(66.1)
Working cap & other	(7.1)	3.1	3.4	12.3	23.2	36.2	50.8	66.7	83.4	100.2
Est. Subscription FCF	(94.9)	(52.3)	(28.5)	7.9	52.4	103.5	159.6	218.7	278.0	334.6
Growth and Margins										
Subscription revenue growth	20%	16%	16%	14%	12%	11%	9%	7%	6%	4%
Subscription Non-GAAP Gross Margin	89%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Subscription Operating Margin (%)	-22%	-12%	-6%	-1%	4%	9%	15%	20%	25%	30%
Depreciation	3%	2%	2%	2%	2%	2%	1%	1%	1%	1%
CapEx	3%	2%	2%	2%	2%	1%	1%	1%	1%	1%
Tax rate	-3%	0%	0%	3%	6%	9%	13%	16%	19%	22%
Working cap & other	-2%	1%	1%	2%	3%	5%	6%	7%	9%	10%
Period Beta	2.1	2.0	1.9	1.8	1.6	1.5	1.4	1.3	1.2	1.1
Period WACC	15%	15%	14%	13%	13%	12%	11%	11%	10%	10%
Periods for discounting	0.25	1.25	2.25	3.25	4.25	5.25	6.25	7.25	8.25	9.25
Discount factor	1.04	1.18	1.34	1.50	1.66	1.82	1.97	2.12	2.24	2.35
Present value of cash flow	(91.6)	(44.2)	(21.3)	5.3	31.5	56.8	80.9	103.4	124.0	142.3
Software Business Valuation Metrics				Software Business Valuation						
EV/Sales	6.8x	5.8x	5.1x							
				PV of Cash Flows						
				PV of Terminal Value						
				Est. Firm EV						
				Less: Est. Net Debt (FY'23E end)						
				Equity Value						
				Per Share Value						
				Est. Shares (FY'23E end)						
				WACC						
				Terminal Growth Rate						
Capital Structure			Cost of Equity Analysis			Cost of Debt Analysis				
Market Cap	3,050.4		Risk Free Rate	4.5%		Avg. interest rate	1.6%			
Total Est. Debt (FY'23E end)	213.9		Long-Term Market Return	10.0%		Tax rate (est. long-term)	22.0%			
Total Capitalization	3,264.4		Beta	2.1		Est. Cost of Debt	1.2%			
Equity/Cap	93.4%		Est. Current Cost of Equity	16.1%						
Debt/Cap	6.6%									

Source: Company Data, FactSet, Macquarie Research, November 2023

Figure 8 - Macquarie Estimates Appian's Software Business Is Trading at 5.8x FY'24E EV/Sales

Software Business Consensus Valuation Analysis	
Est. Professional Services Per-Share Value (\$)	\$4.35
Est. Shares (mn)	76.8
Est. Professional Services Valuation (\$ mn)	\$334
Appian Consensus Enterprise Value (\$ mn)	\$3,089
Less: Professional Services EV (\$ mn)	\$334
Implied Software Enterprise Value (\$ mn)	\$2,756
Macquarie's Est. FY'24E Software Sales (\$ mn)	\$474
Implied Appian FY'24E EV/Software Sales	5.8x

Source: FactSet, Macquarie Research, November 2023

Figure 9 - Macquarie's Appian Platform and Automation Software Peer Group Relative Valuation Analysis

Platform and Automation Software Group Valuation Table FY'2E								
	FY'2E Cons. Revenue Growth (%)	Enterprise Value (\$mn)	FY'2E Cons. EV/Sales	FY'2E Cons. EV/FCF	FY'2E Cons. Op. Margin (%)	YTD Performance (%)	52 Week Stock Performance (%)	Short Interest as a % of the Float
APPN	16.0%	\$3,089	4.9x	NA	-6.4%	28.1%	-12.1%	8.2%
CRM	11.0%	\$203,943	5.3x	20.0x	31.5%	57.0%	38.7%	0.7%
PEGA	8.5%	\$3,987	2.7x	14.0x	18.0%	31.0%	32.4%	2.3%
SPLK	11.8%	\$26,362	6.0x	24.0x	22.8%	70.5%	91.2%	2.6%
PATH	19.1%	\$7,630	5.0x	25.7x	16.4%	30.4%	48.6%	9.5%
NOW	21.1%	\$121,069	11.2x	36.0x	28.2%	54.4%	52.7%	1.2%
MDB	22.9%	\$22,806	11.5x	NA	13.2%	67.1%	101.6%	4.6%
TEAM	21.2%	\$45,999	9.1x	35.2x	20.2%	41.0%	5.2%	2.2%
Average	16.4%	\$54,361	7.0x	25.8x	18.0%	47.4%	44.8%	3.9%

