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European Technology 2024 Outlook | Europe

Pressing Forward

Positive into 2024, as softening rates and earnings momentum play through, though gains to be more moderated than a strong 2023. SAP, Wise, ASML, STM, Publicis, and IONOS key ideas. Tietoevry upgraded to Overweight, Compugroup upped to Equal-weight, Sinch downgraded to Underweight.

2023 - against the odds, a strong year of returns: On the macro front, 2023 was characterised as a tug of war between central bank policy and inflation, resulting in interest rates being a key theme for technology. Despite a backdrop where rates overall rose (with a clear upwards trajectory for most of the year), tech overall performed well, with sharply lowered rate expectations from November helping turbocharge returns for the year. Ultimately, 2023 was a year when sector earnings were resilient, and multiples expanded materially. Sub-sector 2023 total returns were as follows: Software +38% median, services +21%, Payments +7%, information services +34%, advertising agencies -4%, semiconductor equipment + 70%, semiconductors telco equipment -13%.

2024 - stay constructive, but expect more modest returns from the core holdings: We see clear reasons to stay constructive into 2024. On the technical factors, central banks are hinting that the next direction for rates will be lower (although they may stay higher for longer), overall meaning a more certain and less challenging valuation multiple environment. In the very short-term, valuation multiples across our sector are clearly higher than a year ago, and following the sector's strong end to 2023, share prices may need to ease back. Nevertheless, our key playbook is to still buy growth at reasonable multiples. Some of our core sector names (such as SAP and Sage) are still delivering double-digit earnings growth, which means that if they can only sustain their multiples, the capital return would be still be attractive. For outsized alpha, we expect investors will need to revisit some of Europe's neglected SMIDcap tech names.

- **On the Software/Services side**, the demand environment should improve; our CIO survey points to better 2024 IT budget growth compared to 2023, while key demand themes such as AI should continue to gain commercial adoption and momentum (even if off a low base). Although in many cases this is due to company-specific story improvements, we think investors should be braced for a year of significantly more modest returns (compared to 2023) across the core names we liked last year (e.g. SAP, Sage, RELX). In IT Services and ad agencies, we expect demand headwinds to persist through the first half, but for growth to improve from 2H, potentially creating a more interesting setup for Capgemini later in the year.
- **On the Hardware side**, we see a weak near term (partial unwind of the DecQ rally) for our semis names but would 'buy on the dips' as inventory corrections complete. On chipmakers we stay OW on STM given valuation; we expect a soft landing to play out this year with a bottom in earnings

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TECHNOLOGY - SOFTWARE & SERVICES	
Europe	
Industry View	**In-Line**

TECHNOLOGY - PAYMENTS	
Europe	
Industry View	**In-Line**

TECHNOLOGY - SEMICONDUCTORS	
Europe	
Industry View	**Attractive**

WHAT'S CHANGED

	From	To
Informa (INF.L) Price Target	805p	**820p**
Nemetschek SE (NEKG.DE) Price Target	€68.50	**€81.25**
RELX (REL.L) Price Target	3,260p	**3,470p**
Solutions by STC (7202.SE) Price Target	SAR 268.00	**SAR 273.00**
Wolters Kluwer (WLSNc.AS) Price Target	€142.00	**€147.00**

across 1H24. We think the Telco CapEx cycle is unlikely to see upside this year and we stay EW on both Nokia and Ericsson. See our full Tech Hardware outlook for details: European Tech Hardware outlook piece: Buy on the Dips.

Key ideas for 2024

- **SAP -** SAP is still in the early stages of its S/4HANA platform upgrade and subscription transition. We believe this can drive top-line growth acceleration to the double digit range from FY24 onwards. This, paired with disciplined cost control, can drive operating margins to the mid-20's % range by FY26 (on a post-SBC basis).
- **ASML -** We see ASML at the bottom of its order book cycle and expect a typical book to bill recovery in the coming quarters to provide growing confidence of growth across FY25 and into FY26.
- **STM -** We think that the sales/margin trough for STM and peers is going to be worse than guide. And yet we still see a bottom in 1H24 and see potential to outperform on recovery.
- **Publicis** - Move to Top Pick in Media. At ~12x 2024 P/E we see potential for re-rating as PUB demonstrates it can sustain its competitive advantage. We are above consensus for '24.
- **Wise** remains a Top Pick within Payments/Fintech, ~5% FCFF yield for mid-20s org. revenue growth, supported by platform shift/better monetisation of customer base, PT to 1,050p.
- **IONOS Group** is a key SMIDcap idea. It has a strong franchise in selling web and cloud solutions across Europe. Despite the recent share price rally, it is below its 2022 €18.50 IPO price. We believe its growth merits are still underappreciated (10.4x FY25 adj. P/E for 12% FY25-27 EPS CAGR).
- Separately, we raise **Tietoevry** to Overweight (cyclical IT services recovery, trough valuation), downgrade **Sinch** to Underweight (MS c. 10% below consensus EPS, execution risk related to new operating model implementation), and upgrade **Compugroup Medical** to Equal-weight.

Key debates to watch in 2024

1. **Is 2024 the year AI impacts numbers in European Software?** - We expect AI preparation to step up (i.e. data and cloud investments) in 2024 and expect the market to begin discounting AI tailwinds. We believe there could be some modest revenue upside from generative AI in 2024 and view the likes of SAP and Dassault Systemes as well positioned to monetise this.
2. ***Cyclicality in Services (IT and advertising agencies); when does demand come back/ the cycle turn? -*** We believe investors are positioned early on Capgemini and are cautious on growth in 1H24 so would wait to play the cycle turn. We prefer to own Publicis, which we think can outperform market expectations and benefit from its competitive advantage and the growth acceleration in ad spend.
3. ***Payments - should you own growth or value?*** Despite >2 years of material underperformance, we don't think 2024 is the year to own value stocks within payments. Significant M&A creates risks around integration and elevated non-recurring charges/capex, which ultimately weighs on FCF

Netcompany Group A/S (NETCG.CO)	**From**	**To**
Price Target	DKr 250.00	**DKr 245.00**
IONOS Group SE (IOSn.DE)	**From**	**To**
Price Target	€21.50	**€23.50**
TeamViewer AG (TMV.DE)	**From**	**To**
Price Target	€14.60	**€14.00**
CompuGroup Medical SE & Co KgaA (COP1n.DE)	**From**	**To**
Rating	Underweight	**Equal-weight**
Price Target	€41.00	**€39.00**
Sinch AB (SINCH.ST)	**From**	**To**
Rating	Equal-weight	**Underweight**
Price Target	SKr 27.00	**SKr 26.00**
Tieto Oyj (TIETO.HE)	**From**	**To**
Rating	Equal-weight	**Overweight**
Price Target	€27.00	**€27.50**
Trustpilot (TRST.L)	**From**	**To**
Price Target	165p	**210p**
Adyen NV (ADYEN.AS)	**From**	**To**
Price Target	€925.00	**€1,100.00**
Wise PLC (WISEa.L)	**From**	**To**
Price Target	905p	**1,050p**
Nexi SpA (NEXII.MI)	**From**	**To**
Price Target	€7.75	**€8.00**
Softwareone Holding AG (SWON.S)	**From**	**To**
Price Target	SFr 15.00	**SFr 15.50**
Temenos Group AG (TEMN.S)	**From**	**To**
Price Target	SFr 47.00	**SFr 58.00**
Exclusive Networks (EXN.PA)	**From**	**To**
Price Target	€24.00	**€24.50**
Computacenter PLC (CCC.L)	**From**	**To**
Price Target	2,550p	**2,650p**
Softcat PLC (SCTS.L)	**From**	**To**
Price Target	1,460p	**1,520p**
Sage (SGE.L)	**From**	**To**
Price Target	985p	**1,335p**
Indra (IDR.MC)	**From**	**To**
Price Target	€11.65	**€14.80**
Dassault Systemes SA (DAST.PA)	**From**	**To**
Price Target	€44.50	**€47.50**
Hexagon AB (HEXAb.ST)	**From**	**To**
Price Target	SKr 106.00	**SKr 101.00**
OVH GROUPE SAS (OVH.PA)	**From**	**To**
Price Target	€7.10	**€8.30**
Publicis Groupe SA (PUBP.PA)	**From**	**To**
Price Target	€90.00	**€98.00**
Top Pick	-	**PUBP.PA**
Fortnox AB (FNOX.ST)	**From**	**To**

generation, while also acting as a headwind to innovation/growth. We prefer owning structural growth with Wise remaining our Top Pick.

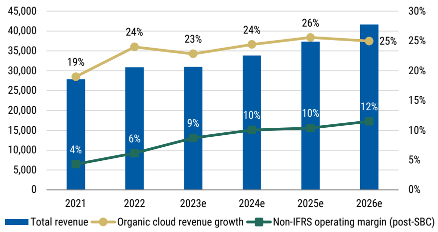
4. **For key themes in Hardware in 2024**, including Cycle recovery, capital equipment dynamics, High NA dynamics and an update on Silicon Carbide, please see our standalone European Tech Hardware outlook piece: Buy on the Dips.

Interesting Equal-weight rated stocks, with potential catalysts: Elsewhere in IT Services, we expect 2024 to be important for **Netcompany**. After 2 consecutive years where FY margin guidance disappointed, 2024 could prove more fruitful, as margins start on their recovery path. We also see 2024 as likely to help inform the longer-term **Informa** investment case, as it will demonstrate post-COVID run-rate growth potential. Finally, with significant recent quarterly growth volatility at **Adyen**, all eyes remain on volume/net revenue growth, with the company now providing quarterly updates (8th Feb FY23 results). We expect to turn more positive on European IT services leader **Capgemini** towards 2H once we are past a period of weak growth/ tough prior year comps.

Price Target	SKr 45.00	**SKr 48.00**
SAP SE (SAPG.DE)	**From**	**To**
Price Target	€150.00	**€163.00**
Top Pick	-	**SAPG.DE**
Atos SA (ATOS.PA)	**From**	**To**
Price Target	€10.00	**€4.70**
Amadeus IT Holdings S.A. (AMA.MC)	**From**	**To**
Price Target	€75.00	**€76.00**
S4 Capital PLC (SFOR.L)	**From**	**To**
Price Target	61p	**52p**
Sopra Steria Group (SOPR.PA)	**From**	**To**
Price Target	€200.00	**€204.00**
WPP Plc (WPP.L)	**From**	**To**
Price Target	715p	**790p**
Capgemini (CAPP.PA)	**From**	**To**
Price Target	€221.00	**€214.00**
Eurowag (WPS.L)	**From**	**To**
Price Target	145p	**135p**

Key Ideas for 2024

Exhibit 1: SAP revenue/organic cloud revenue/margin forecasts

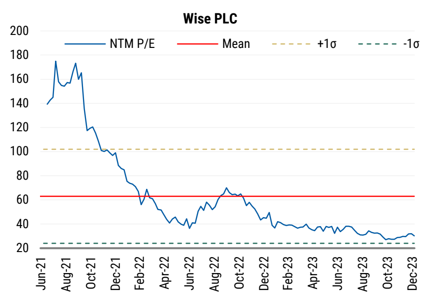


Source: Company data, Morgan Stanley Research estimates

Key idea in Software - SAP

Despite the stock's strong performance in 2023 (delivering a total return of c. 47% in 2023), we remain positive on SAP. We believe 2023 represented a year where the market began to understand the power of the S/4 platform shift at SAP. Despite cloud revenue growth already running in the low 20s % range, we believe SAP is still in the early stages of its subscription shift and can accelerate this further (cloud backlog growing >25% with S/4HANA backlog growing >60% y/y). We also believe this strong top line growth profile can be bolstered by SAP's investments in Business AI, which we think SAP is well positioned to address given its vast wealth of business critical data. Together these, paired with declining legacy licence sales in the mix, will drive a reacceleration of group top line into the double digit % range. Furthermore, this strong top line growth, paired with disciplined cost control will drive operating leverage - expanding non-IFRS (post-SBC) operating margins to mid-20's % range by 2026. In terms of valuation, SAP currently trades on c. 25x CY25 adj. P/E (including SBC), which we view as an attractive level for the global leader in mission critical ERP software at the inflection point of its subscription/ platform shift.

Exhibit 2: Wise LT valuation

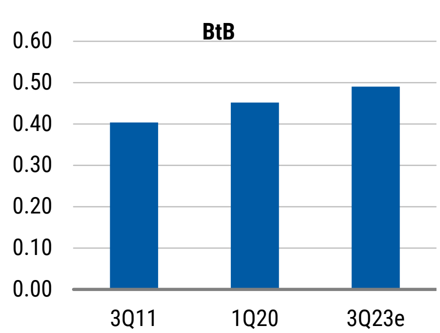


Source: Morgan Stanley, Thomson Reuters

Key idea in FinTech/Payments - Wise

Wise shares outperformed significantly in 2023 (+43%), however this was supported by significant top and bottom line upgrades, particularly as net interest income dropped through to the bottom line. For 2H24, we expect a re-acceleration in volume growth to >20%, as comps ease significantly (lapping VPC/macro headwinds). We continue to believe Wise can compound revenue mid-20s, supported by continued strong customer growth (>30%), "other" take-rate contribution (card spending) and stable to slightly improving pricing. We also think the street is too optimistic around Wise's ability to return net interest to customers (we adjust our assumptions here). Combined, we sit 2-3% ahead on revenue and 0-7% on adj. EBITDA for FY25-26e. Wise currently trades on ~5% CY25e EV/FCFF yield, an attractive entry point for a structural winner, compounding revenues at a mid-20s CAGR. On the back of our increased forecasts our PT moves to 1050p, implying ~20% upside.

Exhibit 3: Book-to-bill ratio of 0.5x – we have only been here twice before in the last 15 years

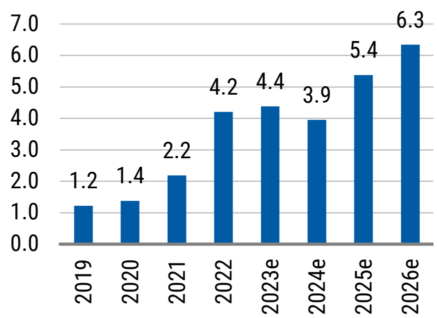


Source: Company data, Morgan Stanley Research

Key Semi Equipment idea - ASML

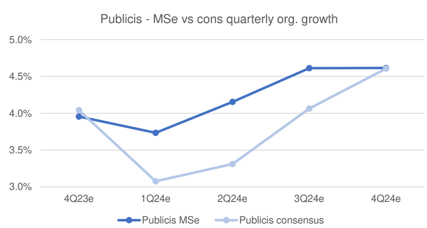
We see ASML at the bottom of its order book cycle and expect a typical book to bill recovery in the coming quarters to provide growing confidence of growth across FY25 and into FY26. A new product cycle (high NA) and new node transitions at key customers (N2 at TSMC, 18A at Intel) as well as modest underlying strength in DUV spend should support sentiment. Added to this may be a recovery in tool utilisation that could drive higher IBM sales and even add margin upside. In a year where we see WFE resilience, we view ASML as a stand out quality name in this space.

Exhibit 4: We expect earnings to jump c.50% within 2 years of 2024 trough



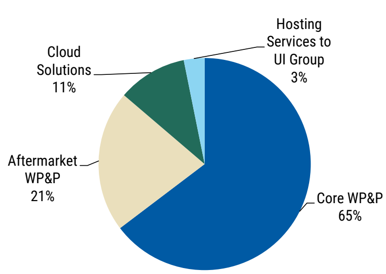
Source: Company data, Morgan Stanley Research estimates

Exhibit 5: We are above cons for '24 organic growth



Source: Company data, Morgan Stanley Research estimates, Visible Alpha consensus

Exhibit 6: IONOS group revenue split



Source: Morgan Stanley Research estimates (FY23)

Key Semis idea - STMicroelectronics

We think that the sales/margin trough for STM and peers is going to be worse than guide. And yet we still expect a bottom in 1H24 and see potential to outperform on recovery. We remain surprised at how negative investor sentiment is on STMicro, which in the absence of major business transformations has shown it can better manage downturns; a greater sales decline could even let the company show off higher trough earnings power that will help the stock in the next cycle. The severity of this correction in industrial semis will pressure margins, but we still think that pricing risk is overstated. Our US colleagues continue to hear anecdotes of pressure on Chinese microcontroller pricing, but we would highlight that for STMicro we think much of this is restricted to general purpose MCUs, and see fairly small exposure to the areas where there is some real pressure. There could be modestly more aggressive pricing for new design wins but we do not see dramatic shifts in like-for-like pricing, at least so far.

Key Media idea - Publicis Groupe

Despite Publicis' strong run in 2023, we remain Overweight on the name for 2 main reasons. Our PT of €98 implies ~16% upside. **1) We are above consensus for '24.** We think the stock is less cyclical than feared and expect PUB to sustain its competitive advantage. The company has performed better than expected in '23 and upgraded its guidance twice. We think it will grow 4.3% in '24 (vs consensus 3.5%) and expect growth to trough in 1Q24 (vs cons in 2Q24). Our US team forecasts ~10% growth in US advertising in '24 supported by the US presidential election, summer olympics, retail media and connected TV. Given PUB's relatively high exposure to the US (60% of revenue) and its strength in retail media (via its acquisition of CitrusMedia and the launch of its JV with Carrefour) and in data (via Epsilon), we think it is well positioned to benefit from the '24 ad growth drivers. **2) Potential for re-rating.** PUB trades on ~12x 2024 P/E. European IT services leader Capgemini is at a 50% premium to Publicis. We expect PUB to grow ~2ppt faster than CAP in '24 and in line in '25. We also note PUB's margin is ~6ppts higher than CAP. We think PUB should trade at a lower discount to and see potential for re-rating from here. On our forecasts, PUB would trade on ~14x 2024 P/E, which would put Capgemini at a ~30% premium to Publicis.

Key SMID cap idea - IONOS Group

IONOS is the leading European provider of Web Presence & Productivity tools (covering mainly webhosting and adjacent activities). IONOS also has a faster-growing Cloud Solutions business (IaaS and PaaS) at c. 11% of group revenues. We see IONOS' incumbent market position as rock solid and the company as exposed to secular growth trends around SMB digitalisation. We forecast a c. 8% revenue CAGR FY23-27, c. 10% on adj. EBIT and c. 17.4% on adjusted diluted EPS. At €17.1, IONOS trades on c. 15.8x/12.6x FY23/24 adj. P/E, which would decline to 10.4x by FY25e. We see this as undervaluing the resilience of IONOS' core WP&P division and growth optionality in cloud. In FY24 we expect IONOS to demonstrate accelerating core WP&P growth (MS 8%), with Aftermarket and Cloud both growing mid-teens %, altogether helping drive a year of solid margin expansion (MS +90bps to 28.4% on adj. EBITDA). Our price target implies 37% upside.

2024 Software/IT Services/FinTech/Other Order of Preference List

Exhibit 7: Our order of preference (OW = Overweight, EW = Equal-weight, UW= Underweight)

		Rating	Sector	Current price	Price target	Up / (Downside)	Comment
	Overweight ratings						
1	SAP	OW	Software	€ 141.88	€ 163.00	15%	Global leader in mission critical ERP software, entering the acceleration phase of its subscription transition (as customers move to S/4), driving top-line growth acceleration to the double-digit % range from FY24 onwards.
2	Sage	OW	Software	1,156p	1,335p	15%	Multi-year investment programme into product and sales and marketing bearing fruit with strong momentum in organic revenue growth and clear mid-term margin expansion potential. Large long-term market opportunity in cloud native and connected portfolios.
3	Wise	OW	Payments	888p	1,050p	18%	A strucutral winner in cross-border payments. ~5% FCFF yield for mid-20s org. revenue growth, supported by greater monetisation of customer base through increased usage of Wise products. Volumes to re-acclerate in 2H24 as comps ease.
4	IONOS Group	OW	IT Services	€ 17.10	€ 23.50	37%	We expect IONOS to continue to prove its growth at a reasonable price (GARP) credentials, driving a high-single-digit % organic growth CAGR across the mid-term. At only ~10.4x FY25 adj. P/E, we see the valuation as still highly attractive
5	Publicis Groupe	OW	Advertising Agencies	€ 84.14	€ 98.00	16%	We think Publicis has built a competitive advantage which is not priced in. We see it as well-placed to continue outperforming its peers thanks to 1) above industry average profitability allowing reinvestment in the business, 2) relatively low leverage and strong FCF providing M&A firepower to continue improving the product portfolio.
6	Amadeus	OW	Software	€ 63.88	€ 76.00	19%	Leading vertical software player within the travel industry. We expect international travel to continue recovering in FY24. Amadeus is well positioned to take share in both GDS and Airline IT, benefiting from increased outsourcing, while recent hotel IT wins suggest further upside.
7	Wolters Kluwer	OW	Information Services	€ 131.60	€ 147.00	12%	Leading global European data analytics player with strong revenue visibility and high software exposure within its revenue mix. A resilient and consistent earnings compounder.
8	RELX	OW	Information Services	3,160p	3,470p	10%	Global provider of critical information solutions to industries such as healthcare, legal, and financial. Shift to faster-growth analytics and decision tools, plus roll-out of AI-tools (particularly in Legal) should help support consistent revenue compounding of c. 6% organically
9	Tietoevry	OW	IT Services	€ 21.14	€ 27.50	30%	Nordic IT Services leader with a diversified portfolio (~60% of mix is Software / Digital Services). IT demand weakness in 2023 dragged on top-line growth, weighing on the shares. With the set-up through 2024 more constructive, we think this offers a good entry point.
10	Darktrace	OW	Software	366p	485p	33%	High-growth cybersecurity vendor, with a broad product portfolio covering AI/ML-enabled detection, response, investigation and prevention. Q2 showed a recovery in new customer acquisition momentum after a weaker 1Q24 start, which should build confidence
11	Trustpilot	OW	Software	164p	210p	28%	Leading horizontal consumer review platform with strong network effects, demonstrating its ability to drive profitable growth and positive free cash flow generation. At c. 3.1x FY25 EV/Sales, we continue to view the current valuation as attractive.
12	Dassault Systemes	OW	Software	€ 43.33	€ 47.50	10%	Best-in-class PLM player with a strong track record, market position, and product suite. Key beneficiary from the structural growth around digital manufacturing and healthcare (Medidata).
13	Exclusive Networks	OW	IT Services	€ 18.92	€ 24.50	29%	One of the largest and fastest growing specialist value-added distributors of cybersecurity solutions in the world. We view Exclusive as an attractive way for European investors to play the theme of cybersecurity in a diversified manner
14	Eurowag	OW	Payments	92p	135p	47%	Integrated provider of payments and mobility solutions for the trucking industry. Fuel-card acts as a 'hook' to transition to a platform approach cross-selling mobility solutions. Trading at a discount to payment/mobility peers on a growth-adjusted basis
	Equal-weight ratings						
15	Capgemini	EW	IT Services	€ 185.05	€ 214.00	16%	Leading IT Services player, well positioned to continue outperforming the market. However, we expect limited growth in 1H24 (negative in 1Q24) which we think limits near-term upside and continue to favour other stocks within our coverage.
16	Nemetschek	EW	Software	€ 75.82	€ 81.25	7%	Entering into the tailwind phase of the Bluebeam subscription transition, which should help accelerate growth into 2024 and 2025. However, we see valuation at a premium level and demand conditions in construction as still subdued.
18	Adyen	EW	Payments	€ 1,164	€ 1,100	(6%)	High quality compounder, however uncertainty around competitive pressures in US remains. 38x CY25 P/E or a 2.5% FCFE yield - we expect slower growth in 4Q23/1H24 and await a better entry point.
17	Softcat	EW	IT Services	1,295p	1,520p	17%	A leading IT reseller operating in the UK. We continue to view Softcat as a high-quality reseller, with best-in-class returns (ROCE >60%), but remain EW given elevated valuation vs. peers and a more back-end loaded FY24 for EBIT growth.
19	Informa	EW	Information Services	766p	820p	7%	Leading global events provider. We expect growth to continue above trend in 2024, as the residual tail of markets normalise post COVID-19 impacts. Strong market leading position, with capital return optionality.
20	Computacenter	EW	IT Services	2,710p	2,650p	(2%)	UK's largest listed VAR, with a focus on larger enterprises/multiple geographies. The company has an outsized exposure to more legacy managed services/infra outsourcing which we see as more structurally challenged, despite recent strong execution.
21	CompuGroup Medical	EW	Software	€ 35.22	€ 39.00	11%	High quality health tech software company. Following a significant derating since 2H23 and underperformance vs our software coverage, we think market expectations on growth prospects are more realistic and view valuation as relatively fair. Upgrade to Equal-weight.
22	WPP	EW	Advertising Agencies	729p	790p	8%	Fairly priced large ad agency. WPP's high exposure to tech companies' ad spend (20% of rev) and China (~5% of rev) adds uncertainty to near-term growth. Evidence that WPP can execute on its back and front office transformation plan would make us more constructive. We prefer to own Publicis.
23	Netcompany	EW	IT Services	DKK 221	DKK 245	11%	Digital-focused IT services company. Strong earnings growth potential after 2 years of sharp margin resets, but evidence this is deliverable is key to unlocking more material upside.
24	Sopra Steria	EW	IT Services	€ 191.90	€ 204.00	6%	A fairly priced European IT services player. We wait for more evidence Sopra can increase its offering's value-add and EBIT margins. We favour other stocks within our coverage.
25	Nexi	EW	Payments	€ 7.18	€ 8.00	11%	At Nexi, we are cautious on growth in 2024, and see risk to mid-term guide, but remain EW given less near-term pressure vs. WLN and more attractive valuation.
26	Indra	EW	IT Services	€ 14.88	€ 14.80	(1%)	Indra is one of the leading providers of IT services in Spain. The group has its origins in defense activities, but has increased its IT services exposure over time.
27	SoftwareONE	EW	IT Services	CHF 16.07	CHF 15.50	(4%)	A leading global provider of software and cloud-only technology solutions. We expect the continued shift towards services to continue to weigh on margins / near-term execution.
28	S4 Capital	EW	Advertising Agencies	44.5p	52p	16%	Tech-led agency facing headwinds. S4's revenue growth has significantly decelerated due to a more challenging environment and high exposure to tech clients (which reduced ad spend during FY23). We see a wide range of outcomes for S4 but see its current valuation as relatively fair.
29	OVH Groupe	EW	IT Services	€ 8.57	€ 8.30	(3%)	#1 European cloud service provider, mainly offering Infrastructure-as-a-Service. We see the valuation already incorporating significant mid-term growth. Despite large market opportunity, we have continuing questions over ROIC and the significance of data sovereignty
	Underweight ratings						
30	TeamViewer	UW	Software	€ 13.80	€ 14.00	1%	Remote connectivity software with a 'free for personal, paid for commercial' model. We expect a continued organic growth deceleration into 2024, given tough price increase comps and weak new customer acquisition momentum to raise long-term growth questions
31	Fortnox	UW	Software	SEK 52.82	SEK 48.00	(9%)	Market leader in the Swedish SMB accounting software market. Despite its high growth and margin profile, we remain relative Underweight as we think the valuation does not capture the uncertainty of growth longer-term or macro related headwinds in 2024.
32	Hexagon AB	UW	Software	SEK 114.95	SEK 101.00	(12%)	We continue to see risk of a macro-led growth deceleration in FY24 to c. 5% org. and view the current valuation as challenging in the context of our European software coverage
33	Sinch	UW	Software	SEK 30.6	SEK 26	(15%)	Global CPaaS player. We think market expectations for growth prospects are too high and are more cautious. Sinch is currently implementing a new operating model which we think carriers a high execution and business disruption risk. Downgrade to Underweight.
34	Temenos	UW	Software	CHF 77.14	CHF 58.00	(25%)	Despite a more stable sales environment/execution through 2023, we still see risks around a slowing macro / IT spend into 2024, CEO search adds to uncertainty. 26x CY25 P/E (~30x inc SBC) for ~7% org. growth in 2024, see better value elsewhere.
35	Worldline	UW	Payments	€ 14.12	€ 10.90	(23%)	At Worldline, we still see risks around FCF generation, weaker macro, earnings drivers. FCF likely to be focus for investors given one-off costs in FY24/25, we sit significantly below street on this metric.
36	Solutions by STC	UW	IT Services	SAR 349	SAR 273	(22%)	Rich valuation in the context of global IT services, while we expect gross margin normalisation to drive downside versus consensus profitability estimates in 2024
37	Atos	UW	IT Services	€ 5.70	€ 4.70	(18%)	IT Services player with relatively high exposure to the challenged infrastructure outsourcing market. Atos is currently evaluating various options to increase its liquidity. We view the execution risk on the business turnaround as high and remain Underweight.

NB: excludes Software AG given they are in the process of being acquired. Source: Morgan Stanley Research estimates

2024 Semiconductors/Hardware Order of Preference List

Exhibit 8: Our order of preference (OW = Overweight, EW = Equal-weight, UW= Underweight)

		Rating	Share price	Price target	Up / (Downside)	Comment
	Overweight ratings					
1	ASML	OW	€ 649.30	€ 700.00	8%	An EUV order book recovery (driven by N2 TSMC, 18a Intel) alongside ongoing underlying sepnd in DUV (albeit with lower rate into China) as well as improving IBM sales (utilisation improvemnets) sets the scene for earnings improvement into FY25.
2	BE Semiconductor	OW	€ 128.65	€ 150.00	17%	Early exposure to the cyclical inflection paired with ongoing momentum in chiplet enabling hybrid bonding tools.
3	STMicroelectronics	OW	€ 39.72	€ 48.00	21%	Slowing end markets well-fllagged and an inventory correction already underway. An attractive valuation, direct customer agreements (supports pricing) and new product cycles (IoT, SDVs, TinyML) supports solid price reaction into 2H.
4	VAT Group	OW	SFr 398.00	SFr 440.00	11%	Memory datapoints are improving and inventories at equipment OEMs have normalised, setting up for strong growth in (2H) '24. We see VAT as the EU name most exposed to memory and are OW on strong expected momentum.
5	Synopsys	OW	€ 494.40	€ 600.00	21%	Scope for margin leverage on fast growing sales helped by new AI-enabled products and ongoing strength in IP. The decision to place software under strategic review and the rumours of a deal to buy Ansys could yet improve margins further.
6	Soitec	OW	€ 147.35	€ 173.00	17%	The inventory correction in low end handsets may take time but is well-flagged. SmartSiC, meantime, continues to attract device maker interest; could set the ground for solid growth although we note expectations are building ahead.
	Equal-weight ratings					
7	Infineon	EW	€ 34.27	€ 35.00	2%	Strong energy transition story & greater semis content (cars) tempered by slowing IGBT gains; we see some margin headwinds. That said, new product categories emerging (IoT, Tiny ML, SDVs) could support better earnings.
8	Cadence	EW	$ 268.50	$ 260.00	(3%)	Make no mistake, this is a strong story; CDNS has done well in the shift to greater use of simulation in system design and AI-enabled tools as well as attracting large customers (Nvidia, Intel). Valuation on a historic basis may be full.
9	Melexis	EW	€ 81.55	€ 100.00	23%	Although relatively inexpensive from a historical perspective we remain EW given uncertainty in the auto supply chain and rate environment making dividend yield appear less attractive.
10	Aixtron	EW	€ 33.08	€ 32.00	(3%)	We expect order book strength to continue for GaN/SiC albeit qq lumpiness could arise. But slowing spend may see demand for FY25 dry relative to this year puncturing longer term expectations unless microled spend materialises sooner.
11	ASM	EW	€ 450.30	€ 400.00	(11%)	Remains one of the strongest content gain plays in global semicap but we feel that the opportunity is well understood. Given potential for a slower ramp for N2 we await a better entry point.
12	Nordic Semi	EW	NOK 112.30	NOK 90.00	(20%)	Although end market seem passed their trough we are not yet comfortable enough to call the strength of the upcycle given, as of yet, limited visibility on Edge-AI applicaitons. We await an update on strategic direction by the new CEO.
13	arm	EW	$ 70.00	$ 55.00	(21%)	A class-leading architecture with few rivals. Trades on ARMv9 support for AI. Royalty rate expansion possible but not universal. Design momentum in AI ASICs and autos could sustain share price momentum but much of that in the price here.
14	Nokia	EW	€ 3.22	€ 3.50	9%	Mobile networks margin catching up to Ericsson, but high margin revenues from North America are now in decline and loss of AT&T revenues from 2024. Network infrastructure proving volatile.
15	Ericsson	EW	€ 64.17	€ 65.00	1%	Best-in-class mobile networks business, but high margin revenues from North America are now in decline. Winning new biz from AT&T in 2024 provides some offset. Outcome of the US investigation into conduct in Iraq could provide greater clarity.

Source: Morgan Stanley Research estimates

What's Changed – Ratings and Price Targets

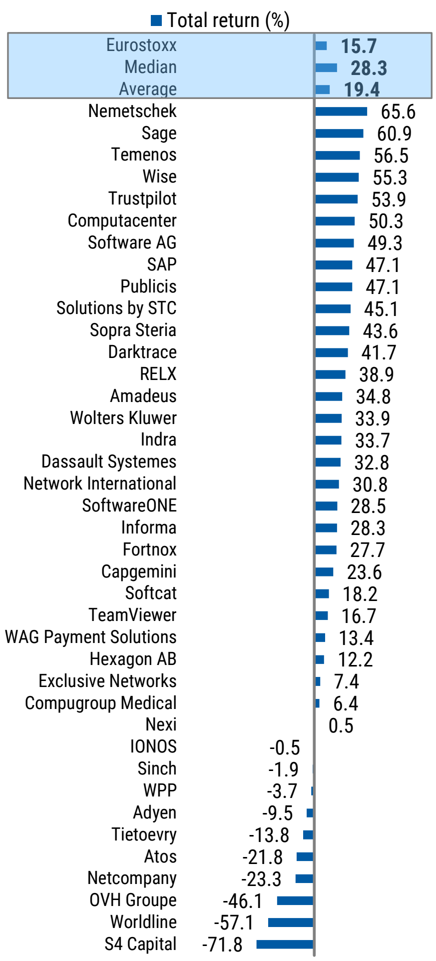
Exhibit 9: What's changed with our ratings and price targets

Company	Rating	Old price target	Share Price	New price target	% upside/ downside	What's changed?
Adyen	EW	€925	€1,164	€1,100	-6%	Valuation rolled forward, near-term forecasts increased (FY23-26 revenue +2-7% and EBITDA +8-13%), WACC decreased to 9% (from 9.5%)
Amadeus	OW	€75.00	€63.88	€76.00	19%	Valuation rolled forward, updated FX assumptions, mid-term forecasts down by LSD %
Atos	UW	€10.00	€5.70	€4.70	-18%	Mid-term EPS forecasts down by ~15% due to slightly lower margin 2024 assumptions and FX update; Valuation methodology changed to 2025 FCFE discounted to 2024 with yield of 20% (vs 2026 discounted to 2023 with yield of 12.5% before)
Capgemini	EW	€221	€185.05	€214.00	16%	Valuation rolled forward, FX update, small (LSD %) mid-term forecasts decreases (more cautious growth assumptions for 2024-25, margin assumptions broadly unchanged)
Compugroup Medical	UW to **EW**	€41.00	€35.22	€39.00	11%	Valuation rolled forward, small update to mid-term DCF assumptions (higher tax rate)
Computacenter	EW	2,682p	2,710p	2,650p	-2%	Valuation rolled forward, 2026 forecasts introduced
Darktrace	OW	485p	366p	485p	33%	FX updated in valuation framework, short-term forecast changes (FX, inputting 1H24 results; MS adj. EBITDA margin FY24 raised to 18.3% (from 17.5%) vs. new 18-20% guidance
Dassault Systemes	OW	€44.50	€43.33	€47.50	10%	Valuation rolled forward, mid-term DCF growth assumptions increased to reflect tailwinds associated with its ongoing subscription transition, updated FX assumptions
Eurowag	OW	145p	92.00p	135.00p	47%	Valuation rolled forward, near-term forecasts cut (FY23-26 revenue decreases 3-6% / EPS by 6-12%), mid-term DCF assumptions reduced by 1-2%, 2026 forecasts introduced
Exclusive Networks	OW	€24.00	€18.92	€24.50	29%	Valuation rolled forward, FX updated, 2026 forecasts introduced
Fortnox	UW	SEK 45.00	SEK 52.82	SEK 48.00	-9%	Valuation rolled forward
Hexagon AB	UW	SEK 106	SEK 114.95	SEK 101.00	-12%	Valuation rolled forward, updated FX, SEK:EUR FX rate updated in valuation framework
Indra	EW	€11.65	€14.88	€14.80	-1%	Valuation rolled forward, short-term forecast changes to reflect higher defence growth (impacting FY24/25/26), updated FX, WACC reduced from 10.0% to 9.5%
Informa	EW	805p	766p	820p	7%	Valuation rolled forward, short-term forecast changes (FX, slightly higher D&A forecasts, model updated for FY23 trading update data and 2024 guidance [MS forecasts in-line])
IONOS Group	OW	€21.50	€17.10	€23.50	37%	Short-term forecast changes (FX updated), WACC reduced from 9.0% to 8.5%
Nemetschek	EW	€68.50	€75.82	€81.25	7%	Short-term forecast changes (FX updated), mid-term DCF assumptions updated (DCFhigh-growth period extended to 15 years from 10), WACC reduced from 9.0% to 8.5%
Netcompany	EW	DKK 250	DKK 221	DKK 245	11%	Valuation rolled forward, short-term forecast changes (FX), minor mid-term DCF forecasts updated (tax rate aligned to c. 22%)
Nexi	EW	€7.75	€7.18	€8.00	11%	Valuation rolled forward, FX updated, 2026 forecasts introduced
OVH Groupe	EW	€7.10	€8.57	€8.30	-3%	Forecasts updated for 1Q24 results and FX, WACC reduced from 9.0% to 8.5%
Publicis Groupe	OW	€90.00	€84.14	€98.00	16%	Valuation rolled forward, WACC down to 8.5%, FX updated resulting in small mid-term forecast downgrade
RELX	OW	3,260p	3,160p	3,470p	10%	Valuation rolled forward, short-term forecast changes (FX, share buyback price)
S4 Capital	EW	61p	44.5p	52p	17%	Valuation rolled forward, FX updated resulting in MSD downgrade to mid-term forecasts
Sage	OW	985p	1,156p	1,335p	15%	FY25 organic growth raised, updated FX, and introduced forecasts for FY26/27/28. DCF terminal growth increased to 2.5% (from 2.0%), WACC reduced to 8.0% from 8.5%, and valuation rolled forward.
SAP	OW	€150.00	€141.88	€163.00	15%	Valuation rolled forward
Sinch	EW to **UW**	SEK 27.00	SEK 30.56	SEK 26.00	-15%	Valuation rolled forward, HSD downgrade to mid-term forecasts mainly driven by FX update
Softcat	EW	1,460p	1,295p	1,520p	17%	Valuation rolled forward, FX updated
SoftwareOne	EW	CHF 15.00	CHF 16.07	CHF 15.50	-4%	Valuation rolled forward, FX updated, 2026 forecasts introduced
Solutions by STC	UW	SAR 268	SAR 349	SAR 273	-22%	Minor short-term forecast (FX, re-aligned D&A forecasts vs. Capex) and DCF (FY26 Zakat rate aligned to short-term outer year levels at c. 11.5%) changes
Sopra Steria	EW	€200	€191.90	€204.00	6%	Valuation rolled forward, FX updated
TeamViewer	UW	€14.60	€13.80	€14.00	1%	Short-term forecast changes (FX, reduced top-line forecasts, new share buy-back programme)
Temenos	UW	CHF 47.00	CHF 77.14	CHF 58.00	-25%	Valuation rolled forward, FX updated, 2026 forecasts introduced
Tietoevry	EW to **OW**	€27.00	€21.14	€27.50	30%	Valuation rolled forward, FX updated
Trustpilot	OW	155.00p	163.50p	210.00p	28%	Valuation rolled forward, WACC assumption cut by c. 50bps to 9.0%
Wise	OW	905p	888p	1050p	18%	Valuation rolled forward, FX updated, FY27 forecasts introduced.
Wolters Kluwer	OW	€142.00	€131.60	€147.00	12%	Valuation rolled forward, short-term forecast changes (FX, share buyback price)
Worldline	UW	€10.90	€14.12	€10.90	-23%	Updated for FX
WPP	EW	715p	729p	790p	8%	Valuation rolled forward, WACC down to 8.5%, small mid-term forecast downgrade

NB: WACC changes all reflect lower market discount rates since previous PT updates. Source: Morgan Stanley Research estimates

Reflecting on what we saw in 2023

Exhibit 10: Total Returns % – 2023



Source: FactSet, Morgan Stanley Research. IONOS return data since IPO date 08/02/2023.

Software, IT Services, Payments & Other

A year of strong European tech equity returns … Our broad coverage saw markedly improved share price performance vs. 2022; our median covered stock was up 23% for the year (or 28% including dividends). Breaking down the performance, this was mainly driven by multiple expansion (after a significant contraction in 2022). However, we think this was underpinned by three things: **1)** overall resilient earnings performance from key larger cap names in our coverage, with many of these names also benefitting from company-specific product or structural growth stories (SAP, RELX, Sage, Wolters Kluwer, Wise, Nemetschek to name a few). **2)** market enthusiasm and longer-term growth expectations building, relating to technology adoption themes - this still being the long-running ones of cloud computing/SaaS, but also now generative AI. **3)** market expectations for forward interest rates declined towards the end of the year, impacting growth stocks and cyclicals in our coverage.

… mirroring the strength seen in the NASDAQ and US tech… The solid yearly performance of our European tech coverage is best understood within the context of a very strong year for US tech. The tech-heavy NASDAQ 100 hit a new all time high in December, as it climbed 54% over the course of 2023. This was largely led by mega cap names such as NVIDIA (+239%), Meta (+194%), Tesla (+102%), Amazon (+81%), Alphabet (+58%), Microsoft (+57%), and Apple (+48%). For US Software in particular, our US team's coverage was up ~49% last year, as multiples rebounded from the ~60% pullback in 2022.

… despite a higher rates environment: This strong performance was achieved despite interest rates rising in 2023. Using the US 10-year government yield as a proxy, this rose from 3.75% to 4.00% by year-end, and peaked significantly higher than this at c. 5% in mid-October. Despite much of our software, payments and information services coverage being long-duration growth in nature, this did not disrupt an overall strong performance by year end. That said, we would note that much of that performance was delivered from late-November onwards once market expectations for forward interest rates (seen through the US-10-year) started to materially decline.

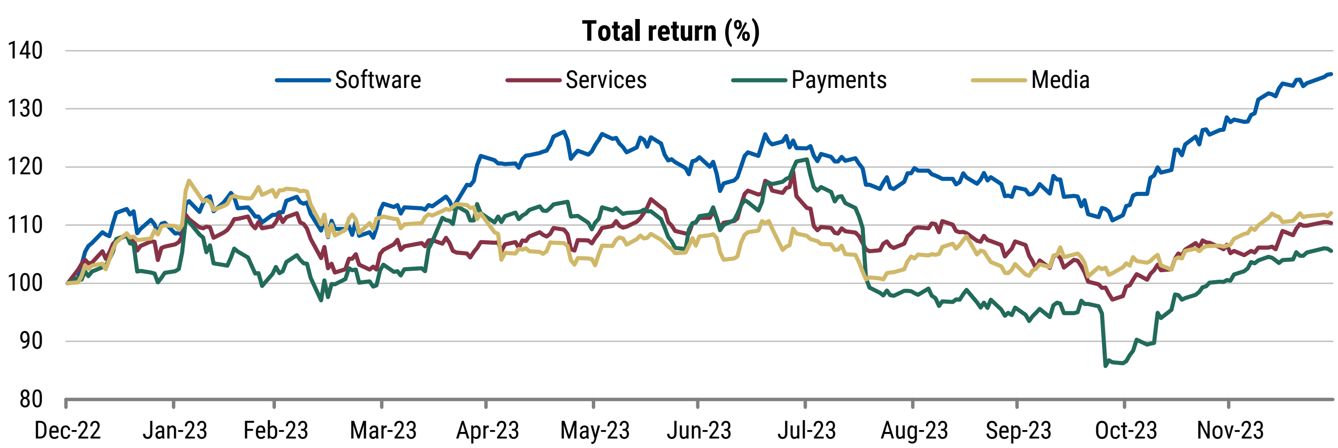
Bellwether stocks post a resilient earnings performance: As expected going into the year, the tougher macro environment did pose some headwinds for earnings, but these largely did not affect the larger-cap names, particularly those with strong product cycles. This can be seen with net CY23 EPS upgrades at the likes of Dassault Systemes, Sage, and Amadeus in software, and Wolters Kluwer in information services. In fact, the large cap names in the more cyclical IT Services and Advertising Agency sectors showed robust CY23 earnings revisions; Capgemini only saw c. 2% earnings cuts, while Publicis actually saw c. 8% upgrades. SAP saw modest downgrades, but this is attributable to its sale of Qualtrics, hence on an underlying basis, SAP's earnings have also been very resilient. Large-cap names (>€10bn) across our coverage delivered better returns (+34.7%) on average in 2023 vs. smid-cap (<€10bn) which were up c. 11.7% on average.

Multiples lead tech equities higher: The median share price return for our coverage was c. +28%. This was driven by the combination of multiple rerating (+10%, on average) and NTM earnings changes (+8%), with the latter mostly due to CY24 EPS y/y growth upgrades as CY23 EPS estimates were on average cut over the course of the year. Performance of the Software stocks in our coverage were driven mostly by multiple expansion (+21% on average), while EPS estimates rose by c. 10% (Exhibit 16). A similar dynamic was observed within IT Services, with stocks re-rating +10% on average, and NTM EPS estimates increasing by c. 5% (Exhibit 17). It was a different story in Payments and Information Services & Advertising Agencies however. In Payments, on a median basis multiples de-rated -8%, while NTM EPS estimates increased by +9% (Exhibit 18). Drivers of share price performance among Information Services & Advertising Agencies were more mixed and stock specific (Exhibit 19).

Software was the strongest performing sector last year, with the rest of our sub-sector coverage (IT Services, Media, and Payments) underperforming the index. Our software coverage outperformed the wider market by c. 20pps in 2023 (software c. +36.0% vs EuroStoxx 600 c. +15.7%), measured by a simple average of the total return. Our IT Services coverage outperformed the market by c. 4pps. Excluding OVH Groupe, which was down c. 46% in 2023, IT Services slightly outperformed the market by c. 2pps. Media stocks (i.e. our information services and advertising stock coverage) in our coverage underperformed the market by c. 4pps (total return of c. 12.1%), although this was significantly skewed by S4 Capital (-72%). Excluding this, our Media coverage outperformed the market by c. 13pps. Our Payments coverage was up 6% in 2023, underperforming the index by 10pps - although this too was skewed by Worldline, which was down c. 57%.

Macro still uncertain, though the market is anticipating rate cuts: Although the macroeconomic picture may not materially improve over the next 6 months, client conversations have already begun to swing to when the macroeconomic environment will trough and start improving again, partly stimulated by the higher market-implied likelihood that we are at (or close to) peak interest rates across the US and Europe.

Exhibit 11: Price performance by sub-sector



Source: FactSet data, Morgan Stanley Research. Note: Equal weighted averages. Date axes labels at month end.