Source: FactSet, Macquarie Research, November 2023

Figure 10 - Macquarie's Appian Model: Key Model Drivers

Appian (APPN) Model Drivers \$ millions APPN-US	2023E					2024E					2024E Dec-24	2025E Dec-25
	2022A Dec-22	1Q Mar-23	2Q Jun-23	3Q Sep-23	4Q Dec-23	2023E Dec-23	1Q Mar-24	2Q Jun-24	3Q Sep-24	4Q Dec-24		
	Revenue Model											
Total Revenue	468.0	135.2	127.7	137.1	140.5	540.6	147.6	143.8	154.0	162.1	607.5	698.7
Q/Q Growth (%)		7.5%	-5.6%	7.3%	2.5%		5.1%	-2.6%	7.1%	5.2%		
Y/Y Growth (%)	26.7%	18.4%	16.0%	16.3%	11.7%	15.5%	9.2%	12.6%	12.3%	15.3%	12.4%	15.0%
Subscription	340.2	99.0	93.8	103.8	110.7	407.3	115.5	110.8	120.2	127.4	473.9	548.5
Q/Q Growth (%)		6.1%	-5.2%	10.7%	6.7%		4.3%	-4.0%	8.5%	6.0%		
Y/Y Growth (%)	29.0%	18.2%	22.3%	20.0%	18.8%	19.7%	16.7%	18.1%	15.8%	15.1%	16.3%	15.8%
Cloud Subscription	236.9	69.7	74.4	77.2	79.1	300.5	83.9	89.7	93.2	96.4	363.2	437.9
Q/Q Growth (%)		5.9%	6.8%	3.8%	2.4%		6.1%	7.0%	3.9%	3.4%		
Y/Y Growth (%)	32.1%	31%	30.4%	27.4%	20.2%	26.8%	20.4%	20.6%	20.7%	21.8%	20.9%	20.5%
% of ST DR		35.8%	38.4%	40.3%	40.7%		34.8%	35.3%	37.5%	39.0%		
Cloud Mix (%) of Subscription	70%	70%	79%	74%	71%	74%	73%	81%	78%	76%	77%	80%
Term license Subscription Revenue	79.7	23.2	13.0	20.0	25.0	81.2	25.0	14.3	20.0	24.0	83.2	81.2
Q/Q Growth (%)		9.2%	-43.9%	54.1%	25.0%		0.0%	-43.0%	40.0%	20.0%		
Y/Y Growth (%)	26.2%	-6.3%	-7.6%	1.3%	18.0%	1.8%	8.1%	9.8%	-0.2%	-4.2%	2.5%	-2.5%
Maintenance & Support	23.4	6.1	6.4	6.5	6.6	25.6	6.5	6.8	7.0	7.1	27.4	29.5
Q/Q Growth (%)		-1.3%	3.9%	2.8%	1.0%		-1.0%	4.0%	3.0%	1.0%		
Y/Y Growth (%)	11.0%	9.2%	15.0%	6.6%	6.5%	9.2%	6.8%	6.9%	7.1%	7.1%	7.0%	7.7%
Professional Services	127.8	36.3	33.9	33.3	29.8	133.3	32.2	33.0	33.8	34.7	133.6	150.2
Q/Q Growth (%)		11%	-6%	-2%	-10.5%		8.0%	2.5%	2.5%	2.5%		
Y/Y Growth (%)	21%	19%	2%	6%	-8%	4%	-11%	-3%	2%	16%	0%	12%
Revenue Mix												
Cloud Subscription	50.6%	51.5%	58.3%	56.3%	56.3%	55.6%	56.8%	62.4%	60.5%	59.5%	59.8%	62.7%
Term License	17.0%	17.1%	10.2%	14.6%	17.8%	15.0%	17.0%	9.9%	13.0%	14.8%	13.7%	11.6%
Maintenance	5.0%	4.5%	5.0%	4.8%	4.7%	4.7%	4.4%	4.7%	4.5%	4.4%	4.5%	4.2%
Professional Services Mix of Revenue (%)	27.3%	26.8%	26.6%	24.3%	21.2%	24.7%	21.8%	22.9%	22.0%	21.4%	22.0%	21.5%
Billings / Bookings												
Short-term DR	194.8	193.9	191.7	194.6	241.4	241.4	254.6	248.6	247.1	298.0	298.0	361.2
Q/Q Growth (%)		0%	-1%	2%	24%		5%	-2%	-1%	21%		
Y/Y Growth (%)	30%	33%	27%	21%	24%	24%	31%	30%	27%	23%	23%	21%
Short-term Billings	512.6	134.4	125.5	140.0	187.4	587.2	160.8	137.8	152.5	212.9	664.0	761.9
Q/Q Growth (%)		-16%	-7%	12%	34%		-14%	-14%	11%	40%		
Y/Y Growth (%)	27%	22%	9%	10%	18%	15%	20%	10%	9%	14%	13%	15%
TTM ST Billings	512.6	536.6	547.0	559.3	587.2	587.2	613.7	625.9	638.5	664.0	664.0	761.9
Q/Q Growth (%)		5%	2%	2%	5%		5%	2%	2%	4%		
Y/Y Growth (%)	27%	24%	19%	15%	15%	15%	14%	14%	14%	13%	13%	15%
Total DR	200.3	198.7	195.4	197.8	246.9	246.9	260.8	253.4	251.2	304.7	304.7	369.3
Q/Q Growth (%)		-1%	-2%	1%	25%		6%	-3%	-1%	21%		
Y/Y Growth (%)	31%	34%	28%	20%	23%	23%	31%	30%	27%	23%	23%	21%
Total Billings	515.7	133.6	124.5	139.5	189.5	587.1	161.6	136.4	151.8	215.5	665.3	763.3
Q/Q Growth (%)		-17%	-7%	12%	36%		-15%	-16%	11%	42%		
Y/Y Growth (%)	28%	22%	8%	8%	17%	14%	21%	10%	9%	14%	13%	15%
Total RPO	376.5	366.1	383.8	391.9								
Q/Q Growth (%)		-3%	5%	2%								
Y/Y Growth (%)		26%	29%	23%								
cRPO	243.2	237.1	245.0	262.4								
Q/Q Growth (%)		-3%	3%	7%								
Y/Y Growth (%)												