Exhibit 12: Software: Annual stock total returns (capital + dividend)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Fortnox 80.7	Nemetschek 69.5	Nemetschek 123.2	Fortnox 80.9	Temenos 77.4	Fortnox 55.8	Sinch 229.3	Sinch 367.7	Nemetschek 87.7	TeamViewer 1.9	Nemetschek 65.6
Amadeus 66.3	Temenos 42.4	Compugroup Medical 71.9	Temenos 37.7	Fortnox 45.0	Nemetschek 28.9	Fortnox 152.4	Fortnox 176.2	Dassault Systemes 57.9	Sage -10.4	Sage 60.9
Temenos 59.5	Fortnox 28.6	Fortnox 53.6	Software AG 32.6	Compugroup Medical 41.6	Sinch 20.4	Nemetschek 85.3	Hexagon AB 44.1	Sage 50.8	Eurostoxx 600 -14.4	Temenos 56.5
Nemetschek 55.5	Hexagon AB 20.6	Temenos 48.0	Sinch 27.9	Amadeus 41.5	Dassault Systemes 17.6	Compugroup Medical 59.0	TeamViewer 37.5	Hexagon AB 35.2	Amadeus -18.6	Trustpilot 53.9
Sage 41.4	Sage 18.6	Dassault Systemes 46.9	Nemetschek 21.2	Software AG 37.9	Amadeus 2.6	Dassault Systemes 42.0	Compugroup Medical 24.2	Fortnox 26.7	Fortnox -19.0	Software AG 49.3
Compugroup Medical 28.8	Dassault Systemes 13.0	Software AG 33.2	Compugroup Medical 16.3	Nemetschek 36.7	Hexagon AB 0.4	SAP 40.2	Dassault Systemes 13.9	Eurostoxx 600 20.4	SAP -20.7	SAP 47.1
Hexagon AB 26.1	Compugroup Medical 9.6	Sage 32.9	SAP 14.7	Hexagon AB 27.7	Temenos -5.3	Temenos 30.5	Software AG 9.6	SAP 18.4	Hexagon AB -23.4	Darktrace 41.7
Eurostoxx 600 20.5	Amadeus 8.1	Hexagon AB 31.6	Sage 11.1	Sage 24.6	SAP -5.6	Hexagon AB 30.3	Nemetschek 3.2	Software AG 7.6	Software AG -29.2	Amadeus 34.8
Dassault Systemes 8.0	Eurostoxx 600 1.7	SAP 28.0	Amadeus 7.9	Dassault Systemes 23.2	Eurostoxx 600 -14.8	Sage 27.7	Eurostoxx 600 -1.6	Temenos 2.6	Dassault Systemes -35.7	Dassault Systemes 32.8
SAP 4.2	SAP -4.8	Amadeus 24.8	Hexagon AB 4.7	SAP 14.3	Sage -22.9	Eurostoxx 600 23.0	SAP -9.6	Amadeus 0.1	Darktrace -38.4	Fortnox 27.7
Software AG -19.5	Software AG -19.1	Eurostoxx 600 8.0	Eurostoxx 600 1.5	Eurostoxx 600 10.1	Compugroup Medical -25.5	Amadeus 21.4	Amadeus -17.7	Compugroup Medical -8.8	Compugroup Medical -48.9	TeamViewer 16.7
			Dassault Systemes -1.2	Sinch -25.5	Software AG -31.5	Software AG 0.8	Temenos -18.8	Sinch -14.1	Nemetschek -57.5	Eurostoxx 600 15.7
							Sage -20.5	TeamViewer -73.0	Temenos -59.3	Hexagon AB 12.2
									Sinch -66.8	Compugroup Medical 6.4
									Trustpilot -70.5	Sinch -1.9

Source: FactSet, Morgan Stanley Research

Exhibit 13: IT Services: Annual stock total returns (capital + dividend)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Computacenter 57.1	Tietoevry 37.5	Sopra Steria 74.6	Atos 31.2	Softcat 84.3	Softcat 17.8	Softcat 101.7	Netcompany 96.4	Capgemini 72.1	Solutions by STC 31.4	Computacenter 50.3
Sopra Steria 55.0	Capgemini 23.8	Computacenter 46.9	Indra 20.1	Computacenter 47.9	Tietoevry -4.5	Sopra Steria 81.2	Computacenter 38.8	Indra 36.4	Indra 13.3	Solutions by STC 45.1
Capgemini 53.6	Atos 1.9	Capgemini 46.0	Tietoevry 11.1	Sopra Steria 46.8	Capgemini -10.9	Computacenter 80.7	Softcat 21.8	Softcat 34.2	Tietoevry 2.4	Sopra Steria 43.6
Atos 25.8	Eurostoxx 600 1.7	Tietoevry 21.6	Sopra Steria 1.5	Capgemini 25.5	Computacenter -10.9	Netcompany 44.1	Capgemini 18.1	Computacenter 21.3	Exclusive Networks -2.9	Indra 33.7
Indra 24.5	Computacenter -5.4	Atos 18.2	Eurostoxx 600 1.5	Atos 22.6	Eurostoxx 600 -14.8	Atos 40.1	SoftwareONE 7.0	Sopra Steria 20.7	Sopra Steria -8.6	SoftwareONE 28.5
Eurostoxx 600 20.5	Sopra Steria -11.5	Eurostoxx 600 8.0	Computacenter -3.5	Eurostoxx 600 10.1	Indra -27.8	Capgemini 27.6	Atos 0.6	Eurostoxx 600 20.4	Eurostoxx 600 -14.4	Capgemini 23.6
Tietoevry 15.9	Indra -32.2	Indra 7.4	Capgemini -4.9	Indra 9.6	Atos -40.2	Tietoevry 23.9	Tietoevry -0.6	Netcompany 13.4	Capgemini -26.6	Softcat 18.2
			Softcat -7.8	Tietoevry 5.8	Sopra Steria -47.5	Indra 23.6	Eurostoxx 600 -1.6	Tietoevry 7.4	SoftwareONE -31.8	Eurostoxx 600 15.7
						Eurostoxx 600 23.0	Sopra Steria -7.9	SoftwareONE -23.5	Computacenter -32.2	Exclusive Networks 7.4
							Indra -31.4	Atos -49.2	Softcat -32.6	Tietoevry -13.8
									OVH Groupe -37.1	Atos -21.8
									Netcompany -58.2	Netcompany -23.3
									Atos -75.9	OVH Groupe -46.1

Source: FactSet, Morgan Stanley Research

Exhibit 14: Information Services & Advertising Agencies: Annual stock total returns (capital + dividend)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
WPP 59.6	Wolters Kluwer 26.5	Informa 34.7	RELX 24.2	Wolters Kluwer 29.0	Wolters Kluwer 21.3	S4 Capital 61.8	S4 Capital 159.7	Wolters Kluwer 52.6	Informa 20.5	Publicis 47.1
Publicis 49.5	RELX 25.8	Wolters Kluwer 25.9	Informa 24.2	RELX 22.8	S4 Capital 12.6	Informa 39.8	Wolters Kluwer 8.2	Publicis 50.6	Publicis 5.9	RELX 38.9
RELX 44.5	Eurostoxx 600 1.7	WPP 19.6	WPP 19.6	Eurostoxx 600 10.1	RELX -4.7	WPP 34.0	Publicis 5.0	WPP 43.7	RELX -2.7	Wolters Kluwer 33.9
Wolters Kluwer 39.5	WPP 0.3	RELX 11.5	Wolters Kluwer 13.6	Informa 9.4	Publicis -8.5	Wolters Kluwer 27.9	Eurostoxx 600 -1.6	RELX 37.3	Wolters Kluwer -4.0	Informa 28.3
Informa 32.6	Publicis -8.7	Eurostoxx 600 8.0	Publicis 9.5	Publicis -11.1	Informa -10.3	Eurostoxx 600 23.0	RELX -3.4	S4 Capital 26.8	Eurostoxx 600 -14.4	Eurostoxx 600 15.7
Eurostoxx 600 20.5	Informa -14.7	Publicis 4.6	Eurostoxx 600 1.5	WPP -23.2	Eurostoxx 600 -14.8	RELX 20.8	WPP -23.9	Eurostoxx 600 20.4	WPP -23.6	WPP -3.7
				S4 Capital -39.3	WPP -33.7	Publicis -15.7	Informa -35.9	Informa -5.9	S4 Capital -70.2	S4 Capital -71.8

Source: FactSet, Morgan Stanley Research

Exhibit 15: Payments/Fintech : Annual stock total returns (capital + dividend)

2015	2016	2017	2018	2019	2020	2021	2022	2023
Worldline 49.2	Worldline 12.2	Worldline 51.9	Worldline 3.8	Adyen 53.9	Adyen 160.6	Adyen 21.3	Network International 2.0	Wise 55.3
Eurostoxx 600 8.0	Eurostoxx 600 1.5	Eurostoxx 600 10.1	Eurostoxx 600 -14.8	Worldline 49.6	Nexi 32.0	Eurostoxx 600 20.4	WAG Payment Solutions -13.4	Network International 30.8
				Eurostoxx 600 23.0	Worldline 25.3	Network International -10.5	Eurostoxx 600 -14.4	Eurostoxx 600 15.7
					Eurostoxx 600 -1.6	Nexi -14.4	Worldline -25.5	WAG Payment Solutions 13.4
					Network International -49.0	Worldline -38.0	Wise -25.6	Nexi 0.5
							Adyen -44.3	Adyen -9.5
							Nexi -47.3	Worldline -57.1

Source: FactSet, Morgan Stanley Research

Exhibit 16: Software: 2023 deconstructed share price performance

** = Current NTM EPS/(NTM EPS at year start * (1+C) * (1+D))*
*^ = ((Starting NTM PE Ratio * (1+A))*(Starting NTM EPS * (1+B)))/Starting Share Price - 1*

Company	Share price change^	Re-rating (A)	N12m EPS change* (B)	(C) of which CY23 EPS Upgrade / Downgrade	(D) of which, current CY24 over CY23 EPS growth
Amadeus	33.6%	9.4%	22.1%	1.3%	20.6%
Compugroup Medical	5.3%	0.3%	5.0%	-6.5%	12.2%
Dassault Systemes	32.1%	20.6%	9.5%	0.8%	8.6%
Fortnox	27.5%	-3.9%	32.7%	2.0%	30.0%
Hexagon AB	11.0%	10.4%	0.5%	-7.2%	8.3%
Nemetschek	64.6%	49.1%	10.4%	-5.2%	16.4%
Sage	57.3%	31.4%	19.7%	5.5%	13.5%
SAP	44.7%	29.2%	12.0%	-4.7%	17.4%
Software AG	49.1%	41.0%	5.7%	-9.8%	17.2%
TeamViewer	16.7%	12.7%	3.5%	-10.5%	15.7%
Temenos	54.2%	50.8%	2.2%	-9.8%	13.3%
Mean	36.0%	22.8%	11.2%	-4.0%	15.8%
Median	**33.6%**	**20.6%**	**9.5%**	**-5.2%**	**15.7%**

Share price change uses price currency, not including capital returns. Darktrace, Sinch, and Trustpilot excluded due to inconsistent consensus data; Source: FactSet, Morgan Stanley Research

Exhibit 17: IT Services: 2023 deconstructed share price performance

** = Current NTM EPS/(NTM EPS at year start * (1+C) * (1+D))*
*^ = ((Starting NTM PE Ratio * (1+A))*(Starting NTM EPS * (1+B)))/Starting Share Price - 1*

Company	Share price change^	Re-rating (A)	N12m EPS change* (B)	(C) of which CY23 EPS Upgrade / Downgrade	(D) of which, current CY24 over CY23 EPS growth
Capgemini	21.0%	16.7%	3.7%	-2.5%	6.3%
Computacenter	46.1%	32.9%	9.9%	5.4%	4.3%
Exclusive Networks	7.4%	8.6%	-1.1%	-15.6%	17.2%
Indra	31.5%	8.8%	20.8%	10.3%	9.6%
Netcompany	-23.3%	2.1%	-24.9%	-40.8%	27.0%
Softcat	14.9%	8.3%	6.1%	4.2%	1.8%
SoftwareONE	25.1%	25.0%	0.1%	-21.0%	26.7%
Solutions by STC	42.6%	13.1%	26.1%	9.5%	15.2%
Sopra Steria	40.1%	11.5%	25.6%	4.8%	19.8%
Tietoevry	-18.8%	-10.1%	-9.7%	-14.8%	6.0%
Mean	18.7%	11.7%	5.7%	-6.1%	13.4%
Median	**23.1%**	**10.2%**	**4.9%**	**0.9%**	**12.4%**

Share price change uses price currency, not including capital returns. Atos, IONOS, and OVH Groupe excluded due to inconsistent consensus data; Source: FactSet, Morgan Stanley Research

Exhibit 18: Payments/FinTech: 2023 deconstructed share price performance

** = Current NTM EPS/(NTM EPS at year start * (1+C) * (1+D))*
*^ = ((Starting NTM PE Ratio * (1+A))*(Starting NTM EPS * (1+B)))/Starting Share Price - 1*

Company	Share price change^	Re-rating (A)	N12m EPS change* (B)	(C) of which CY23 EPS Upgrade / Downgrade	(D) of which, current CY24 over CY23 EPS growth
Adyen	-9.5%	-8.2%	-1.4%	-20.6%	24.1%
Network International	30.8%	18.9%	10.0%	-15.4%	30.1%
Nexi	0.5%	-7.1%	8.3%	-6.4%	15.6%
WAG Payment Solutions	13.4%	-3.4%	17.3%	-9.7%	30.0%
Wise	55.3%	-29.9%	121.7%	119.8%	0.8%
Worldline	-57.1%	-48.5%	-16.7%	-21.3%	5.9%
Mean	5.6%	-13.0%	23.2%	7.7%	17.8%
Median	**6.9%**	**-7.6%**	**9.1%**	**-12.6%**	**19.9%**

Share price change uses price currency, not including capital returns; Source: FactSet, Morgan Stanley Research

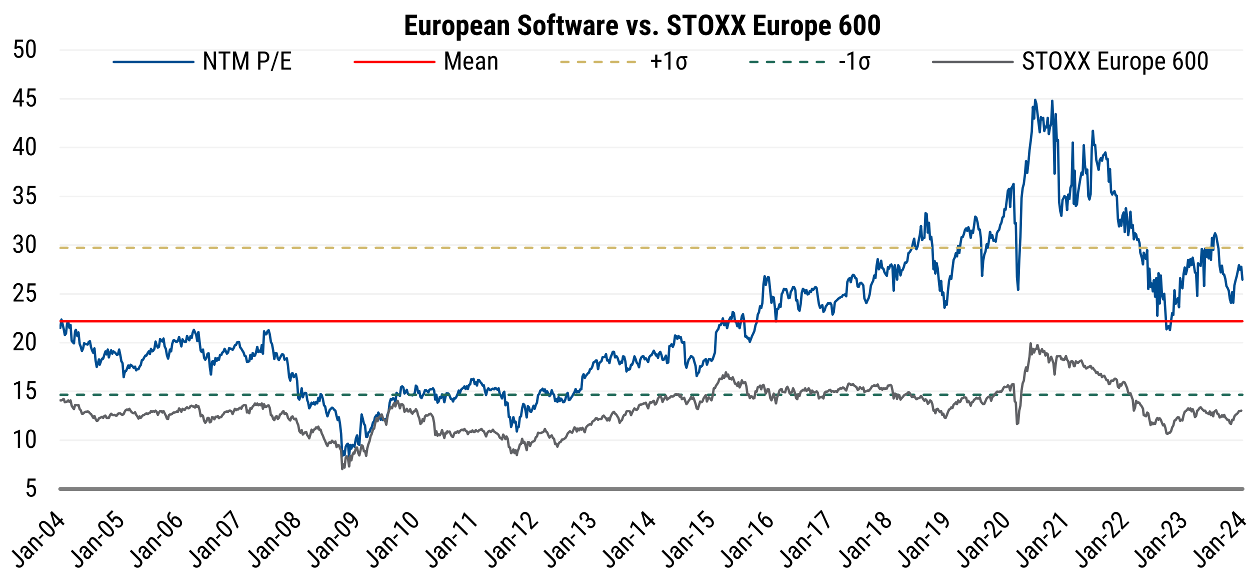
Exhibit 19: Information Services & Advertising Agencies: 2023 deconstructed share price performance

** = Current NTM EPS/(NTM EPS at year start * (1+C) * (1+D))*
*^ = ((Starting NTM PE Ratio * (1+A))*(Starting NTM EPS * (1+B)))/Starting Share Price - 1*

Company	Share price change^	Re-rating (A)	N12m EPS change* (B)	(C) of which CY23 EPS Upgrade / Downgrade	(D) of which, current CY24 over CY23 EPS growth
Informa	26.1%	-10.6%	41.0%	24.0%	13.7%
Publicis	41.4%	26.1%	12.1%	7.8%	3.9%
RELX	35.9%	26.6%	7.3%	-2.7%	10.3%
S4 Capital	-71.8%	-42.2%	-51.2%	-64.6%	37.8%
Wolters Kluwer	31.6%	15.9%	13.6%	3.1%	10.2%
WPP	-8.2%	-4.6%	-3.8%	-8.1%	4.7%
Mean	9.2%	1.9%	3.2%	-6.7%	13.4%
Median	28.9%	5.6%	9.7%	0.2%	10.2%

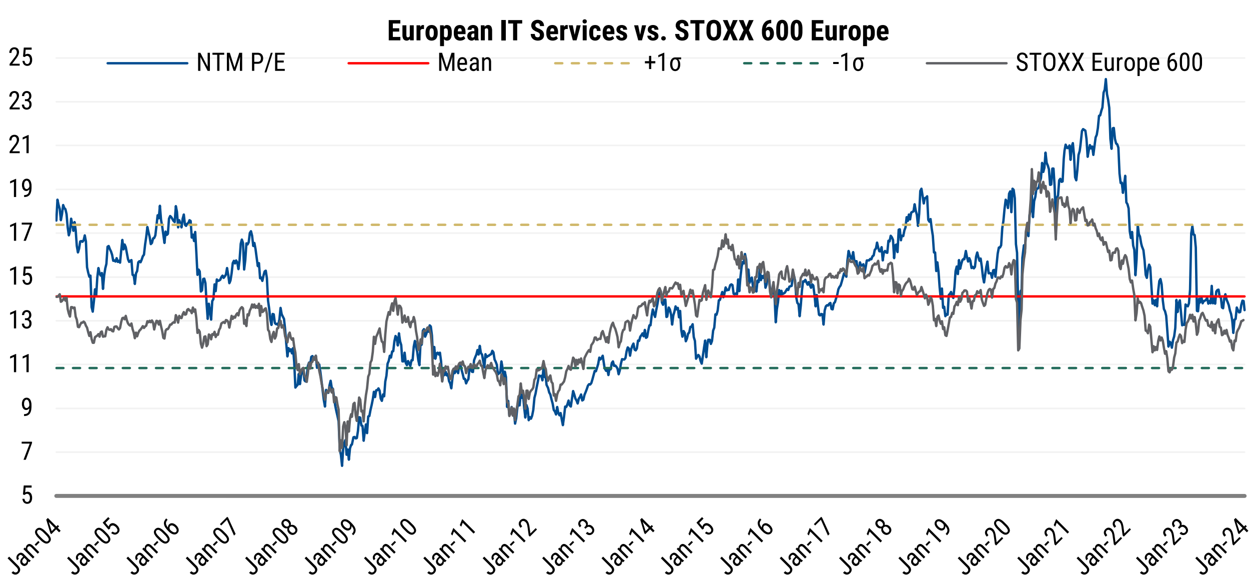
Share price change uses price currency, not including capital returns; Source: FactSet, Morgan Stanley Research

Exhibit 20: EU Software - P/E 1Y FWD



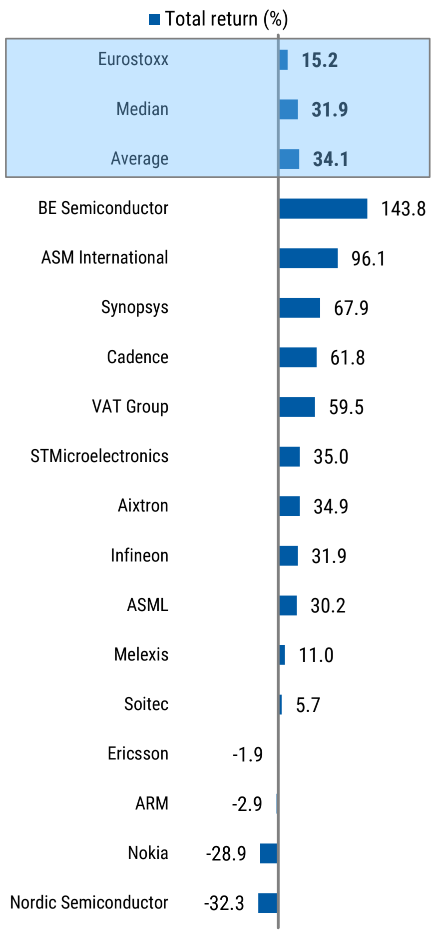
Source: Morgan Stanley Research, FactSet data

Exhibit 21: IT Services - P/E 1Y FWD



Source: Morgan Stanley Research, FactSet data

Exhibit 22: Total Returns % – 2023



Source: FactSet, Morgan Stanley Research

Semiconductors & Telecom Equipment

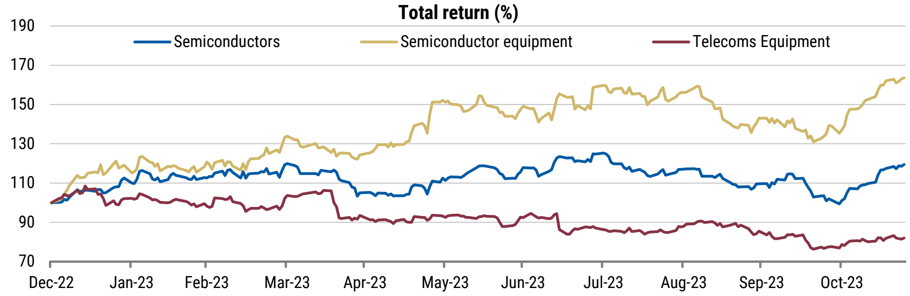
Strong outperformance on a cyclical bottom and higher peak driven by AI. The semi sector outperformed in 2023 with a median/average performance of 32%/34% respectively. Although there were some notable outliers (especially Besi and ASM) we note that removing those two top performers and the two bottom performers (Nokia and Nordic) has limited impact on the average, highlighting the breadth of strength within the sector. The performance was mostly driven by a multiple re-rating as investors: **1)** positioned in anticipation of a cyclical bottom and positive inflection in the analog space; and **2)** the advent of AI driving advanced logic and especially packaging technology. Although the latter driver was more narrow (largely limited to the equipment names) the impact was significant. In hindsight Besi's outperformance can be explained by its exposure to both drivers.

"The year AI ate the internet" (as per The New Yorker). Within the space, "the largest $ revenue upside in industry history", courtesy of NVIDIA, spurred on the shares of equipment stocks. Within European semis, direct exposure to AI is not obvious but the equipment companies that are exposed to enabling the manufacturing of these chips (ASM, ASML, VAT Group) or better yet "chip-lets" (Besi) re-rated. At the same time, the impact on WFE was still very limited (we estimate <5%). Still, WFE (wafer fab equipment) showed unexpected strength. Contrary to our initial forecast for 2023 WFE of approximately $70bn, we are ending the year closer to $90bn due to sovereign strength in China and western trailing edge driven by geopolitics. Advanced Logic/foundry spend held up reasonably well despite downgrades at TSMC most notably. Memory (outside of China DRAM) was weak as expected).

Automotive companies continued to outperform expectations through CY23. The shares, although ending the year with very decent performance (STM +35%, IFX +32%), however, showed significant volatility. In the absence of a "confessional", the market became increasingly sceptical on the sustainability of growth. Signs of margin headwinds emerged with the 3Q results (largely due to pricing pressure widening in Industrial), prompting a wobble in the share prices. However, better visibility on where the shares may trough, and at what margins, allowed investors to buy into the recovery foreseen in mid-2024.

2023 has proved to be a more challenging year for telco equipment. In the high-margin North American businesses, Nokia revenues were down 32% YoY and Ericsson were down 36% YoY in the 9M2023. Its Telco customers are increasingly focused on their free cash flow generation and being disciplined on capex. On top of this, Telcos are unwinding excess inventory to levels seen pre the supply-side shortages during Covid, which further diminishes near-term orders for new Telco equipment kit. This has translated into significant share price weakness in 2023 and high volatility around quarterly results.

Exhibit 23: Price performance by sub-sector



Source: FactSet data, Morgan Stanley Research. Note: Equal weighted averages. US Semiconductors is the simple average of Synopsys, ARM, and Cadence.

Exhibit 24: Semiconductors: Annual stock total returns (capital + dividend)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Nokia 98.9	BE Semiconductor 131.8	Infineon 55.4	Soitec 187.2	Aixtron 273.7	Ericsson 48.0	ASM International 184.5	Nordic Semiconductor 147.8	ASM International 117.9	Aixtron 52.7	BE Semiconductor 149.7
Nordic Semiconductor 91.0	Nordic Semiconductor 70.4	Melexis 36.9	STMicroelectronics 81.6	BE Semiconductor 129.2	Nokia 34.1	BE Semiconductor 98.6	Cadence 96.7	Nordic Semiconductor 115.7	Synopsys -13.4	ASM International 100.9
Melexis 84.3	Melexis 65.6	Cadence 9.7	BE Semiconductor 78.7	Soitec 102.2	Cadence 4.0	VAT Group 96.3	Synopsys 86.2	VAT Group 109.4	Cadence -13.8	VAT Group 69.8
BE Semiconductor 48.0	ASM International 49.1	Eurostoxx 600 8.0	ASML 30.8	VAT Group 75.6	Synopsys -1.2	ASML 95.3	ASM International 83.1	ASML 78.7	Eurostoxx 600 -14.4	Cadence 69.6
ASML 43.1	Cadence 35.3	BE Semiconductor 6.6	Melexis 30.0	STMicroelectronics 71.3	ASML -4.7	STMicroelectronics 94.4	Soitec 70.0	Nokia 76.9	BE Semiconductor -20.0	Synopsys 61.3
Infineon 28.9	ASML 32.9	STMicroelectronics 5.0	Synopsys 29.1	Cadence 65.8	Eurostoxx 600 -14.8	Nordic Semiconductor 92.7	Aixtron 67.3	BE Semiconductor 55.4	Melexis -20.8	Aixtron 44.9
Synopsys 27.4	Ericsson 22.9	Synopsys 4.9	Infineon 24.4	Synopsys 44.8	Soitec -14.9	Soitec 85.2	Infineon 56.5	STMicroelectronics 44.0	Nokia -21.4	STMicroelectronics 37.8
Ericsson 20.9	Nokia 20.1	ASM International 4.4	Cadence 21.2	Infineon 40.1	Infineon -23.1	Synopsys 65.2	ASML 52.1	Synopsys 42.1	STMicroelectronics -23.4	ASML 36.7
Eurostoxx 600 20.5	Infineon 15.7	Nokia 3.0	ASM International 20.2	ASML 37.4	Aixtron -27.4	Cadence 59.5	BE Semiconductor 48.0	Cadence 36.6	ASML -27.8	Infineon 34.2
Aixtron 18.4	STMicroelectronics 11.5	ASML -7.1	Eurostoxx 600 1.5	Melexis 34.8	ASM International -28.9	Melexis 35.0	VAT Group 38.4	Soitec 35.1	Soitec -29.0	Melexis 16.0
STMicroelectronics 14.0	Synopsys 7.1	Ericsson -7.1	Nordic Semiconductor -18.8	ASM International 33.9	STMicroelectronics -30.6	Eurostoxx 600 23.0	STMicroelectronics 27.3	Melexis 33.5	Infineon -29.6	Eurostoxx 600 15.7
ASM International 6.0	Eurostoxx 600 1.7	Nordic Semiconductor -8.4	Aixtron -24.9	Nordic Semiconductor 19.7	Nordic Semiconductor -31.2	Infineon 18.6	Ericsson 25.5	Infineon 30.6	Ericsson -32.0	Soitec 5.9
Cadence 3.8	Aixtron -10.9	Soitec -36.6	Nokia -26.7	Eurostoxx 600 10.1	Melexis -38.3	Ericsson 11.6	Melexis 20.7	Aixtron 26.1	ASM International -38.8	Ericsson 1.1
Soitec -38.9	Soitec -21.9	Aixtron -55.9	Ericsson -30.0	Ericsson 2.2	VAT Group -38.6	Aixtron 1.4	Eurostoxx 600 -1.6	Eurostoxx 600 20.4	VAT Group -43.2	Nordic Semiconductor -23.1
				Nokia -12.6	BE Semiconductor -42.9	Nokia -33.1	Nokia -4.4	Ericsson -3.2	Nordic Semiconductor -44.9	Nokia -27.3

Source: FactSet, Morgan Stanley Research

Exhibit 25: Semiconductors: 2023 deconstructed share price performance

** = Current NTM EPS/(NTM EPS at year start * (1+C) * (1+D))*
*^ = ((Starting NTM PE Ratio * (1+A))*(Starting NTM EPS * (1+B)))/Starting Share Price - 1*

Company	Share price change^	Re-rating (A)	N12m EPS change* (B)	(C) of which CY23 EPS Upgrade / Downgrade	(D) of which, current CY24 over CY23 EPS growth
Aixtron	43.3%	2.9%	39.3%	21.2%	14.9%
ARM	33.0%	20.2%	10.6%	23.3%	-10.3%
ASM International	4.5%	-18.2%	27.8%	0.0%	27.8%
ASML	99.4%	75.3%	13.8%	4.7%	8.7%
BE Semiconductor	35.3%	30.6%	3.6%	5.3%	-1.7%
Cadence	12.7%	5.2%	7.1%	6.6%	0.4%
Infineon	141.2%	70.1%	41.9%	-3.4%	46.8%
Melexis	-23.1%	710.5%	-90.5%	-90.3%	-2.6%
Nordic Semiconductor	5.9%	14.1%	-7.2%	-34.8%	42.4%
Soitec	37.1%	34.2%	2.2%	13.0%	-9.6%
STMicroelectronics	61.3%	24.4%	29.6%	8.0%	20.0%
Synopsys	69.6%	34.6%	25.9%	9.4%	15.1%
VAT Group	66.7%	82.2%	-8.5%	-25.3%	22.5%
Mean	45.1%	83.5%	7.4%	-4.8%	13.4%
Median	37.1%	30.6%	10.6%	5.3%	14.9%

NB: Share price change uses price currency, not including capital returns. ARM return calculated from 14/09/2023. Source: FactSet, Morgan Stanley Research

Exhibit 26: Telecom Equipment: 2023 deconstructed share price performance

** = Current NTM EPS/(NTM EPS at year start * (1+C) * (1+D))*
*^ = ((Starting NTM PE Ratio * (1+A))*(Starting NTM EPS * (1+B)))/Starting Share Price - 1*

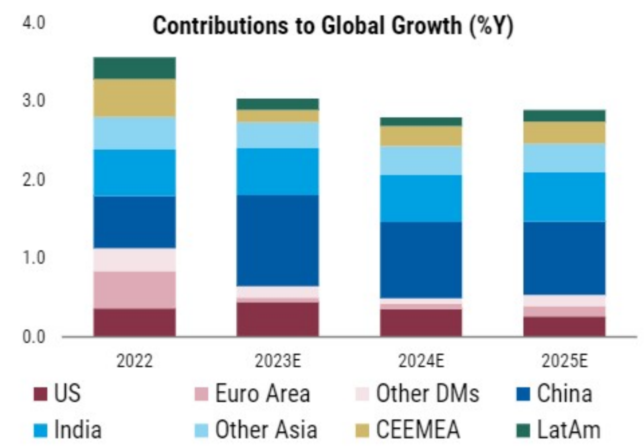
Company	Share price change^	Re-rating (A)	N12m EPS change* (B)	(C) of which CY23 EPS Upgrade / Downgrade	(D) of which, current CY24 over CY23 EPS growth
Nokia	-29.5%	-3.4%	-27.0%	-28.1%	1.5%
Ericsson	-3.3%	22.3%	-21.0%	-51.8%	63.8%
Mean	-16.4%	9.5%	-24.0%	-39.9%	32.7%
Median	-16.4%	9.5%	-24.0%	-39.9%	32.7%

NB: Share price change uses price currency, not including capital returns. ARM return calculated from 14/09/2023. Source: FactSet, Morgan Stanley Research

Outlook into 2024 – Morgan Stanley Economists

2024: The Last Mile: As we look ahead to 2024, our economists believe global inflation has peaked, but the last mile to target will take a period of subpar growth. Growth stepped down in 2023, and they expect it to be slower at just under 3% for 2024 and 2025. DM growth is broadly soft, while the picture in EM is mixed.

Exhibit 27: Despite a slowdown in China, it remains the largest contributor to global growth



Source: Morgan Stanley Research forecasts; Note: CEEMEA excludes Ukraine.

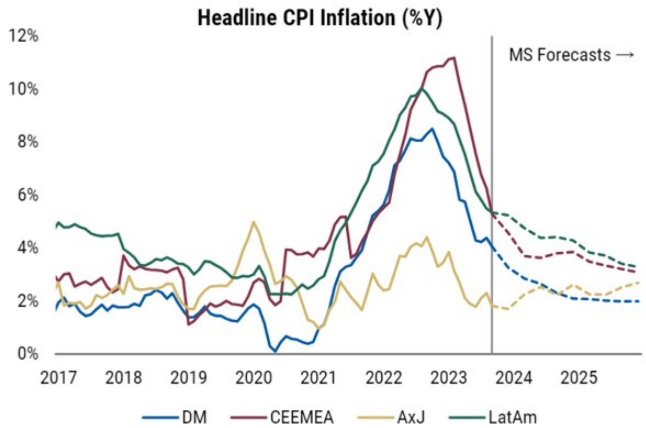
A baseline scenario of below-trend growth in DM, and a mixed EM growth picture: Our economists see global growth in 2023 at 3.0%Y. Most of the slowing is in DM, with some EM outperformance outside of China partially offsetting. They expect global growth at 2.8%Y in 2024 (2.9% 4Q/4Q) and 2.9%Y in 2025 (2.8% 4Q/4Q).

US: Slowing Growth, Easing Policy – Monetary policy is expected to remain on hold until June 2024 to offset continued resilience in the real economy, with the team forecasting GDP to slow from an estimated 2.5% 4Q/4Q (2.4%Y) in 2023 to 1.6% (1.9%Y) in 2024, and 1.4% (1.4%Y) in 2025. In their forecasts, core PCE inflation is an estimated 3.5% 4Q/4Q in 2023, and slows to a still-elevated 2.4% in 2024 with sticky services inflation, before falling further to 2.1% in 2025. The Fed holds the policy rate steady at 5.375% from July 2023 until June 2024 when it delivers the first 25bp cut, followed by 25bp cuts in September, November, and December, and by 25bp cuts at every meeting in 2025. The policy rate falls from 5.375% in 4Q23 to 4.375% in 4Q24 and 2.375% in 4Q25.

Euro Area: Structurally Slow – Our economists see low growth again in 2024, at 0.5%Y, after 0.4%Y in 2023. Private consumption is likely to pick up but restrictive monetary policy and weak global trade should be a drag on exports and investment. 2025 looks more positive (1.0%Y) even though potential is dampened by structural challenges. Inflation is expected to recede, from 5.6%Y in 2023 to 2.4%Y in 2024 and 2.0%Y in 2025. They think that the ECB has reached its terminal rate of 4.0% and will start cutting in June 2024, towards 2.0% in September 2025.

UK: Looking for the Exit – The UK economy is stuck in a fragile equilibrium, with a challenging policy mix. The team expects a technical recession at the turn of the year and a weak economy over 2024. They see some cause for a more constructive stance in 2025 – namely, policy support and an improving global outlook. The BoE starts cutting in May, accelerating the pace of policy normalization into year-end, as global DM peers start normalizing their policy stances, and as headline inflation approaches the 2%Y target. They see the Bank Rate at 2.5% at the end of 2025.

Exhibit 28: The disinflationary journey enters its last mile



Source: Haver Analytics, Morgan Stanley Research forecasts; Note: CEEMEA excludes Ukraine, Turkey and Egypt, LatAm excludes Argentina.

Inflation to continue to fall in 2024: In 2024, our economists expect inflation to continue to fall in DM, allowing the start of easing cycles against a backdrop of soft real economic activity. They expect disinflation to continue throughout the forecast horizon, with some economies only expected to reach target by 2H25. In DM, labor market signals will be critical in tracking the disinflation. Oil price volatility matters less in the US than it does in other markets; it matters the most for EM, but even there the path is one of gradual normalization regardless of headline volatility.

Monetary Policy – The Last Mile: Most DM central banks have signalled that they will keep rates at the peak until they are convinced that inflation is converging to target. Our economists expect the first cuts to come in 2024 and forecast the ECB and the Fed to start lowering policy rates in June. Growth concerns in Europe push for cuts from a lower peak, but falling inflation and subpar growth in each economy are key. In contrast, the team has Japan hiking in July 2024 from the zero interest rate after leaving NIRP in January 2024. EM central banks had hiked early, but may be caught in the crosshairs as high real rates in DM force delays to their normalization path.

Base case - Euro area: The euro area economy has decelerated over 2023, and our MS Economists' forecasts remain bearish. The team expect growth below potential at 0.4%Y (0.0% 4Q/4Q) in 2023, before accelerating to 0.5%Y in 2024 (1.0% 4Q/4Q), driven by a strong pick-up in 2H24. Investment and consumption have been largely stagnant, on balance, in 2023. Going into 1H24, the region will likely face the peak impact of restrictive monetary policy on growth combined with weak global trade momentum. On the upside, as inflation declines and labor markets remain resilient, rising inflation-adjusted income starts to lift consumption spending. By 2025, the team estimate that real GDP growth could pick up close to potential growth, at 1.0%Y (1.1% 4Q/4Q).

Exhibit 29: Key forecast profile

	Quarterly																Annual			
	2022				2023				2024E				2025E				2022	2023E	2024E	2025E
Real GDP	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4QE	1QE	2QE	3QE	4QE	1QE	2QE	3QE	4QE				
Global (YoY)	**4.7**	**3.9**	**3.6**	**2.2**	**3.0**	**3.4**	**2.9**	**2.9**	**2.6**	**2.9**	**2.7**	**2.9**	**3.0**	**2.9**	**2.9**	**2.8**	**3.6**	**3.0**	**2.8**	**2.9**
G10	**4.4**	**2.9**	**2.1**	**1.1**	**1.5**	**1.5**	**1.6**	**1.4**	**1.3**	**1.2**	**1.0**	**1.2**	**1.3**	**1.3**	**1.3**	**1.3**	**2.6**	**1.5**	**1.2**	**1.3**
United States	3.6	1.9	1.7	0.7	1.7	2.4	2.9	2.5	2.4	2.3	1.5	1.6	1.5	1.4	1.4	1.4	1.9	2.4	1.9	1.4
Euro Area	5.5	4.1	2.4	1.8	1.2	0.5	0.1	0.0	0.2	0.2	0.6	1.0	1.0	1.0	1.1	1.1	3.4	0.4	0.5	1.0
Japan	0.6	1.7	1.5	0.4	2.0	1.6	2.3	2.1	1.6	0.6	0.8	1.0	1.1	1.0	1.0	1.2	1.0	2.0	1.0	1.1
UK	11.4	3.9	2.1	0.7	0.5	0.6	0.6	0.4	-0.2	-0.4	-0.1	0.2	0.7	1.0	1.1	1.1	4.3	0.5	-0.1	1.0
EM* (YoY)	**5.0**	**4.7**	**4.8**	**3.1**	**4.0**	**4.8**	**3.9**	**4.1**	**3.5**	**4.3**	**4.0**	**4.2**	**4.3**	**4.1**	**4.0**	**3.8**	**4.3**	**4.2**	**4.0**	**4.0**
China	4.8	0.4	3.9	2.9	4.5	6.3	4.9	4.9	3.6	5.0	3.9	4.1	4.5	4.2	3.8	3.5	3.0	5.1	4.2	4.0
India	4.0	13.1	6.2	4.5	6.1	7.8	6.5	6.0	5.7	6.4	6.7	6.7	6.3	6.5	6.7	6.4	6.7	6.6	6.4	6.5
Brazil	2.4	3.7	3.6	1.9	4.0	3.4	1.9	2.9	1.3	1.8	1.8	2.0	1.6	1.5	1.6	1.7	2.9	3.1	1.7	1.6

Source: IMF, Morgan Stanley Research forecasts; Note: Global and regional aggregates for GDP growth are GDP-weighted averages, using PPP weights excluding Ukraine; Japan policy rate is the interest rate on excess reserves; Global %Q SAAR Growth includes G10 and Selected EMs; CPI numbers are period average; Global* and EM* consumer price inflation aggregates exclude Argentina, Turkey, Egypt and Ukraine; Selected EM includes China, India and Brazil; The global core inflation aggregate consists of G4+Selected EM; ^US core inflation is core PCE., Japan core inflation is core-core and excludes fresh food and energy.

Exhibit 30: MSe vs consensus

	2023E		2024E		2025E	
GDP (%Y)	**MS**	**Cons**	**MS**	**Cons**	**MS**	**Cons**
G4						
US	2.4	2.3	1.9	1.0	1.4	1.8
US (4Q/4Q)	2.5	2.2	1.6	0.8	1.4	-
Euro Area	0.4	0.5	0.5	0.7	1.0	1.5
Japan	2.0	1.9	1.0	1.0	1.1	1.0
UK	0.5	0.4	-0.1	0.4	1.0	1.3
Selected EM						
China	5.1	5.2	4.2	4.5	4.0	4.5
India	6.6	6.2	6.4	6.3	6.5	-
Brazil	3.1	3.0	1.7	1.6	1.6	2.0
CPI (%Y)	**MS**	**Cons**	**MS**	**Cons**	**MS**	**Cons**
G4						
US	4.1	4.2	2.1	2.7	2.0	2.3
Euro Area	5.6	5.6	2.4	2.7	2.0	2.1
Japan	3.3	3.1	3.2	2.0	1.8	1.4
UK	7.4	7.4	2.8	3.0	1.8	2.2
Selected EM						
China	0.3	0.5	1.1	1.8	1.5	2.0
India	5.6	5.4	5.1	4.6	4.8	-
Brazil	4.6	4.7	4.3	4.0	3.8	3.7

Source: Bloomberg, Haver Analytics, Morgan Stanley Research forecasts; Note: Aggregates are PPP-weighted. Cons = consensus, which is built off leading Wall Street bank forecasts from Bloomberg except for the US and Brazil, where alternative consensus sources are used with more local representation. India consensus values refer to FY.

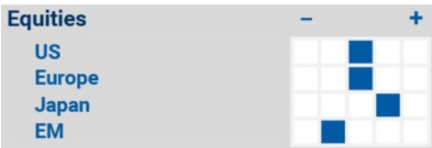
In FX, the story for 2024 will likely be a tale of two halves, especially for USD: With US growth still relatively strong in 1H and the risk-off environment from stocks and earnings troughing early next year, our FX strategists forecast the DXY to rise to 111 by the spring. From 2Q onwards, with US growth softening and cuts being priced in, USD can weaken slightly to end the year at 107. This view that the dollar will strengthen in 1H and then fall in 2H underpins their view on EM. Stable yields and USD strength offset the expected decline in inflation, keeping EM rates steady. Meanwhile, a weaker USD and fall in US rates can prompt inflows back to EM assets by mid-2024.

2024 Global Economics Outlook: The Last Mile

2024 European Economics Outlook: Structurally Slow

Outlook into 2024 – Morgan Stanley Strategists

Exhibit 31: MS strategists' relative allocations in Equities:

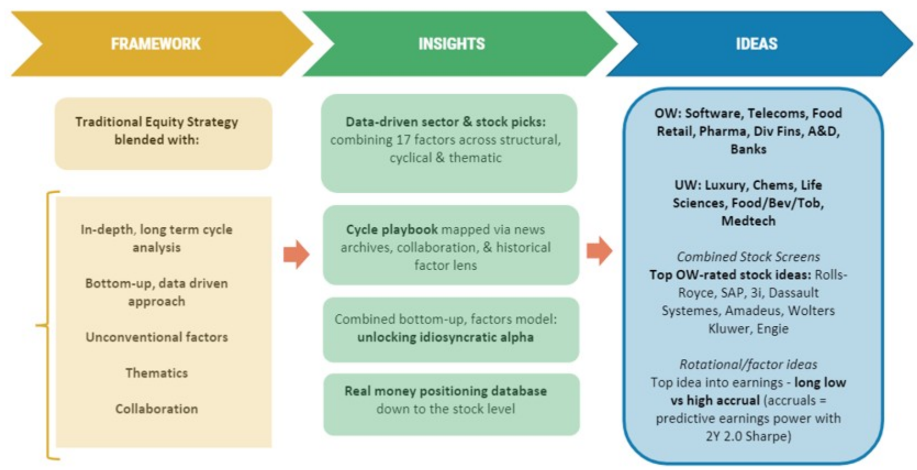


Source: Morgan Stanley Research

Stay patient and look for engagement opportunities into mid-2024: Our equity strategists see a still-difficult outlook for global equities into 1H24, with our macro colleagues now forecasting later policy rate cuts and further USD appreciation. Global growth is expected to slow further and China has not shown a comprehensive response to debt-deflation risks. Falling inflation and expected policy easing in 2H24 should support a later recovery, but they think that investors should remain selective, given that earnings are still adjusting lower and aggregate valuations are expensive relative to history.

In Europe - our strategy team recently launched with a ground-up collaborative framework: The team blends traditional equity strategy with an in-depth cycle playbook, bottom-up data-driven analysis, and unconventional factors. Their process also incorporates important thematics such as AI diffusion, the rise of M&A, and geopolitics.

Exhibit 32: MS European Equity Strategy: A Ground-up Collaborative Framework



Source: MS research

Our European strategists' work indicates this cycle is most similar to the mid-1990s soft landing, as per our global economists' views. They dive into news archives to help map the future – similarities are striking. The recent sharp rally and pullback are playing out according to both the 1995 and 2019 Fed pivot playbooks. The pullback should prove tactical. Then we grind higher, fuelled by a re-rating on the rate cut hope trade and approaching trough earnings expectations. Once rate cuts are underway, flows from money market funds should join the party, while the recent pick-up in European M&A skews their risk-reward up. Their playbook indicates 1H24 will be about relative idiosyncratic drivers rather than a cyclical trade. Bond proxies and highly levered stocks should continue to give back recent gains for now.

Software & Services key sector Overweight within Europe: Other overweight sectors include Telecoms, Food Retail, Pharma, DivFins, Aerospace & Defense, and Banks. Underweight Luxury, Chemicals, Life Sciences, Food/Bev/Tobacco, and Medtech. The team's sector model is built upon sustainable factors, cycle playbook rotations, and thematics.

Structurally, the team study 80+ factors over decades and narrow down to 10 which

work sustainably over time. Stocks with higher accruals tend to underperform those with lower accruals. Why? In short, accruals, especially those at the top and bottom quintiles of stocks, can signal both the quality of earnings and predict future earnings changes - SAP screens well on this factor, see here for more detail.

11% upside to 2115 year-end target on MSCI Europe: This rises to 16% on a total return basis, including dividends and buybacks. See our strategists's report for combined stock screens as well as European stock-level positioning data based on the aggregation of $1trn in real money AuM.

Elsewhere, S&P 500 target moves up to 4,500, but near-term risks persist: Our strategists continue to recommend a defensive growth and late-cycle cyclicals barbell and look for a durable earnings recovery to emerge during 2024. For December 2024, they forecast a 17.0x P/E multiple on 12-month forward EPS (2025) of US$266, which equates to a 4,500 index target (versus 4,200 previously for June 2024). In the short term, they expect the earnings recession to continue as weak earnings revisions breadth and performance in cyclical and interest rate-sensitive areas of the market corroborate near-term growth risks.