Source: Company Data, Macquarie Research, November 2023

Figure 11 - Macquarie's Appian Model: Non-GAAP Income Statement

Appian Non-GAAP IS \$ millions APPN-US	2022A Dec-22	2023E					2024E					2025E Dec-25
		1QA Mar-23	2QA Jun-23	3QA Sep-23	4QE Dec-23	2023E Dec-23	1QE Mar-24	2QE Jun-24	3QE Sep-24	4QE Dec-24	2024E Dec-24	
Subscriptions	340.2	99.0	93.8	103.8	110.7	407.3	115.5	110.8	120.2	127.4	473.9	548.5
Professional services	127.8	36.3	33.9	33.3	29.8	133.3	32.2	33.0	33.8	34.7	133.6	150.2
Total Revenue	468.0	135.2	127.7	137.1	140.5	540.6	147.6	143.8	154.0	162.1	607.5	698.7
Subscriptions	35.0	10.2	10.5	11.1	11.8	43.5	11.5	11.1	12.0	12.7	47.4	54.9
Professional services	91.9	23.9	24.6	23.3	23.1	94.9	24.1	24.7	25.4	26.0	100.2	112.6
Cost of Revenue	126.9	34.1	35.1	34.3	34.9	138.4	35.7	35.8	37.4	38.7	147.6	167.5
Gross Profit	341.1	101.1	92.6	102.8	105.6	402.2	112.0	108.0	116.6	123.3	459.9	531.2
Sales and marketing	211.1	60.6	59.8	52.4	59.0	231.9	57.6	57.5	58.5	62.4	236.0	257.5
Research and development	126.6	38.0	36.8	34.2	38.1	147.1	39.3	38.1	36.1	41.5	155.0	171.2
General and administrative	86.7	24.7	25.1	24	26.4	100.1	25.5	26.6	25.2	26.7	104.1	111.0
Total OpEx	424.4	119.3	119.7	110.5	123.5	473.0	122.4	122.2	119.8	130.6	495.1	539.7
Operating loss	(83.3)	(18.2)	(27.1)	(7.7)	(17.9)	(70.8)	(10.4)	(14.3)	(3.2)	(7.3)	(35.2)	(8.5)
Other (income) expense, net	3.5	(2.7)	(4.4)	1.9	(0.8)	(6.0)	(1.1)	(1.1)	(1.0)	(0.9)	(4.1)	(4.4)
Interest expense	1.7	3.1	4.8	4.9	0.2	13.0	0.2	0.2	0.2	0.2	1.0	1.0
Total other (income) expense, net	5.2	0.4	0.3	6.9	(0.7)	7.0	(0.8)	(0.9)	(0.8)	(0.7)	(3.1)	(3.4)
Earnings before tax	(88.5)	(18.6)	(27.4)	(14.5)	(17.2)	(77.8)	(9.6)	(13.4)	(2.4)	(6.6)	(32.1)	(5.1)
Income tax expense	0.7	1.1	1.1	0.1	0.1	2.4	-	-	-	-	-	-
<i>Effective tax rate</i>	<i>-0.8%</i>	<i>-6.1%</i>	<i>-4.0%</i>	<i>-0.6%</i>	<i>-0.6%</i>	<i>-3.1%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>
Net income (loss)	(89.2)	(19.7)	(28.5)	(14.6)	(17.3)	(80.2)	(9.6)	(13.4)	(2.4)	(6.6)	(32.1)	(5.1)
Net income (loss) per share	(\$1.23)	(\$0.27)	(\$0.39)	(\$0.20)	(\$0.24)	(\$1.10)	(\$0.13)	(\$0.18)	(\$0.03)	(\$0.09)	(\$0.43)	(\$0.07)
Non-GAAP Diluted Shares	72.5	72.9	73.0	73.2	73.3	73.1	73.5	73.7	73.9	74.1	73.8	74.7
Adjusted EBITDA Build												
GAAP Net Loss	(150.9)	(36.8)	(42.4)	(22.3)	(28.6)	(130.1)	(15.5)	(19.1)	(8.6)	(13.1)	(56.4)	(33.0)
Other (income) expense, net	3.5	(2.7)	(3.9)	1.9	(0.8)	(5.5)	(1.1)	(1.1)	(1.0)	(0.9)	(4.1)	(4.4)
Interest expense	1.7	3.1	4.8	4.9	0.2	13.0	0.2	0.2	0.2	0.2	1.0	1.0
Income tax expense	0.7	1.1	0.8	0.2	0.1	2.2	-	-	-	-	-	-
Depreciation and amortization	7.3	2.3	2.4	2.3	3.8	10.9	2.3	2.4	2.5	2.5	9.7	10.9
Stock-based compensation	38.8	11.1	11.1	11.0	11.3	44.5	5.9	5.8	6.2	6.5	24.3	27.9
Litigation expenses	22.9	1.8	0.3	(5.0)	-	(2.8)	-	-	-	-	-	-
JPI amortization	-	-	-	1.5	-	1.5	-	-	-	-	-	-
Severance costs	-	4.2	2.1	-	-	6.3	-	-	-	-	-	-
Adjusted EBITDA	(76.0)	(15.8)	(24.7)	(5.3)	(14.1)	(59.9)	(8.1)	(11.9)	(0.8)	(4.8)	(25.5)	2.4

Source: Company Data, Macquarie Research, November 2023

Appian Corporation (APPN US) USD unless otherwise noted

Income Statement	Dec FY	2022A	2023E	2024E	2025E	Q3/23A	Q4/23E	Balance Sheet	2022A	2023E	2024E	2025E
Revenue		468.0	540.6	607.5	698.7	137.1	140.5	Cash	196.0	207.6	216.9	242.9
EBITDA		(76.0)	(59.9)	(25.5)	2.4	(5.3)	(14.1)	Receivables	166.0	148.5	172.6	199.6
Depreciation		7.3	10.9	9.7	10.9	2.3	3.8	Fixed Assets	41.9	42.1	41.0	39.8
EBIT		(83.3)	(70.8)	(35.2)	(8.5)	(7.7)	(17.9)	Intangibles	31.6	28.5	28.5	28.5
Net Interest Expense		5.2	7.5	(3.1)	(3.4)	6.9	(0.7)	Other Assets	158.8	217.8	223.2	233.1
Pre-Tax Profit		(150.2)	(127.8)	(56.4)	(33.0)	(22.1)	(28.5)	Total Assets	594.2	644.6	682.2	743.9
Tax Expense		0.7	2.2	0.0	0.0	0.2	0.1	Payables	8.0	9.6	10.2	11.2
Net Profit		(150.9)	(130.1)	(56.4)	(33.0)	(22.3)	(28.6)	Long Term Debt	115.4	148.5	144.8	138.8
Net Non Recurring & Assoc		(61.7)	(49.3)	(24.3)	(27.9)	(7.6)	(11.3)	Other Liabilities	325.1	435.7	508.5	580.3
Reported Earnings		(150.9)	(130.1)	(56.4)	(33.0)	(22.3)	(28.6)	Total Liabilities	448.5	593.8	663.5	730.3
Adjusted Earnings		(89.2)	(80.2)	(32.1)	(5.1)	(14.6)	(17.3)	Shareholders' Funds	145.7	50.8	18.7	13.7
Gross Cashflow		(81.9)	(69.3)	(22.4)	5.9	(12.3)	(13.5)	Total Shareholders' Equity	145.7	50.8	18.7	13.7
Diluted Shares Outstanding (m)		72.5	73.1	73.8	74.7	73.2	73.3	Net Debt	(80.6)	(59.1)	(72.1)	(104.1)
EPS (adj) (¢)		(1.2)	(1.1)	(0.4)	(0.1)	(0.2)	(0.2)	Net Debt / Equity (%)	(55.3)	(116.5)	(385.4)	(761.8)
EPS (adj) [\$]		(1.2)	(1.1)	(0.4)	(0.1)	(0.2)	(0.2)	Interest Cover (x)	(27.8)	(16.0)	NM	NM
CFPS (c)		(1.1)	(0.9)	(0.3)	0.1	(0.2)	(0.2)	ROE (%)	(47.0)	(81.6)	(92.2)	(31.2)
								ROA (%)	(15.2)	(11.3)	(5.3)	(1.2)
								ROIC (%)	(107.4)	(110.7)	420.4	15.9
Ratio		2022A	2023E	2024E	2025E			Cash Flow Analysis	2022A	2023E	2024E	2025E
Revenue Growth (%)		26.7	15.5	12.4	15.0	-	-	EBITDA	(76.0)	(59.9)	(25.5)	2.4
EBITDA Growth (%)		(100.4)	21.1	57.4	NM	-	-	Tax Paid	(0.7)	(2.2)	0.0	0.0
EBIT Growth (%)		(90.8)	15.0	50.3	75.9	-	-	Chgs in Working Cap	2.0	(5.9)	(43.9)	(35.9)
EPS Growth (%)		(81.0)	10.8	60.4	84.3	-	-	Net Interest Paid	(5.2)	(7.5)	3.1	3.4
CFPS Growth (%)		(88.6)	16.0	68.0	NM	-	-	Other	(26.7)	7.0	87.7	71.8
EBITDA/Sales (%)		(16.2)	(11.1)	(4.2)	0.3	-	-	Operating Cashflow	(106.6)	(68.6)	21.5	41.8
EBIT/Sales (%)		(17.8)	(13.1)	(5.8)	(1.2)	-	-	Capex	(9.1)	(10.2)	(8.5)	(9.8)
EV/EBITDA (x)		(37.1)	(47.4)	(112.7)	1,198.8	-	-	Other	19.4	9.1	0.0	0.0
EV/EBIT (x)		(33.8)	(40.1)	(81.7)	(342.4)	-	-	Investing Cashflow	10.3	(1.1)	(8.5)	(9.8)
EV/Sales (x)		6.0	5.3	4.7	4.2	-	-	Equity Movements	0.0	0.7	0.0	0.0
PGCFPS (x)		NM	NM	NM	501.5	-	-	Debt Movements	119.4	88.6	(3.8)	(6.0)
P/BV (x)		20.8	60.2	165.2	229.0	-	-	Other	23.5	(0.4)	0.0	0.0
NTA per Share (\$)		1.6	0.3	(0.1)	(0.2)	-	-	Financing Cashflow	142.9	88.9	(3.8)	(6.0)
								Net Chg in Cash/Debt	46.4	18.5	9.2	26.0
								Free Cashflow	(115.6)	(78.8)	13.0	32.0