2024 Global Strategy Outlook: Threading the Needle

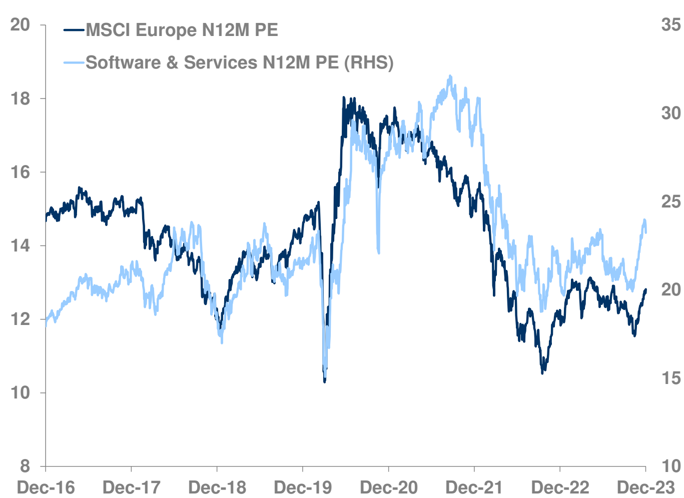
2024 European Equity Strategy: Time Warp

Exhibit 33: Morgan Stanley 2023 returns forecasts and index price targets

	As of Nov 08, 2023	Q4 2024 Forecast			Q4 2024 Return Forecast		
		Bear	Base	Bull	Bear	Base	Bull
Equities					Total Returns		
S&P 500	4,383	3,850	4,500	5,050	-10.6%	4.3%	16.8%
MSCI Europe	1,798	1,480	1,810	2,040	-14.1%	4.3%	17.0%
Topix	2,306	1,850	2,600	2,800	-17.4%	15.1%	23.8%
MSCI EM	958	750	1,000	1,140	-18.8%	7.3%	21.9%

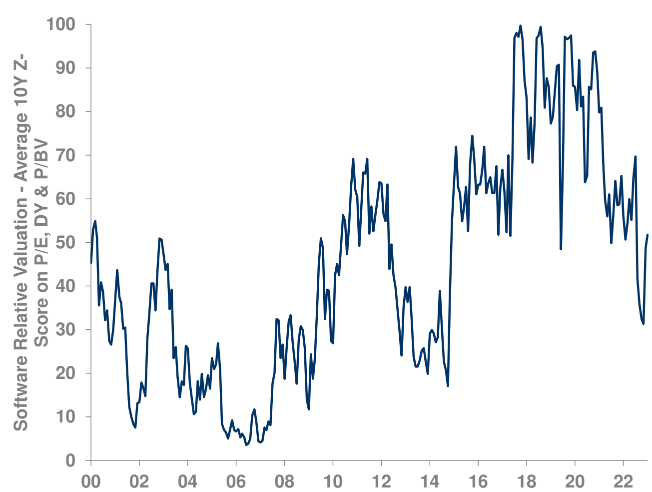
Note: MSCI, Bloomberg, Morgan Stanley Research forecasts; Note: Returns are total returns, except for credit, where we forecast excess returns versus government bonds. Equity returns exclude net buyback yield. Commodity returns are calculated relative to futures to account for carry. All currency returns are shown as XXXUSD return. We use CNH/USD carry as a proxy for CNY/USD carry. Volatility is 10y realized vol.

Exhibit 34: Software & Services N12M P/E vs. MSCI Europe



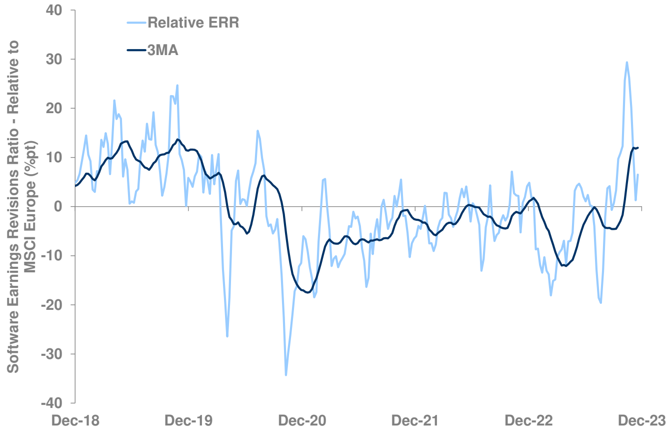
Source: Morgan Stanley Research, Refinitiv

Exhibit 35: Software & Services Relative Valuations As Percentile of 10Y Range (Average of P/E, P/BV & P/Div)



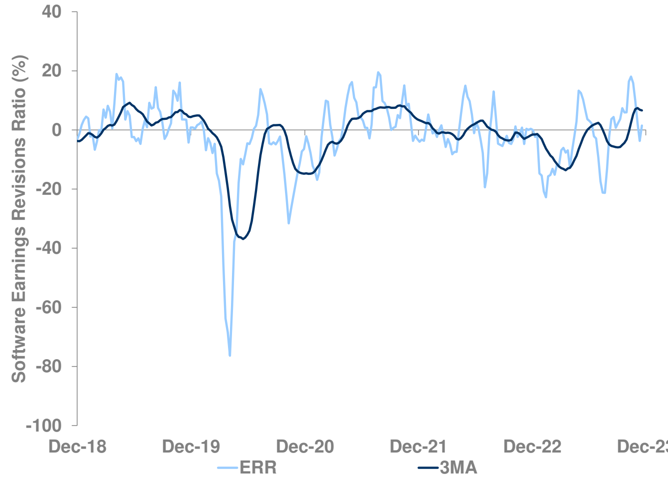
Source: MSCI, IBES, Morgan Stanley Research. Note: All relative valuation measures calculated using relative yields (i.e. earnings yield, book value yield etc). Average relative valuations use 12M forward data where available (forward P/E data starts in 1987) and trailing data where forward P/E not available

Exhibit 36: Software & Services Relative N12M Earnings Revisions Ratio vs MSCI Europe



Source: Morgan Stanley Research, Refinitiv

Exhibit 37: Software & Services Earnings Revisions Ratio - absolute (%)



Source: MSCI, IBES, Morgan Stanley Research. Earnings revisions ratio calculated as number of analyst upgrades to N12M EPS less downgrades, divided by the number of estimates.

Software/IT Services: The IT spending outlook into 2024

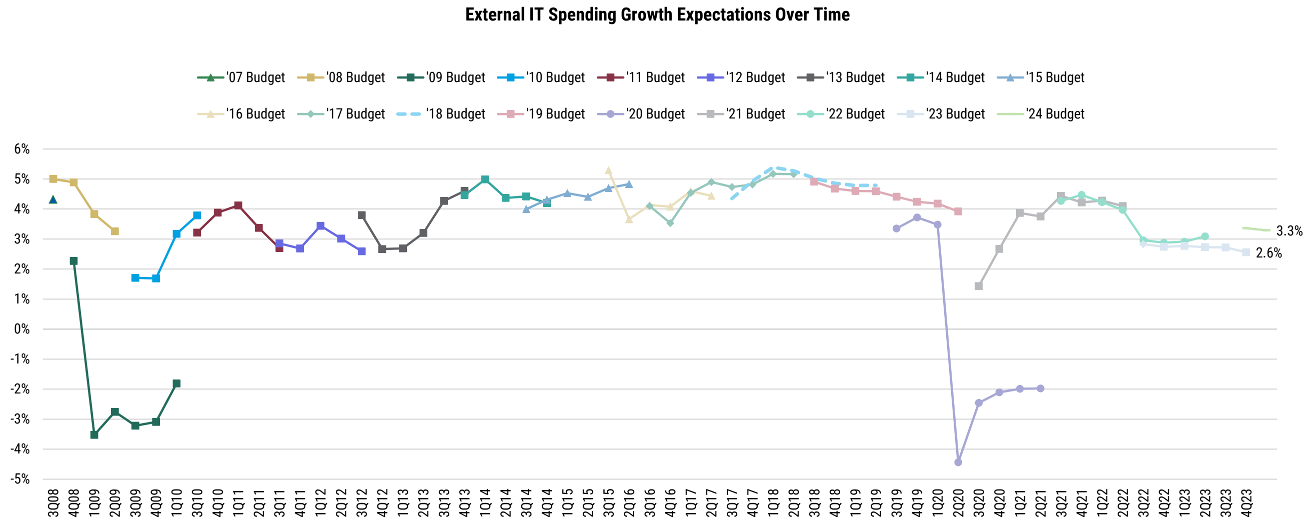
The IT spending backdrop - improving against a weaker 2023

Debate over whether key Western economies will slip into recession has been ongoing for the past 18 months. As we look into 2024, this debate is still there. In this instance, however, recent moves in interest rate expectations signal a strong market expectation that the peak of the rate hiking cycle is behind us, and rather we will see rate cuts in 2024 as economic conditions remain sluggish and inflation abates.

At our **2023 TMT conference** in November, we believe the overall tone from companies was relatively bullish. Current demand trends and business model defensiveness were focus areas. We heard a number of companies that we felt provided reassurance into 2024. In particular, we would point out SAP and Dassault Systèmes, which have strong product upgrade cycles under way, helping drive some positive disconnect between their own growth and what is happening in their end markets. Both companies are benefiting from a large-scale platform shift within their customer base (S/4 with SAP, 3DX with Dassault), with management teams calling out strong momentum around those upgrade cycles into 2024 and beyond. In both cases, we view the runway for growth in the business as substantial, given that penetration is still relatively low. We would also highlight Nemetschek – it reiterated the dynamics around Bluebeam, which should support growth accelerating to 10% in 2024, despite subdued conditions in the construction design market. On the IT services side, we think the broad consensus was that the short term (4Q23-2Q24) is likely to remain a subdued demand environment, but that the demand backdrop has at least stabilised, and there is optimism around the potential for more notably improving conditions in the second half of 2024.

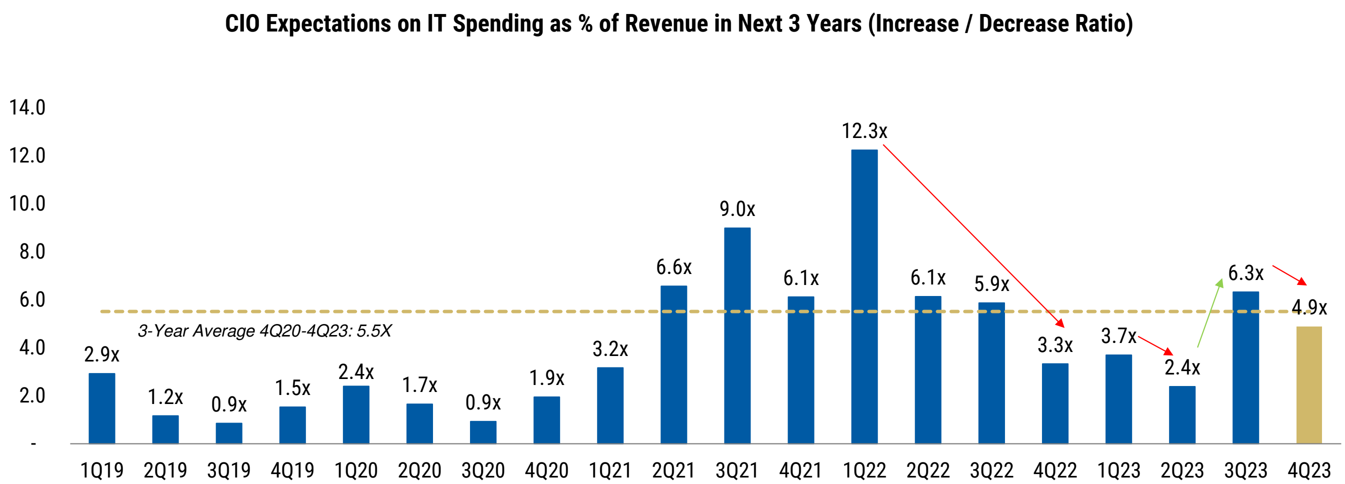
Our proprietary AlphaWise CIO survey points to an improving demand outlook in 2024 and beyond, but near-term uncertainty remains: Our 4Q23 AlphaWise CIO survey (published last week) provided us with our second look at 2024 CIO IT budget growth expectations. This pointed to continued stability, with 2024 growth expectations coming in at +3.3% y/y, up from 2023 expected growth of +2.6%. Although growth expectations were stable, we note that they remain below the 10-year pre-Covid average of c. 4.1%. Moreover, the 1-year IT budget revision up-to-down ratio for 2024, which measures the ratio of CIOs expecting to revise budgets higher/lower, remains below 1x, despite increasing to c. 0.8x this quarter (up from 0.5x in 3Q23). This suggests more CIOs expect to revise budgets downwards than upwards over the course of 2024. While the near-term outlook remains somewhat muted, longer-term trends are more constructive. The 3-year up-to-down ratio came in at 4.9x this quarter, as more CIOs (44%) expect IT spending to grow as a % of revenue, than those that expect them to decline (9%).

Exhibit 38: External IT spending growth expectations over time



Source: AlphaWise 4Q23 CIO survey, Morgan Stanley Research. n=100 (US and EU data). Note: 3Q15 CIO survey reflects data from a different surveying vendor.

Exhibit 39: More CIOs (44%) expect IT spending to grow as a % of revenue over the next 3 years, than those who expect them to decline (9%)



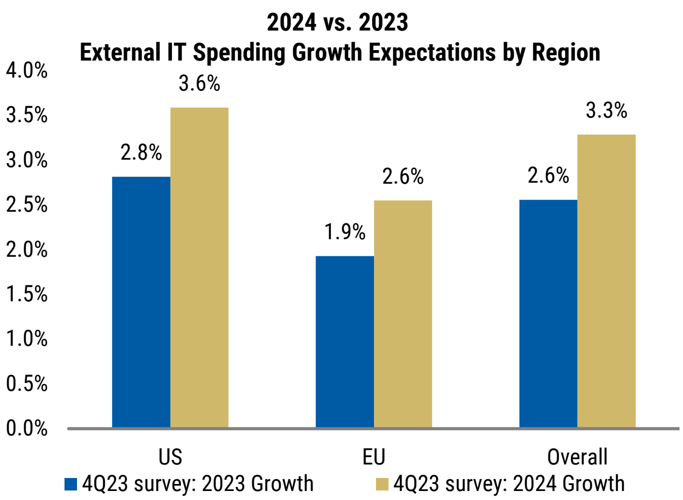
Source: AlphaWise 4Q23 CIO survey, Morgan Stanley Research. n=100 (US and EU data).

US IT budget growth to outpace the EU, and Software expected to remain the fastest growing sector in 2024: Growth expectations for 2024 remain lower among EU CIOs than those in the US (2.6% vs. 3.6%, respectively); however, both regions expect growth to accelerate in 2024 vs. 2023 (+70bps in the EU and +80bps in the US). Software is set to remain the fastest growing sector in 2024 at +3.4% y/y (followed by Communications at 2.8%, Services at 2.6%, and Hardware at 1.7%). Growth across all sectors is expected to accelerate in 2024 vs. 2023.

AI investment likely to continue into 2024: 68% of CIOs indicate that these technologies are already impacting IT investment priorities (up from 66% in 3Q, 56% in 2Q, and 45% in 1Q). However, we note most CIOs do not expect to have their first GenAI/LLM projects in production until 2H24 or later (c. 50% of CIOs), therefore technology vendors are unlikely to see significant upside from this near-term. As we discuss further in Key Debate #1: Is

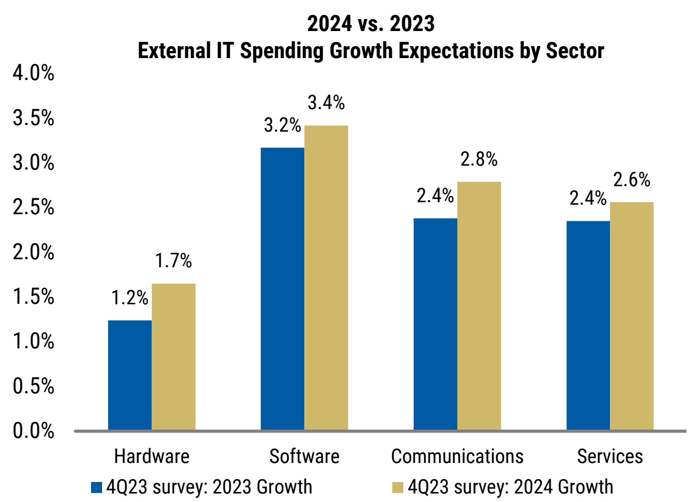
2024 the year AI impacts numbers in European Software?, although we expect software market tailwinds related to generative AI to be more of a 2025/2026 story, we note that investments in both cloud and data (i.e. digital transformation initiatives) are seen as necessary in order to reap the enterprise productivity benefits from new generative AI technologies. As a result, we expect 2024 in particular to bring a continuation of the resilient demand trends seen in mission-critical enterprise software transformation initiatives (such as the S/4HANA cloud migration at SAP).

Exhibit 40: 2024 vs. 2023 External IT Spending Growth Expectations by Region: US Leads



Source: AlphaWise CIO Survey 4Q23, Morgan Stanley Research

Exhibit 41: 2024 vs. 2023 External IT Spending Growth Expectations by Sector: Software Remains Fastest Growth



Source: AlphaWise CIO Survey 4Q23, Morgan Stanley Research

Overall we are cautiously optimistic on the IT demand environment into 2024: While we do not expect a sharp rebound in IT demand in 2024 (particularly in 1H), we do see more reasons for optimism than pessimism next year. The bullish tone struck by corporates at our 2023 TMT conference in Barcelona is backed up by our constructive survey data and strong underlying technology trends, in areas such as cloud, data, and perhaps most importantly, artificial intelligence. We expect 2024 to bring a continuation of the strong product upgrade cycles at many of the software vendors in our coverage (e.g. SAP, Dassault Systemes, Sage), underpinning resilient growth next year, in spite of continued macroeconomic uncertainty. In IT Services, while demand is likely to remain subdued near term, we see the potential for an improvement in market conditions by the second half of 2024. In light of this outlook into next year, we outline our stock playbook for 2024 in the section below.

Our 2024 Sector Approach / Stock Playbook

Software/IT Services/Payments/Other - Positive outlook, but significantly more moderate returns (vs. 2023) likely in key names

We expect multiple expansion to be harder to come by in 2024

As we discussed in our review of 2023, despite a tough macro backdrop and actual rate increases, our coverage overall put up a resilient earnings performance last year. On top of this, multiples actually materially expanded in 2023, despite the rates environment. However, it is important to note that this was – in part – due to company-specific equity stories gaining traction. Although we were positive on both **SAP** and **Sage** into 2023, we think investor sentiment on both names was more mixed, with a clear debate being the durability of the higher growth profile the companies were delivering. Exiting 2023, these are no longer big debates in our view; in fact, investor consensus is positive on both companies now, and this is reflected in the significantly improved valuation multiples that helped drive 2023 outperformance.

Our economists forecast interest rates to slip over the course of 2024, which should be supportive for multiples. However, we acknowledge that the market is forward-looking, and much of the market strength since November has likely stemmed from lower forward expected discount rates, more than a material improvement in earnings expectations. On the software and information services side, while we see scope for multiple expansion in parts of our stock coverage, these are generally in the small and mid-cap names, rather than big-cap names (e.g. **SAP**, **Sage**, **RELX**, **Wolters Kluwer**).

In IT services and the advertising agencies, we think the debate is different. On the IT Services side, multiples have contracted over the course of the past 18 months, and some names are trading towards the lower end of historical ranges (and on occasion, close to trough levels). As investors look to a recovering IT budget cycle during the year (likely the second half), we expect valuation multiples to rise across the cohort. On the advertising agency side, the picture was contrasted in 2023 with PUB recording a multiple expansion of ~26% whilst WPP and S4's multiples contracted by 8% and 72%, respectively. For 2024, we see an acceleration in advertising spend growth, which should benefit the ad agencies' multiples. We expect further multiple expansion at Publicis, driven by a combination of factors: 1) we think PUB will be able to sustain its competitive advantage; and 2) we think it should trade at a lower discount to European IT services leader Capgemini.

In payments, we continue to see a clear divergence between growth (**Adyen**, **Wise**) and value (**Worldline**, **Nexi**) names. 2023 saw significant multiple compression for incumbents Worldline and Nexi, as concerns around disruption/macro pressures, as well as elevated non-recurring charges/capex and some regulatory concerns (at **Worldline**) weighed on sentiment. As we outline in more detail in our key debate section, we don't think 2024 is the year to own value stocks in payments. Both Worldline and Nexi have grown significantly via M&A, which we think creates risk around: 1) elevated non-recurring charges/capex; 2) integration challenges; and 3) ability to innovate/support growth. We think investors will increasingly focus on FCF (vs. adjusted P&L metrics) to value these businesses, with multiples screening less attractive on this basis. We favour owning structural growth stories in the space, with Wise our top pick

Exhibit 42: Ratings overview, ordered according to % upside or downside

Software	Rating	% upside/ downside
Darktrace	OW	33%
Trustpilot	OW	28%
Amadeus	OW	19%
SAP	OW	15%
Sage	OW	15%
Dassault Systemes	OW	10%
OW averages		**20%**
CompuGroup Medical	EW	11%
Nemetschek	EW	7%
EW averages		**9%**
TeamViewer	UW	1%
Fortnox	UW	-9%
Hexagon AB	UW	-12%
Sinch	UW	-15%
Temenos	UW	-25%
UW averages		**-12%**

IT Services	Rating	% upside/ downside
IONOS Group	OW	37%
Exclusive Networks	OW	29%
Tietoevry	OW	30%
OW averages		**32%**
Capgemini	EW	16%
Softcat	EW	16%
Netcompany	EW	11%
Sopra Steria	EW	6%
Indra	EW	-1%
Computacenter	EW	-2%
OVH Groupe	EW	-3%
SoftwareONE	EW	-4%
EW averages		**5%**
Atos	UW	-18%
Solutions by STC	UW	-22%
UW averages		**-20%**

Payments	Rating	% upside/ downside
Eurowag	OW	47%
Wise	OW	18%
OW averages		**32%**
Nexi	EW	11%
Adyen	EW	-6%
EW averages		**3%**
Worldline	UW	-23%
UW averages		**-23%**

Media	Rating	% upside/ downside
Publicis Groupe	OW	16%
Wolters Kluwer	OW	12%
RELX	OW	10%
OW averages		**13%**
S4 Capital	EW	16%
WPP	EW	8%
Informa	EW	7%
EW averages		**10%**

Source: Morgan Stanley Research

In Software and Payments, target relatively fast growth at reasonable multiples, or those with idiosyncratic stories

Targeting relatively fast growth at reasonable multiples: Despite our view that multiple expansion will be significantly harder to come by in 2024 (compared to 2023), we do not think this necessarily means that investors should sell the larger cap 'winners' of 2023, and drastically re-position. For example, taking **SAP, Sage, RELX and Wolters Kluwer**, should these four stocks (which are approaching €300bn of combined market cap) only hold their multiples in 2024 (against a softer rates environment), then the share price return would be >10%, and investors would also receive a very low-single-digit % dividend return on top of this.

Indeed, given that multiple expansion expectation, we think investors should continue to position towards names which are growing earnings relatively faster within the mix, as long as the valuations are palatable. This means that our preference remains for the likes of **SAP** and **Sage** in our overall universe, which are growing earnings at a mid-teens % rate. We also continue to like **RELX** and **Wolters Kluwer** on this basis, although valuations here are more stretched versus history, leaving more limited room for earnings disappointment. Elsewhere, our Overweight ideas of **Trustpilot, Darktrace** and **Wise** all fit this agenda.

However, we would still retain broad valuation discipline. Despite their faster than average organic growth rates, we see valuation levels today as offering insufficient 12-month upside at **Nemetschek Group** and **Fortnox**, and for the latter we also see some company-specific risks to navigate. As a result, on these names - despite their higher growth - we remain Equal-weight and Underweight respectively.

In IT Services, 2024 is likely to be a year in which the demand cycle in Europe troughs and starts to recover

Our expectation is that the demand cycle remains tough in IT services through at least the first half of the year; base comps for our coverage (which are mostly European-market focused), then sequentially ease into the second half of the year.

While we would ordinarily look to **Capgemini** to play the IT services cycle in Europe, we note that valuation here has rallied recently, in part relating to rates, and in part (we think) relating to optimism of when the demand cycle turns. At this stage, we see less immediate material upside in the stock. Instead, one stock which we have upgraded in tandem with our outlook is **Tietoevry.** With the stock trading at trough valuations (c. 9.7x CY24 adj. P/E) and offering attractive capital returns (c. 7.3% CY24 dividend yield), we think it offers a good way to play the cycle - particularly as comps ease significantly in 2H24.

Elsewhere in IT services, we remain bullish on **IONOS**, and see the stock as deeply undervalued. It also fits our software narrative of fast earnings growth at a reasonable multiple; IONOS trades on c. 10.4x FY25e earnings, in comparison to our forecast for the business to grow earnings at a c. 12% CAGR over FY25-27e. We also note the significant discount the stock trades at to US peer, GoDaddy.

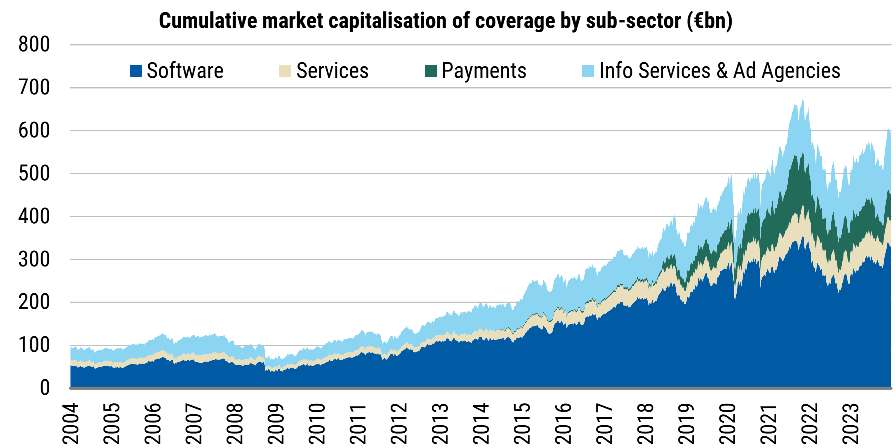
For the ad agencies, we expect to see ad spend growth acceleration in 2024.

Global ad spend growth is expected to accelerate to ~7% in '24 (up from 5.5% in '23), supported by an acceleration across all regions except APAC. In our coverage, we continue to favour **Publicis**, which we expect will benefit from a combination of upward earnings revisions and multiple expansion. We remain Equal-weight on **WPP** and **S4 Capital**, which we think trade at a relatively fair valuation. The next catalyst for WPP is its CMD on 31 January. WPP's '24 growth is likely to see some benefits from our expectation for a recovery in tech companies' ad spend, which could be offset by the expected weak ad spend in APAC (~20% of WPP's revenue). We continue to see a wide range of outcomes for S4.

In Payments, we expect growth expectations to further moderate at the incumbents, favour growth vs. value.

As we outlined in our recent note, we remain cautious around the growth outlook for both **Worldline** and **Nexi** and continue to favour structural growth vs. buying perceived value names (more below). At **Worldline**, we expect the combination of merchant closures and macro to weigh on 1H growth, while we sit materially below on FCF (higher non-recurring charges), meaning Worldline remains a relative UW. At **Nexi**, with macro pressures likely to persist, we cut our forecasts and now expect ~5% organic growth in FY24-25 (below consensus across all metrics). We remain cautious into FY23 results, as we see risks to mid-term targets. **Wise** remains a top-pick ahead of an expected 2H24 volume re-acceleration and continued strong monetisation of a customer base that is compounding >30%. Finally at **Adyen**, post 3Q we think the market is pricing in mid-20s growth on a quarterly basis from here on (given the stock is trading at ~40x CY25 P/E). We see some risks here and await a better entry point.

Exhibit 43: Growth growth in market capitalisation of our coverage over time



Source: Factset data, Morgan Stanley Research

Semiconductors & Telecom Equipment: Outlook into 2024 – Our View

Semiconductors: Buy on the dips

In line with our global semis team, **we are positive on the cycle recovery into 2H although we expect conviction will be tested over the upcoming Q4/Q1 reporting seasons**. Confirmation of margin/earnings trough in 1H should act as a 'clearing event' for several of our chipmaking names. This looks to be especially the case in automotive and industrial semis where reality checks may be a factor through much of the early part of this year - especially for the likes of Infineon, STMicro and Melexis.

Thereafter, we expect semis investors to chase the earnings improvement (inventories overcorrect with channel replenishment looming) with application-specific microcontrollers (MCUs), some consumer devices, exposure to advanced packaging and edge AI stories are just some of themes to watch. That said, we expect the market to retain a focus on the uncertainty in autos (see recent MCHP and MBLY warnings) and think structural shifts in demand at end markets may emerge which will impede some enthusiasm for names in 1H - this could test STM and IFX share prices somewhat until Spring.

With our Capital Equipment names, we advise sticking with large cap and quality names such as ASML where an EUV order book recovery (driven by N2 TSMC, 18a Intel) should pacify concerns around a 2025 recovery. Elsewhere we believe key secular themes (e.g., advanced packaging) still have their upside drivers ahead of them, especially for Besi.

Exhibit 44: MS Global Semis team believes we are Moving from the Optimism Stage to an Eventual 'Euphoria' Stage of the Semiconductor Cycle later this year

Source: Bloomberg, Morgan Stanley Research (Asia)

Telco equipment: No let up in the cycle

In **Telco equipment**, we have a **preference for Ericsson over Nokia**. Overall capex spend by the Telco operators is likely to remain subdued, as customers focus on FCF generation and being disciplined on investments. However, we believe Ericsson is better placed following its new contract win from AT&T, at the expense of Nokia, where we anticipate continued pressure on consensus estimates.

Other factors

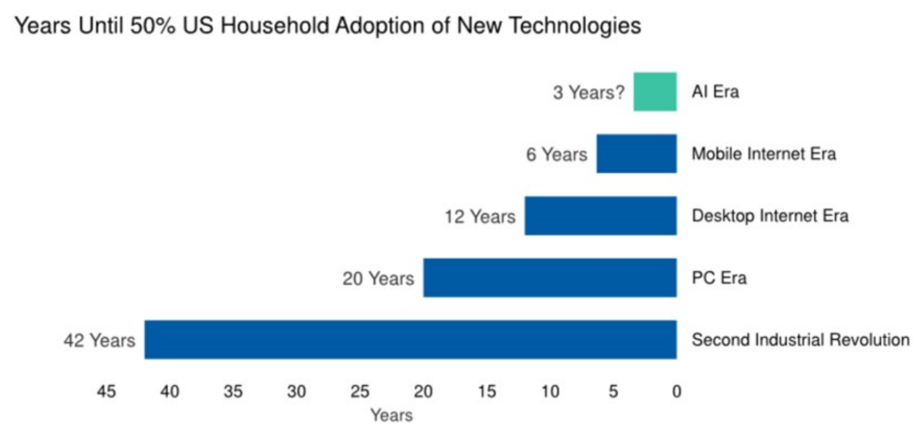
Other factors to watch this year could include:

- **M&A could be a factor this year**. Precious little of this was seen in 2023; low multiple stories exposed to strong structural growth stories may be at risk.
- Exposure to **China could be a headwind**, especially for industrial semis
- There is a possibility that AI stories may pivot from those exposed to pure cloud AI to those that may be affected by the emergence of **edge AI** (STMicro?). However, we think Europe is unlikely to yield much relevant to AI-enabled smartphones and PCs.
- **FCF recovery may be hampered by the investment cycle**. Several of our large chipmaker players (STMicro and Infineon especially) are building out there.

Key Debate #1: Is 2024 the year AI impacts numbers in European Software?

Our View	Market View
Although we expect software market tailwinds related to generative AI to be more of a 2025/2026 story, we see 2024 as the year where we start to see signs of AI preparation step up (i.e. investments in data and cloud) and where we expect the market to begin discounting AI tailwinds (in advance of revenue tailwinds materialising in 2025). We believe there could be some modest revenue upside from generative AI in 2024 and continue to view the likes of SAP and Dassault Systemes as well positioned to monetise this.	Given many Software and IT Services vendors are still in the relatively early stages of their build out of AI-related products/services, we think the market is not expecting to see Generative AI tailwinds emerge in 2024, and instead expects impacts to be materialise in 2025 and beyond.

Exhibit 45: Previous tech adoption cycles suggests rapid adoption of Generative AI… will 2024 be the year it starts to impact corporate earnings?



Source: OurWorldInData, Various Websites, Morgan Stanley Research (AI Index – Mapping The $4 Trillion Enterprise Impact). Note: 3yrs for the AI Era implies the time 50% of US HH adoption is similarly cut in half from the previous cycle.

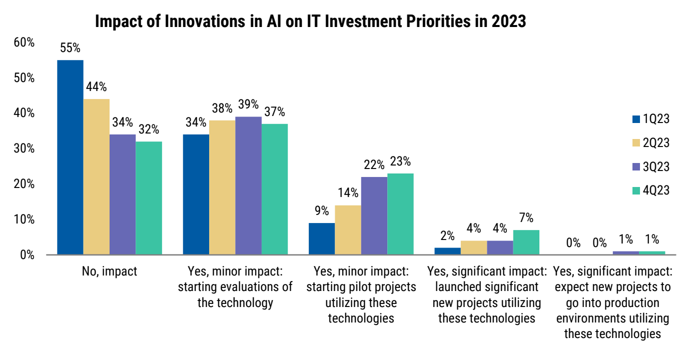
One year on from the launch of *ChatGPT*, investors look to assess when Generative AI will impact numbers: Generative AI has been a key debate within the Software and IT Services sectors this year; and we expect this theme to continue to dominate investor conversations throughout 2024. Initial debates were centred around identifying early stage beneficiaries and those least well placed for this emerging technology cycle, which we have addressed in notes on Software and IT Services. As many technology vendors have outlined plans for Generative AI, including new product launches, business models, and pricing; many investors are now focused on gauging when this will impact numbers and how large this impact will be.

IT spending outlook - some green shoots, but uncertainty remains: Our 4Q23 AlphaWise CIO survey (published last week) provided us with our second look at 2024 CIO IT budget growth expectations. This pointed to continued stability, with 2024 growth expectations coming in at +3.3% y/y, up from 2023 expected growth of +2.6%. Although growth expectations were stable, we note that they remain below the 10-year pre-Covid average of c. 4.1%. Moreover, the 1-year IT budget revision up-to-down ratio for 2024, which measures the ratio of CIOs expecting to revise budgets higher/lower, remains below 1x, despite increasing to c. 0.8x this quarter (up from 0.5x in 3Q23). This suggests more

CIOs expect to revise budgets downwards than upwards over the course of 2024. While the near-term outlook remains somewhat muted, longer-term trends are more constructive. The 3-year up-to-down ratio came in at 4.9x this quarter, as more CIOs (44%) expect IT spending to grow as a % of revenue, than those that expect them to decline (9%). These longer term trends are supportive of a continued expansion in IT spending, enabling greater investment into AI.

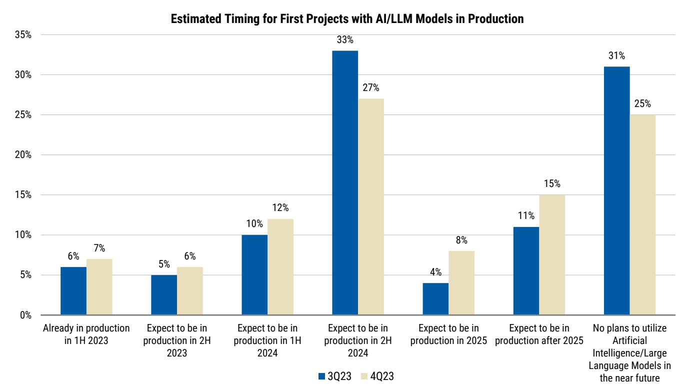
Generative AI has been a rising priority area of investment for many companies, but we are still early in the investment cycle: Over the course of 2023, AI has risen towards the top of corporate agendas, with companies around the world formulating/updating their AI strategies and exploring ways to utilise the technology. As of our 4Q23 CIO Survey (from January this year), AI/ML was rated by CIOs as the #1 IT spending priority in 2024, with c. 68% of CIOs stating that AI innovations are already impacting their IT investment priorities (Exhibit 46). However, only 8% indicated that this is already having a significant impact on budget - demonstrating that we are still in the early innings of this major tech investment cycle. Furthermore, only 7% of CIOs indicate that they already have AI/LLM projects in production, with c. 50% expecting to be in production in the 2nd half of 2024 or beyond.

Exhibit 46: An increasing proportion of CIOs say that recent AI innovations are having an impact on IT investment priorities in 2023



Source: AlphaWise, Morgan Stanley Research. n=100 (US and EU data).

Exhibit 47: Of the 69% of CIOs that expect AI projects to be deployed in the near term, the majority (c. 48%) expect to be in production in the 2nd half of 2024 or beyond



Source: AlphaWise, Morgan Stanley Research. n=100 (US and EU data).

We expect AI-related software market tailwinds to increase over 2024 and into 2025: While near term budget uncertainty may constrain direct generative AI investments in the first half of 2024, we expect spending and investment around generative AI enablement to ramp up over the course of 2H24 and accelerate in 2025 and 2026. Although we expect software market tailwinds related to generative AI to be more of a 2025/2026 story, we note that investments in both cloud and data (i.e. digital transformation initiatives) are necessary in order to reap the enterprise productivity benefits from new generative AI technologies. As a result, we expect 2024 to bring a continuation of the resilient demand trends seen in mission-critical enterprise software transformation initiatives, such as investments in SAP's S/4HANA cloud ERP or Dassault's 3DEXPERIENCE platform, for example. A positive for Software vendors in general, as corporates double down on digitalisation initiatives.

Exhibit 48: Recent industry commentary on Generative AI - most companies within are coverage are still in the exploration phase

Recent industry commentary on Generative AI

Vendor	When it was said	What was said
Software		
Hexagon	2023 Capital Markets day	*...we use Generative AI for pilots and products across several industries and internally for operational efficiency. And furthermore, we leverage in Generative AI to enhance our trainings for deep learning, networks for scenes and scans and so we keep pushing the boundaries on domain-specific AI for devices and sensors*
Sage	4Q23 conference call	*...we are in testing with Sage Copilot and we'll say more about that in the new year. But it is our intention that whilst take up of that is a long-term thing, it is our intention that that is a premium service.*
Amadeus	3Q23 conference call	*We are working with Microsoft and Accenture to develop generative AI-powered integrations for corporate travel such as digital travel assistant to streamline tasks for corporate travelers within Cytric Easy, our travel and expense management tool embedded in Microsoft Teams. The new travel assistant will leverage Microsoft technologies to assist corporate travelers with elements of their journey.*
Nemetschek	3Q23 conference call	*...we are going to innovate and release some new solutions which are based on generative AI and artificial intelligence. Generative design solution within the coming months and quarters.*
SAP	3Q23 conference call	*We are making promising progress on building foundational models to enable generative and predictive capabilities from structured business data. SAP Datasphere combines structured SAP data with data from other sources to produce highly accurate results, which is so essential in the B2B world. And our new copilot Joule will be able to work together with many LLM models to ensure we can offer this technology across the globe. And as a result, SAP Business AI is also more relevant.*
Compugroup	3Q23 conference call	*So we've introduced our own proprietary generative artificial intelligence tool ChatCGM, that is based on Azure OpenAI, but it also is able to integrate Azure generative AI solutions. It has started internally to be rolled out to our CGM employees. So all of our employees have access to ChatCGM and the core units have already been working with it for some time. We have dynamic growth ahead of us. Artificial intelligence will help us grow more efficiently while providing added value solutions to our customers. And it is, as I said, a game changer for the whole company. So it will really transform the way we operate inside and across the various areas of our company. So from R&D over service and support to what's a business operations. And it would be an excellent driver for our customers, but also for us internally at CompuGroup Medical, clearly underlining overall ambition, we are the leading medical software company.*
Dassault Systemes	3Q23 conference call	*We are mixing the modelling and the simulations with the generative AI approach. And this is giving the ability to do those three things. It's a way to open new space of possibility, and here you have an example of how the system is helping you to guide to find new materials for battery, for example. You remember, it's also something we do in the therapeutics, where the AI is generating automatically the molecules. It's empowering the people with the new level of synthesis. And this is extremely important. We believe the generative AI is not the way to substitute people; it's a way to empower them, to elevate them, if you want.*
Darktrace	4Q23 conference call	*... we would use it [Generative AI] wherever it makes sense, wherever it's best for the job. We actually added LLM into the product set. We started looking back in 2019 and it became part of the products in 2021. So this isn't – I know there's a lot of hype and this is new to lots of people. We've known about this technology. We've been predicting AI – on AI attacks for about five years now... So really good use cases, for example, in our PREVENT product. When the system wants to run realistic phishing exercises, that would use Gen AI, is really good at that.*
Services		
SoftwareONE	3Q23 conference call	*We were obviously very happy to see that Microsoft pulled forward the availability date for Copilot from early 2024 into November 1. Now, we have had a strong reaction from our customers in terms of the demand for it. We are waiting for Copilot to now make its way into the mid-market which given the release cycles of Microsoft, it will take a little bit of time. And however, that doesn't stop us from engaging with our customers around workshops to explore how they can best leverage Copilot and embrace generative AI for their organization. So even before full availability in that particular market, we have the opportunity to engage with our customers around how they can best benefit from Copilot.*
Exclusive Networks	3Q23 conference call	*Generative AI offers us a number of opportunities as a business. On one hand, as you laid out, we have a lot of technical staff. They can be complemented with gen AI. Customer service is really what we do. We serve thousands of customers every day on thousands of transactions. And, obviously, with gen AI, there's an opportunity for us to do that in an even more efficient manner. And we are having projects across our business, where we are looking at how to adopt that and drive this with also maybe not gen AI but things like robotization and a large degree of automation and integration between systems and different parts of our ecosystem.*
Capgemini	3Q23 conference call	*Demand in this field of technology investment accelerated in the third quarter. So, first, we are ready to respond to our clients' demand. We already announced to you our €2 billion AI investment plan. We have built a capability of more than 30,000 people in data and AI, business and technology talents as we previously announced, and we continue to broaden our talent base. As a reminder, we intend to double the team to 60,000 people in the next three years. We continue to invest in building and upskilling our people, so our campus to scale-up training on GenAI is now fully in operation for all our employees. And more specifically, we aim to train over 100,000 talents in GenAI-specific tools in the coming 12 months. And also following the successful launch of our four offerings which I remind you are GenAI strategy, GenAI for customer experience, Gen AI for software engineering, and custom GenAI for enterprise, we'll be launching new offering in the coming weeks, including our Capgemini GenAI platform.*
Indra	3Q23 conference call	*Gen AI, specifically, has the potential to be a game-changer. We are fully aware of and have internalized the disruptive changes that are on the horizon in the realm of technology. We are actively preparing to navigate this new era.*
Softcat	4Q23 conference call	*The potential opportunities of using AI technology in our own model are then quite easy to spot. So, for example, our salespeople have a huge and sometimes bewildering array of technology and services that they can sell to our customers, and that can be hard to navigate, especially for the younger graduates who've now really engage with the company. And AI has the potential for us to make this much easier if, for example, we could apply across a database of our offering and our people and their skills. And in addition to that, we can integrate resource management tools with such applications and use the generative AI to start to create tender and bid responses, for example. And that's just naming a few possibilities. And, of course, all of our customers will be having similar thoughts, too.*

Source: Company transcripts, Morgan Stanley Research

However, some companies are starting to roll out monetisable tools and on occasion this can become meaningful to the equity story: We think many of the horizontal use cases that generative AI will be applied to are areas such as enhancing the quality of in-product search, or enhanced AI chatbots for product support. However, while this will reduce the cost burden of supporting customers, these are not really (in our view) monetisable from a revenue perspective. These will be table-stakes functionality levels. In our view, what can be monetised as product launches which genuinely drive material productivity enhancements, conditional on: 1) valuable datasets which are not broadly available that make the large language model (LLM) differentiated versus open internet versions, 2) having significant existing customer distribution who could more quickly adopt the tools because they are already on a platform, 3) competitive dynamics that support monetisation - i.e. there is not another equally strong incumbent who may choose to develop the tools and distribute for free. In pockets, we are starting to see some of these opportunities emerge. Global information services provider RELX is a good example of this, with their Lexis+ AI platform upgrade supporting new use cases for the legal industry. IONOS has also released Gen AI powered website builder tools, which it says has supported price increases across its standard product packages.

2024 AI impacts on IT Services will largely depend on the cycle recovery: With most companies in the early innings of their digital transformations, on a 1-3 year view we see a demand tailwind as companies look to IT Services vendors to help them understand their data landscape and ways to leverage AI. Given the trends observed in the CIO data above, we expect the current IT demand down-cycle to trough at some point in 1H24, and the gradient of the demand recovery curve will likely be impacted positively by these "AI-enablement" projects described above. In addition, vendors who internally adopt AI tools early could benefit from productivity and margin benefits. However, we expect these benefits to be small and limited to early adopters as: (1) productivity savings are likely shared with customers, and (2) IT Services vendors strategically invest to build AI capability.

Key Debate #2: When do the cycles turn for IT Services and Advertising Agencies?

Our View	Market View
We expect the demand cycle to start recovering into 2H24 for both IT services and ad agencies, as the interest rate cycle turns. We are more cautious than consensus on the acceleration of **Capgemini**'s growth for '24 and would wait to play the cycle turn. We see a better opportunity with **Tietoevry**. With the stock trading at trough valuations and offering attractive capital returns, we think it offers a good way to play the cycle. We are ahead of consensus on **PUB**'s '24 growth as we expect PUB to continue outperforming peers in '24 and benefit from the growth acceleration in ad spend, supported by its retail media and data product offering strength. Remain OW, top pick in Media.	The market remains broadly cautious on most of our European IT Services coverage, which is small cap. However, we believe investors have positioned early and more positively on Capgemini, and this is reflected in a sharp move higher in tandem with the software sector over the past few months. We think the market remains cautious on '24 growth recovery at the ad agencies, including Publicis.

We expect the demand cycle to start recovering into 2H24. Both IT services providers and ad agencies saw a growth deceleration in '23 following strong '22 growth post COVID and heightened demand for digital transformation programmes. Overall, we expect both IT services and ad agencies' growth to gradually accelerate throughout '24, and 2H growth to be stronger than 1H due to an improvement in the macro environment and easier prior year comps.

While we would ordinarily look to **Capgemini** to play the IT services cycle in Europe, we note that its valuation has rallied recently, in part relating to rates, and in part (we think) relating to optimism on the timing of the demand cycle turn. We are slightly below consensus for '24 growth. At this stage, we see less immediate material upside in the stock. Instead, one stock which we have upgraded in tandem with our outlook is **Tietoevry**. With the stock trading at trough valuation levels (c. 9.7x CY24 adj. P/E) and with FY24 growth expectations lowered post-3Q23, we think we are past the peak of negative catalysts on the stock. While a soft 2024 guide could see further downside for the shares, we think this is limited given current market expectations, and would offer a continued entry point. With a relatively undemanding setup into 2024, and comps that ease in 2H24, we see TIETO as an attractive way to play the IT demand recovery cycle, backed by capital returns (at €21.14, TIETO shares offer a c. 7.3% CY24 dividend yield).

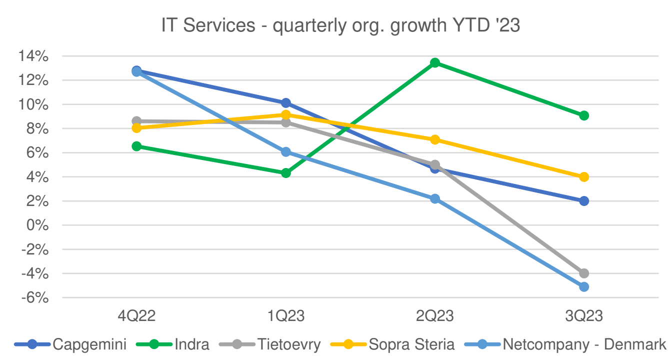
Publicis performed strongly in '23 and we continue to see upside on the stock. We think it should benefit from the growth acceleration expected in ad spend in '24 especially in the US (our team expects 10% growth in US ad spend, supported by the presidential election and olympics – PUB's US revenue exposure is ~60%) and its strength in retail media and data product offering. We are ahead of consensus for '24 and expect growth to accelerate from 2Q24.