Source: Company data, Macquarie Research Nov 2023

Key Quant Findings

The quant model currently holds a marginally negative view on Appian Corporation. The strongest style exposure is Price Momentum, indicating this stock has had strong medium to long term returns which often persist into the future. The weakest style exposure is Profitability, indicating this stock is not efficiently converting investments to earnings; proxied by ratios like ROE or ROA.

Macquarie Alpha Model: Key rankings

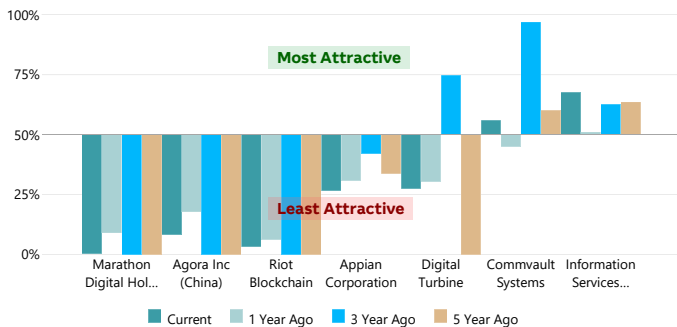
The Macquarie Quant's flagship Alpha model is a dynamic multi-factor model based on a staple of quant factors such as value, momentum, revisions, quality, and risk.

	Global	Market (Country)	Sector
	Whole Universe	United States	Software & Services
Macquarie Alpha Model	12330/17584	2411/3289	483/782
Fundamental (Consensus) *	9964/17584	2295/3289	459/782

* based on Total Shareholder Return = Consensus Price target / Current Price

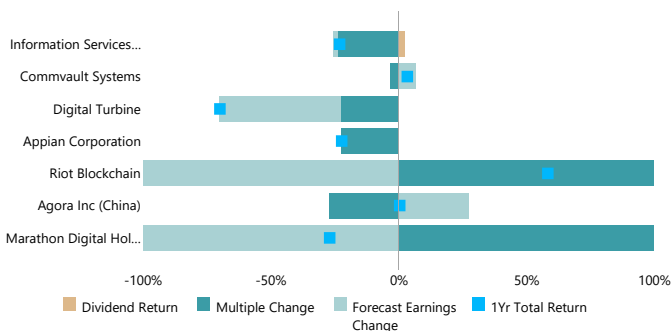
Current and Historical Alpha Model Rank

The chart shows the Macquarie Alpha model ranking against the company's peers and over recent history.



Drivers of Stock Return

Breakdown of 1-year total return (local currency) into returns from dividends, changes in forward earnings estimates and the resulting change in earnings multiple.