What we saw in 2023

Following strong growth post-COVID in '21-22, our European IT Services coverage overall saw a sharp deceleration in organic growth throughout 2023. Capgemini grew 10% and 15% in '22 and '23, respectively and saw its growth decelerate from 13% in 4Q22 to 2% in 3Q23. The growth deceleration throughout 2023 was mainly driven by the more challenging macro environment leading to elongated sales cycles and cuts on more discretionary spend. The environment was particularly challenging in the US (Capgemini registered -4% US ex-FX growth in 3Q whilst it was positive elsewhere), where Capgemini tends to have more exposure to the technology and financial services sectors. Sopra Steria saw a more modest growth deceleration thanks to its higher exposure to relatively resilient industries (aerospace & defence, energy/utilities and public sector). Tietoevry was materially impacted by the more challenging macro/constrained IT spending environment in 2023. After delivering a standout year for growth in 2022 (of c. 6% y/y organic growth), TIETO started the year strongly, delivering c. 8% y/y organic growth in 1Q23. However, 2Q23 growth significantly slowed to c. 3% driven mostly by a weak performance in its Infrastructure/managed service heavy Tech Services business, but also saw its digital consulting business Create slow. This trend continued into 3Q, which saw the company revise down its FY23 growth and margin targets. For Indra, despite its IT Services business Minsait delivering solid growth of+8% y/y organic growth in 9M23 - we note that this has slowed from 15% in Q1 to 6% in Q3. While we expect the outlook for Minsait to be incrementally tougher in 2024, this should be mostly offset at the group level by continued strong demand in its Transport & Defence business.

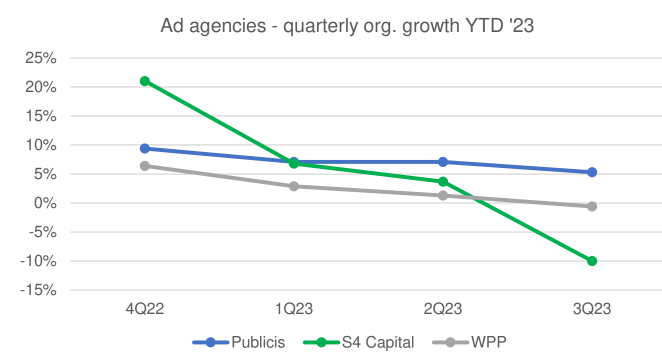
The ad agencies also saw a growth deceleration during 2023 driven by the macro environment. WPP and S4 Capital's organic growth decelerated more than PUB over the period. The challenging Tech sector weighed on WPP and S4's growth (WPP's 3Q tech sector revenue declined by 13%). At PUB, the Creative and digital transformation segments saw the sharpest deceleration, whilst Media and Epsilon (Data) performed better.

Exhibit 49: Sharp deceleration in our European IT Services coverage's growth during 2023...



Source: Company data, Morgan Stanley Research

Exhibit 50: ...PUB and WPP saw a more modest growth deceleration than CAP, but had started from a lower base



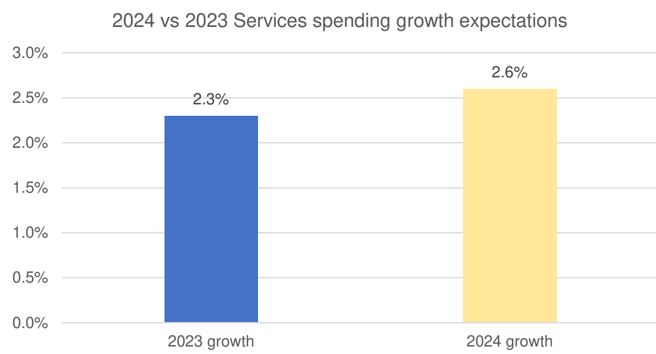
Source: Company data, Morgan Stanley Research

What is the outlook for 2024?

Our CIO survey suggests IT Services spend growth will slightly accelerate in 2024. At our latest (3Q23) CIO survey, CIOs expected to grow their IT Services spend by 2.6% in 2024 vs 2.3% in 2022.

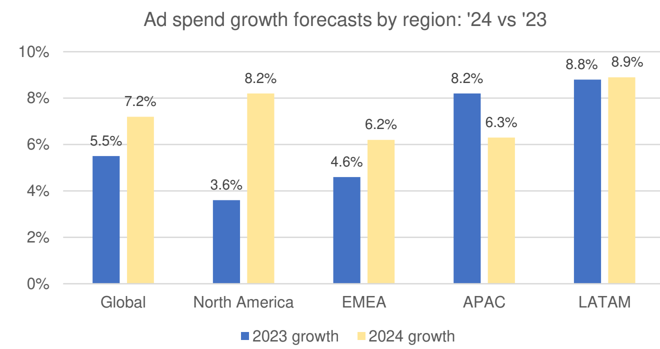
Global ad spend growth is expected to accelerate from 5.5% to 7.2% in 2024. Within this, all regions are expected to see a growth acceleration except for APAC. LATAM and North America are expected to see the strongest growth in ad spend (8.9% and 8.2%, respectively) whilst Europe ad spend is expected to grow 6.2% in 2024. In our coverage, WPP has the largest exposure to APAC (~20% of revenue) whilst PUB and S4 have a the largest exposure to North America (PUB ~60% of revenue, S4 ~75%). By advertising medium type, digital media is expected to grow 9.4% in 2024 (vs 10.5% in 2023) whilst Magna forecasts traditional media to grow 2.2% (vs -4.1% in 2023). Our US team expects US ad spend to grow ~10% in '24 including politics & olympics (P&O) and 7% excluding P&O, which is above Magna forecasts.

Exhibit 51: Our 3Q23 CIO Survey suggests a small growth acceleration in Services spend for 2024



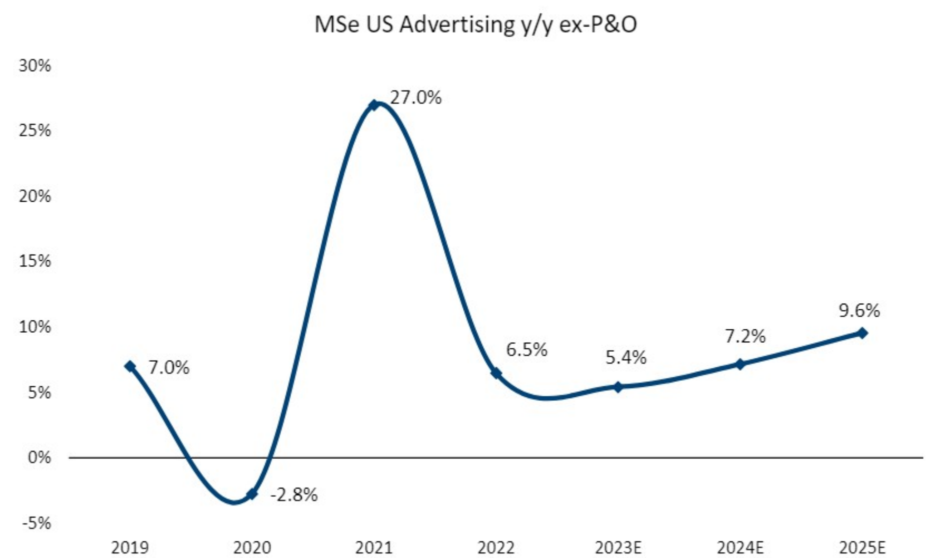
Source: AlphaWise, Morgan Stanley Research. n=100 (US and EU data)

Exhibit 52: Global ad spend growth is expected to accelerate to 7.2% in 2024, with all regions expected to see a growth acceleration except for APAC



Source: Magna, Morgan Stanley Research

Exhibit 53:
Our US team expects US ad spend to re-accelerate to 7.2% in '24 ex P&O and ~10% inc P&O, based on their bottom-up build of US advertising

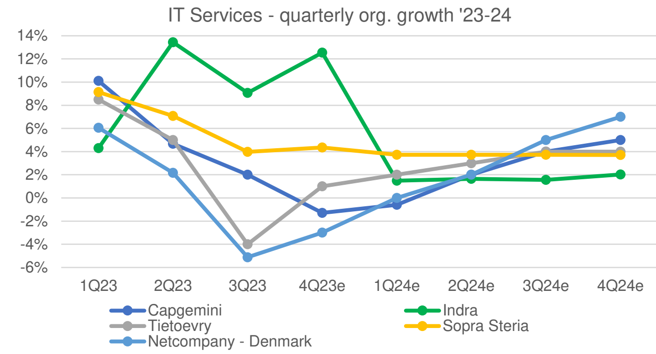


Source: Company data, Morgan Stanley Research

We expect both European IT services and ad agencies' growth to accelerate throughout 2024. **Growth to trough in 4Q23-1Q24 for most of our coverage.** We expect Capgemini's growth to trough in 4Q23, turn positive in 2Q24 and accelerate from there. For PUB, we expect growth to trough in 1Q24 at 3.7% followed by an acceleration to 4.6% in 2H24. For WPP, we look for growth to trough in 1Q24 at -1% and start recovering from 2Q24 partly driven by easier prior year comps (+1.3% in 2Q23).

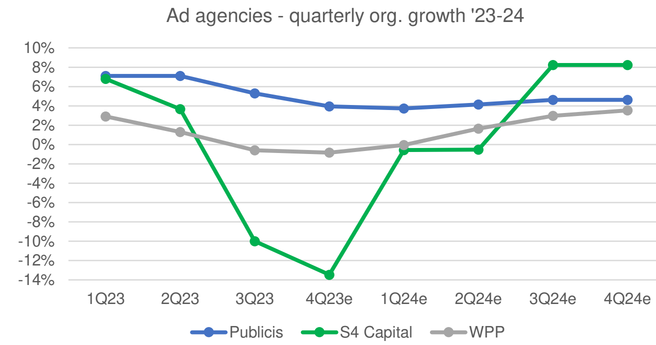
We are more cautious than consensus on growth recovery for CAP and WPP and more positive on PUB. Please refer to Exhibit 58, Exhibit 60and Exhibit 59.

Exhibit 54: We expect European IT services vendors org. growth to accelerate in 2024, following a year of deceleration



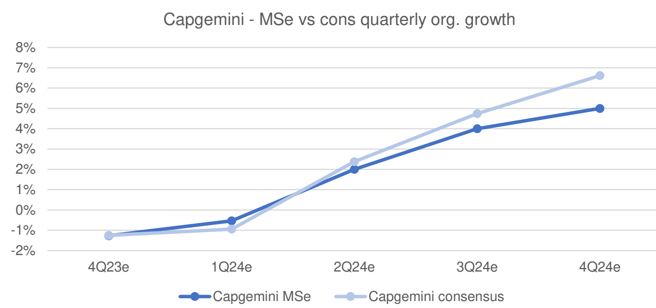
Source: Company data, Morgan Stanley Research

Exhibit 55: We expect org. growth to trough in 4Q23 for WPP and S4 and in 1Q24 for PUB



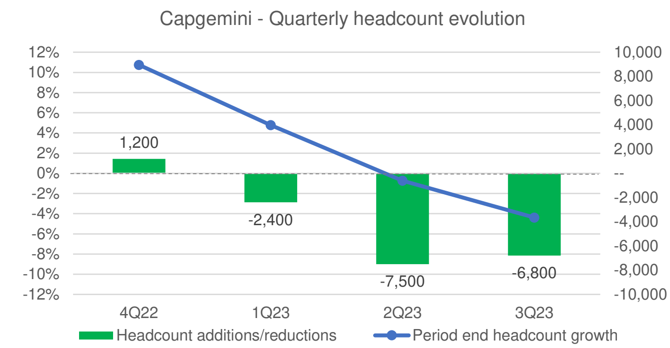
Source: Company data, Morgan Stanley Research

Exhibit 56: We are below consensus on Capgemini's 2024 organic growth



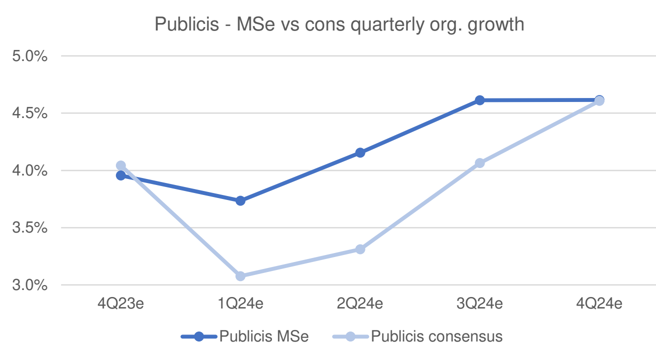
Source: Morgan Stanley Research, VisibleAlpha consensus

Exhibit 57: CAP's headcount has declined during '23 which makes us cautious for the next few quarters...



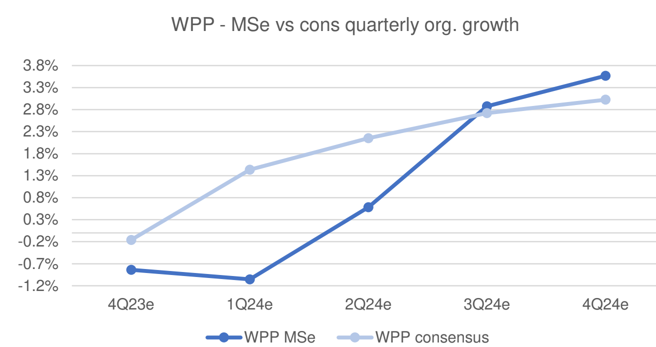
Source: Company data, Morgan Stanley Research

Exhibit 58: We think Publicis' org. growth will accelerate from 2Q24. We are above consensus for 2024



Source: Morgan Stanley Research, VisibleAlpha consensus

Exhibit 59: Consensus expect WPP's growth to accelerate from 1Q24, MSe in 2Q24 We are below WPP consensus for 4Q23 and 1H24

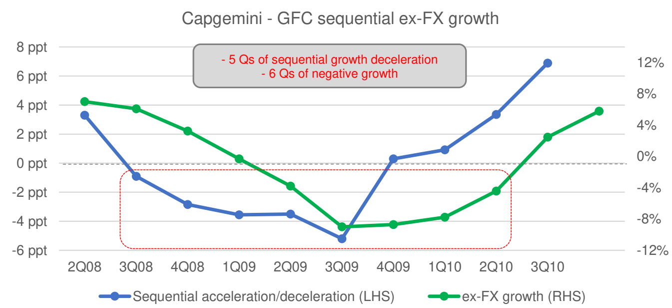


Source: Morgan Stanley Research, VisibleAlpha consensus

How did Capgemini perform in previous downturns?

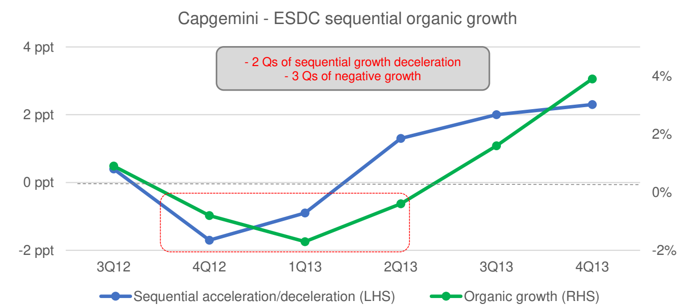
In this downturn, we expect Capgemini to see more consecutive quarters of growth deceleration than during the GFC and ESDC, but fewer quarters of negative growth. This is mainly driven by record growth post COVID in '21-22 which led to tougher prior year comps and "inevitable" deceleration in a tougher macro environment during 2023. If CAP's organic growth troughs in 4Q23 as per our expectation, this will imply 1) 6 consecutive quarters of growth deceleration vs 5 during the GFC and 2 during the European sovereign debt crisis ("ESDC") and 2) 2 quarters of negative organic growth vs 5 during the GFC and 3 during the ESFC.

Exhibit 60: GFC: Capgemini saw 5 consecutive Qs of sequential growth deceleration and 6 Qs of negative growth



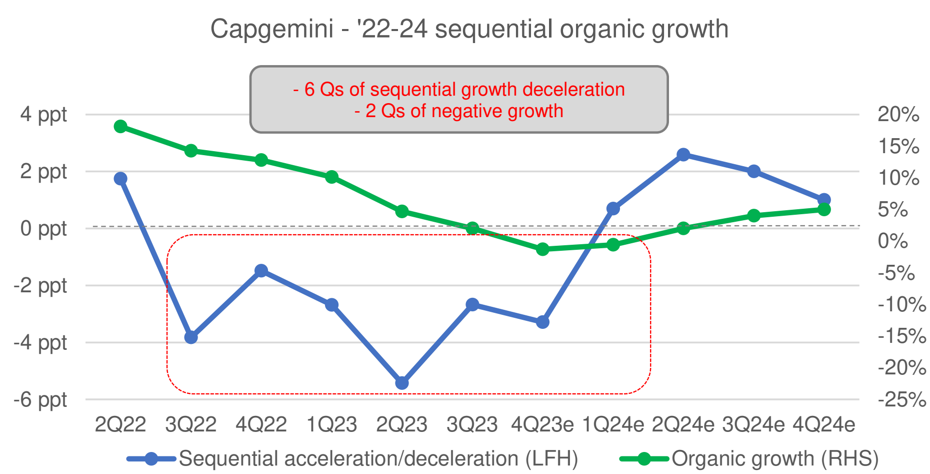
Source: Company data, Morgan Stanley Research

Exhibit 61: ESDC: 2 Qs of sequential growth deceleration and 3 quarters of negative growth



Source: Company data, Morgan Stanley Research

Exhibit 62:
'22-24: We expect CAP's growth to accelerate from 1Q24 following 6 consecutive Qs of sequential growth deceleration and 2 Qs of negative growth



Source: Company data, Morgan Stanley Research

AI - Are we likely to see IT Services vendors benefit from AI-driven spend in 2024?

We continue to expect IT Services vendors to be likely beneficiaries from data and AI-driven spend in the short-term at revenue level, as highlighted in our recent note on the AI impact on the IT services industry. With most companies in the early innings of their digital transformations, on a 1-3 year view we see a demand tailwind as companies look to IT Services vendors to help them understand their data landscape and ways to leverage AI. Therefore, irrespective of the pace of AI advancements and eventual scope for cost and complexity reductions, customers will continue to lean heavily on vendors who can provide informed advice and support. Incumbent service vendors with significant in-house talent, financial resource, and existing customer relationships are likely better positioned given they have worked with the customers previously.

We expect AI-driven spend to be a more meaningful tailwind in '25-26 for IT services vendors but there is a possibility we see a revenue benefit as early as 2H24. If we see a more meaningful tailwind from AI-driven spend in 2024, this could act as a catalyst for IT services vendors to come out of the spending downturn. Whilst we expect IT services vendors to benefit from data/AI-driven spend in '25-26, we think there is a possibility the momentum around AI becomes a more meaningful tailwind as early as towards 2H24. At F4Q23 results, Accenture announced its gen AI bookings reached $450m, still a small number vs Accenture's new 4Q bookings of ~$18.5bn.

Short-term margin impacts likely neutral. IT services vendors who internally adopt AI tools early could benefit from productivity and margin benefits. However, we expect these benefits to be small and limited to early adopters as: (1) productivity savings are likely shared with customers, and (2) IT Services vendors strategically invest to build AI capability. At 2Q results, CAP announced a €2bn investment in AI, which will be mostly spent on hiring skilled staff to scale resources.

Key Debate #3: Is 2024 the year to own value stocks in Payments?

Our View	Market View
Despite >2 years of material underperformance, we don't think 2024 is the year to own value stocks within payments (i.e. incumbents Worldline and Nexi). Both names have grown significantly via M&A, which we think creates risk around: 1) elevated non-recurring charges/ capex; 2) integration challenges; and 3) ability to innovate/support growth. We think investors will increasingly focus on FCF (vs. adjusted P&L metrics) to value these businesses, with multiples screening less attractive on this basis. **We favour owning structural growth stories in the space, with Wise our top pick.**	Following significant underperformance over the past two years, we think investors are increasingly open to re-visiting the equity story at Worldline/Nexi, given both names are trading at or close to trough earnings multiples, as well as given reported PE interest in both names. Within this we note a general preference for Nexi, given less near-term risk from merchant closures/regulation and the notable FCF generation implied by existing guidance, as well as ongoing PE interest newsflow.

Exhibit 63: EU Payments/Fintech order of preference

	Rating	Share price	Price target	Up / (Downside)	Comment
Overweight					
Wise	OW	888p	1050p	18%	A strucutral winner in cross-border payments. ~5% FCFF yield for mid-20s org. revenue growth, supported by greater monetisation of customer base through increased usage of Wise products. Volumes to re-acclerate in 2H24 as comps ease.
Eurowag	OW	92p	150p	63%	Integrated provider of payments and mobility solutions for the trucking industry. Fuel-card acts as a 'hook' to transition to a platform approach cross-selling mobility solutions. Trading at a discount to payment/mobility peers on a growth-adjusted basis
Equal-weight					
Adyen	EW	€ 1,164	€ 1,100	(5%)	High quality compounder, however uncertainty around competitive pressures in US remains. 38x CY25 P/E or a 2.5% FCFE yield - we expect slower growth in 4Q23/1H24 and await a better entry point.
Nexi	EW	€ 7.2	€ 8.00	11%	At Nexi, we are cautious on growth in 2024, and see risk to mid-term guide, but remain EW given less near-term pressure vs. WLN and more attractive valuation.
Underweight					
Worldline	UW	€ 14.1	€ 10.9	(23%)	At Worldline, we still see risks around FCF generation, weaker macro, earnings drivers. FCF likely to be focus for investors given one-off costs in FY24/25, we sit significantly below street on this metric.

Source: Morgan Stanley Research estimates; pricing as at January 11th, 2023

We don't think 2024 will be the year investors are rewarded for buying perceived "value" names within payments. Worldline and Nexi have de-rated significantly over the past two years, a function of concerns around disruption, M&A-related complexity/ integration concerns and slowing growth post COVID. While both names trade at or close to trough valuations when we consider adjusted P&L metrics, as we outline in more detail below, valuation is less appealing when focusing on FCF (due to elevated capex/non-recurring charges). In fact we think 2024 will be a year where investors increasingly pivot towards FCF as the preferred valuation metric, given the scale of adjustments taking place through the P&L.

Like other areas of our technology coverage, buying "value" typically means owning companies facing greater structural challenges - we don't think payments is any different. Worldline and Nexi have grown through persistent M&A over the past 5-10 years, playing the role of European consolidators, promising scale benefits and significant synergies, while also benefitting from a period of low interest rates. However we think this strategy has its downsides, namely elevated capex/non-recurring charges (which weigh on FCF generation), as well as higher complexity/disruption risk, as more efforts are focused on integration as opposed to innovation (plus innovation must take place across multiple platforms).

We expect competitive pressures to build over the next 5+ years, as newer, more nimble players continue to enter the market. While the European payments market offers some barriers around complexity and bank-led distribution, suggesting any share loss will take time, we think the trend is clear and perhaps increasingly so, now that growth at Worldline/Nexi is normalising post COVID. We expect run-rate top line growth of around MSD % for both companies, suggesting slightly below market growth rates.

This is largely why we moved our industry view for EU Payments from Attractive to In-line late last year. While we expect cash-to-card and higher levels of complexity to remain partial tailwinds/barriers to entry for the European payments market, we think this is increasingly being offset by risks around M&A integration, elevated non-recurring charges/ capex and an overall higher regulatory burden moving forward. As such, we no longer see traditional Payments/value names outperforming the broader market.

Worldline

Remain cautious around outlook for FCF generation, stay Underweight: Worldline saw a number of the issues outlined above come to the fore during 2023, most notably at 3Q23 results, when macro pressures (especially in Germany) and merchant closures (following a BaFin review - €130m run-rate) weighed on growth and saw FY23 guidance reset, as well as a new cost cutting plan. This came on top of existing concerns in the market around certain earnings/FCF drivers at Worldline, namely around factoring, capitalisation of costs, non-recurring charges - all of which contributed to limited improvement in Worldline's reported EBIT margin.

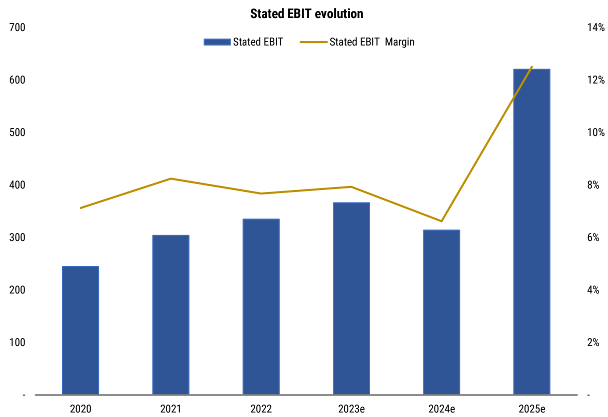
Exhibit 64: Worldline non-recurring charges

	FY20	FY21	FY22	FY23	FY24	FY25
Non-recurring	-117	-124.1	-192.3	-239.3	-355	-150
Prior year acquired revenue	501.7	530.9	233	42.0	34.2	0.0
% of prior year acquired	23%	23%	83%	570%	1038%	

Source: Company data (for guidance), Morgan Stanley Research estimates

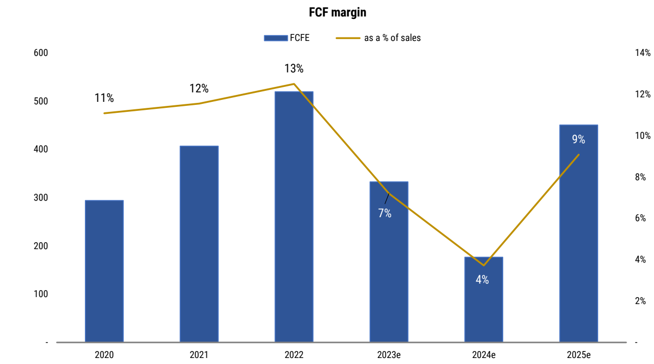
Merchant closures add to uncertainty / will weigh on growth in 1H24: At 3Q, Worldline announced the closure of "a few thousand" online merchants in Germany, on the back of recommendations made by BaFin as part of an industry-wide audit. We think the need to shut down 5-10% of online revenues (assuming e-Comm at 30% of our 2024 revenue estimate) is likely to weigh on investor sentiment, both in terms of the potential additional cost of internal controls, and also the resulting headwinds to growth over the next 12 months (we forecast ~2% organic growth in 1H24).

Exhibit 65: Worldline stated EBIT evolution



Source: Company data, Morgan Stanley Research estimates

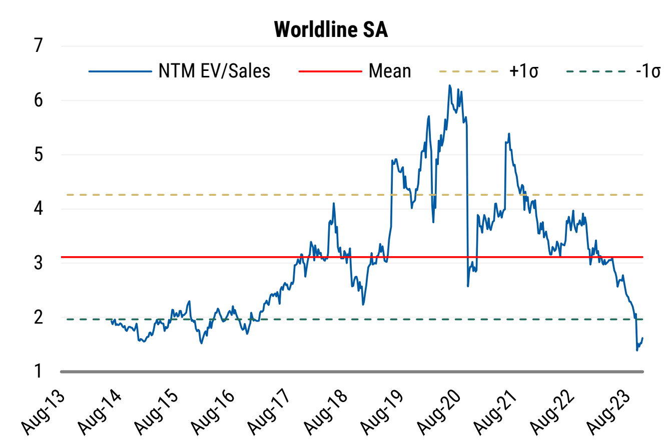
Exhibit 66: Worldline FCF margin evolution



Source: Company data, Morgan Stanley Research estimates

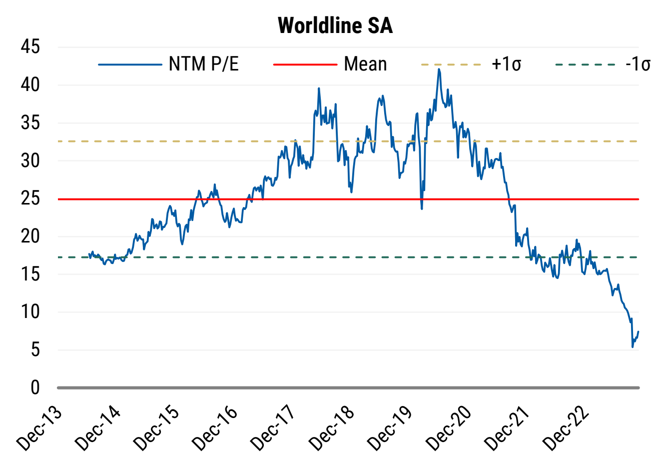
Our Underweight call on Worldline is predicated more around weaker FCF generation. For FY23, Worldline is now guiding to 30-35% OMDA conversion to FCF, down from 46-48% previously, implying a ~40% cut vs. previous guidance. As we outlined in our note here, the "Power 24" cost savings plan comes with a €250m cash cost, spread over FY23 (~€40m) and FY24 (~€210m). In our recent note we made further revisions to our FY24-25 FCF conversion forecasts, taking into account recent management commentary/ feedback from our conference, particularly on the timing of the non-recurring cash charges. For FY24 we expect a conversion ratio of ~15% and for FY25, we now expect conversion to improve to 35% (previously 45%), as we need to see evidence of Worldline's capacity to reduce one-off charges quickly (informed by recent trends) - we estimate non-recurring charges at €150m. Looking further out, for FY26 the company has indicated it is targeting a conversion ratio of ~45-50%. We would highlight, however, that pre the cost savings plan, Worldline was targeting 46-48% FCF conversion for FY23 and ~50% for FY24. Now, post the "fast ramp" of Power 24, the company only appears set to reach this level by FY26 at best. We think this lower level of FCF generation will be a fundamental concern for investors and this is the primary reason we stay more cautious.

Exhibit 67: Worldline LT valuation (EV/sales)



Source: Thomson Reuters, Morgan Stanley Research

Exhibit 68: Worldline LT valuation (P/E)



Source: Thomson Reuters, Morgan Stanley Research

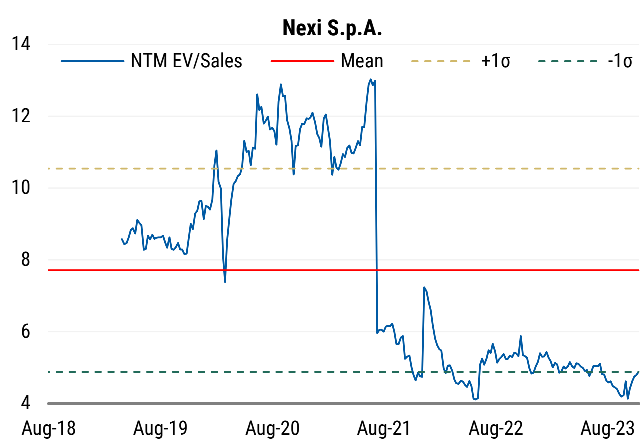
Worldline trades on a ~7% EV/FCFF yield FY25 on our updated numbers, and we are

materially below consensus on FCF - remain a relative Underweight: Worldline currently trades on ~5x CY25 adj. EBITDA or just ~6x P/E, which optically looks attractive. However, as outlined above, we think the scale of adjustments over the next few years means investors should look to FCF for valuation. On this front, despite the significant share price decline, the cumulative scale of the cuts to our FCF estimates means that Worldline currently trades on a ~7% EV/FCFF yield for CY25, or just ~3% for CY24. This compares to ~9% at Nexi, supporting our earlier move to a relative Underweight within the sector, with ~25% downside potential to our €10.90 PT. We remain materially below consensus for FY24-25 FCF (and 0-2% below on revenue/OMDA), which we increasingly see as the primary metric investors will focus on given the scale of adjustments over the next couple of years and remains a key reason behind our Underweight rating.

Nexi

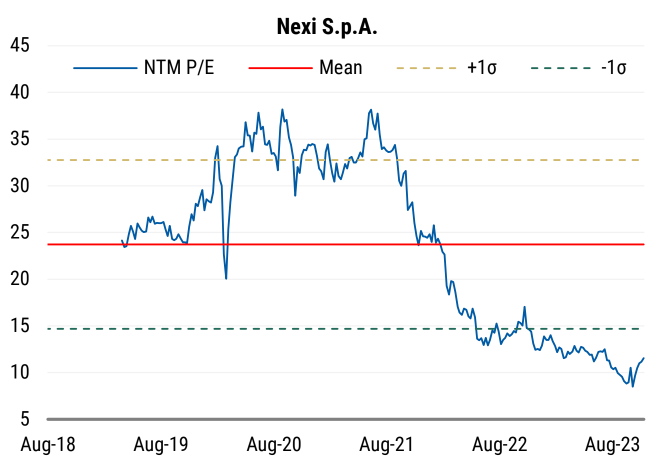
Less regulatory risk, but uncertainty around mid-term guide and a similar strategy employed to Worldline: Nexi currently trades on ~9% CY25e EV/FCFF yield, a discount to Worldline, supporting our preference for Nexi, especially given our expectation for better top-line growth/less regulatory risk. That said, we remain cautious in the nearer term, given our belief that Nexi will have to cut its mid-term guidance, and with consensus numbers too high, in our view. While we think buy-side expectations are more cautious, we believe a material cut to the mid-term outlook will likely be taken negatively, especially given the current broader sentiment towards payments. In addition, we continue to see risks around non-recurring charges/capex, with significant integration challenges remaining, in our view. Nexi has employed a similar strategy to Worldline, gaining scale via M&A, resulting in elevated capex/non-recurring charges and with a significant gap between adjusted and reported metrics, creating additional uncertainty.

Exhibit 69: Nexi LT valuation (EV/sales)



Source: Thomson Reuters, Morgan Stanley Research

Exhibit 70: Nexi LT valuation (P/E)



Source: Thomson Reuters, Morgan Stanley Research

Rating Changes, Major Target Price Changes, and Other Key Company Forecast Changes

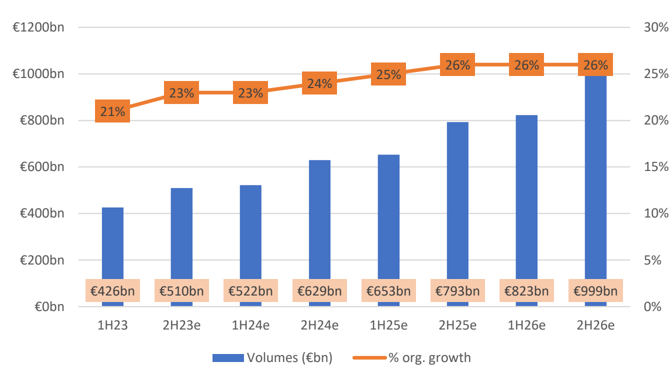
Adyen: Too much too soon - await a better entry point

Price target increased to €1,100 (from €925), remain Equal-weight

3Q trading update well ahead of expectations: Adyen reported 3Q volume growth of 21% (~25% ex-FX) and net revenue growth of 22% (~26% ex-FX), well ahead of MSe (+17% ex-FX) and we think buy-side expectations. Within this, Digital volumes grew 21% y/y, with Adyen noting stable underlying trends vs. 1H, including in the US, where Digital volumes continue to grow ahead of the market. Unified Commerce volumes were up 25% y/y, while Platform volumes increased 15% y/y or 120% y/y ex-eBay. Elsewhere, on hiring Adyen added 175 FTEs in 3Q and will add a maximum 175 more in 4Q, as the company "deliberately and gradually" slows down the pace of investment, suggesting some upside risk on EBITDA for 2H.

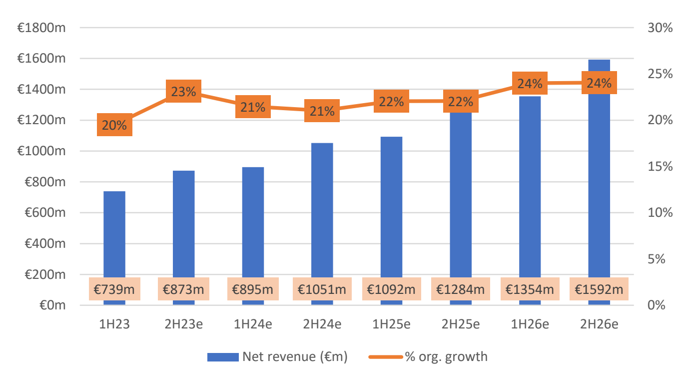
Updated guidance, targeting low-20s to high-20s net revenue growth, EBITDA margins >50% by FY26: As part of the release, Adyen updated its financial objectives, noting that while the long-term opportunity remains unchanged, the company wants to specify expectations for the coming 3 years. Adyen now aims to deliver low-20s to high-20s net revenue growth, up to and including 2026 (vs. mid-twenties to low-thirties in the mid-term previously). Below the line, Adyen is targeting an EBITDA margin >50% in 2026 (vs. >65% in the long-term previously). Within this, Adyen expects to begin the updated guidance period at the bottom end of the revenue growth range, implying growth may slow from the ~26% ex-FX rate in 3Q. Likewise, Adyen expects more muted margin expansion in FY24 (given embarked costs around hiring), so a margin of >50% in FY26 would imply >300bps of margin expansion per annum, suggesting EBITDA growth of >30% (HSD growth from margin expansion alone).

Exhibit 71: MS volume forecasts FY23-26



Source: Company data, Morgan Stanley Research estimates (e)

Exhibit 72: MS net revenue forecasts FY23-26



Source: Company data, Morgan Stanley Research estimates (e)

We update our forecasts to account for updated guidance and the better than expected 3Q numbers... Our FY23-26 volume forecasts increase by 2-5%, while our net revenue forecasts increase by 2-7% over the same period (accounting for the 3Q beat, updated guidance and commentary at our TMT conference, confirming a ~20% floor on growth). Within this, we assume a FY23 take rate of 17.2bps, reducing to ~16.2bps by FY26, with the pace of take-rate degradation easing as higher take-rate platform volumes increase as a percentage of group. For 4Q, we expect net revenue growth to slow to ~21% ex-FX, down from ~26% in 3Q. Given the share price move and elevated valuation, we expect this to be taken negatively by the market, with competition concerns likely resurfacing - supporting our Equal-weight rating / wait for a better entry point.

Exhibit 73: Updated quarterly forecasts - expect 21% ex-FX net revenue growth for 4Q

	2023 Q1	2023 Q2	2023 Q3	2023 Q4	2023 H1	2023 H2	2023 FY
Processed Volumes	207	219	243	267	426	510	936
y/y growth (%)	28%	19%	21%	21%	23%	21%	22%
y/y CC growth (%)	22%	20%	24%	22%	21%	23%	22%
org. growth (%)	22%	20%	24%	22%	21%	23%	22%
% change q/q	-6%	6%	11%	10%	23%	20%	22%
Base volume ex FX	169	183	196	218	352	414	766
M&A contribution	0	0	0	0	0	0	0
Base Organic volume	169	183	196	218	352	414	766
Net Revenues	357	382	414	459	739	873	1,612
y/y growth (%)	28%	16%	22%	20%	21%	21%	21%
y/y CC growth (%)	22%	18%	26%	21%	19%	23%	21%
org. growth (%)	22%	18%	26%	21%	19%	23%	21%
% change q/q	-7%	7%	8%	11%	21%	18%	21%
Base revenue ex FX	293	325	328	380	619	709	1,327
M&A contribution	0	0	0	0	0	0	0
Base Organic revenue	293	325	328	380	619	709	1,327
Take rate	17.3bps	17.4bps	17.0bps	17.2bps	17.3bps	17.1bps	17.2bps

Source: MS research

Exhibit 74: Forecast changes

	Changes			
	FY23	FY24	FY25	FY26
Volume (€bn)	1.69%	1.27%	2.53%	5.03%
Net Revenue (€m)	2.18%	1.88%	2.79%	6.54%
Co EBITDA	7.58%	9.22%	7.62%	12.63%
Co EBIT	8.31%	9.98%	8.06%	13.14%
Adj. EBIT	8.31%	9.98%	8.06%	13.14%
Adj. FCFE (ex. PWC)	7.38%	8.62%	7.93%	10.38%
Adj. FCFF (ex. PWC)	8.88%	13.10%	17.07%	19.43%
EPS	7.27%	7.70%	3.28%	7.77%

Source: MS research

Below the line, our EBITDA forecasts (informed by our cost model – see Exhibit 76 below) increase by 8-13% for FY23-26, largely due to better top line growth and more modest assumptions around future headcount additions, as outlined at the CMD. We now expect Adyen to deliver a ~51% EBITDA margin by FY26, broadly in line with updated guidance. We also moderate our interest income assumptions in line with the move lower in interest rate expectations, meaning our adj. EPS forecasts increase by 3-% over the FY23-26 period. Our FCFE forecasts increase by 7-10% and FCFF by 9-19% (lower interest income).

...placing us slightly below street in outer years: Our updated forecasts place us 1-3% below street on net revenue and 1-5% below on EBITDA for FY24-26. This is largely due to our more cautious growth forecasts for FY25/26, where we only assume Adyen gets to the mid-point of its growth guidance. While 3Q was a positive data point, with net revenue growth of ~26% ex-FX, this is just one data point and we think its too early to underwrite the upper end of Adyen's growth guidance, particularly given our view that competitive pressures in the US remain present, while the platform opportunity requires solid execution.

Exhibit 75: MSe vs. street

	FY23				FY24				FY25				FY26		
	MSe	Street	% vs. street		MSe	Street	% vs. street		MSe	Street	% vs. street		MSe	Street	% vs. street
Volume	935.7	938.7	0%	Volume	1151.7	1168.0	-1%	Volume	1446.0	1453.2	0%	Volume	1821.9	1803.5	1%
Take rate	17.2bps	17.2bps		Take rate	16.9bps	17.0bps		Take rate	16.4bps	16.9bps		Take rate	16.2bps	16.5bps	
Revenue	1612	1614	0%	Revenue	1946	1984	-2%	Revenue	2376	2452	-3%	Revenue	2947	2984	-1%
EBITDA	727	709	2%	EBITDA	891	903	-1%	EBITDA	1141	1198	-5%	EBITDA	1507	1568	-4%
% margin	45.1%	43.9%		% margin	45.8%	45.5%		% margin	48.0%	48.9%		% margin	51.1%	52.6%	

Source: MS research, Visible Alpha consensus

We increase our DCF-based price target to €1,100: We feed our updated forecasts into our DCF, flowing through the increase in our near-term forecasts as well as rolling forward by one-year. We make limited changes to our mid-to-long-term forecasts and terminal growth assumptions (3.5%), but reduce our WACC by 50bps to 9%, reflecting lower rate expectations and reduced uncertainty. Combined, our PT increases to €1,100.

Exhibit 76: Updated costs model and assumptions

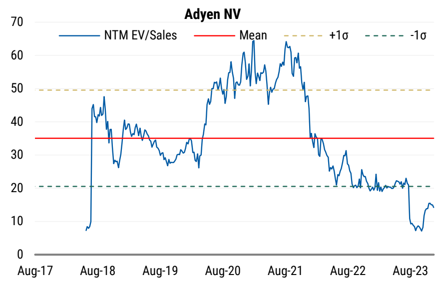
EURm *FYE 31 Dec*	1H 2022	2H 2022e	FY 2022e	1H 2023e	2H 2023e	FY 2023e	1H 2024e	2H 2024e	FY 2024e	1H 2025e	2H 2025e	FY 2025e	1H 2026e	2H 2026e	FY 2026e
Net revenue	608.5	721.6	1,330.1	739.1	872.6	1,611.7	895.0	1,051.4	1,946.4	1,092.2	1,283.5	2,375.7	1,354.3	1,592.3	2,946.6
y/y growth									24%						
Stated EBITDA (MSe)	356.2	372.2	728.4	320.0	406.6	726.7	383.9	506.8	890.7	497.2	644.3	1,141.5	658.2	848.7	1,506.9
	58.5%	51.6%	54.8%	43.3%	46.6%	45.1%	42.9%	48.2%	45.8%	45.5%	50.2%	48.0%	48.6%	53.3%	51.1%
Total costs	-252.3	-349.5	-601.8	-419.1	-466.0	-885.1	-511.0	-544.6	-1,055.7	-595.0	-639.2	-1,234.2	-696.1	-743.6	-1,439.7
Total costs from below wages & other	-252.3	-349.5	-601.8	-412.0	-466.0	-878.0	-511.2	-544.6	-1,055.8	-595.2	-639.2	-1,234.4	-696.0	-744.0	-1,440.0
Implied EBITDA from cost-model				320.0	406.6	726.7	383.7	506.9	890.6	497.0	644.3	1,141.3	658.3	848.3	1,506.7
					46.6%	45.1%	42.9%	48.2%	45.8%	45.5%	50.2%	48.0%	48.6%	53.3%	51.1%
Headcount at period end	2,575	3,332	3,332	3,727	4,077	4,077	4,327	4,577	4,577	4,877	5,177	5,177	5,477	5,777	5,777
Heads added HoH	395	757		395	350		250	250		300	300		300	300	
Heads added YoY	621	1,152	1,152	1,152	745	745	600	500	500	550	600	600	600	600	600
Average headcount in the period	2,378	2,954	2,756	3,530	3,902	3,705	4,202	4,452	4,327	4,727	5,027	4,877	5,327	5,627	5,477
Check average headcount	2,378	2,954	2,756	3,608	4,158	3,883	4,558	4,808	4,683	5,058	5,308	5,183	5,102	5,477	5,177
Total wage expenses	**-158.5**	**-222.1**	**-380.6**	**-285.9**	**-322.7**	**-608.7**	**-360.9**	**-386.6**	**-747.5**	**-426.2**	**-458.4**	**-884.7**	**-504.4**	**-540.8**	**-1,045.2**
Implied wage cost per head - average (HY)	66,669	75,193		81,017	82,712		85,878	86,848		90,171	91,190		94,680	96,114	
% change y/y	4%	28%		22%	10%		6%	5%		5%	5%		5%	5%	
Implied cost per average head (FY)			138,094			164,311			172,753			181,393			190,834
% change y/y			13%			19%			5%			5%			5%
Implied cost per head - total (HY)	61,555	66,651		76,723	79,162		83,397	84,476		87,398	88,548		92,087	93,619	
% change y/y	1%	20%		25%	19%		9%	7%		5%	5%		5%	6%	
Implied cost per head - total (FY)			114,222			149,299			163,317			170,881			180,924
% change y/y			4%			31%			9%			5%			6%

Source: MS research

Valuation elevated (38x CY25 P/E), await a better entry point: The much better than feared 3Q trading update, as well as more specific guidance and building blocks for growth, were well received against very cautious sentiment ahead of the event – resulting in a 65% rally in the shares to today. On our updated forecasts, Adyen shares now trade on 38x CY25 P/E or a 2.5% FCFE yield. While part of this move was driven by the fall in interest rate expectations into year-end, which particularly benefitted long-duration growth names such as Adyen, our concern is that too much may have been priced in by the market too fast.

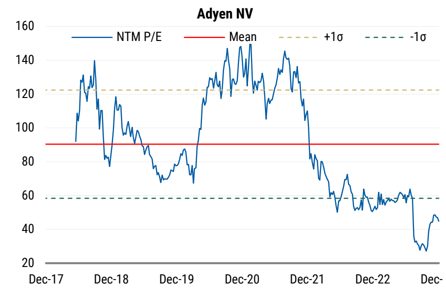
We don't think competitive pressures in the US have fully retreated (we will be watching PayPal commentary at FY23 results next month) and while 3Q was clearly a positive surprise in terms of growth, it is only one data point. Updated guidance implies a deceleration in growth back to the low 20s for 2024. We forecast ~21% ex-FX net revenue growth for 4Q, which we believe will be taken negatively by the market, offering a better entry point for investors. As a result we remain Equal-weight, with an updated €1, 100 price target. We acknowledge Adyen is a unique growth asset (compounding top line >20% and bottom-line ~30%) which we want to own over the long-term, but believe a better entry point will be on offer through 2024 as growth moderates.

Exhibit 77: Adyen EV/Sales



Source: Factset, Morgan Stanley Research

Exhibit 78: Adyen P/NTM Earnings



Source: Factset, Morgan Stanley Research

Atos: Execution risk remains high; Increasing our FCFE target yield

Price target lowered to €4.70 from €10.0, remain Underweight.

We continue to view the execution risk as relatively high. Atos management has indicated the company is currently evaluating various options to increase its liquidity, including the sale of its Tech Foundations (TFCo) business to EPEI, the sale of its big data and cybersecurity (BDS) business, other asset sales, discussions with existing lenders and a potential capital increase.