Source (all charts): FactSet, Refinitiv, and Macquarie Quant. For more details on the Macquarie Alpha model or for more customised analysis and screens, please contact the Macquarie Global Quantitative Team: maccapetitiesresearchquantglobal@macquarie.com. Explanation for items on this page can be found at <https://www.macquarieinsights.com/rp/dr/p/OTUyMzg1>

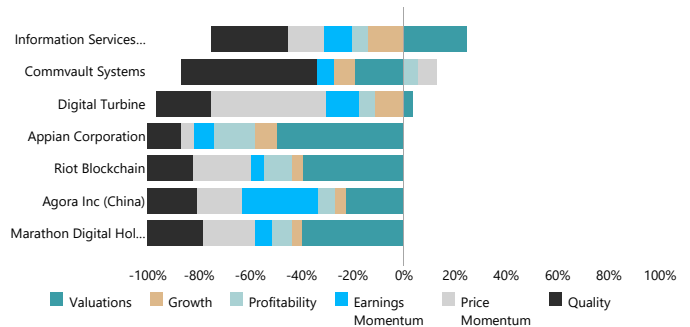
Alpha Model Decomposition

The Macquarie Alpha is decomposed into its sector and market relative factor & styles exposures (a higher/better percentile is coded in green, whilst lower in red).

Factors / Styles	Percentile relative to		Core factors in definition
	sectors (/782)	market (/3289)	
ALPHA	38%	27%	See all the styles below
VALUE	13%	16%	Book, CF, Yield, Earnings Multiples
ANALYST	36%	35%	Revisions (Earnings, Recommendations)
MOMENTUM	44%	68%	Price Momentum
GROWTH	16%	69%	EPS, Sales (Forecast, Historic)
PROFITABILITY	6%	11%	ROE, Margin, Asset Turnover
QUALITY	33%	47%	Accruals, Earn Stability, Cash Conversion
CAPITAL	18%	16%	Investment/Capex, Net share issuance
LIQUIDITY	27%	48%	Size, Turnover, Analyst Coverage
RISK	67%	75%	Beta, Volatility, Earn.Cert, Leverage
TECHNICAL	91%	91%	MACD, RSI, Bollinger, Williams R, etc

Factors driving the Alpha Model vs peers

For the comparable firms this chart shows the key underlying styles and their contribution to the current overall Alpha score.



Macquarie Style Returns over last year

Recent performance to Macquarie style factors

	Monthly Factor Long-Short Returns for												Last 5 Years (ann)	Last 10 Years (ann)
	Oct - 23	Sep - 23	Aug - 23	Jul - 23	Jun - 23	May - 23	Apr - 23	Mar - 23	Feb - 23	Jan - 23	Dec - 22	Nov - 22		
United States														
ALPHA	2%	3%	5%	0%	1%	-2%	2%	1%	2%	-7%	1%	3%	7%	6%
VALUE	1%	4%	4%	3%	3%	-9%	3%	-8%	-1%	0%	1%	3%	4%	2%
ANALYST	2%	2%	3%	-3%	2%	4%	-2%	2%	2%	-2%	-1%	-5%	4%	2%
MOMENTUM	2%	3%	3%	-4%	0%	2%	0%	3%	2%	-12%	1%	-3%	3%	3%
GROWTH	-1%	2%	3%	4%	2%	3%	0%	1%	2%	-1%	0%	-3%	3%	3%
PROFITABILITY	1%	1%	4%	-1%	0%	0%	1%	3%	2%	-4%	-1%	4%	5%	5%
QUALITY	0%	0%	2%	-1%	-1%	-1%	1%	5%	4%	-3%	1%	2%	3%	3%
CAPITAL	0%	2%	5%	0%	2%	-2%	2%	-1%	1%	-3%	2%	4%	4%	5%
LIQUIDITY	2%	1%	0%	1%	-2%	4%	0%	5%	2%	-5%	1%	-1%	5%	4%
RISK	3%	1%	1%	-3%	-4%	-1%	3%	1%	2%	-7%	2%	1%	2%	3%
TECHNICAL	4%	2%	1%	1%	3%	3%	0%	0%	-2%	-7%	-1%	0%	3%	4%