Exhibit 79: We increase our target FCFE yield to set the new bull/base/bear price targets to account for increased uncertainty

Base case			
€m	2023e	2024e	2025e
Revenue	10,921	10,468	10,504
Org. growth	0.0%	-0.5%	0.3%
Adj. EBIT	480	532	619
Adj. EBIT margin	4.4%	5.1%	5.9%
FCFE			**125**
FCFE conversion (to adj. EBIT)			*20%*
Discounted 2024 FCFE		**104**	
Discount yield		20%	20%
Implied market cap (based on FCFE yield)		**519**	
Number of shares		110	
Price target		**€4.70**	

Bear case			
€m	2023e	2024e	2025e
Revenue	10,921	10,594	10,382
Org. growth	0.0%	-3.0%	-2.0%
Adj. EBIT	480	445	415
Adj. EBIT margin	4.4%	4.2%	4.0%
FCFE			**62**
FCFE conversion (to adj. EBIT)			15%
Discounted 2024 FCFE		**50**	
Discount yield		25%	25%
Implied market cap (based on FCFE yield)		**199**	
Number of shares		110	
Bear scenario price target		**€1.80**	

Bull case			
€m	2023e	2024e	2025e
Revenue	10,921	11,358	11,812
Org. growth	0.0%	4.0%	4.0%
Adj. EBIT	480	625	886
Adj. EBIT margin	4.4%	5.5%	7.5%
FCFE			**221**
FCFE conversion (to adj. EBIT)			25%
Discounted 2024 FCFE		193	
Discount yield		15%	15%
Implied market cap (based on FCFE yield)		**1,284**	
Number of shares		110	
Bull scenario price target		**€11.60**	

Source: Morgan Stanley Research

We previously applied a 12.5% FCFE yield to the Eviden business and a valuation of €0 to the Tech Foundations business.

We now value the entire Atos business (Eviden and Tech Foundations) and increase our target FCFE yield to reflect increased uncertainty. On 3 January 2024, Atos published a market update stating it is still in exclusive negotiations with EPEI on the sale of TFCo, with no certainty of an agreement being reached.

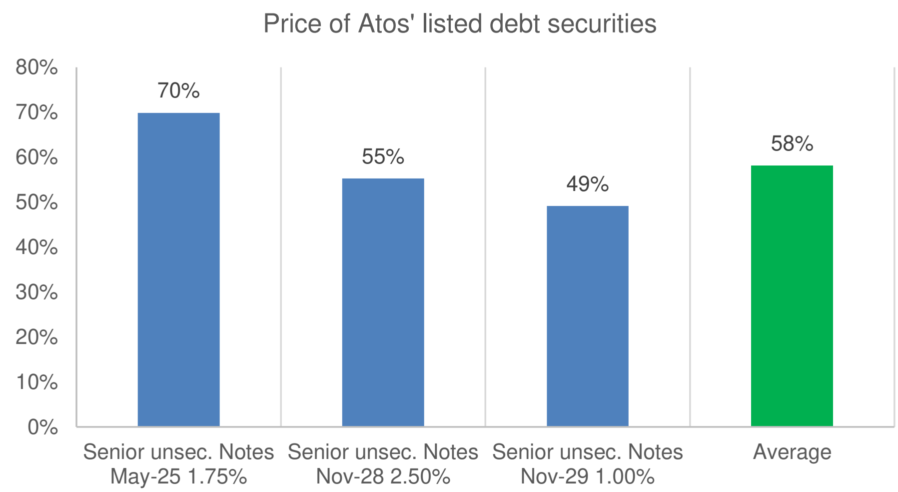
We derive our PT of €4.70 based on a 2024 FCFE yield of 20%; our 2024 FCFE is based on 2025 FCFE discounted to 2024.

Our bull and bear PTs are derived from a FCFE yield:

Our bear scenario PT moves down to €1.80. Our previous methodology consisted in a applying a 0.5x trough EV/sales multiple to Eviden's 2023 sales and €0 value to TFCo. We now move to a 2024 bear FCFE yield methodology (as outlined in below above). We assume a higher yield than in our base case (25% vs 20%) and that both sales and margins decline in 2024 and 2025 due to execution issues leading to a particularly strong decline at TFCo and mixed performance at Eviden. FCFE conversion to adj. EBIT is 15% (vs ~20% in our base case) mainly due to WC outflows. We use our 2025 bear FCFE forecast which we discount to 2024.

Our bull scenario PT reduces to €11.60. We apply a lower target FCFE yield (15% vs 20% in our base case) to our bull FCFE for the entire Atos business. We use our 2025 bull FCFE forecast which we discount to 2024. In our bull scenario, Atos grows its top line 4% in 2024 and 2025 thanks to stronger execution and more favourable market conditions than in our base case; Eviden grows mid to high single digit while TFCo's growth is ~1%. The company expands it margin to 7.5% by 2025. FCFE conversion to adj. EBIT is 25% vs ~20% in our base case, thanks to better working capital management.

Exhibit 80: Atos' listed debt securities trade on an average price of 58% which may be an indication of market concerns around FCF generation



Source: Refinitiv, Morgan Stanley Research

Forecast changes: we update our model for FX and lower our FY24-26 revenue by 3%. We lower our adj. EBIT margin 2024 forecast to 5.1% vs 5.3% before leading to a ~8% decrease in adj. EBIT FY24 and ~3.5% in FY25-26. Our adj. EPS for FY24-26 go down by 13-16%. Our new FY24 FCF forecast is -€333m (vs -€248m before).

CompuGroup

Upgrade to Equal-weight. Price target lowered to €39.

Summary:

- CGM has significantly derated in 2H23 and underperformed our software coverage
- Current valuation (16x 2024 adj. P/E and ~6% 2024 FCFE yield) reflects more realistic market expectations around CGM's growth prospects
- We are broadly in line with consensus' mid-term forecasts

CGM has significantly underperformed our software coverage in 2H23. The stock derated by ~30% in 2H23 on no apparent news. 2Q and 3Q results were broadly in line with expectations and we note that N12M EPS increased by 6% over the 2H23 period.

A quality health tech software company with a large recurring revenue base trading at a relatively fair valuation.

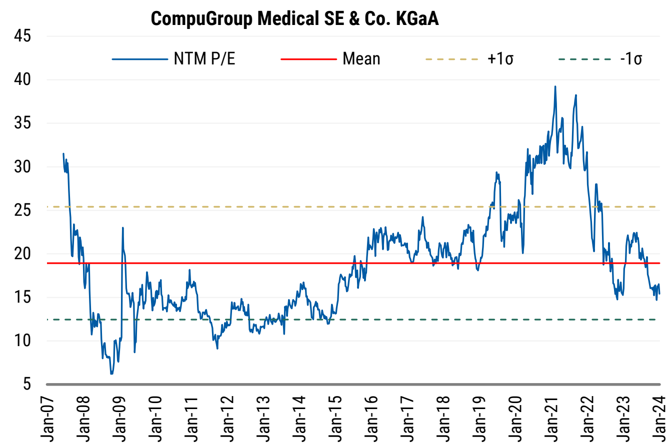
- **Discount to our software coverage is warranted given relatively lower growth prospects.** CGM trades at ~16x 2024 adj. P/E on our forecasts and 6% 2024 FCFE yield. This represents a ~45% discount to our European software coverage median 2024e P/E, which we think is warranted given our expectation for relatively lower growth prospects at CGM vs our software coverage. We expect CGM to grow its topline ~4% in 2024 (vs 9% for our software coverage) and EPS by ~2% (vs 12% for our software coverage median).
- **We continue to view the AIS and PCS markets as relatively mature with limited growth prospects but think current valuation now reflects more realistic growth expectations.** We view CGM as a high quality software company for the healthcare industry benefitting from high barriers to entry and a relatively high recurring revenue base (65% in 2022). We continue to view the AIS and PCS markets (55% of CGM 2023e revenue) as relatively mature as a lot of digitalisation is already done (as highlighted in our initiation note), whilst we see better growth prospects in CGM's HIS and data business, which are less mature markets where a lot more digitalisation can happen. We think current valuation now reflect more realistic expectations by the market around CGM's growth prospects.
- **We are broadly in line with consensus.** We and consensus forecast ~5% mid-term topline growth. This compares to the company's mid-term guidance for >5% organic growth. We are slightly below consensus on 2025 adj. EBITDA margin (MSe: 24.5%, cons: 24.8%). We still think company margin guidance is ambitious but think market expectations are lower than the guidance.

Our PT goes down to €39 from €42 as we roll the DCF forward and make small changes to our long-term DCF assumptions. Our mid-term forecasts are broadly unchanged. We roll forward our DCF, update for FX and make small amendments to our long-term DCF assumptions (using a slightly higher tax rate).

Our Bull scenario of €61 (vs €64 previously) reflects **faster organic growth** than in our base case (~6.5% FY24-27 revenue CAGR) driven by more **regulatory tailwinds** across its divisions and CGM's **stronger success at innovating in its data business.** We also model a **faster EBITDA margin expansion** (reaching 33% in terminal state, 4ppts higher than in our base case) reflecting CGM's pricing power thanks to a higher value-add product offering.

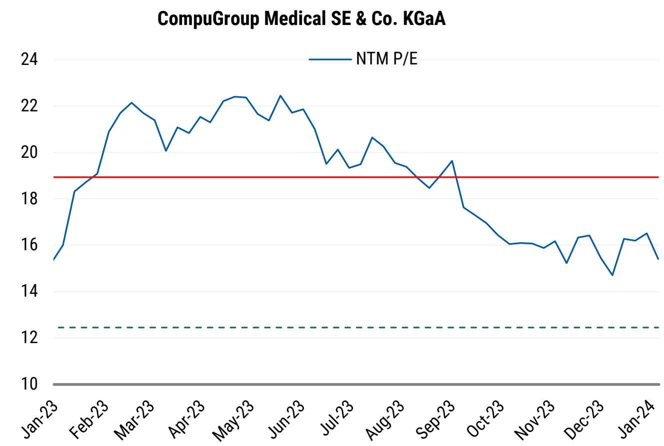
Our Bear scenario of €21 (down from €22.5) assumes **limited innovations and cross-selling of additional modules** as well as **only modest benefits from regulatory programmes** leading to ~2% organic growth FY24-27 (2.5ppts lower than in our base case). **Adj. EBITDA margin remains in the low 20s %** mid-term as the company tries to innovate and expands to c. 25% in terminal state as costs are rationalised to match top-line growth.

Exhibit 81: CGM is trading below its long-term average of 19x NTM P/E...



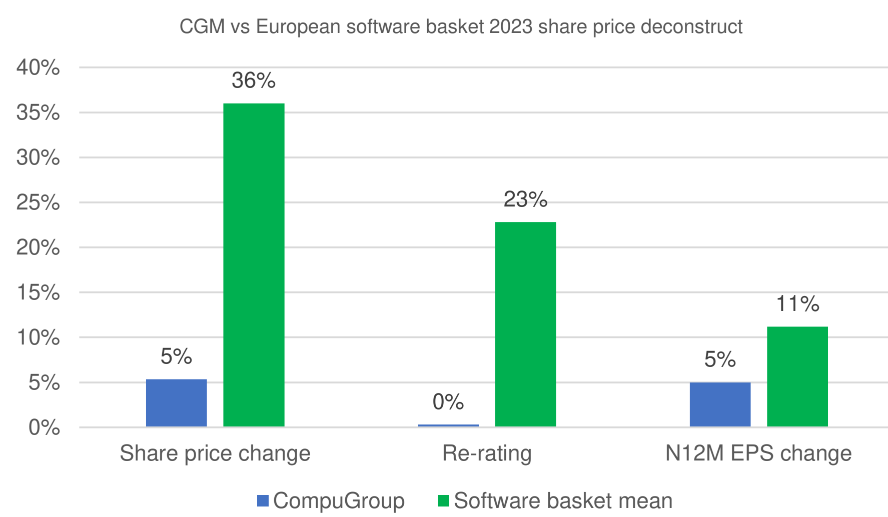
Source: FactSet, Morgan Stanley Research

Exhibit 82: CompuGroup share price has been weak in 2H23 (down 25%) with multiple contracting ~30%



Source: FactSet, Morgan Stanley Research

Exhibit 83:
CompuGroup has significantly underperformed our software coverage in 2023



Source: FactSet, Morgan Stanley Research

Exhibit 84: We view CGM's discount to our software coverage as warranted given relatively lower growth prospects

	Ticker	Ccy	Price 11-Jan	Mkt Cap € mn	EV € mn	P/E 2023e	P/E 2024e	EV/EBIT 2023e	EV/EBIT 2024e	EV/Sales 2023e	EV/Sales 2024e	FCFF/EV 2023e	FCFF/EV 2024e	Dividend Yield 2023e	Dividend Yield 2024e	Sales growth 2023e	Sales growth 2024e	Adj. EBIT margin 2023e	Adj. EBIT margin 2024e	EPS Growth 2024e
MS SOFTWARE COVERAGE																				
Amadeus	AMA.MC	EUR	63.9	28,743	31,719	26.0x	22.5x	21.3x	18.1x	5.8x	5.1x	3.6%	4.2%	1.8%	2.0%	20.2%	10.5%	27.5%	28.2%	15.4%
Compugroup Medical	COP1n.DE	EUR	35.2	1,843	2,482	16.2x	15.8x	12.3x	10.7x	2.2x	1.9x	4.7%	5.8%	0.0%	2.0%	6.4%	4.7%	17.9%	18.0%	2.3%
Dassault Systemes	DAST.PA	EUR	43.3	57,729	57,956	36.4x	34.4x	30.6x	27.5x	9.9x	9.0x	2.3%	2.6%	0.5%	0.5%	4.6%	5.5%	32.3%	32.8%	5.8%
Darktrace	DARK.L	GBp	365.9	2,860	2,534	40.6x	33.8x	27.6x	24.2x	4.1x	3.5x	3.4%	4.2%	0.0%	0.0%	27.1%	22.5%	14.8%	14.4%	20.3%
Fortnox	FNOX.ST	SEK	52.8	2,871	2,850	63.5x	49.0x	56.4x	37.7x	22.3x	15.5x	0.9%	1.6%	0.2%	0.3%	27.8%	24.6%	39.6%	41.0%	29.5%
Hexagon AB	HEXAb.ST	SEK	115.0	27,857	31,071	23.4x	22.1x	20.8x	18.1x	6.1x	5.4x	2.4%	3.6%	1.0%	1.3%	6.0%	4.4%	29.1%	29.7%	5.9%
Nemetschek	NEKG.DE	EUR	75.8	8,757	8,668	49.5x	43.3x	39.7x	32.9x	10.5x	9.1x	2.3%	2.4%	0.6%	0.7%	5.8%	9.7%	26.4%	27.6%	14.4%
Sage	SGE.L	GBp	1,156.0	14,008	14,560	35.6x	32.0x	23.9x	23.3x	5.0x	5.1x	3.5%	3.7%	1.6%	1.8%	11.0%	8.1%	21.1%	21.9%	11.3%
SAP	SAPG.DE	EUR	141.9	166,139	170,927	37.3x	31.5x	23.8x	20.4x	5.0x	4.5x	3.4%	4.1%	1.4%	1.5%	0.3%	9.3%	21.0%	21.9%	18.5%
Sinch	SINCH.ST	SEK	30.6	2,093	2,910	11.1x	13.3x	13.0x	9.8x	1.4x	1.1x	4.3%	7.1%	0.0%	0.0%	3.2%	-1.2%	10.7%	10.9%	-16.7%
Software AG	SOWGn.DE	EUR	37.7	2,792	3,029	28.7x	23.0x	17.2x	14.9x	3.0x	2.9x	1.6%	4.0%	2.3%	2.4%	3.6%	5.7%	17.3%	19.3%	24.8%
TeamViewer	TMV.DE	EUR	13.8	2,759	3,201	15.8x	13.8x	11.8x	11.7x	4.5x	4.5x	7.7%	7.2%	0.0%	0.0%	10.3%	4.5%	37.8%	38.9%	14.5%
Temenos	TEMN.S	CHF	77.1	5,769	6,456	29.4x	28.2x	24.3x	20.5x	7.5x	6.4x	2.8%	3.7%	0.0%	0.0%	4.3%	6.7%	30.7%	31.4%	4.4%
Trustpilot	TRST.L	GBp	163.5	763	696	NA	NA	151.4x	128.5x	4.3x	3.6x	1.7%	1.6%	0.0%	0.0%	18.1%	18.9%	2.8%	2.8%	-2.2%
Mean				**23,213**	**24,219**	**31.8x**	**27.9x**	**33.8x**	**28.5x**	**6.5x**	**5.5x**	**3.2%**	**4.0%**	**0.7%**	**0.9%**	**10.6%**	**9.6%**	**23.5%**	**24.2%**	**10.6%**
Median				**4,320**	**4,828**	**29.4x**	**28.2x**	**23.8x**	**20.5x**	**5.0x**	**4.8x**	**3.1%**	**3.9%**	**0.4%**	**0.6%**	**6.2%**	**7.4%**	**23.7%**	**24.7%**	**12.9%**

Source: Refinitiv, Morgan Stanley Research

Exhibit 85: We are broadly in line with consensus in the mid-term

	2024		2025		Mse vs cons	
EURm	MSe	Cons	MSe	Cons	2024	2025
Revenue	1,259	1,250	1,320	1,308	1%	1%
Stated growth	*4.7%*	*5.0%*	*4.8%*	*4.7%*	*-0.3ppt*	*0.1ppt*
Organic growth	*4.4%*		*4.8%*			
Adj. EBITDA	301	298	323	325	1%	-1%
margin	23.9%	23.8%	24.5%	24.8%	*0.1ppt*	*-0.3ppt*

Source: Visible Alpha, Morgan Stanley Research

Eurowag

Price target lowered to 135p from 145p, remain Overweight given double-digit organic growth at 10x CY25 P/E

Updating for weaker macro and M&A deals: Eurowag has experienced notable macro headwinds through FY23. Payment Solutions continues to be impacted by economic headwinds, resulting in fewer kilometres driven. The company notes that these headwinds continued in 3Q, and as a result organic Payment Solutions revenues were flat in 3Q23. We update our top line forecasts to better account for the macro weakness, which we don't expect to improve materially in 2024. Combined, our FY23-25 net revenue forecasts come down by ~3-6%. We now expect ~11% organic growth for FY23 and ~8% for 2H. Looking to FY24, we look for 13% organic net revenue growth, broadly in-line with mid-term guidance for "mid-teens' growth.

Below the line, we flow through the weaker top-line forecasts, while also moderating our margin expansion expectations for FY24, given pressures from integrating recent M&A deals. Combined, our FY23-26 adj. EBITDA forecasts decrease by ~3-9%. We also update our D&A and interest assumptions to better account for M&A and disclosure at the recent CMD. Combined our FY23-26 adj. EPS declines by 6-12%. We flow these changes through our DCF, which we also roll-forward. Combined our PT falls to 135p (from 145p previously), with similar changes to our bull and bear valuations.

Valuation remains attractive vs. low-to-mid-teens organic growth: On our updated forecasts, Eurowag shares trade on ~10x CY25 P/E or ~10% FCF yield, a level we continue to see as attractive versus ~13% organic growth in FY24 and the potential for a re-acceleration thereafter (as per mid-term guidance). With growth expectations now more achievable , we see a path towards a re-rating, especially as and when liquidity improves. Stay Overweight.

Exhibit 86: Forecast changes

Y/E Dec 31	FY23e		
€m	New	Old	% diff.
Payment solutions net rev	149	153	-2.7%
- % org. chg	10%	14%	
Mobility solutions net reve	107	112	-4.1%
- % org. chg	11%	0	
Net Revenue	**256**	**265**	**-3.3%**
% change	34.2%	38.8%	
% org change	11.2%	15.1%	
Adj. EBITDA	**110**	**114**	**-3.5%**
% margin	42.8%	42.9%	
Adj. net income	43	46	-6.9%
Adj. diluted EPS	**6.2**	**6.7**	**-6.9%**
Free cash flow (FCFF)	**56**	**58**	**-3.8%**

Y/E Dec 31	FY24e		
€m	New	Old	% diff.
Payment solutions net rev	165	177	-6.9%
- % org. chg	11%	16%	
Mobility solutions net reve	137	144	-4.5%
- % org. chg	16%	0	
Net Revenue	**303**	**321**	**-5.9%**
% change	18.1%	21.3%	
% org change	13.2%	16.4%	
Adj. EBITDA	**132**	**144**	**-8.8%**
% margin	43.5%	44.9%	
Adj. net income	55	62	-12.0%
Adj. diluted EPS	**7.9**	**8.9**	**-12.0%**
Free cash flow (FCFF)	**79**	**86**	**-7.9%**

Y/E Dec 31	FY25e		
€m	New	Old	% diff.
Payment solutions net rev	188	202	-6.9%
- % org. chg	14%	14%	
Mobility solutions net reve	161	166	-2.9%
- % org. chg	17%	0	
Net Revenue	**349**	**368**	**-5.1%**
% change	15.4%	14.4%	
% org change	15.4%	14.4%	
Adj. EBITDA	**157**	**166**	**-5.3%**
% margin	45.1%	45.2%	
Adj. net income	78	82	-5.9%
Adj. diluted EPS	**11.1**	**11.8**	**-5.9%**
Free cash flow (FCFF)	**92**	**97**	**-4.9%**

Source: MS research

Indra: Continued growth in Defence should help offset IT demand softness

Price target raised to €14.80 from €11.65, remain Equal-weight

Indra delivered resilient growth so far in 2023, driven by strength in Defence. In the first nine months of 2023 Indra grew organic top line c. 11% y/y - broadly in-line with the first nine months of 2022. This was underpinned by a solid backlog and order intake (up 17%/10% y/y, respectively) and driven by strength in the T&D division. T&D, whose organic revenue was up 17% y/y in 9M23, was driven by Defence & Security (which was up 29% y/y in cc) – with Indra clearly benefiting from the significant upswing in European defence spending (high contributions from the FCAS and Eurofighter projects). Turning to the IT Services part of the business, Minsait demonstrated resilience over 9M23, delivering +8% y/y organic growth - although we note that this has slowed from 15% in Q1 to 6% in Q3 - reflecting the tougher market conditions for IT Services vendors seen across the sector in 2023. While we expect the outlook for Minsait to be incrementally tougher in 2024, this should be mostly offset by continued strong demand in T&D. As a result, we increase our top line forecasts by 3%/5% in FY24/25 and introduce forecasts for FY26.

Forecast and PT changes: We mark-to-market for latest FX and update our mid-term forecasts. Our 2023 forecasts are largely unchanged whilst our 2024 and 2025 EPS forecasts increase by c. 3%/6%, respectively reflecting the top line changes described above. We also modestly increase our mid-term (FY28-34) growth assumptions (from 1.5% to 1.9% CAGR) - a function of the fade rate from our (higher) near-term forecasts. Assumed mid-term restructuring charges are lowered to 1% (from 2%), which reflects a lower level of forward restructuring in the business. We roll forward our DCF and reduce our WACC assumption to 9.5% from 10.0% - reflecting lower forward rates expectations. Combined, this results in an increase in our PT from €11.65 to €14.80. We remain Equal-weight.

Nemetschek: A lot to like, although valuation constrains short-term returns

Price target increased to €81.25 (from €68.50), remain Equal-weight

Bluebeam subscription shift about to hit the sweet spot... Having faced headwinds from its subscription shift transition through 2023, from 4Q23 Bluebeam (and the overall Build segment) is set to enter the 'positive' part of its subscription transition where those headwinds flip to tailwinds. This is because the company has lapped the loss of licence revenue, while maintenance customers converting over to subscription will (on average) do so at a price uplift (boosting revenue growth and EBIT). This is a key driver of Nemetschek's confidence that revenue growth will accelerate to double-digits (i.e. 10% in our view) in 2024 (from MS 7.7% in 2023).

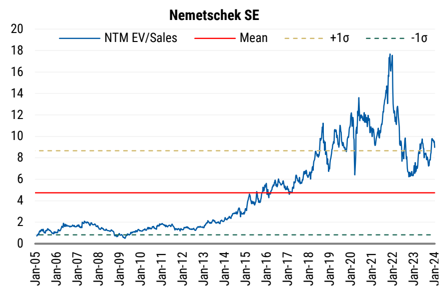
… helping overshadow muted conditions in the Design segment and lower construction sector confidence: Reflecting the more subdued construction environment in Europe in 2023, the Design segment (on an underlying basis) has been running at a lower ebb in 2023. However, that has not been particularly visible in the quarterly numbers, because of transitory factors (in our view) - a weak 4Q22 pushing business into 1Q23, and some last time licence sales in 4Q23. For FY23 as a whole, we therefore expect Design growth to be c. 9.4% organically. However, our expectation is that tough comps combined with a continued subdued environment in 2024 means Design will grow at c. 6.4% org. in 2024. The EU construction confidence indicator continues to run at a relatively low ebb, though perhaps is starting to show some evidence of bottoming.

An attractive digitalisation story with durable double-digit growth... Nemetschek has been a very strong stock performer going back the last decade, as the core of the investment thesis has remained intact; very low rates of digitalisation in the construction sector, with technology vendors into the space benefiting from broader adoption of solutions. With Bluebeam set to accelerate, we foresee Nemetscheck delivering double-digit annual revenue growth for the foreseeable future. Indeed, we note that - thanks to the Bluebeam subscription shift effects - the sensitivity of Nemetschek's growth to the design segment is relatively mild.

… but valuation captures much of this opportunity: Investors have recognised the benefits of the subscription shift at Bluebeam (and the broader group) in 2023, with the stock up >65% in the year, towards the upper end of our stock coverage. At c. €76, and on our forecasts – which are broadly in-line with consensus – Nemetschek trades on c. 35x FY25 adj. P/E. While this would appear richly valued, we would note that we still expect Nemetschek to drive high-teens % earnings growth into FY26, hence the valuation is not completely out of kilter with our high quality design software companies. However, we also remain cognisant that Nemetschek's multiple may be more susceptible than other companies to a more negative downside macroeconomic scenario. We would await a dip (thereby offering greater potential share price upside) to enter the stock.

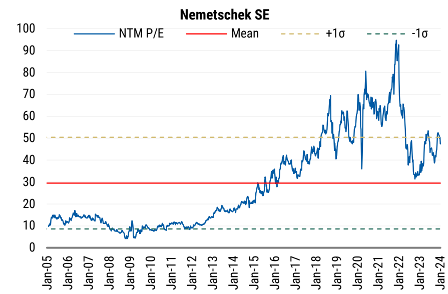
Price target raised to €81.25: We raise our price target to €81.25 giving c. 7% upside. Given we forecast earnings to grow c. 14% in 2024, we are implicitly expecting Nemetschek's N12M multiple to modestly compress in 2024, but for earnings growth to still drive share price upside. Our raised price target is driven by 3 factors: 1) low-single-digit % adj. EPS and FCF cuts across our FY24-26 forecasts after updating for FX rates, 2) extending the high-growth period in our DCF framework from 10 years to 15 years to better reflect the durability of Nemetschek's growth profile (we expect growth to still be >10% in 2028), 3) reducing our applied WACC from 9% to 8.5%, reflecting lower market discount rates and lower execution risk now Nemestchek has navigated the headwind phase of its subscription transition. At our price target, Nemetschek would trade on c. 38x FY25 adj. P/E.

Exhibit 87: Nemetschek EV/Sales



Source: Factset, Morgan Stanley Research

Exhibit 88: Nemetschek P/NTM Earnings



Source: Factset, Morgan Stanley Research

OVH Groupe: Eyes on the inaugural 2024 Investor Day

Price target increased to €8.30 (from €7.10), remain Equal-weight

Growth strategy continues... In October, OVH released its FY23 results and reset its FY24/25 expectations to a lower level, with the revised guidance looking for a more balanced approach to revenue and cash generation compared to the previous targets. Previously, the company targeted an acceleration to mid-20s% group growth, with an adj. EBITDA margin close to FY23 levels (c. 41.6%). The new targets are more simply for higher y/y organic revenue growth, adjusted EBITDA margins, and for positive unlevered FCF across FY25 (though this is on a pre-leases basis). Given the significant continued growth of the cloud market, an approach to continue looking to accelerate growth (even on a more moderated basis), makes sense in our view.

… although our more fundamental questions remain. However, as we discussed in our October note: Risks re-priced. Upgrade to Equal-weight, we still believe investors should be cautious around the valuation approach they choose to apply to OVH. While the line of sight provided by new company targets over unlevered free cash flow generation is helpful, we ultimately don't see it materially simplifying headline valuation approaches for investors, as our updated FY25 unlevered FCF forecast is still only c. 1% of our FY25 forecast enterprise value. In addition, (1) as we have flagged since our initiation, we estimate OVH's returns on capital are in the low/mid-single-digit %. Given the company has not generated FCF over recent history because of a focus on reinvestment into growth capex, we believe it is important for investors to gain comfort that OVH can materially improve incremental ROIC from here, and we continue to look for details around this topic. (2) We consider 'data sovereignty' to be an important component of OVH's potential future differentiation in the cloud infrastructure market, against significant competition from the US hyperscalers. The stock has been under pressure as the US and EU have recently come to an agreement on a new Data Privacy Framework.

Investor Day on January 17th an opportunity to address key topics: This is the first event of its type that OVH has held since its IPO. In an ideal world, we would like to hear a refreshed view on the data sovereignty landscape, and views on how much traction/ revenue opportunity it represents, both today and over the medium-term. We would also like to hear how OVH makes internal financing decisions around incremental capex, and how the company thinks about return on invested capital.

Remain Equal-weight - €8.30 price target (from €7.10): Refreshing for FX and updating for 1Q24 results, our forecast changes are c. 10%/-1%/-1% across FY24/25/26. Our price target is increased to €8.30, on the back of reducing our applied WACC in our DCF framework from 9% to 8.5% to reflect lower market discount rate benchmarks. Our forecasts are slightly below consensus; we are 1/2% below on revenues in FY25/26, and c. 2% below on adjusted EBITDA (due to a lower modelled margin).

Exhibit 89: MS vs. Consensus

	MS			Visible Alpha consensus			Delta (MS vs. VA)		
	FY24e	FY25e	FY26e	FY24e	FY25e	FY26e	FY24e	FY25e	FY26e
Revenue	**1,006**	**1,138**	**1,281**	**1,008**	**1,149**	**1,303**	**-0.2%**	**-1.0%**	**-1.7%**
% growth y/y	*12.1%*	*13.1%*	*12.6%*	*12.4%*	*14.0%*	*13.4%*	*-2.2%*	*-6.3%*	*-5.9%*
Adjusted EBITDA	**374.5**	**437.3**	**498.7**	**379.2**	**447.8**	**510.7**	**-1.3%**	**-2.4%**	**-2.4%**
% margin	37.2%	38.4%	38.9%	37.6%	39.0%	39.2%			

Source: Visible Alpha consensus (11/01/24), Morgan Stanley Research estimates

S4 Capital

Price target lowered to GBp 52 from GBp 61, remain Equal-weight.

We do not make changes to our mid-term assumptions. We update our model for FX which reduces our FY24-26 adj. EPS forecasts by 4-5% given high US exposure. We also roll our DCF forward. Our FY24 FCFE forecast reduces from GBP 23m to GBP 16m (-30%), driving our price target down to GBp 52 from GBp 61. S4 Capital currently trades on 7.6x 2024 adj. P/E and 4% 2024 FCFE yield.

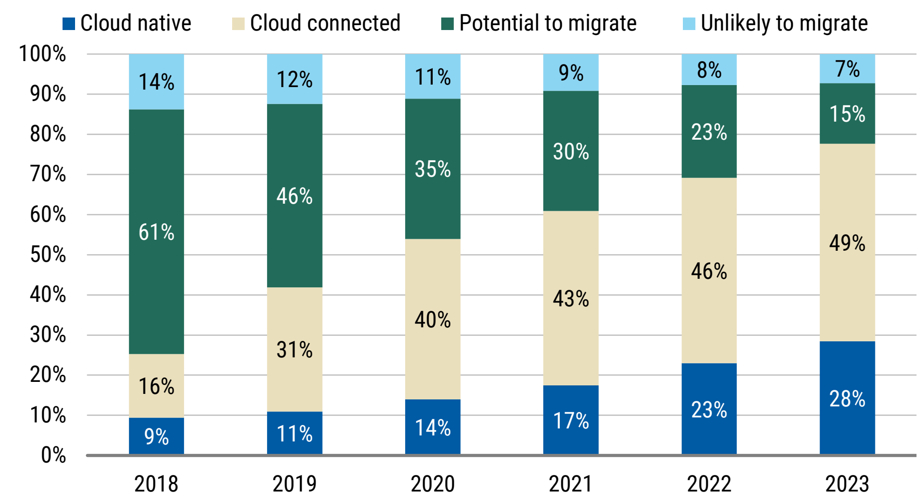
We continue to view S4's valuation as relatively fair. S4 has historically enjoyed above industry average historical growth rates due to its focus on fast growing sectors within advertising (mostly digital) and growth being off a small revenue base. However its like-for-like growth has significantly decelerated due to challenges in its markets and its high exposure to tech clients (~45% of revenue). We see S4 Capital's high client concentration and exposure to technology clients as a risk but view this as priced in at current levels. We continue to see a wide range of outcomes (~150% upside in our bull case, ~80% downside in our bear case).

Sage Group: Continued platform momentum

Price target raised to 1,335p from 985p, remain Overweight

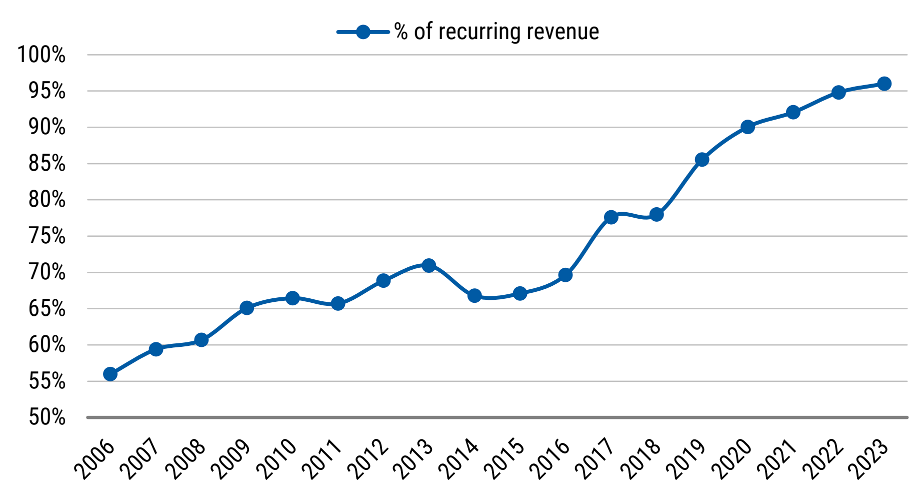
Strong business momentum, continued share price strength expected: Despite the stock's strong performance in 2023 (delivering a total return of c. 61% in 2023), we remain positive on Sage. Going into 2023, we think investor sentiment on Sage was mixed, with some investors questioning the durability of growth the company would be able to achieve, particularly in a tougher macro environment. However over the course of 2023, Sage has delivered strongly on its growth and margin ambitions, which is now reflected in the significantly improved valuation multiples. This resilient performance was on the back of a multiyear investment programme - where the company has significantly revamped both its product portfolio and go to market strategy - setting the group up for years of strong growth and margin expansion (50-100bps per annum, on average).

Exhibit 90: Sage's product and revenue mix has transformed over the past 6 years



Source: Company data, Morgan Stanley Research

Exhibit 91: Concentrating on growing SaaS revenues, the business is now c. 96% recurring revenue

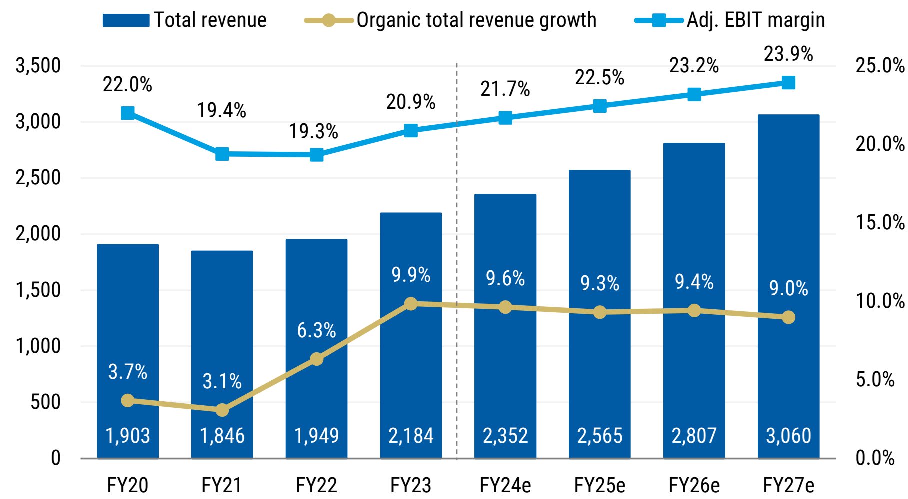


Source: Company data, Morgan Stanley Research

We expect Sage to continue to deliver strong, durable growth of c. 9.2% (compounded over FY23-28). This is driven by:

- **Intacct product roll out:** Scaling Sage Intacct (Sage's main cloud native mid-market product) remains one of Sage's 5 key strategic priorities, and a main driver of the company's top line growth. In FY23, Sage Intacct's ARR grew by almost 30% in the US and more than 80% outside the US. We continue to expect strong momentum in the US market as vertical industry solutions grow (e.g. Sage Intacct Construction and Sage Distribution an Manufacturing Operations). Outside the US, Sage Intacct is still in the very early stages of adoption, having launched in France this year, with plans to launch in Germany in the next few months. These new geographies add to its existing international presence (UK, Canada, Australia, and South Africa). We think the internationalisation of Sage Intacct and roll out of vertical solutions will help fuel durable growth over the medium term.
- **Further traction in cloud native segment in continental Europe:** In addition to growing its mid-market presence in continental Europe with Sage Intacct, we expect cloud native growth to be supported by growth in the lower end of the market - driven by the roll out of Sage Active. Sage Active is Sage's new cloud native solution, designed specifically for EU small businesses; similar to Sage Accounting in the UK. It is currently sold in Germany, Spain, and France. The product was built to be multi-language and multi-legislative, making the time to market much faster. We expect traction in the low-end of the market across continental Europe to also contribute to our high-single digit % group revenue growth forecasts.
- **Increased competitiveness in the UK:** After losing share to cloud native competitors in the lower-end of its home market, over the past few years Sage has invested heavily in its product portfolio and go-to-market, which has enabled the company to better compete and even win back share in the UK. Today, we believe Sage's cloud native entry level product, Sage Accounting, is as good as others on the market. We also think that Sage's improved engagement with its accountant network (particularly with the launch of Sage for Accountants) has enabled it to improve its position in its home market. We expect continued traction in small business solutions, as well as durable growth in cloud connected solutions (e.g. Sage 50) and Sage Intacct in the mid-market will enable the business to deliver high-single digit % growth in the UK over the mid-term.
- **AI products:** As we outlined in '*Picking Winners In The AI Era*', we think Sage is well positioned to benefit from integrating generative AI into its products. Sage has had AI functionality within its portfolio since 2018 and has recently stepped up its development efforts in this area. The company has recently rolled out its generative AI powered Sage Network Inbox and accounts payable automation. Its AI digital assistant, Sage Copilot, is also now in internal testing (we expect more information about its expected release date early next year). By automating entire workflows within the accounting, payroll, and business administration functions, Sage can deliver productivity gains for its customers. We think Sage will be able to capture a % of the value generated from this through a combination of increased platform usage (customers taking more products/consuming more AI-powered services) and price increases (premium tiered products). We think this could unlock upside to consensus growth forecasts.

Exhibit 92: Sage revenue/organic recurring/margin forecasts

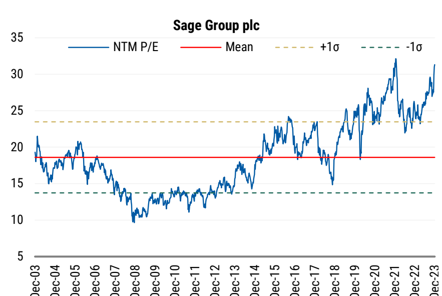


Source: Company data, Morgan Stanley Research estimates

Forecast and price target changes: Following strong 4Q23 results, we raise our FY25 organic recurring revenue growth forecast slightly to reflect the more durable revenue growth profile of the business, update for latest FX, and introduce forecasts for FY26/27/28. We expect organic revenue growth of 9.4%/9.0%/8.6% in FY26/27/28, which is driven by continued momentum in cloud native products. We expect continued operating leverage (mostly via G&A), thanks to the scalability of Sage's business model, and forecast adj. operating margins to reach c. 24.7% by FY28. We also make the following changes to our DCF valuation framework: 1) we increase our assumed terminal growth rate from 2.0% to 2.5% (highlighting the increase of higher growth product segments in the mix), 2) cut our assumed WACC from 8.5% to 8.0% (given the lower forward rates expectations), and 3) roll our valuation framework forward by one year. Our DCF-derived price target increases to 1,335p (from 985p).

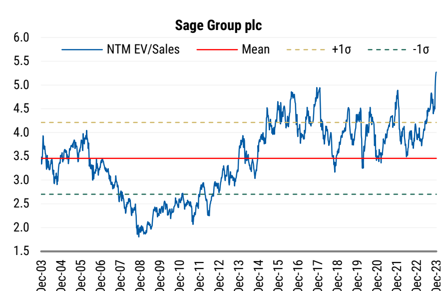
Valuation: In terms of valuation, Sage trades on c. 28x CY25 adj. P/E or c. 4.1% FCFE yield. We acknowledge that the stock is not optically "cheap" anymore, and do not expect significant multiple expansion from here. However we think the combination of 1) mid-teens % earnings growth, 2) a stable/modestly growing multiple, and 3) low-single digit % dividend return will result in above market returns in 2024.

Exhibit 93: Sage P/NTM Earnings



Source: FactSet, Morgan Stanley Research

Exhibit 94: Sage EV/Recurring Revenues



Source: FactSet, Morgan Stanley Research

Sinch - More cautious than the market

Downgrade to Underweight. Price target lowered to SEK 26 (from SEK 27).

Summary:

- Sinch has re-rated post 3Q23 results, we think, partly due to better FCF than expected, which alleviated investor concerns around company's ability to delever
- We think the re-rating has gone too far and view market expectations as too high. We stand ~10% below consensus for 2024 and 2025
- Sinch's new operating model plan carriers significant execution risk and is likely to disrupt the business during 2024
- We think the discount to TWLO and our software coverage (15%/55%) should be larger given lower growth prospects and lower quality business model than software.

Sinch has re-rated significantly since 3Q23 results. Its EV/2024e GP multiple has increased by 40% from 2.5x to 3.5x.

We think Sinch's discount to our software coverage should be greater given its lower business model quality and growth prospects. Sinch trades at a ~55% discount to our software coverage median on a 2024 P/E basis. Sinch is a CPaaS player with a mostly transactional business model. We think the software business model, with its higher share of recurring revenue, greater customer stickiness, higher pricing power and profitability is superior to that of Sinch with its CPaaS business model. Additionally, we expect Sinch's sales growth to be ~4% in 2024, which compares to ~9% for our software coverage median. We think the discount to our software coverage should be higher.

Sinch trades at a ~15% discount to Twilio on an EV/2024e GP basis. We think the discount should be greater given higher growth prospects at Twilio (Overweight, covered by Meta Marshall).

Whilst we welcome the company's new operating model plan, we think it carries significant execution risk and is likely to disrupt the business during 2024.

- Late October 2023, the company announced a new operating model aiming at boosting organic growth (our reaction here). The new operating model aims to organise Sinch into three geographical regions (Americas, EMEA and APAC) versus by product currently (Messaging, Voice, Email, SMB messaging). The company expects to implement the model in 1H24 and to start seeing results during 2H24. Sinch anticipates to increase cross-selling with its new model.
- Whilst we welcome this organisational change plan, we view it as a major reorganisation and think it is likely to cause business disruption during 2024. The plan involves reorganising customer facing functions and back-office functions and also relies on the successful integration of the large businesses acquired in 2021: Inteliquent (part of the current Voice segment), MessageMedia (the current SMB segment), MessengerPeople and Pathwire (the current Email segment).

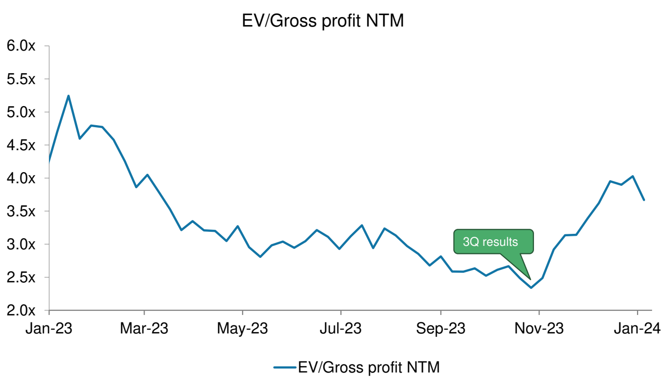
We view market expectations as too high for 2024 and 2025. We are ~10% below 2024 and 2025 consensus gross profit and adjusted EBITDA.

What would make us more positive on Sinch? We could turn more positive if we see evidence that the implementation of the new operating model is going faster than expected and causing limited business disruption, which we will assess by monitoring the organic growth in the next few quarters.

Changes to our forecasts: We slightly lower our organic growth expectations for 2024 and update for FX (a headwind) which leads to an adj. EPS reduction of ~8-8.5% for 2024-2026.

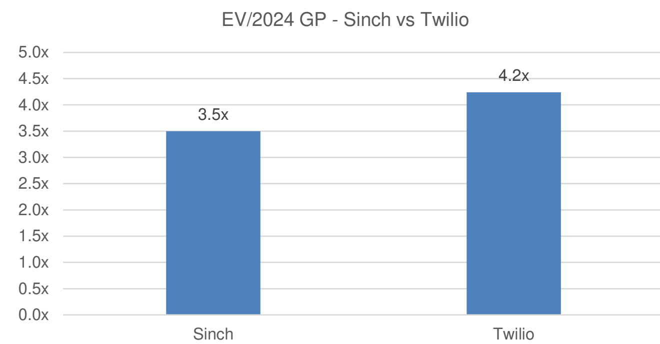
Our PT moves to SEK 26 from SEK 27, as we roll our DCF forward and make HSD % downgrade to our mid-term forecasts (mostly a result of us updating our model for FX).

Exhibit 95: Sinch has rerated significantly since 3Q23 results in November....



Source: Refinitiv, Morgan Stanley Research

Exhibit 96: Sinch trades at a ~15% discount to Twilio on a EV/2024 GP basis - We think the gap should be wider



Source: Refinitiv, Morgan Stanley Research

Exhibit 97:

Sinch trades at a ~55% discount to our software coverage on a 2024 P/E basis - We think the discount should be larger

	Ticker	Ccy	Price	Mkt Cap € mn	EV € mn	P/E		EV/EBIT		EV/Sales		FCFF/EV		Dividend Yield		Sales growth		Adj. EBIT margin		EPS Growth
			11-Jan			2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2024e
MS SOFTWARE COVERAGE																				
Amadeus	AMA.MC	EUR	63.9	28,743	31,719	26.0x	22.5x	21.3x	18.1x	5.8x	5.1x	3.6%	4.2%	1.8%	2.0%	20.2%	10.5%	27.5%	28.2%	15.4%
Compugroup Medical	COP1n.DE	EUR	35.2	1,843	2,482	16.2x	15.8x	12.3x	10.7x	2.2x	1.9x	4.7%	5.8%	0.0%	2.0%	6.4%	4.7%	17.9%	18.0%	2.3%
Dassault Systemes	DAST.PA	EUR	43.3	57,729	57,956	36.4x	34.4x	30.6x	27.5x	9.9x	9.0x	2.3%	2.6%	0.5%	0.5%	4.6%	5.5%	32.3%	32.8%	5.8%
Darktrace	DARK.L	GBp	365.9	2,860	2,534	40.6x	33.8x	27.6x	24.2x	4.1x	3.5x	3.4%	4.2%	0.0%	0.0%	27.1%	22.5%	14.8%	14.4%	20.3%
Fortnox	FNOX.ST	SEK	52.8	2,871	2,850	63.5x	49.0x	56.4x	37.7x	22.3x	15.5x	0.9%	1.6%	0.2%	0.3%	27.8%	24.6%	39.6%	41.0%	29.5%
Hexagon AB	HEXAb.ST	SEK	115.0	27,857	31,071	23.4x	22.1x	20.8x	18.1x	6.1x	5.4x	2.4%	3.6%	1.0%	1.3%	6.0%	4.4%	29.1%	29.7%	5.9%
Nemetschek	NEKG.DE	EUR	75.8	8,757	8,668	49.5x	43.3x	39.7x	32.9x	10.5x	9.1x	2.3%	2.4%	0.6%	0.7%	5.8%	9.7%	26.4%	27.6%	14.4%
Sage	SGE.L	GBp	1,156.0	14,008	14,560	35.6x	32.0x	23.9x	23.3x	5.0x	5.1x	3.5%	3.7%	1.6%	1.8%	11.0%	8.1%	21.1%	21.9%	11.3%
SAP	SAPG.DE	EUR	141.9	166,139	170,927	37.3x	31.5x	23.8x	20.4x	5.0x	4.5x	3.4%	4.1%	1.4%	1.5%	0.3%	9.3%	21.0%	21.9%	18.5%
Sinch	SINCH.ST	SEK	30.6	2,093	2,910	11.1x	13.3x	13.0x	9.8x	1.4x	1.1x	4.3%	7.1%	0.0%	0.0%	3.2%	-1.2%	10.7%	10.9%	-16.7%
Software AG	SOWGn.DE	EUR	37.7	2,792	3,029	28.7x	23.0x	17.2x	14.9x	3.0x	2.9x	1.6%	4.0%	2.3%	2.4%	3.6%	5.7%	17.3%	19.3%	24.8%
TeamViewer	TMV.DE	EUR	13.8	2,759	3,201	15.8x	13.8x	11.8x	11.7x	4.5x	4.5x	7.7%	7.2%	0.0%	0.0%	10.3%	4.5%	37.8%	38.9%	14.5%
Temenos	TEMN.S	CHF	77.1	5,769	6,456	29.4x	28.2x	24.3x	20.5x	7.5x	6.4x	2.8%	3.7%	0.0%	0.0%	4.3%	6.7%	30.7%	31.4%	4.4%
Trustpilot	TRST.L	GBp	163.5	763	696	NA	NA	151.4x	128.5x	4.3x	3.6x	1.7%	1.6%	0.0%	0.0%	18.1%	18.9%	2.8%	2.8%	-2.2%
Mean				**23,213**	**24,219**	**31.8x**	**27.9x**	**33.8x**	**28.5x**	**6.5x**	**5.5x**	**3.2%**	**4.0%**	**0.7%**	**0.9%**	**10.6%**	**9.6%**	**23.5%**	**24.2%**	**10.6%**
Median				**4,320**	**4,828**	**29.4x**	**28.2x**	**23.8x**	**20.5x**	**5.0x**	**4.8x**	**3.1%**	**3.9%**	**0.4%**	**0.6%**	**6.2%**	**7.4%**	**23.7%**	**24.7%**	**12.9%**

Source: Refinitiv, Morgan Stanley Research

Exhibit 98: We are below consensus by ~10% in the mid-term

	4Q23		2024		2025		Mse vs cons		
SEKm	MSe	Cons	MSe	Cons	MSe	Cons	4Q23	2024	2025
Total revenue	7,384	7,500	28,244	30,020	29,906	32,422	-2%	-6%	-8%
Messaging GP	1,007	1,023	3,717	3,988	3,754	4,239	-2%	-7%	-11%
Org. growth	-2%	-1%	1%	4%	1%	5%	-1ppt	-3ppt	-4ppt
Voice GP	745	759	2,863	3,087	2,977	3,331	-2%	-7%	-11%
Org. growth	-4%	-4%	1%	7%	4%	8%	0ppt	-6ppt	-4ppt
Email GP	366	365	1,478	1,550	1,655	1,795	0%	-5%	-8%
Org. growth	14%	13%	13%	13%	12%	14%	1ppt	0ppt	-2ppt
SMB GP	341	346	1,345	1,439	1,480	1,638	-1%	-7%	-10%
Org. growth	8%	7%	10%	10%	10%	12%	1ppt	-1ppt	-2ppt
Total GP	**2,459**	**2,493**	**9,403**	**10,064**	**9,867**	**11,003**	**-1%**	**-7%**	**-10%**
Org. growth	1%	1%	4%	6%	5%	10%	0ppt	-2ppt	-5ppt
Adj EBITDA	**923**	**990**	**3,570**	**3,988**	**4,027**	**4,466**	**-7%**	**-10%**	**-10%**
% GP	38%	40%	38%	40%	41%	41%	-2ppt	-2ppt	0ppt

Source: Visible Alpha, Morgan Stanley Research

TeamViewer: Growth to remain on a deceleration path

Price target reduced to €14.00 (from €14.60), remain Underweight

Expect top-line growth to continue to weaken into FY24: We remain cautious on the underlying growth momentum in TeamViewer's business. Growth in FY23 was strongly aided by 10% price increases across the customer base, and the mechanical benefits from a growing proportion of multi-year deals in the base. While the macro environment in FY23 has also been a headwind (particularly on the enterprise side), we ultimately think that areas such as augmented and virtual reality have been slower burns than hoped for initially. We also see the competitive environment at the low-end of the market remaining tight. We forecast billings growth to come in at 7.5% for FY23 as a whole. With lower y/y contribution from pricing likely in FY24 (we estimate at least 5pps lower), we now forecast billings growth to decelerate to low-single-digits from FY24 onwards (MS FY24 3.5% organically). This compared to 5.5% we forecast previously.

We expect pared back billings disclosure from FY24: Although we continue to model the business of billings for now, we expect the company to reduce the level of billings disclosure from next year. This is part of the simplification of disclosure that TeamViewer is aiming for, although it will also come at a time when billings growth will likely be moderately decelerating again y/y. From a revenue perspective, growth should hold up relatively better than billings in FY24 given it is more of a lagging indicator, although our c. 5% growth forecast would be materially slower than the c. 10% we forecast for FY23.

Margins should expand, although from cost cuts and discipline: We expect adj. EBITDA margins to expand in both FY24 and FY25, aided by previously announced decisions around the Manchester United shirt front sponsorship deal. We forecast adj. EBITDA margins to expand from ~42% in FY23 to ~42.7% in FY24 and 45.3% in FY25. However, we do not expect the market to give outsized credit to this, given we expect it to come at a time when the underlying growth of the business is slowing.

Exhibit 99: Total billings split by type (new vs. renewals) - new business contribution continues to trend downwards and down to 9% of the total billings mix across 9M23

EURm	FY19	1Q20	2Q20	3Q20	4Q20	1H20	2H20	FY20	1Q21	2Q21	3Q21	4Q21
Total billings	**324.9**	**119.7**	**106.0**	**106.5**	**128.1**	**225.7**	**234.6**	**460.3**	**146.6**	**121.6**	**125.8**	**153.7**
y/y growth								*41.6%*	*22.4%*	*14.7%*	*18.1%*	*19.9%*
o/w retained	214.2	80.9	79.3	77.9	97.9	160.2	175.8	336.0	118.9	93.4	105.4	133.2
y/y growth								*56.8%*	*47.0%*	*17.8%*	*35.3%*	*36.0%*
% split	*66%*	*68%*	*75%*	*73%*	*76%*	*71%*	*75%*	*73%*	*81%*	*77%*	*84%*	*87%*
o/w new	109.8	38.7	26.6	28.2	28.7	65.3	56.9	122.2	26.7	27.7	19.9	19.8
y/y growth								*11.3%*	*-31.1%*	*4.1%*	*-29.4%*	*-30.9%*
% split	*34%*	*32%*	*25%*	*26%*	*22%*	*29%*	*24%*	*27%*	*18%*	*23%*	*16%*	*13%*
o/w non-subscribers	0.9	0.1	0.1	0.4	1.6	0.2	1.9	2.1	1.0	0.4	0.4	0.7
y/y growth	*0%*							*127.1%*	*659.8%*	*427.7%*	*17.8%*	*-55.5%*
% split	*0%*	*0%*	*0%*	*0%*	*1%*	*0%*	*1%*	*0%*	*1%*	*0%*	*0%*	*0%*

EURm	1H21	2H21	FY21	1Q22	2Q22	3Q22	4Q22	1H22	2H22	FY22	1Q23	2Q23	3Q23
Total billings	**268.1**	**279.4**	**547.6**	**163.5**	**136.1**	**144.6**	**190.6**	**299.6**	**335.2**	**634.8**	**176.8**	**150.6**	**149.8**
y/y growth	*18.8%*	*19.1%*	*19.0%*	*11.5%*	*12.0%*	*15.0%*	*24.0%*	*11.7%*	*20.0%*	*15.9%*	*8.1%*	*10.6%*	*3.6%*
o/w retained	212.3	238.6	450.9	146.5	118.1	129.4	174.8	264.6	304.2	568.8	161.4	135.9	135.4
y/y growth	*32.6%*	*35.7%*	*34.2%*	*23.2%*	*26.4%*	*22.8%*	*31.2%*	*24.6%*	*27.5%*	*26.1%*	*10.2%*	*15.1%*	*4.6%*
% split	*79%*	*85%*	*82%*	*90%*	*87%*	*89%*	*92%*	*88%*	*91%*	*90%*	*91%*	*90%*	*90%*
o/w new	54.4	39.7	94.1	16.2	17.0	14.9	14.3	33.2	29.2	62.4	14.7	13.9	14.2
y/y growth	*-16.7%*	*-30.1%*	*-23.0%*	*-39.1%*	*-38.7%*	*-25.2%*	*-27.8%*	*-38.9%*	*-26.5%*	*-33.6%*	*-9.3%*	*-18.2%*	*-5.0%*
% split	*20%*	*14%*	*17%*	*10%*	*12%*	*10%*	*8%*	*11%*	*9%*	*10%*	*8%*	*9%*	*9%*
o/w non-subscribers	1.4	1.1	2.6	0.7	1.1	0.3	1.5	1.8	1.8	3.6	0.6	0.8	0.3
y/y growth	*573.7%*	*-41.4%*	*19.8%*	*-29.3%*	*156.6%*	*-31.2%*	*116.3%*	*24.7%*	*59.3%*	*40.0%*	*-15.3%*	*-28.1%*	*-6.7%*
% split	*1%*	*0%*	*0%*	*0%*	*1%*	*0%*	*1%*	*1%*	*1%*	*1%*	*0%*	*1%*	*0%*

Source: Company data, Morgan Stanley Research

Our updated forecasts remain more cautious than consensus: For 4Q23, we are more cautious than consensus on billings development, expecting the tough comp to mean that billings growth will be very low single-digit %. However, we are more positive on profitability, expecting cost discipline to drive a good outcome here, as has been the case across much of FY23. In the outer years, partly driven by FX, we are c. 3/5% below consensus on FY24/25 revenue, and c. 3/4% below on adj. EBITDA.

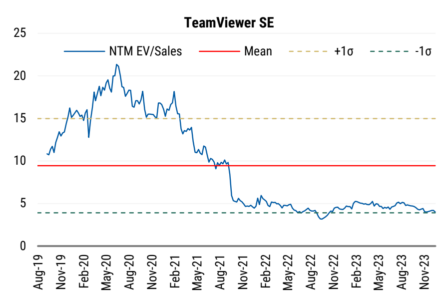
Exhibit 100: MSe vs. Consensus

(€m)	FY22	FY23e		FY24e		FY25e		MSe vs. Consensus		
	MS	MS	Cons.	MS	Cons.	MS	Cons.	FY23e	FY24e	FY25e
Billings	635	670	675	690	722	719	772	-0.7%	-4.4%	-7.0%
y/y growth		*6%*	*6%*	*3%*	*7%*	*4%*	*7%*			
Revenue	566	624	625	652	673	685	722	-0.1%	-3.1%	-5.2%
y/y growth		*10%*	*10%*	*4%*	*8%*	*5%*	*7%*			
Adj. EBITDA	230	262	259	279	288	310	322	0.9%	-3.3%	-3.7%
% margin	*40.6%*	*41.9%*	*41.5%*	*42.7%*	*42.8%*	*45.3%*	*44.6%*			
y/y growth		*14%*	*13%*	*7%*	*11%*	*11%*	*12%*			

Source: Company data, Visible Alpha consensus, Morgan Stanley Research estimates

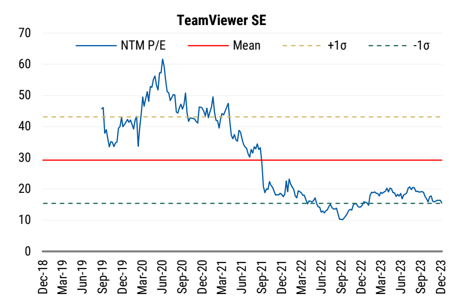
Remain relative Underweight - the stock is inexpensive, but in our view, a value trap: Our forecast cuts are 1-3% across FY23-26 on an underlying basis (before FX/buybacks). However, we also update for FX, and also now include TeamViewer's announced c. €150m new buyback, which we pencil in for 2024. This more than offsets the reduced forecasts, meaning adjusted EPS is raised ~2%/3.5% in FY24/25. At €13.8, and on our updated forecasts, TeamViewer trades on c. 13.8x/11.9x FY24/25 adj. P/E. While this is not expensive, in FY25/26 we only see TeamViewer growing earnings at a low single-digit % rate, with any residual optimism that TeamViewer has a short-term pathway to stronger growth fading. Our updated €14 price target implies that the stock is broadly at fair value, so we remain Underweight, and we see more compelling value elsewhere in our software coverage. The lowered price target is driven by the underlying earnings cuts and FX.

Exhibit 101: TeamViewer EV/Sales



Source: Factset, Morgan Stanley Research

Exhibit 102: TeamViewer P/NTM Earnings



Source: Factset, Morgan Stanley Research

Temenos: 30x CY25 P/E (inc SBC) and risks around mid-term guide

Price target raised to CHF 58 from CHF 47, remain Underweight

Temenos saw a more stable demand environment through 2023, following a weak 2022. This was aided by better execution, while Europe has also seen a modest recovery. During 2023, Temenos has also seen benefits from a lower level of management turnover, which along with execution issues had resulted in a slower pace of recovery post COVID. Temenos also reduced variable costs/compensation through COVID, which resulted in higher employee turnover, but this has now settled, with attrition now in the low-to-mid single-digit % range.However, while the demand environment has stabilized, we believe this has been more than priced in, with the shares rallying >50% in 2023 and now trading on 26x CY25 P/E or ~30x inc SBC. We remain Underweight as we still see some risks from a weaker macro / delayed impact from banking stresses earlier in 2023. Additionally, we see significant risk to mid-term targets (c. 17% ARR CAGR FY23-27, non-IFRS EBIT CAGR c. 18% FY23-27 and FCF CAGR of c. 34% FY23-27. When we combine this with the ongoing uncertainty around the CEO search, we see better opportunities in the sector.

Forecast and PT changes: We mark-to-market for latest FX (significant move in CHF) and update our mid-term forecasts. Our 2023 forecasts are largely unchanged whilst our 2024 and 2025 EPS forecasts increase by c. 3%, reflecting lower interest costs/FX. We roll forward our DCF and update for FX, making minimal changes to our mid-to-long-term DCF forecasts. Combined, our PT increases to CHF 58 (with FX the main driver). We remain Underweight.

Exhibit 103: Forecast changes

Y/E Dec	FY 2023e		
$'m	New	Old	% diff
Licences	231	233	-0.8%
% change	-4%	-3%	
% change l-f-l	-4%	-3%	
Maintenance	422	422	0.1%
Services	131	131	0.0%
SaaS	205	206	-0.1%
Revenues	**990**	**992**	**-0.2%**
% change	**4%**	**4%**	
% change l-f-l	**4.1%**	**4.4%**	
Temenos adj. EBIT	304	308	-1.2%
EBIT Margin (Temenos Basis)	30.7%	31.0%	
MS EBIT	**241**	**245**	**-1.6%**
as a % of sales	**24.3%**	**24.7%**	
Temenos adjusted EPS (ex SBC)	**3.08**	**3.10**	**-0.7%**
ModelWare EPS	**2.35**	**2.38**	**-1.0%**
FCF	**191**	**191**	**-0.3%**

Y/E Dec	FY 2024e		
$'m	New	Old	% diff
Licences	239	241	-0.8%
% change	4%	4%	
% change l-f-l	4%	4%	
Maintenance	442	439	0.7%
Services	137	137	0.0%
SaaS	238	239	-0.4%
Revenues	**1,056**	**1,056**	**0.0%**
% change	**7%**	**6%**	
% change l-f-l	**6.2%**	**7.2%**	
Temenos adj. EBIT	331	326	1.6%
EBIT Margin (Temenos Basis)	31.4%	30.9%	
MS EBIT	**276**	**269**	**2.6%**
as a % of sales	**26.2%**	**25.5%**	
Temenos adjusted EPS (ex SBC)	**3.21**	**3.12**	**2.8%**
ModelWare EPS	**2.63**	**2.52**	**4.2%**
FCF	**225**	**225**	**0.2%**

Y/E Dec	FY 2025e		
$'m	New	Old	% diff
Licences	249	251	-0.8%
% change	4%	4%	
% change l-f-l	5%	4%	
Maintenance	462	459	0.6%
Services	142	142	0.0%
SaaS	272	272	-0.3%
Revenues	**1,124**	**1,125**	**-0.0%**
% change	**6%**	**6%**	
% change l-f-l	**6.5%**	**6.5%**	
Temenos adj. EBIT	361	356	1.5%
EBIT Margin (Temenos Basis)	32.1%	31.6%	
MS EBIT	**309**	**304**	**1.6%**
as a % of sales	**27.5%**	**27.1%**	
Temenos adjusted EPS (ex SBC)	**3.50**	**3.41**	**2.6%**
ModelWare EPS	**2.95**	**2.86**	**3.0%**
FCF	**288**	**279**	**3.1%**

Source: MS research

Trustpilot: Delivering profitable growth

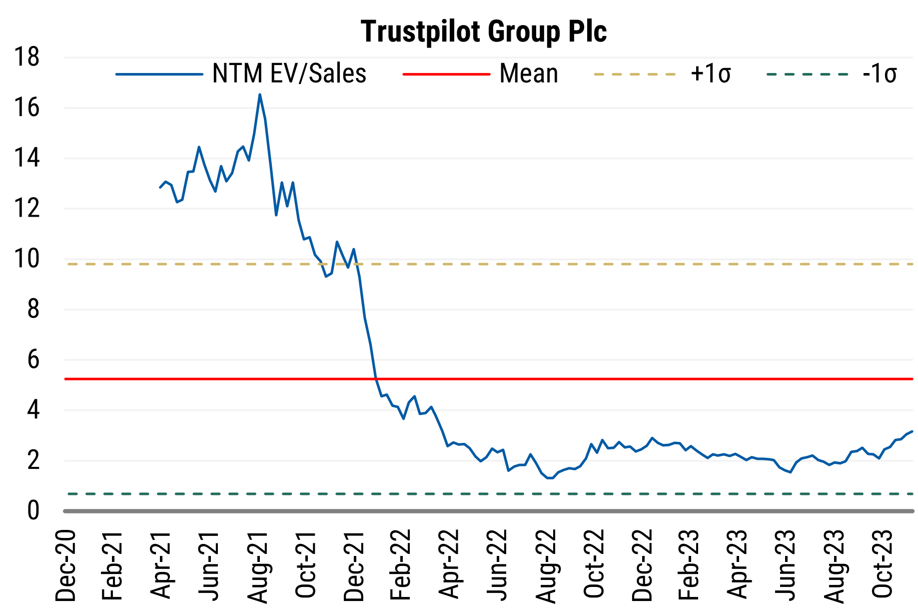
Price target raised to 210p from 165p, remain Overweight

A lot has changed at Trustpilot over the past 18 months. The group has pivoted to adj. EBITDA profitability well ahead of its own 2024 breakeven target, delivered positive free cash flow, implemented (and made progress) on its improved go-to-market strategy in the important North America market, and hired a new CEO, Adrian Blair. The business has demonstrated its scalability throughout the course of 2023, and despite a challenging macro environment, has delivered stable mid-teens growth and a FY23 adj. EBITDA result better than expected by the market. We believe the business is well set up for the next phase of profitable growth, particularly as the company is now past the trough in terms of macro impacts in 1Q23 (in management's view).

Up +54% over 2023, +135% from the trough: While a portion of the share price strength seen this year has been driven by non-idiosyncratic factors like changes in forward interest rate expectations, we also think general investor perception of Trustpilot has improved over the course of 2023. We think many investors better recognise the strategic value of the platform and have given the company credit for its execution through what has been a difficult business environment. We also believe the market is now crediting Trustpilot for its successful pivot to profitability and free cash flow generation (evidenced by the sharp move higher on the back of the announced ~$25m share buyback programme). At c. 3.1x FY25 EV/Sales, we remain Overweight and continue to view the current valuation as attractive.

PT changes: Following our recent model update post- the FY23 trading update, our mid-term forecasts are unchanged. Rolling forward our DCF and reducing our WACC by c. 50bps to 9.0% (reflecting lower interest rate expectations), our price target increases to 210p (from 165p). At our price target, Trustpilot would trade on c. 4.2x FY25 EV/Sales.

Exhibit 104: Trustpilot NTM EV/Sales



Source: FactSet, Morgan Stanley Research

Wise: Volumes to re-accelerate in 2H24, supporting mid-twenties revenue growth

Price target increased to 1050p (from 905p), remain Overweight, Top Pick

We expect volume growth to re-accelerate in 2H24...: Wise will lap much easier volume comps as of 2H24 (25pts easier vs. 1H), supporting our expectation for a material re-acceleration in volume growth in the second half, even with some pressure on VPC. We expect 2H volume growth of ~21% ex-FX (up from ~14% in 1H24), driven by ~32% growth in active customers and slightly lower VPC (£4k total vs. £4.1k for 1H). We expect the re-acceleration in volumes to be well received by investors. Looking further out, we expect ~23% ex-FX volume growth for FY25/26, down 5-6% as we moderate our VPC and customer growth assumptions.

..while platform shift enables better monetisation, offsetting VPC headwinds: Importantly, Wise is increasingly becoming a "platform" for customers to manage their global financial needs across borders. As a result, we see an offset vs. weaker VPC in the form of greater monetisation from an increasingly broad product set, namely: 1) interest income from balances; and 2) greater spending on the Wise card (+90% y/y) where Wise generates interchange income. We expect broadly stable take-rates for 2H vs. 1H at ~88bps (23bps other / 65bps cross-border), taking into account management commentary around no near-term intentions to cut price, but also the ongoing improvement in the other take-rate (largely Wise card spending). Combined, we expect ~28% organic revenue growth for 2H24 and 24% for FY25.

Elsewhere,, we see the risks posed by HSBC's recently launched "Zing" FX product as manageable. We continue to see Wise as having an advantage around pricing/speed, and perhaps most importantly the ability for consumers to earn interest income.

Below the line, we expect the period of elevated adj. EBITDA margins to continue, even as Wise's ability to generate net interest income moderates in the face of rate cuts currently being priced in by the market. We would argue, however, that lower rates are a net benefit for a long-duration growth asset like Wise. Indeed, we think lower interest rate expectations partly explain the share price rally into year-end. Additionally, we think consensus is overestimating Wise's ability to return net interest benefit to customers. Wise is currently returning ~35% of remaining net interest benefit (post first 1% of yield), well below the ~80% target (due to regulatory constraints). We adjust our assumptions here and now expect Wise to reach ~50% of net interest returned to customers by FY26 (down from ~65% previously). We also update our assumptions for lower rates, as implied by forward curves. Net net, we sit broadly in-line with street on adj. EBITDA out to FY26. While our forecasts suggest broadly flat y/y adj. EBITDA growth in FY25, we think this is well understood by the market at this stage (given lapping of net interest), while we also note conservatism in our forecasts, especially around gross margins, suggesting upside risk.

Exhibit 105: MSe vs. consensus

	3Q24			2H24			FY25e			FY26e		
	MSe	Cons.	Δ	Mse	Cons.	Δ	MSe	Cons.	Δ	MSe	Cons.	Δ
Volumes	31	31	1%	63	62	1%	147	147	0%	181	183	-1%
% y/y growth	17%	13%		18%	21%		22%	23%		23%	24%	
% org. ex-FX growth	20%	~12%		21%			23%			23%		
Revenue	272	269	1%	554	545	2%	1308	1270	3%	1598	1545	3%
% y/y growth	21%	27%		23%	37%		24%	22%		22%	22%	
% org. ex-FX growth	25%			28%			24%			22%		
Net interest income	86	84	2%	170	163	4%	322	307	5%	332	264	26%
% Wise accout balance (annualised)	2.5%			2.5%			2.0%			1.8%		
Total Income	358	353	1%	724	708	2%	1630	1577	3%	1930	1808	7%
% y/y growth	33.3%	31%		32.1%	70%		18.1%	15%		18.4%	15%	
Adj. EBITDA				229	229	0%	464	464	0%	508	474	7%
% margin				31.6%	32.3%		28.5%	29.4%		26.3%	26.2%	

Source: MS research, Visible Alpha

Forecast changes, price target raised to 1050p: Combined, our FY24-26 volume forecasts moderate by 2-6% on the back of updated VPC and customer growth forecasts, while better pricing means our revenue forecasts decrease by 1-2% over the same period. Our updated net interest forecasts see our total income estimates fall by 1-2% also. Below the line, our adj. EBITDA forecast moves by -1% in FY24, but increases by 3-7% FY25-26. Our price target increases to 1050p (from 905p) on the back of updated forecasts, as well rolling forward our DCF. At our price target, Wise would trade on c. 35x FY25 adj. P/E or a ~4% FCFF yield.

MS ~2-3% ahead on revenue FY24-26, 2-7% ahead on total income: On our updated forecasts we sit 2-3% on revenue for FY24-26, 2-7% ahead on total income and 0-7% ahead on adj. EBITDA.

Exhibit 106: Forecast changes

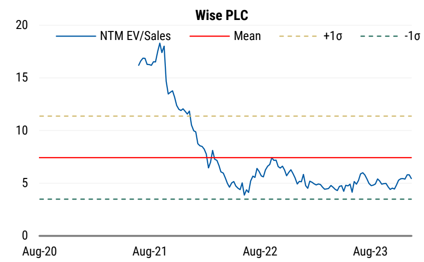
Y/E Mar 31	FY24e			FY25e			FY26e		
£m	New	Old	% diff.	New	Old	% diff.	New	Old	% diff.
Volume - Personal (bn)	88	90	-1.8%	108	112	-3.6%	133	140	-4.9%
Volume - Business (bn)	32	32	-1.4%	39	42	-8.0%	48	54	-10.5%
Volume - Total (bn)	**120**	**122**	**-1.7%**	**147**	**154**	**-4.8%**	**181**	**193**	**-6.5%**
Revenue - Personal	813	828	-1.8%	1018	1027	-0.9%	1243	1248	-0.4%
Revenue - Business	239	243	-1.4%	290	313	-7.3%	355	392	-9.3%
Revenue - Total	**1052**	**1071**	**-1.7%**	**1308**	**1340**	**-2.4%**	**1598**	**1640**	**-2.5%**
y/y growth (%)	*24.4%*	*26.6%*	*-2.2ppt*	*24.3%*	*25.1%*	*-0.9ppt*	*22.2%*	*22.3%*	*-0.2ppt*
Org. growth (%)	*27.6%*	*30.3%*	*-2.7ppt*	*24.3%*	*25.1%*	*-0.9ppt*	*22.2%*	*22.3%*	*-0.2ppt*
Net interest income	328	330	-0.6%	322	308	4.4%	332	299	11.1%
Total income	**1380**	**1401**	**-1.5%**	**1630**	**1649**	**-1.1%**	**1930**	**1938**	**-0.4%**
y/y growth (%)	*43.1%*	*45.3%*	*-2.1ppt*	*18.1%*	*17.7%*	*0.4ppt*	*18.4%*	*17.6%*	*0.8ppt*
Adj. EBITDA	**470**	**475**	**-1.1%**	**464**	**449**	**3.4%**	**508**	**477**	**6.6%**
% margin	*34.1%*	*33.9%*	*0.1ppt*	*28.5%*	*27.2%*	*1.2ppt*	*26.3%*	*24.6%*	*1.7ppt*
Adjusted net profit	322	326	-1.1%	295	283	4.1%	319	296	7.8%
Adjusted diluted EPS (p)	30.69	31.05	-1.1%	28.06	26.96	4.1%	30.37	28.17	7.8%
Adj. FCFE	**398**	**400**	**-0.4%**	**366**	**353**	**3.7%**	**383**	**356**	**7.8%**

Source: MS research

3Q24 preview - positive into numbers: Wise will report a 3Q24 trading update on Tuesday January 16th. For 3Q, we look for ~20% ex-FX volume growth and ~25% ex-FX revenue growth, placing us ~1% ahead of street on both metrics. Within this we expect Wise to sustain ~31% customer growth, while we expect slightly lower VPC in the personal segment (£3.1k vs. £3.2k in 2Q). We see upside risk to our revenue forecast given recent trends around better pricing, driven by the "other" take-rate or spending on Wise card. For net interest income we are 2% ahead of street and ~1% on total income - mainly due to our more conservative assumptions around Wise's ability to return interest to customers.

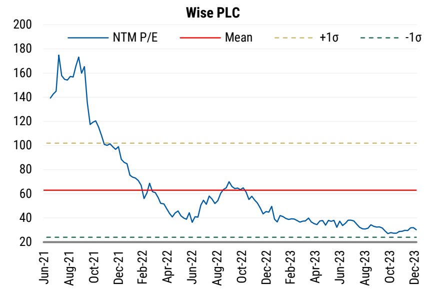
Valuation remains attractive for structural winner compounding revenues >20%, Top Pick: Despite the recent share price move, Wise currently trades on c. 29x CY25 EPS, or c. 39x including SBC. On FCF, we see Wise trading on ~20x EV/FCFF CY25, or a ~5% FCFF yield. Alternatively, we see Wise trading on ~26x CY25 EV/adj. EBITDA ex. net interest benefit. We see this level of valuation as attractive for a structural winner, compounding revenues >20% and customers >30%, with upside risk to forecasts given recent execution and better monetisation via a platform approach. Wise remains our top pick within Payments/Fintech ahead of an expected re-acceleration in volume growth in 2H vs. easier comps.

Exhibit 107: Wise EV/Sales



Source: Factset, Morgan Stanley Research

Exhibit 108: Wise P/NTM Earnings



Source: Factset, Morgan Stanley Research

WPP

Price target increased to GBp 790 from GBp 715, remain Equal-weight.

We roll forward our DCF and reduce the WACC from 9.0% to 8.5% which explains the PT increase. This is partially offset by a small mid-term forecast downgrade.

Appendix 1: Earnings Forecasts - Old vs. New

Exhibit 109: What's changed with our adjusted Earnings Forecasts?

Company	2023 adj. EPS Old	2023 adj. EPS New	% Chg	2024 adj. EPS Old	2024 adj. EPS New	% Chg	2025 adj. EPS Old	2025 adj. EPS New	% Chg
Adyen	€19.56	€20.98	7%	€23.26	€25.06	8%	€29.17	€30.13	3%
Amadeus	€2.50	€2.46	-2%	€2.90	€2.84	-2%	€3.33	€3.26	-2%
Atos	€0.33	€0.32	-2%	€2.92	€2.52	-14%	€3.74	€3.15	-16%
Capgemini	€11.08	€11.07	0%	€12.10	€11.84	-2%	€13.21	€12.81	-3%
Compugroup Medical	€2.15	€2.17	1%	€2.21	€2.22	0%	€2.42	€2.43	0%
Computacenter	€174.96	€174.96	0%	€192.70	€191.35	-1%	€204.28	€200.52	-2%
Darktrace (cents)	$0.12	$0.13	7%	$0.15	$0.15	2%	$0.17	$0.17	2%
Dassault Systemes	€1.19	€1.19	0%	€1.30	€1.26	-3%	€1.45	€1.40	-3%
Eurowag	€6.70	€6.24	-7%	€8.95	€7.88	-12%	€11.81	€11.11	-6%
Exclusive Networks	€1.17	€1.17	0%	€1.42	€1.41	0%	€1.55	€1.55	0%
Fortnox (SEK)	0.83	0.83	0%	1.08	1.08	0%	1.36	1.36	-1%
Hexagon AB	€0.44	€0.44	0%	€0.48	€0.46	-3%	€0.51	€0.50	-3%
Indra	€1.37	€1.37	0%	€1.36	€1.40	3%	€1.40	€1.46	4%
Informa	43.5p	43.8p	1%	49.3p	47.9p	-3%	56.6p	54.9p	-3%
IONOS Group	€1.09	€1.09	0%	€1.38	€1.36	-1%	€1.67	€1.64	-1%
Nemetschek	€1.53	€1.53	0%	€1.77	€1.75	-1%	€2.17	€2.16	-1%
Netcompany	€9.58	€9.59	0%	€12.23	€12.23	0%	€15.18	€15.19	0%
Nexi	€0.52	€0.52	0%	€0.59	€0.59	0%	€0.65	€0.65	0%
OVH Groupe	-€0.01	-€0.01	24%	€0.08	€0.08	-3%	€0.16	€0.16	-2%
Publicis Groupe	€6.89	€6.86	0%	€7.12	€6.89	-3%	€7.57	€7.34	-3%
RELX	112p	111p	-1%	126p	121p	-4%	136p	132p	-3%
S4 Capital	5.0p	4.9p	-1%	7.8p	7.4p	-5%	11.3p	10.8p	-4%
Sage	31.7p	31.7p	0%	35.6p	34.8p	-2%	41.0p	40.2p	-2%
SAP	€3.81	€3.81	0%	€4.51	€4.51	0%	€5.59	€5.59	0%
Sinch	€2.78	€2.76	-1%	€2.51	€2.30	-9%	€2.68	€2.45	-8%
Softcat	€57.74	€57.74	0%	€58.51	€61.21	5%	€64.95	€68.07	5%
SoftwareOne	€0.79	€0.79	0%	€0.94	€0.93	-1%	€0.96	€0.96	-1%
Solutions by STC	SAR 12.40	SAR 12.40	0%	SAR 12.18	SAR 12.30	1%	SAR 13.17	SAR 13.17	0%
Sopra Steria	€17.75	€17.74	0%	€19.74	€19.78	0%	€21.11	€21.15	0%
TeamViewer	€0.89	€0.87	-1%	€0.98	€1.00	2%	€1.13	€1.16	3%
Temenos	€3.10	€3.08	-1%	€3.12	€3.21	3%	€3.41	€3.50	3%
Tietoevry	€2.16	€2.14	-1%	€2.19	€2.18	0%	€2.33	€2.33	0%
Trustpilot (cents)	$1.07	$1.07	0%	$1.52	$1.52	0%	$2.05	$2.05	0%
Wise	€15.28	€15.28	0%	€31.05	€30.69	-1%	€26.96	€28.06	4%
Wolters Kluwer	€4.50	€4.48	0%	€5.04	€4.87	-4%	€5.71	€5.50	-4%
Worldline	€1.95	€1.95	0%	€2.22	€2.21	0%	€2.47	€2.40	-3%
WPP	91.3p	91.9p	1%	92.9p	91.9p	-1%	94.3p	93.0p	-1%

NB: There are no changes to EPS forecasts for our semis & hardware coverage. Darktrace, Softcat, OVH Groupe, Sage and Wise's EPS figures are for forward fiscal years, Trustpilot stated EPS for FY23/24/25 are -$0.69c/-$0.71/-$0.58 respectively, Source: Morgan Stanley Research estimates

Appendix 2: Peer Comparables Tables

Exhibit 110: MS Europe software coverage vs. comps (1/2)

Software Valuation (1/2): Adjusted Metrics	Ticker	Ccy	Price	Mkt Cap € mn	EV € mn	P/E		EV/EBIT		EV/Sales		FCFF/EV		Dividend Yield		Sales growth		Adj. EBIT margin		EPS Growth
			11-Jan			2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2024e
MS SOFTWARE COVERAGE																				
Amadeus	AMA.MC	EUR	63.9	28,743	31,719	26.0x	22.5x	21.3x	18.1x	5.8x	5.1x	3.6%	4.2%	1.8%	2.0%	20.2%	10.5%	27.5%	28.2%	15.4%
Compugroup Medical	COP1n.DE	EUR	35.2	1,843	2,482	16.2x	15.8x	12.3x	10.7x	2.2x	1.9x	4.7%	5.8%	0.0%	2.0%	6.4%	4.7%	17.9%	18.0%	2.3%
Dassault Systemes	DAST.PA	EUR	43.3	57,729	57,956	36.4x	34.4x	30.6x	27.5x	9.9x	9.0x	2.3%	2.6%	0.5%	0.5%	4.6%	5.5%	32.3%	32.8%	5.8%
Darktrace	DARK.L	GBp	365.9	2,860	2,534	40.6x	33.8x	27.6x	24.2x	4.1x	3.5x	3.4%	4.2%	0.0%	0.0%	27.1%	22.5%	14.8%	14.4%	20.3%
Fortnox	FNOX.ST	SEK	52.8	2,871	2,850	63.5x	49.0x	56.4x	37.7x	22.3x	15.5x	0.9%	1.6%	0.2%	0.3%	27.8%	24.6%	39.6%	41.0%	29.5%
Hexagon AB	HEXAb.ST	SEK	115.0	27,857	31,071	23.4x	22.1x	20.8x	18.1x	6.1x	5.4x	2.4%	3.6%	1.0%	1.3%	6.0%	4.4%	29.1%	29.7%	5.9%
Nemetschek	NEKG.DE	EUR	75.8	8,757	8,668	49.5x	43.3x	39.7x	32.9x	10.5x	9.1x	2.3%	2.4%	0.6%	0.7%	5.8%	9.7%	26.4%	27.6%	14.4%
Sage	SGE.L	GBp	1,156.0	14,008	14,560	35.6x	32.0x	23.9x	23.3x	5.0x	5.1x	3.5%	3.7%	1.6%	1.8%	11.0%	8.1%	21.1%	21.9%	11.3%
SAP	SAPG.DE	EUR	141.9	166,139	170,927	37.3x	31.5x	23.8x	20.4x	5.0x	4.5x	3.4%	4.1%	1.4%	1.5%	0.3%	9.3%	21.0%	21.9%	18.5%
Sinch	SINCH.ST	SEK	30.6	2,093	2,910	11.1x	13.3x	13.0x	9.8x	1.4x	1.1x	4.3%	7.1%	0.0%	0.0%	3.2%	-1.2%	10.7%	10.9%	-16.7%
Software AG	SOWGn.DE	EUR	37.7	2,792	3,029	28.7x	23.0x	17.2x	14.9x	3.0x	2.9x	1.6%	4.0%	2.3%	2.4%	3.6%	5.7%	17.3%	19.3%	24.8%
TeamViewer	TMV.DE	EUR	13.8	2,759	3,201	15.8x	13.8x	11.8x	11.7x	4.5x	4.5x	7.7%	7.2%	0.0%	0.0%	10.3%	4.5%	37.8%	38.9%	14.5%
Temenos	TEMN.S	CHF	77.1	5,769	6,456	29.4x	28.2x	24.3x	20.5x	7.5x	6.4x	2.8%	3.7%	0.0%	0.0%	4.3%	6.7%	30.7%	31.4%	4.4%
Trustpilot	TRST.L	GBp	163.5	763	696	NA	NA	151.4x	128.5x	4.3x	3.6x	1.7%	1.6%	0.0%	0.0%	18.1%	18.9%	2.8%	2.8%	-2.2%
Mean				**23,213**	**24,219**	**31.8x**	**27.9x**	**33.8x**	**28.5x**	**6.5x**	**5.5x**	**3.2%**	**4.0%**	**0.7%**	**0.9%**	**10.6%**	**9.6%**	**23.5%**	**24.2%**	**10.6%**
Median				**4,320**	**4,828**	**29.4x**	**28.2x**	**23.8x**	**20.5x**	**5.0x**	**4.8x**	**3.1%**	**3.9%**	**0.4%**	**0.6%**	**6.2%**	**7.4%**	**23.7%**	**24.7%**	**12.9%**
Accounting/ERP/BI																				
Intuit	INTU.O	USD	608.7	156,749	158,996	39.8x	34.4x	27.6x	25.7x	10.5x	10.1x	3.1%	3.0%	0.5%	0.6%	12.3%	12.6%	37.9%	39.3%	15.8%
Microsoft	MSFT.O	USD	384.6	2,611,659	2,545,441	36.5x	31.2x	27.4x	24.8x	11.7x	10.6x	2.3%	2.5%	0.7%	0.8%	11.0%	16.0%	42.5%	42.8%	16.9%
Microstrategy	MSTR.O	USD	536.2	6,683	8,630	NA	200.8x	118.8x	98.9x	16.6x	15.9x	1.1%	1.3%	NA	NA	0.8%	2.4%	14.0%	16.1%	NA
Oracle	ORCL.N	USD	104.8	270,637	344,289	19.7x	18.1x	17.1x	15.3x	7.2x	6.6x	3.3%	4.1%	1.4%	1.6%	10.5%	7.6%	42.4%	43.1%	8.8%
Xero	XRO.AX	AUD	109.3	9,224	9,168	157.8x	87.1x	97.3x	59.0x	9.6x	8.2x	1.2%	1.8%	0.0%	0.0%	22.9%	19.6%	9.8%	13.8%	81.1%
Mean				**610,991**	**613,305**	**63.4x**	**74.3x**	**57.6x**	**44.8x**	**11.1x**	**10.3x**	**2.2%**	**2.5%**	**0.7%**	**0.8%**	**11.5%**	**11.7%**	**29.3%**	**31.0%**	**30.6%**
Median				**156,749**	**158,996**	**38.1x**	**34.4x**	**27.6x**	**25.7x**	**10.5x**	**10.1x**	**2.3%**	**2.5%**	**0.6%**	**0.7%**	**11.0%**	**12.6%**	**37.9%**	**39.3%**	**16.3%**
Banking/Financial Services																				
Fidelity IS	FIS	USD	62.3	33,648	50,236	12.0x	14.1x	8.8x	14.3x	2.8x	4.3x	8.2%	5.3%	3.1%	3.1%	-8.9%	-23.4%	32.1%	30.2%	-15.5%
Jack Henry	JKHY.O	USD	167.3	11,105	11,299	35.3x	31.1x	27.0x	24.2x	5.9x	5.5x	2.5%	1.7%	1.2%	1.2%	6.2%	8.4%	21.9%	22.6%	13.5%
Mean				**22,376**	**30,768**	**23.6x**	**22.6x**	**17.9x**	**19.3x**	**4.4x**	**4.9x**	**5.4%**	**3.5%**	**2.2%**	**2.2%**	**-1.3%**	**-7.5%**	**27.0%**	**26.4%**	**-1.0%**
Median				**22,376**	**30,768**	**23.6x**	**22.6x**	**17.9x**	**19.3x**	**4.4x**	**4.9x**	**5.4%**	**3.5%**	**2.2%**	**2.2%**	**-1.3%**	**-7.5%**	**27.0%**	**26.4%**	**-1.0%**
Global Design/Industrial Software/Metrology																				
Altair Engineering	ALTR.O	USD	83.5	6,213	6,100	95.7x	71.4x	71.5x	50.5x	11.7x	10.3x	1.6%	1.9%	NA	NA	4.1%	11.7%	16.3%	20.4%	34.0%
Altium	ALU.AX	AUD	46.4	3,748	3,575	53.0x	40.4x	35.3x	30.8x	11.7x	10.8x	1.6%	2.1%	1.5%	2.1%	22.6%	22.4%	33.3%	35.0%	31.2%
Ansys	ANSS.O	USD	357.8	28,334	28,438	44.2x	37.7x	35.1x	29.6x	13.9x	12.3x	2.1%	2.4%	0.0%	0.0%	8.8%	10.0%	39.5%	41.6%	17.3%
Aspen Technology	AZPN.O	USD	198.3	11,514	11,404	28.9x	28.2x	16.9x	16.0x	6.9x	6.5x	2.0%	4.0%	0.0%	0.0%	24.3%	3.7%	40.8%	40.6%	2.3%
Autodesk	ADSK.O	USD	240.7	47,954	48,429	32.4x	30.3x	28.4x	25.6x	9.6x	8.7x	2.4%	2.8%	0.0%	0.0%	9.4%	9.0%	33.9%	34.0%	6.9%
Bentley Systems	BSY.O	USD	48.7	13,124	14,512	63.9x	49.6x	48.1x	38.4x	14.7x	12.8x	2.1%	2.3%	0.0%	0.4%	9.7%	12.9%	30.6%	33.5%	28.9%
Cadence Design Systems	CDNS.O	USD	266.8	66,166	65,880	53.6x	45.7x	43.8x	36.7x	18.0x	15.8x	1.6%	1.9%	0.0%	0.0%	13.6%	12.5%	41.2%	43.2%	17.3%
ESI Group	ESIG.PA	EUR	154.0	939	912	62.9x	48.8x	48.3x	35.9x	6.6x	6.1x	NA	NA	0.0%	0.0%	-0.3%	6.5%	13.6%	16.8%	28.8%
Faro Tech	FARO.O	USD	21.9	378	371	NA	36.1x	NA	21.3x	1.2x	1.1x	NA	NA	NA	NA	-0.8%	8.2%	-2.6%	5.1%	NA
Glodon Co.	002410.SZ	CNY	15.2	3,245	2,759	64.7x	39.9x	50.9x	28.1x	3.4x	2.6x	4.5%	4.9%	0.9%	1.4%	6.6%	8.3%	6.7%	9.4%	62.2%
PTC	PTC.O	USD	172.1	18,734	20,018	40.7x	32.8x	27.9x	23.8x	10.1x	9.0x	2.7%	3.3%	0.0%	0.0%	11.2%	10.4%	36.1%	38.0%	23.9%
Renishaw	RSW.L	GBp	3,498.0	2,957	2,736	22.7x	22.2x	18.1x	17.9x	3.5x	3.5x	1.8%	1.9%	2.1%	2.2%	0.4%	2.0%	19.5%	19.6%	2.4%
Synopsys	SNPS.O	USD	498.5	69,061	67,661	43.9x	36.9x	36.3x	30.4x	12.7x	11.3x	1.5%	1.9%	0.0%	0.0%	16.7%	11.4%	35.0%	37.0%	18.9%
Trimble	TRMB.O	USD	51.5	11,679	14,265	21.0x	19.0x	17.5x	15.3x	4.0x	3.9x	4.6%	6.0%	0.0%	0.0%	2.9%	1.1%	23.0%	25.2%	10.8%
Mean				**20,289**	**20,504**	**48.3x**	**38.5x**	**36.8x**	**28.6x**	**9.1x**	**8.2x**	**2.4%**	**3.0%**	**0.4%**	**0.5%**	**9.2%**	**9.3%**	**26.2%**	**28.5%**	**21.9%**
Median				**11,596**	**12,834**	**44.2x**	**37.3x**	**35.3x**	**28.9x**	**9.8x**	**8.9x**	**2.0%**	**2.3%**	**0.0%**	**0.0%**	**9.1%**	**9.5%**	**31.9%**	**33.7%**	**18.9%**
Global distribution systems																				
Sabre	SABR.O	USD	4.3	1,498	5,085	NA	14.1x	24.5x	9.6x	2.0x	1.7x	NA	4.2%	1.5%	1.5%	15.3%	8.6%	8.1%	18.2%	NA
Other software (cyber, middleware, mainframe etc)																				
Pegasystems	PEGA.O	USD	47.4	3,613	3,761	33.6x	19.0x	27.4x	13.2x	3.0x	2.5x	4.9%	7.1%	0.2%	0.2%	4.4%	8.0%	10.9%	19.2%	76.8%
Progress	PRGS.O	USD	53.3	2,118	2,680	13.7x	11.3x	11.7x	9.4x	4.3x	3.7x	7.3%	9.3%	1.3%	1.4%	10.6%	7.9%	36.7%	39.6%	20.8%
Mean				**2,865**	**3,221**	**23.7x**	**15.2x**	**19.6x**	**11.3x**	**3.6x**	**3.1x**	**6.1%**	**8.2%**	**0.8%**	**0.8%**	**7.5%**	**8.0%**	**23.8%**	**29.4%**	**48.8%**
Median				**2,865**	**3,221**	**23.7x**	**15.2x**	**19.6x**	**11.3x**	**3.6x**	**3.1x**	**6.1%**	**8.2%**	**0.8%**	**0.8%**	**7.5%**	**8.0%**	**23.8%**	**29.4%**	**48.8%**