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Important Disclosures

Recommendation definitions	Volatility index definition	Financial definitions
Macquarie – Asia and USA Outperform – expected return >10% Neutral – expected return from -10% to +10% Underperform – expected return <-10% Macquarie – Australia/New Zealand Outperform – expected return >10% Neutral – expected return from 0% to 10% Underperform – expected return <0% During periods of share price volatility, recommendations and target prices may occasionally and temporarily be inconsistent with the above definitions. Recommendations – 12 months Note: Quant recommendations may differ from Fundamental Analyst recommendations	This is calculated from the volatility of historical price movements. Very high – highest risk – Stock should be expected to move up or down 60-100% in a year – investors should be aware this stock is highly speculative. High – stock should be expected to move up or down at least 40-60% in a year – investors should be aware this stock could be speculative. Medium – stock should be expected to move up or down at least 25-40% in a year. Low – stock should be expected to move up or down at least 15-25% in a year. * Applicable to select stocks in Asia/Australia/NZ Note: expected return is reflective of a Medium Volatility stock and should be assumed to adjust proportionately with volatility risk	All "Adjusted" data items have had the following adjustments made: Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests EPS = adjusted net profit / efpowa* ROA = adjusted ebit / average total assets ROA Banks/Insurance = adjusted net profit / average total assets ROE = adjusted net profit / average shareholders funds Gross cashflow = adjusted net profit + depreciation *equivalent fully paid ordinary weighted average number of shares All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

Recommendation proportions for quarter ending 30 September 2023

	AU/NZ	Asia	USA	
Outperform	55.31%	64.52%	63.21%	(for global coverage by Macquarie, 2.50% of stocks followed are investment banking clients)
Neutral	36.98%	21.69%	34.91%	(for global coverage by Macquarie, 0.64% of stocks followed are investment banking clients)
Underperform	7.72%	13.79%	1.89%	(for global coverage by Macquarie, 0.00% of stocks followed are investment banking clients)

Company-Specific Disclosures

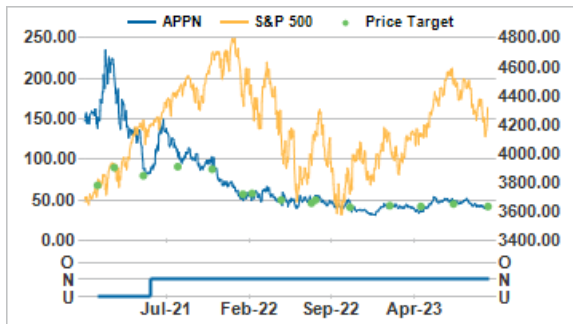
Company Name	Disclosure
Appian Corporation (APPN US) Neutral 12-month target: USD42.00 - Sum of Parts Valuation: USD 37.82 - DCF (WACC 15.1%, beta 2.1, ERP 5.5%, RFR 4.5%, TGR 3.5%) Price: USD41.72	None

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Recommendation history

Company name	Date	Recommendation	Target price
Appian Corporation (APPN US)	3-Nov-2023	Neutral	USD 42.00
	4-Aug-2023	Neutral	USD 45.00
	10-May-2023	Neutral	USD 42.00



17-Feb-2023	Neutral	USD 43.00
4-Nov-2022	Neutral	USD 41.00
5-Aug-2022	Neutral	USD 50.00
25-Jul-2022	Neutral	USD 46.00
6-May-2022	Neutral	USD 50.00
18-Feb-2022	Neutral	USD 58.00
25-Jan-2022	Neutral	USD 57.00
5-Nov-2021	Neutral	USD 88.00
6-Aug-2021	Neutral	USD 91.00
25-May-2021	Neutral	USD 80.00
7-May-2021	Underperform	USD 80.00
19-Feb-2021	Underperform	USD 90.00
6-Jan-2021	Underperform	USD 68.00

Sensitivity analysis:

Clients receiving this report can request access to a model which allows for further in-depth analysis of the assumptions used, and recommendations made, by the author relating to the subject companies covered. Contact <https://www.macquarieinsights.com/contacts> for access requests.

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