Source: Refinitiv data (share prices, non-covered companies), Morgan Stanley Research estimates

Exhibit 111: MS Europe software coverage vs. comps (2/2)

Software Valuation (2/2): Adjusted Metrics	Ticker	Ccy	Price	Mkt Cap € mn	EV € mn	P/E		EV/EBIT		EV/Sales		FCFF/EV		Dividend Yield		Sales growth		Adj. EBIT margin		EPS Growth
			11-Jan			2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2024e
MS SOFTWARE COVERAGE																				
Amadeus	AMA.MC	EUR	63.9	28,743	31,719	26.0x	22.5x	21.3x	18.1x	5.8x	5.1x	3.6%	4.2%	1.8%	2.0%	20.2%	10.5%	27.5%	28.2%	15.4%
Compugroup Medical	COP1n.DE	EUR	35.2	1,843	2,482	16.2x	15.8x	12.3x	10.7x	2.2x	1.9x	4.7%	5.8%	0.0%	2.0%	6.4%	4.7%	17.9%	18.0%	2.3%
Dassault Systemes	DAST.PA	EUR	43.3	57,729	57,956	36.4x	34.4x	30.6x	27.5x	9.9x	9.0x	2.3%	2.6%	0.5%	0.5%	4.6%	5.5%	32.3%	32.8%	5.8%
Darktrace	DARK.L	GBp	365.9	2,860	2,534	40.6x	33.8x	27.6x	24.2x	4.1x	3.5x	3.4%	4.2%	0.0%	0.0%	27.1%	22.5%	14.8%	14.4%	20.3%
Fortnox	FNOX.ST	SEK	52.8	2,871	2,850	63.5x	49.0x	56.4x	37.7x	22.3x	15.5x	0.9%	1.6%	0.2%	0.3%	27.8%	24.6%	39.6%	41.0%	29.5%
Hexagon AB	HEXAb.ST	SEK	115.0	27,857	31,071	23.4x	22.1x	20.8x	18.1x	6.1x	5.4x	2.4%	3.6%	1.0%	1.3%	6.0%	4.4%	29.1%	29.7%	5.9%
Nemetschek	NEKG.DE	EUR	75.8	8,757	8,668	49.5x	43.3x	39.7x	32.9x	10.5x	9.1x	2.3%	2.4%	0.6%	0.7%	5.8%	9.7%	26.4%	27.6%	14.4%
Sage	SGE.L	GBp	1,156.0	14,008	14,560	35.6x	32.0x	23.9x	23.3x	5.0x	5.1x	3.5%	3.7%	1.6%	1.8%	11.0%	8.1%	21.1%	21.9%	11.3%
SAP	SAPG.DE	EUR	141.9	166,139	170,927	37.3x	31.5x	23.8x	20.4x	5.0x	4.5x	3.4%	4.1%	1.4%	1.5%	0.3%	9.3%	21.0%	21.9%	18.5%
Sinch	SINCH.ST	SEK	30.6	2,093	2,910	11.1x	13.3x	13.0x	9.8x	1.4x	1.1x	4.3%	7.1%	0.0%	0.0%	3.2%	-1.2%	10.7%	10.9%	-16.7%
Software AG	SOWGn.DE	EUR	37.7	2,792	3,029	28.7x	23.0x	17.2x	14.9x	3.0x	2.9x	1.6%	4.0%	2.3%	2.4%	3.6%	5.7%	17.3%	19.3%	24.8%
TeamViewer	TMV.DE	EUR	13.8	2,759	3,201	15.8x	13.8x	11.8x	11.7x	4.5x	4.5x	7.7%	7.2%	0.0%	0.0%	10.3%	4.5%	37.8%	38.9%	14.5%
Temenos	TEMN.S	CHF	77.1	5,769	6,456	29.4x	28.2x	24.3x	20.5x	7.5x	6.4x	2.8%	3.7%	0.0%	0.0%	4.3%	6.7%	30.7%	31.4%	4.4%
Trustpilot	TRST.L	GBp	163.5	763	696	NA	NA	151.4x	128.5x	4.3x	3.6x	1.7%	1.6%	0.0%	0.0%	18.1%	18.9%	2.8%	2.8%	-2.2%
Mean				**23,213**	**24,219**	**31.8x**	**27.9x**	**33.8x**	**28.5x**	**6.5x**	**5.5x**	**3.2%**	**4.0%**	**0.7%**	**0.9%**	**10.6%**	**9.6%**	**23.5%**	**24.2%**	**10.6%**
Median				**4,320**	**4,828**	**29.4x**	**28.2x**	**23.8x**	**20.5x**	**5.0x**	**4.8x**	**3.1%**	**3.9%**	**0.4%**	**0.6%**	**6.2%**	**7.4%**	**23.7%**	**24.7%**	**12.9%**
Other US SaaS																				
Adobe	ADBE.O	USD	597.5	249,563	245,717	37.2x	33.2x	30.1x	26.1x	13.8x	12.2x	2.5%	3.3%	0.0%	0.0%	10.2%	10.3%	45.9%	46.6%	12.1%
Atlassian	TEAM.O	USD	242.2	56,881	55,704	108.2x	79.9x	65.8x	62.0x	13.3x	12.9x	1.8%	1.8%	0.0%	0.0%	20.7%	20.3%	20.2%	20.8%	35.5%
Crowdstrike	CRWD.O	USD	284.5	63,638	61,500	100.3x	75.8x	103.5x	77.9x	21.3x	17.2x	1.4%	1.8%	0.0%	0.0%	37.1%	28.5%	20.5%	22.0%	32.2%
GoDaddy	GDDY.N	USD	104.5	13,623	16,814	38.7x	23.2x	19.6x	15.1x	4.3x	3.8x	6.9%	8.1%	0.0%	0.0%	4.0%	7.2%	21.8%	25.4%	66.9%
HubSpot	HUBS.N	USD	570.3	27,495	26,204	100.6x	87.7x	130.8x	65.6x	13.5x	10.9x	0.8%	1.5%	0.0%	0.0%	23.9%	19.2%	10.3%	16.7%	14.7%
Palantir	PLTR.N	USD	16.7	33,248	30,841	70.7x	58.5x	60.9x	42.5x	16.7x	12.4x	1.1%	1.6%	0.0%	0.0%	16.4%	18.2%	27.5%	29.1%	20.9%
RingCentral	RNG.N	USD	33.1	2,934	4,185	10.4x	9.5x	10.9x	8.4x	2.1x	1.8x	6.3%	7.0%	0.0%	0.0%	10.7%	8.4%	19.0%	21.0%	8.8%
Salesforce.com	CRM.N	USD	271.4	244,078	241,849	34.1x	27.5x	24.6x	20.4x	7.4x	6.5x	3.3%	4.1%	0.0%	0.0%	11.5%	11.9%	29.9%	32.0%	24.0%
ServiceNow	NOW.N	USD	726.5	136,780	134,226	69.8x	58.9x	58.4x	47.1x	15.9x	13.2x	1.9%	2.4%	0.0%	0.0%	23.3%	21.1%	27.2%	28.0%	18.5%
Shopify	SHOP.N	USD	81.3	95,619	91,960	114.6x	71.2x	121.9x	59.5x	13.8x	11.6x	0.9%	1.4%	0.0%	0.0%	25.3%	20.9%	11.4%	19.6%	60.9%
Snowflake	SNOW.N	USD	195.6	64,604	60,941	309.7x	274.0x	364.5x	200.4x	24.1x	18.5x	0.9%	1.4%	0.0%	0.0%	36.9%	30.4%	6.6%	9.2%	13.0%
Twilio	TWLO.N	USD	71.8	12,079	9,184	33.6x	33.0x	22.9x	20.0x	2.7x	2.3x	2.3%	4.5%	0.0%	0.0%	7.4%	4.9%	11.7%	11.4%	1.6%
Wix.com	WIX.O	USD	125.3	6,507	6,027	31.6x	30.6x	28.9x	22.9x	4.1x	3.5x	2.8%	5.3%	0.0%	0.0%	12.4%	12.0%	14.2%	15.5%	3.1%
Workday	WDAY.O	USD	279.0	67,920	64,343	50.6x	42.8x	40.1x	33.9x	9.4x	8.2x	2.4%	2.7%	0.0%	0.0%	16.9%	16.2%	23.5%	24.1%	18.4%
Mean				**76,784**	**74,964**	**79.3x**	**64.7x**	**77.3x**	**50.1x**	**11.6x**	**9.6x**	**2.5%**	**3.4%**	**0.0%**	**0.0%**	**18.3%**	**16.4%**	**20.7%**	**23.0%**	**23.6%**
Median				**60,260**	**58,322**	**60.2x**	**50.6x**	**49.2x**	**38.2x**	**13.4x**	**11.3x**	**2.1%**	**2.5%**	**0.0%**	**0.0%**	**16.6%**	**17.2%**	**20.4%**	**21.5%**	**18.4%**
HealthTech																				
Allscripts	MDRX.O	USD	9.4	939	673	8.5x	5.9x	4.7x	3.8x	0.9x	0.6x	NA	NA	0.0%	0.0%	-19.6%	5.0%	19.2%	17.2%	43.3%
Cegedim	CGDM.PA	EUR	17.8	249	525	13.8x	9.9x	12.0x	9.3x	0.7x	0.6x	6.4%	10.3%	0.0%	0.7%	11.4%	6.7%	5.9%	6.8%	38.7%
Craneware	CRW.L	GBp	1,780.0	731	737	26.5x	24.7x	18.3x	17.7x	4.5x	4.4x	5.8%	6.5%	1.4%	1.6%	5.4%	6.4%	24.5%	24.6%	7.4%
Iqvia	IQV.N	USD	214.0	36,195	47,535	21.0x	19.2x	22.3x	19.3x	3.7x	3.1x	2.9%	5.1%	0.0%	0.0%	3.4%	5.7%	16.5%	16.1%	9.3%
Nexus AG	NXUG.DE	EUR	56.5	976	897	36.6x	30.8x	24.9x	19.7x	3.5x	3.1x	3.2%	4.0%	0.4%	0.5%	12.6%	11.3%	14.2%	15.6%	18.8%
Equasens	EQSE.PA	EUR	57.4	871	871	18.5x	16.9x	14.0x	13.3x	3.6x	3.5x	NA	6.2%	2.0%	2.1%	28.4%	7.3%	25.6%	26.0%	9.9%
Raysearch Labs	RAYb.ST	SEK	88.9	211	228	53.2x	23.4x	37.3x	17.8x	3.4x	2.8x	NA	NA	1.1%	1.2%	13.0%	18.9%	9.2%	15.6%	127.5%
Veeva	VEEV.N	USD	204.2	29,764	26,929	43.1x	38.8x	34.0x	27.8x	12.1x	10.3x	2.7%	3.6%	0.0%	0.0%	9.7%	14.5%	35.5%	37.1%	11.2%
Mean				**8,742**	**9,799**	**27.7x**	**21.2x**	**21.0x**	**16.1x**	**4.1x**	**3.5x**	**4.2%**	**6.0%**	**0.6%**	**0.8%**	**8.0%**	**9.5%**	**18.8%**	**19.9%**	**33.3%**
Median				**905**	**804**	**23.8x**	**21.3x**	**20.3x**	**17.7x**	**3.6x**	**3.1x**	**3.2%**	**5.6%**	**0.2%**	**0.6%**	**10.6%**	**7.0%**	**17.8%**	**16.7%**	**15.0%**

Source: Refinitiv data (share prices, non-covered companies), Morgan Stanley Research estimates

Exhibit 112: MS Europe IT services coverage vs. comps

Services Valuation Multiples: Adjusted Metrics																				
	Ticker	Ccy	Price	Mkt Cap € mn	EV € mn	P/E		EV/EBIT		EV/Sales		FCFF/EV		Dividend Yield		Sales growth		Adj. EBIT margin		EPS Growth
			11-Jan			2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2024e
MS IT SERVICES COVERAGE																				
Atos	ATOS.PA	EUR	5.7	581	2,112	17.8x	2.3x	7.6x	7.1x	0.3x	0.4x	NA	NA	0.0%	0.0%	-3.7%	-4.2%	4.4%	5.1%	685.3%
Capgemini	CAPP.PA	EUR	185.1	31,459	34,044	16.7x	15.6x	12.9x	11.0x	1.7x	1.5x	5.0%	5.7%	1.9%	2.0%	2.3%	2.5%	13.2%	13.6%	7.0%
Computacenter	CCC.L	GBp	2710.0	3,619	3,315	15.5x	14.2x	10.6x	9.2x	0.4x	0.3x	7.6%	8.1%	3.7%	4.1%	15.9%	5.5%	3.6%	3.7%	9.4%
Exclusive Networks	EXN.PA	EUR	18.9	1,763	2,113	16.2x	13.4x	11.9x	10.1x	0.5x	0.5x	7.1%	7.2%	0.0%	0.0%	13.9%	8.8%	4.6%	4.5%	21.2%
IONOS	IOSn.DE	EUR	17.1	2,403	3,600	15.8x	12.6x	11.4x	9.8x	2.4x	2.1x	4.3%	5.8%	0.0%	0.0%	9.5%	10.0%	21.4%	21.5%	25.6%
Indra	IDR.MC	EUR	14.9	2,875	2,935	10.9x	10.6x	7.0x	6.5x	0.6x	0.6x	8.6%	8.0%	1.5%	1.5%	9.1%	5.4%	9.2%	9.6%	2.3%
Netcompany	NETCG.CO	DKK	220.8	1,474	1,687	23.0x	18.0x	16.8x	13.1x	2.1x	1.8x	3.1%	4.6%	0.0%	0.0%	8.7%	8.4%	12.4%	13.6%	27.6%
OVH Groupe	OVH.PA	EUR	8.6	1,628	2,236	NA	381.5x	141.3x	64.8x	2.6x	2.3x	NA	NA	0.0%	0.0%	13.2%	12.5%	1.8%	3.5%	NA
Softcat	SCTS.L	GBp	1295.0	3,013	2,878	21.9x	20.2x	17.7x	14.3x	2.7x	2.3x	3.8%	4.6%	2.9%	3.1%	-4.6%	5.9%	15.3%	16.2%	8.2%
SoftwareONE	SWON.S	CHF	16.1	2,677	2,452	20.3x	17.3x	13.3x	10.7x	2.4x	2.1x	6.0%	6.5%	2.2%	2.6%	4.6%	6.8%	18.1%	19.9%	17.3%
Solutions by STC	7202.SE	SAR	349.0	10,207	9,593	28.1x	28.4x	23.8x	24.3x	3.6x	3.2x	3.2%	3.6%	1.6%	1.7%	25.4%	11.4%	14.9%	13.1%	-0.8%
Sopra Steria	SOPR.PA	EUR	191.9	3,921	4,116	10.8x	9.7x	11.3x	8.9x	0.9x	0.7x	7.0%	9.3%	2.3%	2.3%	13.5%	10.6%	7.7%	8.2%	11.5%
Tietoevry	TIETO.HE	EUR	21.1	2,509	3,010	9.9x	9.7x	9.3x	8.7x	1.2x	1.1x	4.3%	6.5%	7.1%	7.3%	-2.3%	3.6%	12.5%	12.7%	1.6%
Mean				**5,241**	**5,699**	**17.2x**	**42.6x**	**22.7x**	**15.3x**	**1.6x**	**1.5x**	**5.5%**	**6.3%**	**1.8%**	**1.9%**	**8.1%**	**6.7%**	**10.7%**	**11.2%**	**68.0%**
Median				**2,677**	**2,935**	**16.5x**	**14.2x**	**11.9x**	**10.1x**	**1.7x**	**1.5x**	**5.0%**	**6.5%**	**1.6%**	**1.7%**	**9.1%**	**6.8%**	**12.4%**	**12.7%**	**10.4%**
Large cap IT services																				
Accenture	ACN.N	USD	348.0	203,396	195,960	29.3x	27.7x	20.2x	19.6x	3.1x	3.1x	4.2%	4.0%	1.4%	1.5%	4.0%	4.8%	15.5%	15.7%	6.0%
Cognizant	CTSH.O	USD	74.9	34,356	32,783	16.9x	16.2x	12.5x	11.3x	1.8x	1.7x	5.8%	7.9%	1.5%	1.7%	-0.3%	2.0%	14.7%	15.0%	4.8%
DXC Technology	DXC.N	USD	23.7	4,404	7,485	7.3x	6.4x	7.3x	6.2x	0.6x	0.5x	16.5%	16.2%	0.0%	0.0%	-6.8%	-2.1%	7.6%	8.0%	15.0%
EPAM	EPAM.N	USD	299.7	16,200	14,535	28.9x	28.1x	20.8x	19.3x	3.3x	3.0x	3.1%	4.1%	0.0%	0.0%	-3.2%	7.6%	15.9%	15.5%	2.7%
HP	HPE.N	USD	16.4	19,447	26,888	7.7x	8.4x	8.9x	8.8x	1.0x	0.9x	8.0%	6.0%	2.9%	3.0%	2.2%	2.3%	10.8%	10.7%	-7.4%
IBM	IBM.N	USD	162.2	136,781	168,267	17.4x	17.1x	17.5x	15.9x	3.1x	2.9x	5.8%	6.0%	4.1%	4.2%	1.9%	1.9%	17.5%	18.3%	1.5%
Leidos	LDOS.N	USD	108.8	13,640	17,279	16.6x	14.3x	14.4x	12.7x	1.3x	1.2x	4.4%	6.4%	1.3%	1.4%	3.9%	6.7%	8.8%	9.3%	15.5%
Mean				**61,175**	**66,171**	**17.7x**	**16.9x**	**14.5x**	**13.4x**	**2.0x**	**1.9x**	**6.8%**	**7.2%**	**1.6%**	**1.7%**	**0.2%**	**3.3%**	**13.0%**	**13.2%**	**5.4%**
Median				**19,447**	**26,888**	**16.9x**	**16.2x**	**14.4x**	**12.7x**	**1.8x**	**1.7x**	**5.8%**	**6.0%**	**1.4%**	**1.5%**	**1.9%**	**2.3%**	**14.7%**	**15.0%**	**4.8%**
Indian heritage vendors																				
HCL	HCLT.NS	INR	1540.8	45,990	44,017	27.2x	25.4x	18.8x	18.8x	3.4x	3.5x	3.2%	3.2%	3.3%	3.6%	10.3%	7.2%	18.2%	18.4%	7.0%
Infosys	INFY.NS	INR	1612.8	74,289	72,992	27.2x	24.9x	20.0x	18.9x	4.2x	4.0x	3.5%	3.8%	1.9%	2.5%	8.6%	7.2%	20.9%	21.0%	9.4%
Mphasis	MBFL.NS	INR	2679.6	5,548	5,548	32.0x	30.3x	22.2x	22.6x	3.3x	3.3x	5.1%	3.8%	2.4%	2.8%	1.8%	7.4%	15.0%	14.8%	5.6%
TCS	TCS.NS	INR	3882.8	155,997	155,300	31.2x	28.1x	23.4x	21.9x	5.7x	5.5x	3.3%	3.6%	3.0%	3.2%	9.6%	8.9%	24.4%	24.9%	11.0%
Tech Mahindra	TEML.NS	INR	1308.1	12,769	12,654	33.4x	27.7x	27.7x	24.1x	2.1x	2.2x	3.2%	3.4%	3.0%	3.2%	1.9%	2.9%	7.7%	9.0%	20.4%
Wipro	WIPR.NS	INR	465.5	26,801	27,747	22.5x	20.9x	18.0x	17.3x	2.7x	2.7x	5.0%	4.4%	4.0%	2.8%	2.2%	2.0%	15.1%	15.7%	7.2%
Mean				**53,566**	**53,043**	**28.9x**	**26.2x**	**21.7x**	**20.6x**	**3.6x**	**3.5x**	**3.9%**	**3.7%**	**2.9%**	**3.0%**	**5.7%**	**6.0%**	**16.9%**	**17.3%**	**10.1%**
Median				**36,395**	**35,882**	**29.2x**	**26.6x**	**21.1x**	**20.4x**	**3.4x**	**3.4x**	**3.4%**	**3.7%**	**3.0%**	**3.0%**	**5.4%**	**7.2%**	**16.6%**	**17.0%**	**8.3%**
Digital-focused IT services																				
Endava	DAVA.N	USD	76.4	4,081	3,885	30.7x	28.4x	19.4x	19.6x	3.4x	3.7x	3.6%	3.2%	0.0%	0.0%	10.1%	8.9%	17.7%	18.8%	8.1%
Globant	GLOB.N	USD	228.1	8,992	8,981	58.4x	47.2x	49.3x	33.1x	5.1x	3.9x	0.4%	2.7%	0.0%	0.0%	17.7%	19.3%	10.3%	11.8%	23.8%
Kainos	KNOS.L	GBp	1017.0	1,483	1,358	22.8x	20.6x	16.6x	15.6x	2.9x	2.8x	3.5%	4.6%	2.2%	2.4%	11.0%	9.1%	17.6%	18.2%	10.8%
Reply	REY.MI	EUR	119.9	4,486	4,386	24.6x	21.4x	15.8x	13.7x	2.0x	1.8x	4.0%	4.4%	0.8%	0.9%	12.5%	9.2%	12.5%	12.8%	15.3%
Sword	SWOR.PA	EUR	37.5	357	356	17.9x	15.5x	12.4x	10.3x	1.2x	1.0x	4.4%	6.5%	4.1%	4.1%	5.9%	12.4%	9.4%	10.0%	15.8%
Mean				**3,880**	**3,793**	**30.9x**	**26.6x**	**22.7x**	**18.5x**	**2.9x**	**2.6x**	**3.2%**	**4.3%**	**1.4%**	**1.5%**	**11.4%**	**11.8%**	**13.5%**	**14.3%**	**14.8%**
Median				**4,081**	**3,885**	**24.6x**	**21.4x**	**16.6x**	**15.6x**	**2.9x**	**2.8x**	**3.6%**	**4.4%**	**0.8%**	**0.9%**	**11.0%**	**9.2%**	**12.5%**	**12.8%**	**15.3%**
Resellers																				
CDW Corp	CDW.O	USD	221.2	27,451	32,260	22.4x	21.5x	17.5x	16.6x	1.7x	1.5x	3.7%	2.7%	1.1%	1.1%	-8.7%	5.3%	9.4%	9.1%	4.3%
Bechtle	BC8G.DE	EUR	43.6	5,489	5,677	20.7x	19.4x	15.2x	13.0x	0.9x	0.8x	5.3%	4.4%	1.6%	1.7%	2.6%	6.9%	5.8%	5.9%	6.7%
Bytes	BYIT.L	GBp	573.0	1,599	1,543	31.3x	26.4x	23.0x	21.9x	6.4x	6.4x	3.5%	2.8%	1.1%	1.4%	-9.9%	12.8%	27.7%	29.2%	18.8%
Cancom	COKG.DE	EUR	27.4	1,005	935	25.6x	18.4x	12.8x	9.8x	0.5x	0.4x	7.7%	7.5%	3.6%	3.8%	17.9%	20.1%	4.0%	4.3%	39.3%
Crayon Group	CRAYN.OL	NOK	82.4	650	906	15.7x	12.2x	11.4x	8.5x	1.4x	1.1x	6.4%	10.1%	0.0%	0.0%	23.1%	14.7%	12.3%	13.4%	28.2%
Mean				**7,239**	**8,264**	**23.1x**	**19.6x**	**16.0x**	**14.0x**	**2.2x**	**2.0x**	**5.3%**	**5.5%**	**1.5%**	**1.6%**	**5.0%**	**12.0%**	**11.9%**	**12.4%**	**19.5%**
Median				**1,599**	**1,543**	**22.4x**	**19.4x**	**15.2x**	**13.0x**	**1.4x**	**1.1x**	**5.3%**	**4.4%**	**1.1%**	**1.4%**	**2.6%**	**12.8%**	**9.4%**	**9.1%**	**18.8%**
Cloud Service Providers																				
DigitalOcean	DOCN.N	USD	36.4	3,812	3,022	24.3x	24.8x	NA	54.4x	5.3x	4.6x	2.9%	4.9%	0.0%	0.0%	19.9%	11.8%	-0.8%	8.5%	-2.2%
iomart	IOMG.L	GBp	149.4	195	251	14.5x	13.1x	10.9x	13.6x	1.7x	2.1x	13.9%	12.5%	3.9%	3.6%	11.4%	8.0%	15.2%	15.7%	10.7%
Mean				**2,003**	**1,636**	**19.4x**	**18.9x**	**10.9x**	**34.0x**	**3.5x**	**3.4x**	**8.4%**	**8.7%**	**2.0%**	**1.8%**	**15.7%**	**9.9%**	**7.2%**	**12.1%**	**4.2%**
Median				**2,003**	**1,636**	**19.4x**	**18.9x**	**10.9x**	**34.0x**	**3.5x**	**3.4x**	**8.4%**	**8.7%**	**2.0%**	**1.8%**	**15.7%**	**9.9%**	**7.2%**	**12.1%**	**4.2%**
Other mid/small cap IT services																				
Alten	LTEN.PA	EUR	127.8	4,489	4,482	16.8x	14.7x	11.0x	9.4x	1.0x	0.9x	4.6%	6.0%	1.1%	1.2%	8.4%	7.1%	9.1%	9.5%	14.5%
Addnode	ANODb.ST	SEK	81.7	951	898	38.7x	21.9x	28.3x	19.6x	1.7x	1.4x	0.4%	3.4%	1.0%	1.4%	11.6%	19.0%	6.0%	7.3%	76.9%
Assecopol	ACPP.WA	PLN	72.7	1,393	2,709	12.3x	11.7x	3.9x	3.2x	0.4x	0.3x	19.2%	22.9%	4.8%	4.9%	0.5%	7.3%	9.6%	9.7%	5.2%
Aubay	AUBT.PA	EUR	39.4	514	452	16.4x	15.1x	9.7x	8.7x	0.8x	0.8x	6.1%	7.3%	3.0%	3.1%	3.2%	1.0%	8.5%	8.9%	8.1%
Econocom	ECONB.BR	EUR	2.6	457	897	5.6x	5.0x	6.3x	5.4x	0.2x	0.2x	12.4%	13.9%	5.5%	6.1%	3.5%	3.5%	3.9%	4.2%	10.4%
GFT	GFTG.DE	EUR	29.5	777	791	14.8x	13.4x	9.9x	8.5x	0.9x	0.8x	5.8%	6.2%	1.7%	1.9%	10.4%	10.6%	9.2%	9.3%	10.5%
Knowit	KNOW.ST	SEK	147.8	361	462	16.1x	13.3x	13.5x	11.7x	0.7x	0.6x	12.4%	13.5%	4.0%	4.4%	5.3%	3.3%	5.1%	5.4%	21.0%
Neurones	NRO.PA	EUR	42.8	1,039	864	19.5x	19.5x	9.6x	8.9x	1.0x	0.9x	NA	NA	2.8%	2.8%	10.5%	7.1%	10.5%	10.0%	0.0%
Wavestone	WAVE.PA	EUR	60.7	1,512	1,512	23.1x	18.3x	13.5x	10.3x	1.8x	1.3x	4.2%	3.2%	0.6%	0.6%	29.0%	36.4%	13.5%	12.9%	26.5%
Xerox	XRX.O	USD	16.1	1,857	4,882	8.4x	9.3x	13.4x	12.6x	0.8x	0.7x	11.3%	13.8%	6.8%	6.2%	-2.6%	-5.4%	5.7%	5.5%	-9.9%
Mean				**1,240**	**1,659**	**17.2x**	**14.2x**	**11.9x**	**9.8x**	**0.9x**	**0.8x**	**8.5%**	**10.0%**	**3.1%**	**3.3%**	**8.0%**	**9.0%**	**8.1%**	**8.3%**	**16.3%**
Median				**951**	**897**	**16.2x**	**14.0x**	**10.4x**	**9.1x**	**0.9x**	**0.8x**	**6.1%**	**7.3%**	**2.9%**	**3.0%**	**6.8%**	**7.1%**	**8.8%**	**9.1%**	**10.4%**

Source: Refinitiv data (share prices, non-covered companies), Morgan Stanley Research estimates

Exhibit 113: MS Europe payments/finTech coverage vs. comps

Payments & FinTech Valuation Multiples: Adjusted Metrics	Ticker	Ccy	Price	Mkt Cap € mn	EV € mn	P/E		EV/EBIT		EV/Sales		FCFF/EV		Dividend Yield		Sales growth		Adj. EBIT margin		EPS Growth
			11-Jan			2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2023e	2024e	2024e
MS PAYMENTS/FINTECH COVERAGE																				
Adyen	ADYEN.AS	EUR	1164.2	35,510	28,988	58.2x	48.9x	47.6x	36.8x	18.8x	14.7x	0.9%	2.4%	0.0%	0.0%	18.6%	21.1%	39.4%	39.9%	19.0%
WAG Payment Solutions	WPS.L	GBp	92.0	638	640	17.1x	13.5x	13.6x	9.9x	3.9x	3.0x	5.6%	9.1%	0.0%	0.0%	34.2%	18.1%	29.0%	30.5%	26.9%
Network International	NETW.L	GBp	391.2	2,551	2,639	++	++	++	++	++	++	++	++	++	++	++	++	++	++	++
Nexi	NEXII.MI	EUR	7.2	9,914	11,417	13.8x	12.2x	8.6x	7.1x	3.3x	2.8x	3.3%	9.5%	0.0%	0.0%	6.5%	4.8%	39.0%	40.3%	13.9%
Wise	WISEa.L	GBp	888.4	11,349	10,886	33.1x	30.9x	20.7x	14.2x	8.1x	4.8x	3.0%	6.3%	0.0%	0.0%	29.2%	24.3%	39.1%	33.5%	7.0%
Worldline	WLN.PA	EUR	14.1	4,156	7,512	7.2x	6.4x	9.4x	7.9x	1.6x	1.4x	4.4%	2.6%	0.0%	0.0%	5.8%	2.7%	17.2%	18.4%	13.2%
Mean				**10,686**	**10,347**	**25.9x**	**22.4x**	**20.0x**	**15.2x**	**7.2x**	**5.4x**	**3.4%**	**6.0%**	**0.0%**	**0.0%**	**18.9%**	**14.2%**	**32.8%**	**32.5%**	**16.0%**
Median				**7,035**	**9,199**	**17.1x**	**13.5x**	**13.6x**	**9.9x**	**3.9x**	**3.0x**	**3.3%**	**6.3%**	**0.0%**	**0.0%**	**18.6%**	**18.1%**	**39.0%**	**33.5%**	**13.9%**
PAYMENT PROCESSORS																				
Automatic Data Processors	ADP.O	USD	235.3	89,430	90,257	27.2x	24.7x	19.9x	18.6x	5.1x	4.9x	12.3%	4.6%	2.0%	2.2%	7.6%	6.1%	25.6%	26.2%	10.2%
Cielo	CIEL3.SA	BRL	4.8	2,420	5,013	6.1x	6.1x	8.2x	8.2x	2.2x	2.1x	0.0%	7.7%	7.4%	7.4%	0.2%	6.6%	26.2%	24.9%	0.0%
Experian	EXPN.L	GBp	3113.0	33,322	33,322	27.7x	24.8x	20.0x	18.5x	5.5x	5.2x	3.0%	3.4%	1.5%	1.6%	6.6%	8.5%	27.5%	28.0%	11.6%
FIS	FIS.N	USD	62.3	34,111	50,743	10.1x	8.9x	13.2x	14.4x	4.2x	4.8x	21.1%	7.4%	3.3%	4.0%	-15.6%	-15.9%	32.0%	33.3%	13.6%
Fiserv	FI.N	USD	136.4	75,511	96,323	18.2x	15.6x	15.3x	13.4x	5.7x	5.1x	3.8%	4.4%	0.0%	0.0%	8.0%	8.4%	37.0%	38.0%	16.4%
Fleetcor Technologies	FLT.N	USD	279.5	19,262	23,368	16.5x	14.3x	15.2x	12.6x	6.7x	5.8x	3.9%	5.1%	0.0%	0.0%	10.5%	10.1%	44.3%	45.9%	15.7%
Global Payments Inc	GPN.N	USD	132.0	34,043	48,792	12.7x	11.1x	13.1x	11.6x	5.9x	5.3x	0.0%	0.0%	0.8%	0.8%	7.3%	6.5%	44.7%	46.0%	14.2%
Mastercard Inc	MA.N	USD	426.7	367,788	374,010	35.1x	29.7x	28.2x	23.4x	16.3x	13.9x	2.5%	3.9%	0.5%	0.6%	12.7%	13.2%	58.0%	59.2%	18.0%
Paychex	PAYX.O	USD	119.1	39,354	38,819	26.2x	24.0x	18.3x	17.4x	7.7x	7.5x	2.4%	3.8%	2.9%	3.0%	7.3%	6.1%	41.9%	43.0%	8.8%
PayPal	PYPL.O	USD	61.4	60,781	59,952	12.3x	11.0x	9.8x	7.8x	2.2x	1.7x	6.3%	11.0%	0.0%	0.0%	7.7%	8.9%	22.1%	22.3%	12.1%
Repay Holdings	RPAY.O	USD	8.0	770	1,082	10.1x	8.7x	NA	NA	4.3x	3.5x	11.1%	9.7%	0.0%	0.0%	3.9%	8.0%	-12.8%	-4.7%	16.4%
Shift4 Payments	FOUR.N	USD	75.0	5,768	6,779	25.3x	16.8x	52.4x	26.6x	7.7x	5.2x	3.6%	4.9%	0.0%	0.0%	29.9%	43.5%	14.8%	19.4%	50.9%
Square	SQ.N	USD	67.9	20,504	19,118	30.7x	22.8x	15.4x	6.5x	1.0x	0.8x	6.6%	3.2%	0.0%	0.0%	24.1%	13.6%	6.8%	11.8%	35.1%
Visa	V.N	USD	264.0	501,949	502,255	29.2x	25.8x	21.8x	21.5x	14.8x	14.7x	3.8%	3.2%	0.7%	0.8%	11.1%	10.4%	68.0%	68.4%	12.9%
Western Union	WU.N	USD	12.1	5,858	6,928	7.0x	7.2x	8.8x	9.2x	1.8x	1.8x	6.0%	7.2%	7.9%	8.6%	-3.5%	-4.6%	20.0%	19.7%	-2.6%
Mean				**86,058**	**90,451**	**19.6x**	**16.8x**	**18.5x**	**15.0x**	**6.1x**	**5.5x**	**5.7%**	**5.3%**	**1.8%**	**1.9%**	**7.9%**	**8.6%**	**30.4%**	**32.1%**	**15.5%**
Median				**34,043**	**38,819**	**18.2x**	**15.6x**	**15.4x**	**13.9x**	**5.5x**	**5.1x**	**3.8%**	**4.6%**	**0.7%**	**0.8%**	**7.6%**	**8.4%**	**27.5%**	**28.0%**	**13.6%**

Source: Refinitiv data (share prices, non-covered companies), Morgan Stanley Research estimates

Exhibit 114: MS Europe Semiconductor coverage

	Rating	Price (lc)	MC (€bn)	EV / Sales		EV / EBIT		P/E		FCF Yield		EBIT margin	EPS growth
				FY24e	FY25e	FY24e	FY25e	FY24e	FY25e	FY24e	FY25e	FY24e	FY25e
AUTOMOTIVE & IOT													
Infineon	EW	34.27	44,611	2.8x	2.5x	11.6x	10.0x	14.1x	12.3x	4.4%	8.2%	24.4%	14.1%
Melexis	NA	80.60	3,257	3.4x	3.2x	13.3x	13.8x	16.2x	17.2x	5.1%	5.9%	25.3%	-5.3%
Nordic Semi	EW	111.50	1,895	3.2x	2.7x	52.6x	26.0x	62.6x	35.9x	1.6%	2.8%	6.1%	74.0%
STMicro	OW	39.93	36,142	2.1x	1.8x	8.7x	NA	10.1x	7.4x	4.4%	6.8%	24.6%	36.2%
Median				3.0x	2.6x	12.4x	13.8x	15.2x	14.7x	4.4%	6.3%	24.5%	25.2%
SEMICONDUCTOR EQUIPMENT													
Aixtron	EW	32.69	3,671	4.7x	4.0x	16.7x	14.6x	21.5x	21.5x	4.6%	15.1%	28.0%	0.1%
ASM	EW	451.45	22,347	8.6x	7.0x	41.3x	29.4x	44.1x	30.8x	1.3%	2.0%	20.8%	42.9%
ASML	OW	648.90	258,019	9.0x	7.3x	27.8x	18.8x	31.6x	21.3x	2.6%	2.9%	32.4%	48.1%
Besi	OW	128.50	10,191	12.7x	8.7x	31.1x	19.4x	35.2x	21.8x	2.1%	3.9%	40.7%	61.8%
VAT Group	OW	400.00	12,876	11.1x	8.5x	36.1x	27.0x	43.1x	32.3x	1.7%	2.6%	30.6%	33.5%
Median				9.0x	7.3x	31.1x	19.4x	35.2x	21.8x	2.1%	2.9%	30.6%	42.9%
IP & DESIGN													
arm	EW	54.40	52,107	18.3x	15.9x	49.4x	43.9x	52.8x	49.0x	1.8%	2.8%	32.3%	7.5%
Cadence Design	EW	256.56	65,196	14.9x	12.9x	34.9x	29.6x	44.1x	37.4x	2.4%	2.7%	43.4%	17.8%
Synopsys	OW	505.17	71,826	11.3x	9.7x	30.7x	25.4x	38.6x	32.1x	3.5%	4.2%	36.9%	20.4%
Median				14.9x	12.9x	34.9x	29.6x	44.1x	37.4x	2.4%	2.8%	36.9%	17.8%
OTHER													
Soitec	OW	146.05	5,430	3.4x	2.4x	12.0x	7.8x	14.2x	10.1x	4.0%	7.8%	27.9%	41.3%
Median				3.4x	2.4x	12.0x	7.8x	14.2x	10.1x	4.0%	7.8%	27.9%	41.3%
IP & DESIGN													
Ericsson	EW	65.00	18,750	0.7x	0.6x	8.8x	6.3x	13.0x	9.5x	3.9%	10.9%	8.1%	36.0%
Nokia	EW	3.50	18,120	0.5x	0.4x	4.3x	3.6x	11.0x	10.0x	20.9%	25.2%	10.9%	10.1%
Median				0.6x	0.5x	6.5x	4.9x	12.0x	9.8x	12.4%	18.0%	9.5%	23.1%

Source: Refintiv, Morgan Stanley Research estimates (e)

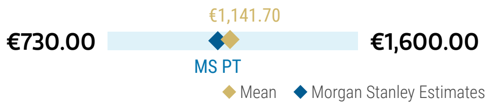
Risk Reward – Adyen NV (ADYEN.AS)

Near-term uncertainty around growth / competition

PRICE TARGET €1,100.00

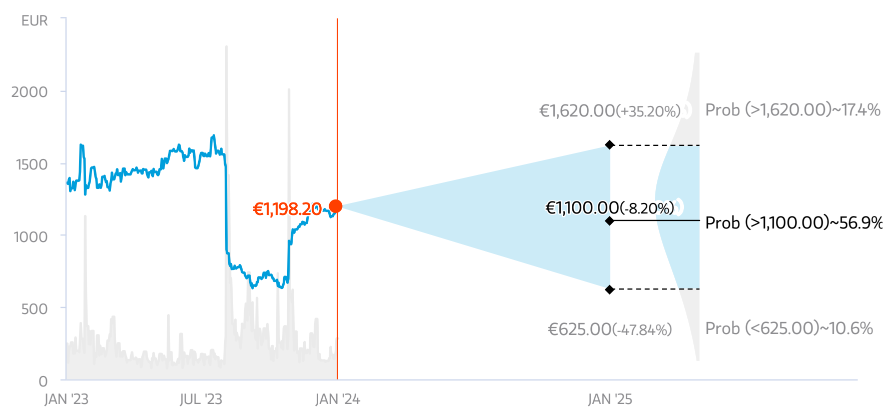
We value Adyen on a 10-year DCF model, with a WACC of 9% and terminal growth rate of 3.5%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



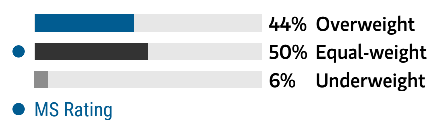
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 12 Jan 2024. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology here

EQUAL-WEIGHT THESIS

- Structural growth: Online payments is a structural growth industry due to the shift from cash to card and offline to online, with a highly transactional revenue model providing good visibility.
- Online exposure: >85% of Adyen's processed volumes are online payments, with Adyen having some of the fastest growing companies signed up to its platform, supporting above-market growth over the medium term.
- Updated guidance implies a deceleration in growth back to the low 20s for 2024. We forecast ~21% ex-FX net revenue growth for 4Q, which we believe will be taken negatively by the market, offering a better entry point for investors.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption:	*Positive*
Secular Growth:	*Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €1,620.00

Adyen delivers significant reacceleration

Historically strong growth rates are maintained/competitive pressures ease, supporting a significant reacceleration. Our bull case assumes a ~26% top-line CAGR over FY23-26. We assume margins reach 53% by FY26 and ~55% in terminal state.

BASE CASE €1,100.00

Near-term uncertainty weighs

In the long run, we assume Adyen continues to grow ahead of the eCommerce market, with revenues delivering a 22% CAGR to 2026 as the company takes wallet share from legacy-based incumbents and expands significantly into the offline space. We see EBITDA margins reaching c. 51% by 2026 and reaching 53% in the terminal state as the platform scales up.

BEAR CASE €625.00

New volume growth slows

Deceleration in new volume growth as platform business fails to scale up / investments fail to deliver pay-off, while offline business results in lower pricing, resulting in more muted growth at a lower margin vs. recent history. We assume Adyen does not encounter any operational leverage, with EBITDA margins reaching a ceiling of c. 49%.

Risk Reward – Adyen NV (ADYEN.AS)

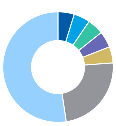
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Group net revenue (€, mn)	1,330	1,612	1,946	2,376
Organic Growth (%)	28	21	21	22
MS Adj. EBITDA (€, mn)	728	727	891	1,141
MS EPS (€)	16.9	21.0	25.1	30.1

INVESTMENT DRIVERS

- Increased penetration of alternative payment methods and eCommerce
- Delivery on growth expectations of mid-20s to low-30s in the medium term
- Market share gains from legacy incumbents

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% India
- 0-10% Japan
- 0-10% Latin America
- 0-10% UK
- 20-30% North America
- 50-60% Europe ex UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

5/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Further large merchant wins, driving incremental upside
- Faster than anticipated scaling of platform product

RISKS TO DOWNSIDE

- New merchant wins being slow, penetration at existing merchants approaching a ceiling
- Higher competition/commoditisation in US market
- Online payments commoditising, leading to take-rate pressure

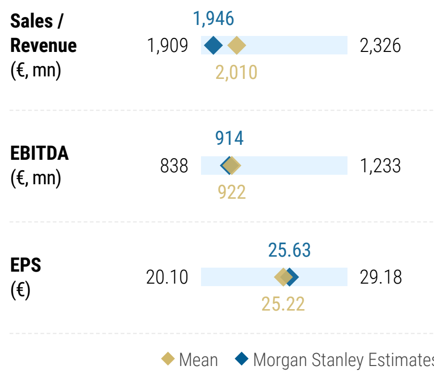
OWNERSHIP POSITIONING

Inst. Owners, % Active	82.4%
HF Sector Long/Short Ratio	2.3x
HF Sector Net Exposure	19.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2024e



Source: Refinitiv, Morgan Stanley Research

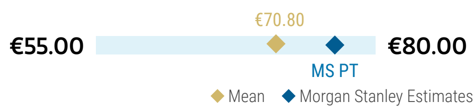
Risk Reward – Amadeus IT Holdings S.A. (AMA.MC)

Continued reopening of travel offsets weaker macro for air traffic

PRICE TARGET €76.00

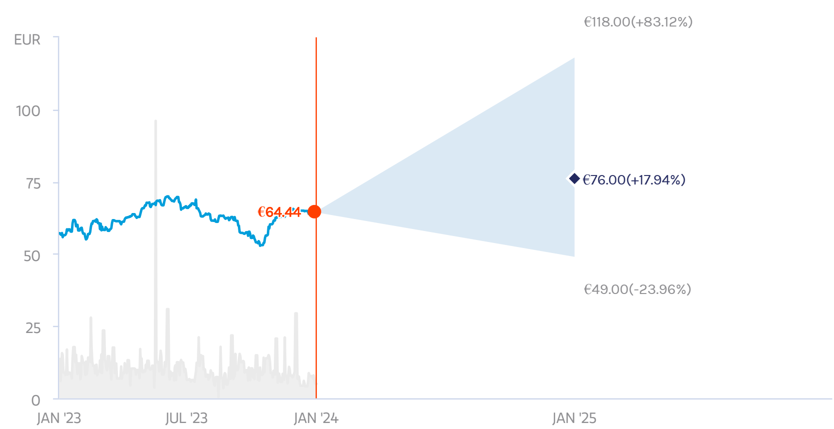
We use a 10-year DCF to value Amadeus, with a WACC of 8.5% and terminal growth rate of 2.5%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



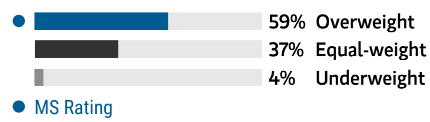
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research

OVERWEIGHT THESIS

- Leading vertical software player within the travel industry. We expect the continued reopening of global travel to offset the weaker macro for air traffic.
- Amadeus is well positioned to take share in both GDS and Airline IT, benefitting from increased outsourcing post the covid-19 pandemic.
- Recent hotel IT wins suggest further upside in Amadeus' Hospitality segment.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption: *Positive*
Secular Growth: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €118.00

Airline wins, cross-sell and Hotel IT share gains

Air traffic recovers more quickly. In GDS, more muted disintermediation and strong share gains see FY24 revenues c. 10% above FY19 levels. For IT solutions, Amadeus is successful in adding a number of large airlines, while pricing improves via cross-sell, resulting in a FY24-27 revenue CAGR of c. 12%. Amadeus gains significant market shares in Hospitality (FY24-27 15% CAGR). Total revenues grow at c. 5.5% FY28-34 CAGR. Adj. EBITDA margins reach c. 50% in terminal state.

BASE CASE €76.00

Solid recovery aided by share gains

Air traffic recovery continues. Airlines continue to increase capacity, which offsets the weaker macro for air traffic. We expect revenues to be HSD above 2019 levels by FY24. In GDS, share gains more than offset small headwinds from mix effects (weaker business/international). In IT solutions, cross-sell/new airline wins see FY24 revenues markedly above FY19 levels. Hospitality sales rise to c. €1bn business by 2024. Adj. EBITDA margins reach 45% in terminal state.

BEAR CASE €49.00

More muted recovery, competition challenges

Amadeus air bookings remain below 2019 peak in FY24. GDS revenues remain weak, impacted by unfavourable mix (lower international) and ongoing disintermediation, while share gains are minimal resulting in GDS revenues MSD % below FY19 levels in FY24. For IT solutions, cross-sell is weaker than expected and new airline wins muted, resulting in a c. 3.5% FY24-27 CAGR. Hospitality revenue grows 6% FY24-27 CAGR. Terminal EBITDA margins are c. 38% against a more pressured top-line performance.

Risk Reward – Amadeus IT Holdings S.A. (AMA.MC)

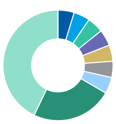
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Group organic growth (%)	0.0	0.0	0.0	0.0
Distribution organic growth (%)	0.0	0.0	0.0	0.0
IT Solutions organic growth (%)	0.0	0.0	0.0	0.0
Adj. EBITDA margin (%)	36.6	37.8	38.7	40.1

INVESTMENT DRIVERS

- Adj. EBITDA margin expansion
- Double-digit top-line growth in IT Solutions sustained in the mid-term
- Mid-single-digit growth in GDS in the mid-term
- Contract wins in IT or hospitality solutions

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% India
- 0-10% Japan
- 0-10% Latin America
- 0-10% MEA
- 0-10% Mainland China
- 0-10% UK
- 20-30% North America
- 40-50% Europe ex UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

3/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

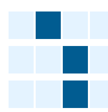
- Cross-sell in IT solutions drives an acceleration in group growth
- Large airline IT carrier wins
- Amadeus becomes a leading software platform for the hotel IT market

RISKS TO DOWNSIDE

- Increased disintermediation in GDS, counter to our expectations of slowing disintermediation
- Pricing pressure in GDS / lower contribution
- Failure to generate scale in Hotel IT

OWNERSHIP POSITIONING

Inst. Owners, % Active	81.6%
HF Sector Long/Short Ratio	2x
HF Sector Net Exposure	15.3%



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MS ESTIMATES VS. CONSENSUS

FY Dec 2023e

	Low	Morgan Stanley Estimates	Mean	High
Sales / Revenue (€, mn)	5,317	5,391	5,450	5,634
EBITDA (€, mn)	2,020	2,036	2,067	2,211
EBIT (€, mn)	1,334	1,482	1,448	1,530
EPS (€)	2.19	2.46	2.43	2.65
Net income (€, mn)	977	1,102	1,092	1,188

◆ Mean ◆ Morgan Stanley Estimates

Source: Refinitiv, Morgan Stanley Research

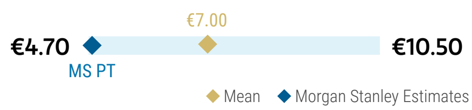
Risk Reward – Atos SA (ATOS.PA)

Relatively high execution risk in Atos' turnaround plan

PRICE TARGET €4.70

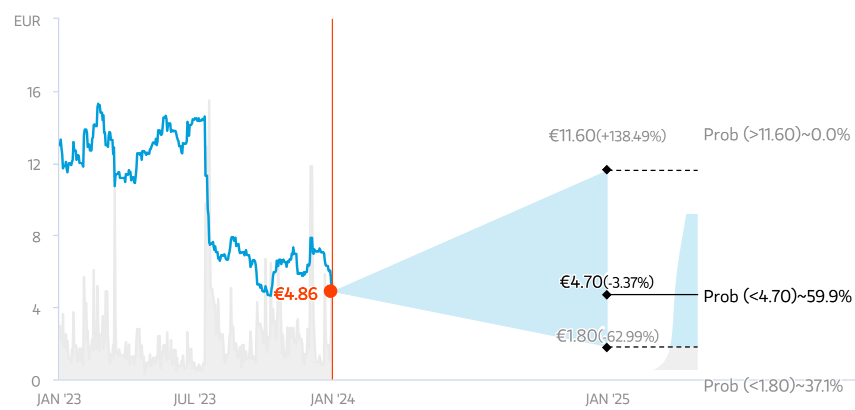
We value Atos (Eviden + Tech Foundations scope) on a 20% adjusted FCFE yield (based on our 2025 forecast, discounted back), which we think reflects the relatively higher risk associated with Atos vs industry peers.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



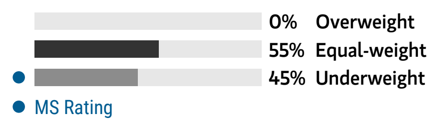
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 12 Jan 2024. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology here

UNDERWEIGHT THESIS

- Atos is made up of Eviden, the digital transformation business and the more challenged Tech Foundations business which is undergoing a significant restructuring
- Atos is currently evaluating various options to increase its liquidity (asset sales, sale of Tech Foundations, sale of cybersecurity/high performance computer business, capital increase). We see high uncertainty around Atos' liquidity given upcoming debt maturities.
- The relatively high execution risk and liquidity risk make us cautious on the stock

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption:	*Negative*
Pricing Power:	*Negative*
Special Situation:	*Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €11.60

15% 2024 FCFE yield

Atos accelerates growth to 4% organic and improve margin to 7.5% by 2025. FCFE conversion to adj. EBIT is higher than in our base case at ~25%. In our bull case we apply a c. 15% FCFE yield to our 2025 bull forecast discounted back.

BASE CASE €4.70

20% 2024 FCFE yield

We value Eviden + Tech Foundations scope. which we assume posts broadly flat revenue growth in 24-25. We assume the business reaches ~6% operating margin by 2025 and a 20% FCFE conversion to adj. EBIT. In our base case we apply a c. 20% FCFE yield to our 2025 forecast discounted back.

BEAR CASE €1.80

25% 2024 FCFE yield

Challenging macro and difficulty in executing its plan leads to Atos revenue declining by ~2-3% in 2024-25. Atos does not manage to improve its adj. EBIT margin which declines to 4% by 2025. FCFE conversion is lower than in our base case at 15%. In our bear case we apply a c. 25% FCFE yield to our 2025 forecast discounted back.

Risk Reward – Atos SA (ATOS.PA)

KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Organic growth (%)	(1.3)	0.0	(0.5)	0.3
EBIT margin (%)	3.1	4.4	5.1	5.9
Free cash flow (Atos) (€, mn)	(199)	(984)	(333)	125

CATALYST CALENDAR

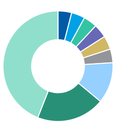
Date	Event
27 Jun 2024 - 01 Jul 2024	Atos SE Annual Shareholders Meeting

Source: Refinitiv, Morgan Stanley

INVESTMENT DRIVERS

- Atos manages to increase liquidity and delever
- Large outsourcing contracts drive a reacceleration in core IT Services top-line growth

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% India
- 0-10% Japan
- 0-10% Latin America
- 0-10% MEA
- 0-10% Mainland China
- 10-20% UK
- 20-30% North America
- 50-60% Europe ex UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

RISKS TO PT/RATING

RISKS TO UPSIDE

- Atos delivers on its plan to accelerate growth in its Digital, Big Data and Cybersecurity business and turnaround plan on its legacy infrastructure business to make the division break even
- Special situations

RISKS TO DOWNSIDE

- Execution risk on the growth acceleration and turnaround plans
- Sustained high leverage burdens the company's FCF
- Liquidity issues

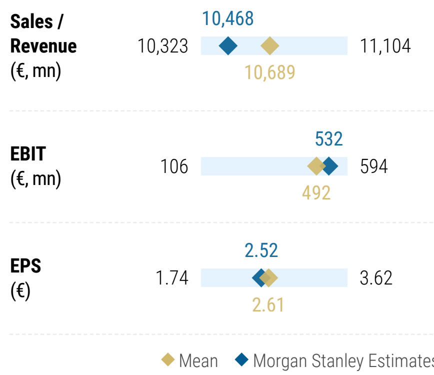
OWNERSHIP POSITIONING

Inst. Owners, % Active	35.8%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2024e



Source: Refinitiv, Morgan Stanley Research

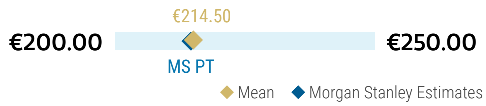
Risk Reward – Capgemini (CAPP.PA)

Limited near-term upside

PRICE TARGET €214.00

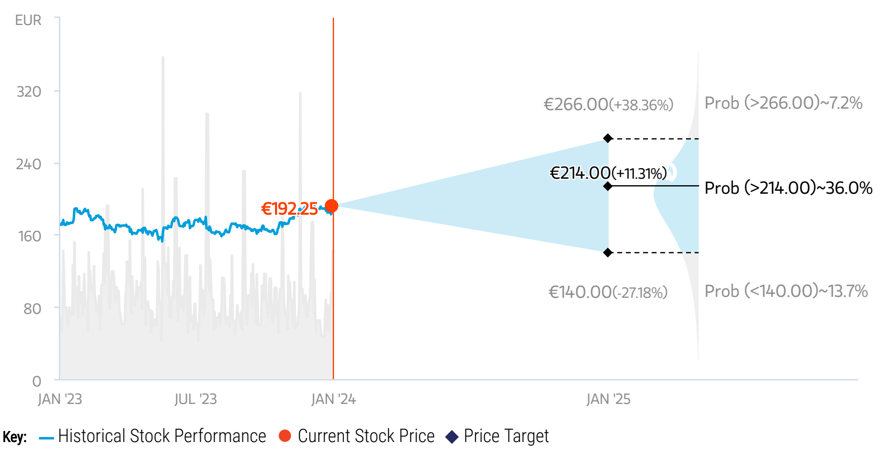
10-year DCF, discounted at WACC of 8.5%, 2.5% terminal growth

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)

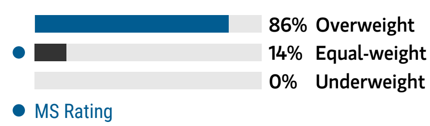


Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 12 Jan 2024. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology here

EQUAL-WEIGHT THESIS

- Leading IT Services player well positioned to continue outperforming the market. Strong exposure to digitalisation and benefiting from secular tailwinds.
- Digital manufacturing/Industry 4.0: Capgemini's recent acquisition of Altran creates an IT/OT leader, well positioned to capture the large opportunity around digital manufacturing.
- Focus on FCF generation: Capgemini has historically achieved FCF generation and conversion at some of the higher levels in the sector (conversion typically mid-60s to mid 70s %).
- We expect limited growth in 1H24 (negative in 1Q24) which we think limits near-term upside.
- We favour other stocks within our coverage.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Secular Growth: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €266.00

Growth and margins narrow the gap to Accenture

Growth, margins and valuation narrow the gap to Accenture as the company executes strongly on top-line growth. We assume the company delivers a c. 9% revenue CAGR FY24-27 (organically), and c. 5% FY28-34. Margins are slightly above our base case reaching c. 16% in terminal state. We apply c. 3% terminal growth. Our bull case implies c. 23x FY24 bull case adj. P/E.

BASE CASE €214.00

Helping to enable the digitalisation agenda

We forecast ~2.5% org growth in 2024, with 1H24 org. growth of c. 0.5% and an acceleration into 2H24 (4.5%). We model a bounce-back to 5% org growth in FY25. Our FY24-27 and FY28-34 revenue CAGR is 6.5% and ~4%, respectively. We model adj. EBIT margins continuing to scale, reaching ~15% in terminal state as the company continues to increase the value-add of its product offering, leverage offshoring and automation. Our base case implies c. 19x FY24 adj. P/E, or a c. 5% FCF yield.

BEAR CASE €140.00

Macroeconomic headwinds, trough valuation levels

Macroeconomic challenges re-emerge, pressuring demand for consulting services. We apply an EV/Sales valuation method. We use a 1x (Capgemini's long-term historical average) multiple on 2025e EV/Sales to get to our bear case of €140. We use the historical average vs. the trough valuation to reflect the average variability in the profitability (which has improved over time vs. the previous trough valuations), and improved business mix.

Risk Reward – Capgemini (CAPP.PA)

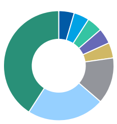
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Group organic revenue growth (%)	15.3	3.8	2.6	5.0
Adj. EBIT margin (%)	13.0	13.2	13.6	13.9

INVESTMENT DRIVERS

- IT budgets/macro: IT services health is linked to business capex/confidence
- Software product cycles: Particularly within systems integration, from new products (e.g. S/4 HANA)
- Share buybacks
- Altran synergies

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% India
- 0-10% Japan
- 0-10% Latin America
- 0-10% Mainland China
- 10-20% UK
- 20-30% North America
- 40-50% Europe ex UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

4/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Stronger than expected growth recovery in 1H24
- Altran outperforms expectations

RISKS TO DOWNSIDE

- Macro: consulting work is cyclical as shown by our MS AlphaWise CIO survey data
- Contract execution risk is quite high

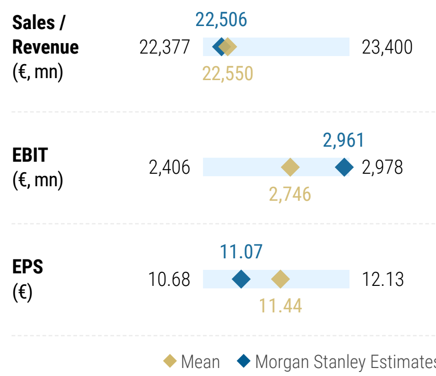
OWNERSHIP POSITIONING

Inst. Owners, % Active	81.6%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

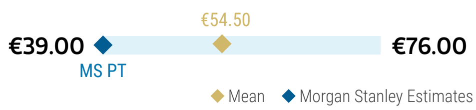
Risk Reward – CompuGroup Medical SE & Co KgaA (COP1n.DE)

Quality health tech software company trading at a relatively fair valuation

PRICE TARGET €39.00

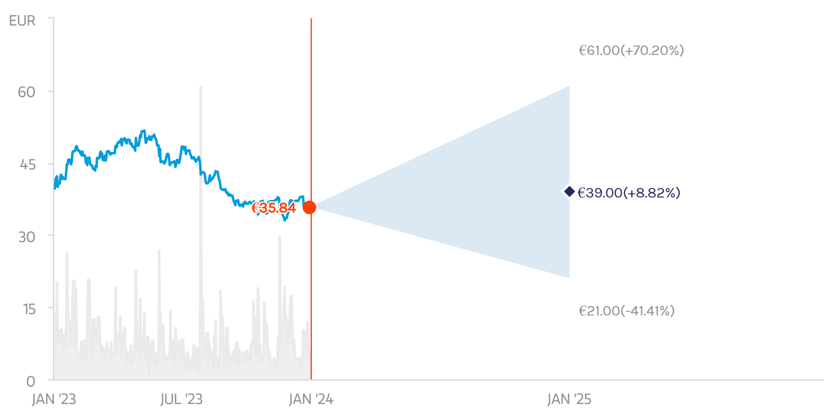
We value CompuGroup using a 10-year DCF model, assuming a 9.0% WACC and a 2% terminal growth rate.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



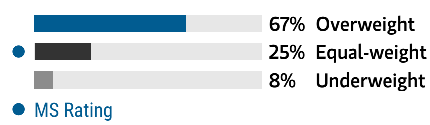
Key: Historical Stock Performance · Current Stock Price · Price Target

Source: Refinitiv, Morgan Stanley Research

EQUAL-WEIGHT THESIS

- Strong market position in Europe, a sticky installed customer base and a high share of recurring revenue (c. 65%).
- Its markets are well penetrated, except for hospital information systems and data-driven clinical decision support software, where we see scope for further digitalisation.
- We think current valuation reflects realistic market expectations around CGM's growth prospects
- The company trades at a ~45% discount to our software coverage, which we view as warranted given relatively lower growth prospects

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

BULL CASE €61.00

Innovations and regulatory tailwinds

Assumes that organic growth accelerates to ~6.5% as CompuGroup successfully innovates (esp on the data software side) and benefits from further regulatory tailwinds across its divisions. Longer-term, we model 3.5% FY27-33. Adj. EBITDA margin remains in the mid-20s% through to FY25 but reaches c. 33% in terminal state. We apply a 3% terminal growth rate. Our bull case implies 25x 2024 adj. P/E.

BASE CASE €39.00

Mid-single-digit mid-term growth sustained

We expect CompuGroup to continue benefitting from increased hospital spending on digitalisation and cross-selling of new products, driving mid-term org. growth of ~4.5% (vs long-term average of 2-3%). Longer-term we forecast 3% organic growth (FY28-34). Adj. EBITDA margin expands to c 24.5% in 2025 (below guide) and c. 29% in terminal state. Our base case implies c. 18x 2024 adj. P/E.

BEAR CASE €21.00

Limited innovations, low-single-digit org. growth

Assumes that CompuGroup grows by low single digits (c. 2%) post 2023, due to limited success at innovation and only modest benefits from regulatory programmes. Adj. EBITDA margin remains in the low 20s % mid term as the company tries to innovate and expands to c. 25% in terminal state as costs are rationalised to match top-line growth. We apply a 1% terminal growth rate. Our bear case implies c. 12x 2024 adj. P/E.

Risk Reward – CompuGroup Medical SE & Co KgaA (COP1n.DE)

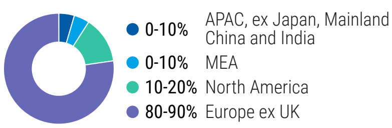
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Organic growth (%)	4.7	4.9	4.4	4.8
Adj EBIT margins (%)	14.8	17.9	18.0	18.6
Adj EPS growth (%)	(7.7)	20.3	2.6	9.5

INVESTMENT DRIVERS

- Successful vision and innovation can create opportunities in healthcare big data analytics
- CGM could leverage its customer base and data to expand into diagnostics & clinical decision support software
- M&A is an integral part of CGM's growth strategy

GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

2/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Successful product innovation and cross-selling of new products in higher-growth areas, e.g. clinical decision support
- Government-initiated programs to boost healthtech adoption
- Company expands EBITDA margin in line with its guide

RISKS TO DOWNSIDE

- Failure to innovate at least moderately in the areas in which CompuGroup currently operates
- CompuGroup cannot sustain 5% organic growth while expanding EBITDA margins

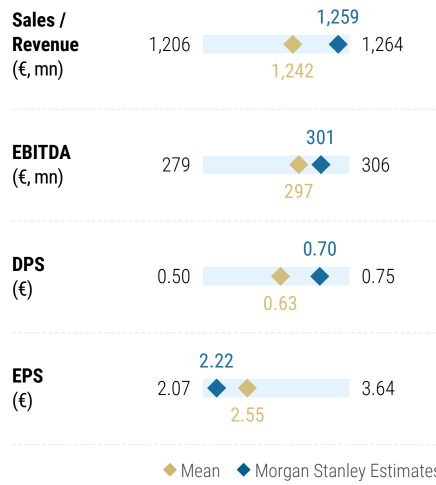
OWNERSHIP POSITIONING

Inst. Owners, % Active	85.2%
HF Sector Long/Short Ratio	2.4x
HF Sector Net Exposure	14.6%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2024e



Source: Refinitiv, Morgan Stanley Research

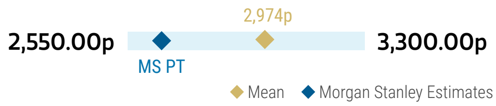
Risk Reward – Computacenter PLC (CCC.L)

Largest UK listed VAR

PRICE TARGET 2,650p

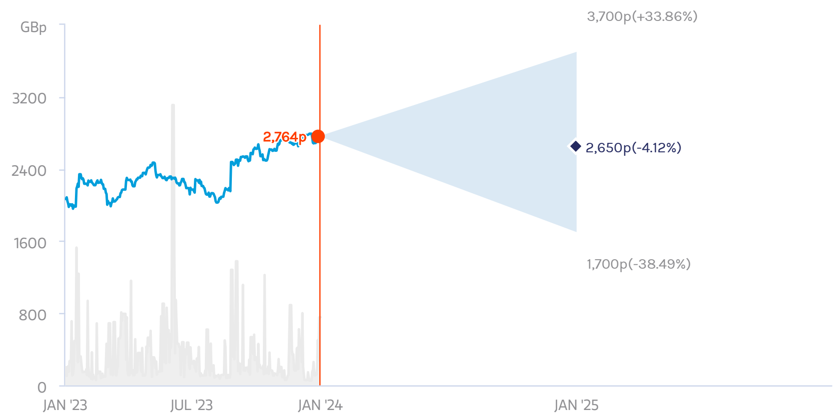
We use a DCF analysis to value Computacenter, applying a 9% WACC and a 1% terminal growth rate.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



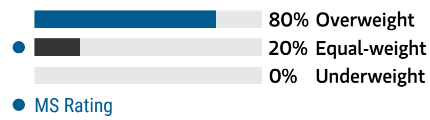
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research

EQUAL-WEIGHT THESIS

- We are more cautious on the growth outlook for Computacenter given: 1) higher exposure to infrastructure outsourcing / less scalable services; 2) integration risk following recent M&A; and 3) lower exposure to Software/cloud.
- Computacenter trades broadly in line with its key peer group, supporting our Equal-weight rating.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE 3,700p

Computacenter successfully manages headwinds

Growth accelerates meaningfully as Computacenter successfully manages headwinds from rising cloud adoption and integrates recent large M&A deals. We look for a group top-line CAGR of c. 6% FY24-28 and 4% for FY28-34 driving bull case growth 2.5% above our base case. We incorporate a terminal growth rate of 2% (vs. 1% in our base case).

BASE CASE 2,650p

Growth rebounds

We forecast org. growth of c. 3% over FY24-28, informed by our more cautious views around M&A integration risk and higher exposure to mature services/infrastructure outsourcing. Top-line growth is composed of c. 3.5% growth for the Technology Sourcing division and c. 1.5% for Services (all FY24-28). Below the line, we forecast adj. EBIT growth of 4% FY24-28.

BEAR CASE 1,700p

Growth fails to materialise

Growth slows more than anticipated with a c. 0% CAGR in FY24-28, as growth fails to re-accelerate across all divisions. Faster adoption of cloud solutions results in headwinds for Computacenter's Services division, given higher exposure to outsourcing, with a -2% CAGR FY24-28. Below the line, margin compression accelerates due to a rebound in costs post COVID and higher investment requirements to support growth, resulting in a 0% EBIT CAGR FY24-28.

Risk Reward – Computacenter PLC (CCC.L)

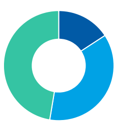
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Group gross revenue (£, mn)	6,471	7,498	7,911	8,148
Organic growth (%)	22.3	12.0	2.3	3.7
Adj. EBIT (£, mn)	269	272	291	302
EPS (£, mn)	171	175	191	201

INVESTMENT DRIVERS

- Organic top-line growth
- Margin expansion
- Addition of high-growth vendor relationships
- M&A

GLOBAL REVENUE EXPOSURE



- 10-20% UK
- 30-40% Europe ex UK
- 40-50% North America

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

1/5 MOST | 3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

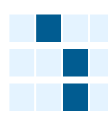
- Further earnings upgrades driven by successful up/cross-sell
- Large M&A deals integrated successfully, driving revenue/margin upside
- Potential expansion into new markets

RISKS TO DOWNSIDE

- Changes to terms/relationships with large vendors
- Issues around large managed services contracts
- Accelerating cloud adoptions leads to increased price/volume pressure around infrastructure outsourcing deals

OWNERSHIP POSITIONING

Inst. Owners, % Active	76.7%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%



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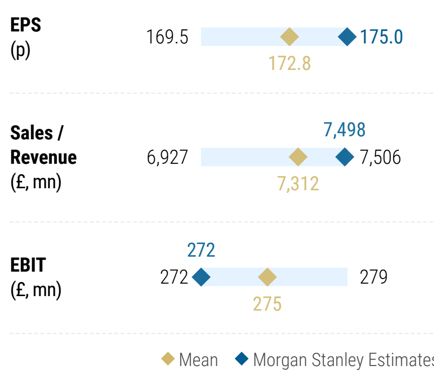
MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

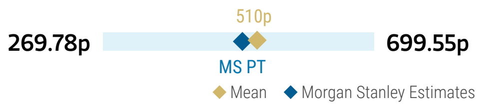
Risk Reward – Darktrace PLC (DARK.L)

Solid market positioning and large market opportunity

PRICE TARGET 485p

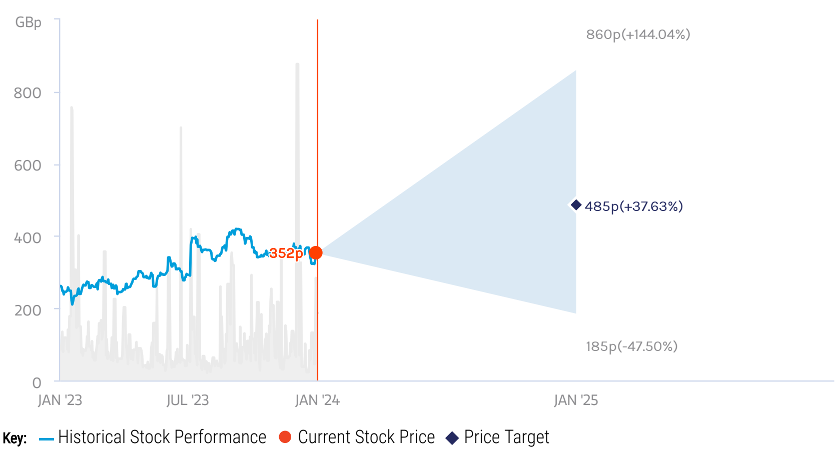
Average of two methods: 1) 15-year DCF, using a 9.0% WACC, and 2.5% terminal growth rate, 2) ~6x CY24 EV/Sales multiple, a moderate % discount (reflecting greater risk, higher than average customer churn levels) to broader cybersecurity software peer and broader US SaaS peer median CY24 EV/sales valuation levels

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART

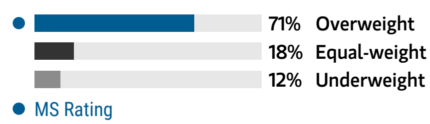


Source: Refinitiv, Morgan Stanley Research

OVERWEIGHT THESIS

- High-growth cybersecurity vendor, with a broad product portfolio covering AI/ML-enabled detection, response, investigation and prevention. We see a significant greenfield opportunity (c. 8.8k current customers vs. Darktrace's estimate of c. 150k addressable companies).
- Differentiated approach to cybersecurity using AI/ML techniques to identify anomalies within the customers' IT environment.
- History of delivering strong growth since inception; Darktrace delivered a c. 47% revenue CAGR FY18-23, and we forecast a 19% CAGR for FY23-27.
- Our price target relies on Darktrace delivering significant mid-term organic growth, as well as margin elevation from mid-single digits % on adj. EBIT to low-20s.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

New Data Era:	*Positive*
Secular Growth:	*Positive*

View descriptions of Risk Rewards Themes here

BULL CASE 860p

Expanding addressable market drives higher growth

Darktrace executes strongly on both expanding spend with existing customers as well as new customer acquisition. New product families (e.g. Prevent, Heal) are well received. As a result, the FY24-27 revenue CAGR is c. 24%, and the FY27-39 CAGR is c. 12.5%. Our bull case assumes c. 25% addressable company penetration with a 2x current ARR uplift. Adj. EBIT margins (ex-SBC) reach c. 25% in terminal state. We apply a 3% terminal growth rate. Our DCF-derived bull case implies c. 8x FY25 EV/Sales.

BASE CASE 485p

Durable growth and margin reach target at maturity

Derived from a blend of a base case DCF and a CY24 EV/Sales approach. Darktrace executes strongly on new business growth with a c. 19% revenue CAGR across FY24-27, c. 7% FY27-39. This effort is aided by a continual expansion of the product suite (Prevent & Heal). In tandem, as the business matures and operating leverage comes through, Darktrace significantly ramps up its adj. EBIT (ex-SBC) profitability towards typical enterprise software levels at maturity (MSe low-20s% in terminal state).

BEAR CASE 185p

Competition bites and growth decelerates faster

Darktrace's growth slows down more rapidly than in our base case, as the NDR software category matures and product expansion (e.g. HEAL, PREVENT) fails to gain traction. By FY33, our forecast bear case revenues are c. $1.25bn (vs. c. $2.1bn base case), with a FY24-27 revenue CAGR of c. 13%, c. 3.5% FY26-38. Competition and higher cost intensity subsequently drive terminal adjusted EBIT margins materially lower than target, at c. 15% (ex-SBC). We also apply a lower 2% terminal growth rate.

Risk Reward – Darktrace PLC (DARK.L)

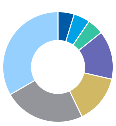
KEY EARNINGS INPUTS

Drivers	2023	2024e	2025e	2026e
MSe annually recurring revenue (Y FX) (US$, mn)	637	782	938	1,108
MSe y/y cc growth (%)	36.9	21.2	20.8	19.0
Adjusted EBIT margin (%)	15.1	14.5	14.3	13.8

INVESTMENT DRIVERS

- Level of net retention rate
- Level and trajectory of constant currency net ARR additions
- Product launches and market reception to Prevent and (future) Heal product areas
- Potential bolt-on M&A
- 1H24 results

GLOBAL REVENUE EXPOSURE



- 0-10% India
- 0-10% Japan
- 0-10% MEA
- 10-20% APAC, ex Japan, Mainland China and India
- 10-20% UK
- 20-30% Europe ex UK
- 30-40% North America

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

1/5 MOST 3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

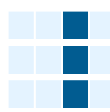
- Improvements in existing customer economics (via higher net retention rate, or cross-sell)
- Higher rate of new customer acquisition than we expect (driving cc ARR adds)
- M&A which expands addressable market and cross-sell opportunity

RISKS TO DOWNSIDE

- Lower-than-expected improvements in profitability trajectory
- Intensifying competition in core network detection
- XDR market growth cannibalises part of NDR
- Cyberbreach

OWNERSHIP POSITIONING

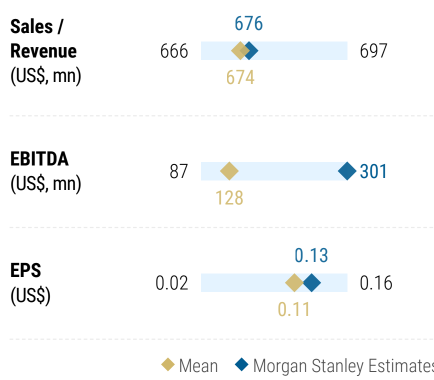
Inst. Owners, % Active	66.6%	
HF Sector Long/Short Ratio	1.7x	
HF Sector Net Exposure	5.4%	



Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Jun 2024e



Source: Refinitiv, Morgan Stanley Research

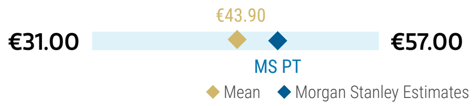
Risk Reward – Dassault Systemes SA (DAST.PA)

3DEXPERIENCE platform drives next leg higher, Medidata increases TAM

PRICE TARGET €47.50

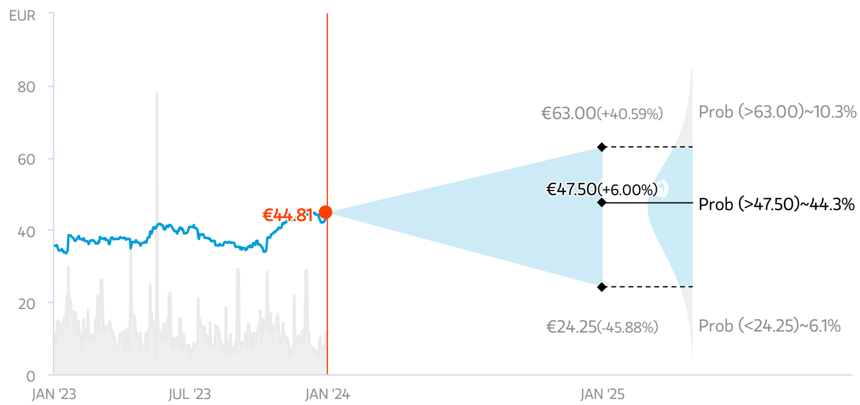
We value Dassault Systemes using a 10-year DCF, with an 8% WACC and 3.5% terminal growth rate.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



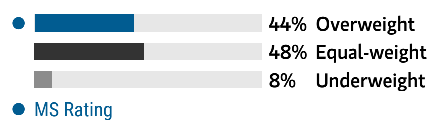
Key: Historical Stock Performance · Current Stock Price · Price Target

Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 12 Jan 2024. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology here

OVERWEIGHT THESIS

- We believe highly recurring software business models with growth deserve to trade at a clear premium to the sector/market. We also see high barriers to entry within the design software space.
- We think Dassault is in the early stages of a major product cycle (V6/3D Experience platform) and expansion of its available market (new products and new industries). The company is well-positioned to address digitalisation of the manufacturing industry, and also the healthcare industry (following the acquisition of Medidata).
- The acquisition of Medidata increases exposure to Life Sciences to c. 20% (c. 5% previously), increasing TAM and adding diversification, while accelerating growth.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption:	*Positive*
Secular Growth:	*Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €63.00

3DE product cycle becomes the standard

Our bull case assumes that the 3DExperience product cycle is a major success and that Dassault's software becomes a quasi-standard, with success across targeted industries, and in expanding into healthcare. As a result, top-line revenues grow at a c. 12.5% CAGR across FY25-28e, c. 8.8% FY28-34. We assume a higher terminal growth rate than in our base case, at 4%, with Medidata increasingly representing more of the mix. At our bull case level, Dassault would trade at c. 42x FY25 adj. P/E.

BASE CASE €47.50

High growth innovator with significant TAM

While macro drives a modest FY23 slowdown, we assume Dassault achieves a c. 10% top-line revenue CAGR 2024-27e and ~8% CAGR 2028-34e. This is driven by Dassault continuing to successfully penetrate the PLM/digital manufacturing opportunity and life sciences. Within this, Dassault sustains strong growth in core PLM/Solidworks business and in cross-sell products. Adj. EBIT margin is c. 33% in FY24 and rises to c. 40% in terminal state. Our base case target equates to c. 34x FY25 adj. P/E.

BEAR CASE €24.25

Macro deteriorates sharply/3DExperience stutters

Our bear case assumes Dassault's installed base is reluctant to migrate to the 3DE platform, and that the product cycle proves unsuccessful. As a result, revenues grow by c. 6.5% on average in 2024-27e and only c. 4% 2028-34. Progress on expanding margins is significantly slower versus our base case, reaching c. 32.5% in FY26 as Dassault re-invests. Adj. EBIT margins peak at c. 35%. We use a lower terminal growth rate of 2%. Our bear case implied adj. P/E is c. 19x FY25.

Risk Reward – Dassault Systemes SA (DAST.PA)

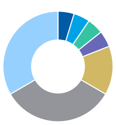
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Group revenue (€, mn)	5,666	5,927	6,253	6,922
Constant currency growth (%)	9.0	8.6	8.9	10.7
Organic growth (%)	9.0	8.6	8.9	10.7
Adj. EBIT margin (%)	33.4	32.3	32.8	33.3

INVESTMENT DRIVERS

- Newer products (manufacturing expansions around DELMIA plus BIOVIA, GEOVIA & 3DExcite) could grow more quickly than expected
- Dassault's FCF generation should allow for further M&A
- Large-scale new contract wins (particularly in new verticals)

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% Latin America
- 0-10% Mainland China
- 0-10% UK
- 10-20% Japan
- 30-40% Europe ex UK
- 30-40% North America

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

4/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Large deal wins result in accelerating top-line growth
- Digital manufacturing and healthcare themes continue to gain traction

RISKS TO DOWNSIDE

- Operating leverage may be weaker than we expect as DS invests for mid-term growth
- Customer shift towards 3DE weaker/slower than expected
- M&A may be technology driven, which could dilute EPS progress
- Cross-selling and sales into new markets may be more difficult than we expect

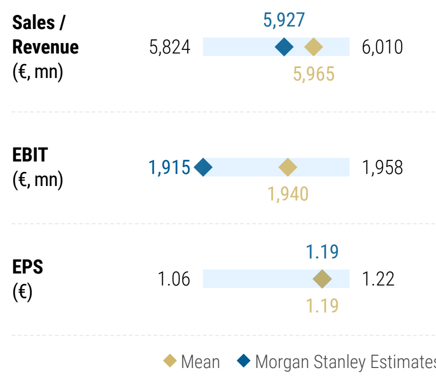
OWNERSHIP POSITIONING

Inst. Owners, % Active	78.5%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

Risk Reward – Eurowag (WPS.L)

A logistics-focused technology platform

PRICE TARGET 135p

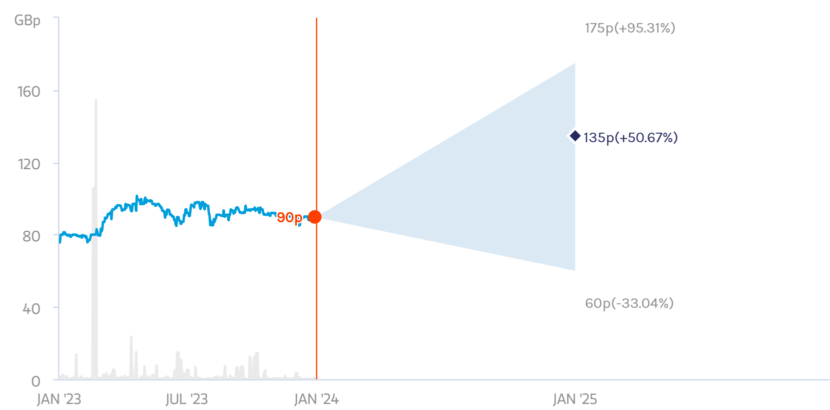
We use a DCF to value Eurowag, with a WACC of 10% and terminal growth rate of 1.5%.

Consensus Price Target Distribution 111.63p 129p MS PT 145.98p

◆ Mean ◆ Morgan Stanley Estimates

Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



Key: — Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research

OVERWEIGHT THESIS

- Eurowag's strong track record around innovation and cross-sell, combined with unique positioning (vertical CRT focus, alongside an integrated platform offering/data-driven approach) leaves it well positioned to execute on its platform strategy, increasing customer stickiness/LTV.
- We forecast c. 13% organic revenue growth in 2024e (vs. 11% FY23) and a ~14% CAGR FY23-26, in line with company guidance.

Consensus Rating Distribution

●	100%	Overweight
	0%	Equal-weight
	0%	Underweight

● MS Rating

Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption: *Positive*
Secular Growth: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE 175p

Growth accelerates

Eurowag delivers a ~14% organic CAGR FY24-27e and a 4% CAGR FY27-32e, as growth accelerates due to successful entry into new product areas and cross-sell, while share gains continue. Adj. EBITDA margin rises to ~46% in terminal state.

BASE CASE 135p

Mid-teens growth achieved

Eurowag delivers a c. 12% organic top-line CAGR FY24-27e and ~3% CAGR 2027-32e, as growth is supported by structural tailwinds around digitalisation and cross-sell. Adj. EBITDA margin reaches 45% in FY25e and ~45% in terminal state.

BEAR CASE 60p

Platform strategy fails to take hold

Eurowag delivers growth below the mid-term guide, with c. 7% organic top-line net CAGR FY24-27e and ~2% CAGR 2028-33e, as growth stalls and the platform strategy around cross/up-sell fails to take hold. Adj. EBITDA margin of 40% in FY24e, declining to 37% in terminal state as growth stalls.

Risk Reward – Eurowag (WPS.L)

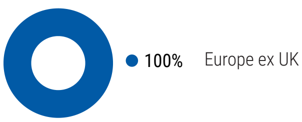
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Organic growth (%)	19.1	11.2	13.2	15.4
Adj. EBITDA margin (%)	42.8	42.8	43.5	45.1

INVESTMENT DRIVERS

- Organic net revenue growth
- Margin expansion
- M&A

GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

RISKS TO PT/RATING

RISKS TO UPSIDE

- Cross-sell drives growth acceleration
- Successful entry into new areas (DFF, insurance, aftermarket)

RISKS TO DOWNSIDE

- M&A integration risk
- Regulatory risk
- Capex remains elevated beyond FY23

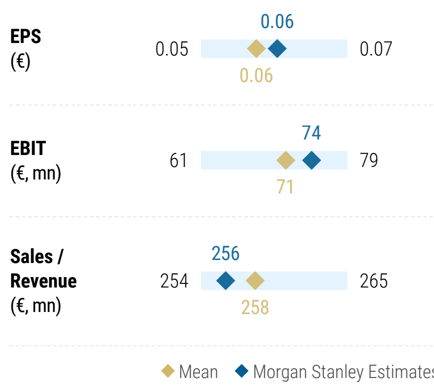
OWNERSHIP POSITIONING

Inst. Owners, % Active	98.9%
HF Sector Long/Short Ratio	2.3x
HF Sector Net Exposure	19.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

Risk Reward – Exclusive Networks (EXN.PA)

A global cybersecurity specialist

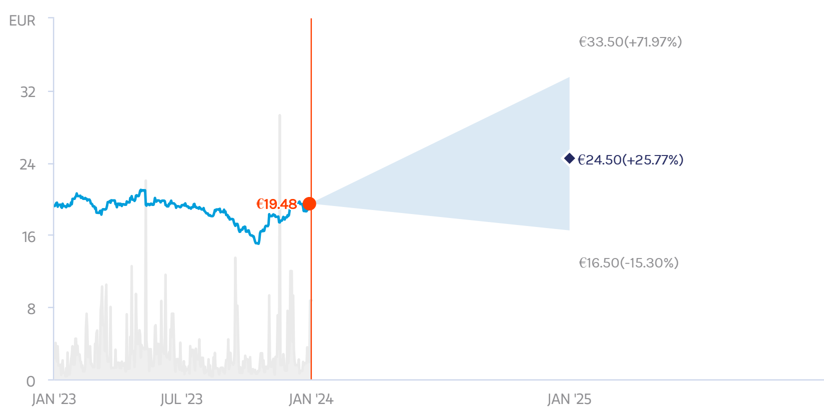
PRICE TARGET €24.50

We use a DCF to value Exclusive Networks, with a WACC of 9% and terminal growth rate of 2%.

Consensus Price Target Distribution

Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



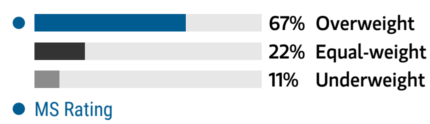
Key: Historical Stock Performance · Current Stock Price · Price Target

Source: Refinitiv, Morgan Stanley Research

OVERWEIGHT THESIS

- Exclusive operates in a €60bn cyber market, with a >€26bn 'sweet spot' for 2-tier distribution, expected to grow c.10% to 2026e. With a unique global/local approach to cybersecurity distribution we see clear network effects (more vendors attract more partners, driving further expertise).
- Two key considerations: 1) competitive positioning / impact of cloud and 2) durability of growth/TAM.
- We forecast 9%organic net margin growth in FY24, benefitting from strong secular tailwinds around cybersecurity demand, offering European investors a way to play the theme.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Secular Growth: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €33.50

Growth accelerates

Exclusive delivers growth ahead of guidance and remains >9% org. growth in the mid-term, supporting a 10% CAGR FY24-28 and a 4.5% CAGR FY28-34, as growth accelerates due to increased demand for cybersecurity solutions, while share gains continue. Adj. EBITA margin reaches c. 38% in FY23 and rises to 40.5% in terminal state.

BASE CASE €24.50

Robust demand for cybersecurity solutions

Exclusive c. 9% org. net margin growth in FY24. Beyond this, we expect 7% top-line net margin CAGR FY24-28e and ~2.5% CAGR 2028-34e, as growth is supported by structural demand for cyber solutions. Adj. EBITA margin reaches c. 37% in FY23 and rises to 39.5% in terminal state.

BEAR CASE €16.50

Net margin compression sees growth slow

Net margin compression is greater than expected as Exclusive scales with larger merchants and is unable to offset with new merchant wins. FY24 net margin is below guidance range. Thereafter, net margin growth remains muted with a 5% CAGR FY24-28 and a 1% CAGR FY28-34, as competitive pressures result in take rate headwinds. Adj. EBITA margin reaches 35% in FY23 and rises to 37% in terminal state

Risk Reward – Exclusive Networks (EXN.PA)

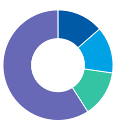
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Organic net margin growth	0.2	0.1	0.1	0.1
Net margin (as % of gross sales)	0.1	0.1	0.1	0.1
Adj. EBITA margin (as % of net margin)	0.4	0.4	0.4	0.4

INVESTMENT DRIVERS

- Organic net margin growth
- Net margin progression
- Gross sales growth
- EBITA margin expansion

GLOBAL REVENUE EXPOSURE



- 10-20% APAC, ex Japan, Mainland China and India
- 10-20% North America
- 10-20% UK
- 60-70% Europe ex UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

5/5 MOST | 3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Top-line growth ahead of management guidance drives upgrades
- Accretive M&A
- New vendor wins

RISKS TO DOWNSIDE

- Net margin compression exceeds 1pt as outlined in mid-term guidance
- High profile vendor churn
- M&A execution/integration risk

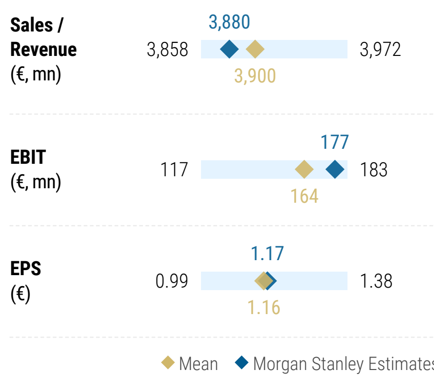
OWNERSHIP POSITIONING

Inst. Owners, % Active	99%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

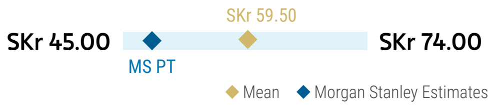
Risk Reward – Fortnox AB (FNOX.ST)

Premium company at a premium valuation

PRICE TARGET SKr 48.00

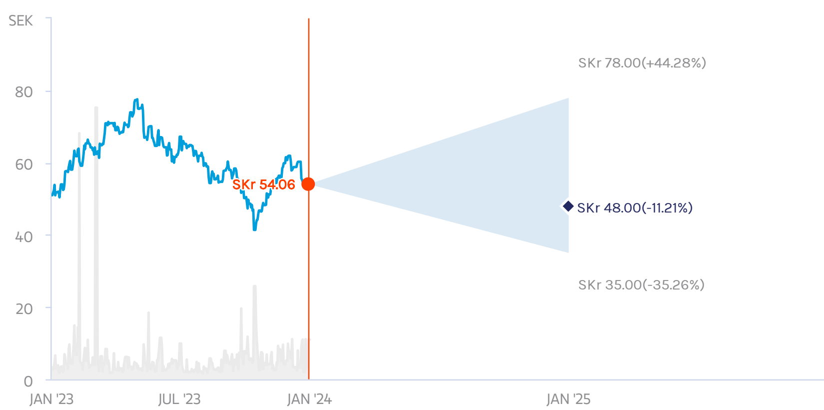
We use a 15-year DCF to value Fortnox, with a WACC of 9.0% and terminal growth rate of 3.5%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



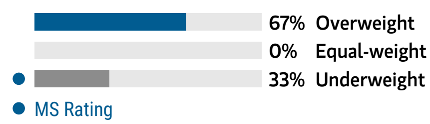
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research

UNDERWEIGHT THESIS

- Solid execution over the past several years has been rewarded with strong returns, leading to the stock trading at a significant premium to the wider sector.
- While we are positive on the company's market positioning, and expect it to deliver on its implied 2025 revenue target (26% CAGR FY22-25), we believe the market is pricing in long-term FCFF growth that is too high (~20% CAGR FY22-37).
- With customer growth continuing to moderate, revenue growth will be more reliant on driving greater attach rates of non-core products. We see increased execution risk ahead, which is not fairly captured by the valuation. At this valuation, the risk/reward looks more favourable elsewhere in the sector.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Contrarian:	*Negative*
New Data Era:	*Positive*
Secular Growth:	*Positive*

View descriptions of Risk Rewards Themes here

BULL CASE SKr 78.00

Platform success

Fortnox delivers solid execution on its cross-selling ambitions, with its Finance business gaining significant traction within its customer base. New product launches (including the Fortnox Card) are received well by customers as they continue to standardise business processes on the Fortnox platform. We forecast c. 17% CAGR FY23-37, with margins peaking at 42%, moderating to 37% in terminal state. Our Bull case implies 56x CY25 P/E.

BASE CASE SKr 48.00

Growth moderation

Fortnox delivers growth broadly in-line with its implied 2025 revenue target (26% CAGR FY22-25), albeit driven by price increases and ARPC expansion, with the no. of customers falling short of the 700k target (MSe at 622k). As pricing impacts fade and customer growth continues to decelerate, this is not fully offset by cross-selling of non-core products, and growth softens to low-20's % by FY27. Margins peak at 42% and moderate to 35% in terminal state as the business reinvests for growth.

BEAR CASE SKr 35.00

Progress in growth areas stalls

Macro headwinds materially impact revenue growth in FY24, while momentum in the lending business slows over FY24-28 as customer penetration is slower than expected and new product launches fail to gain traction. We forecast group revenue to grow at a c. 20% CAGR FY24-27 and c. 8% over FY27-37. Lower top-line growth and increased investment reduces operating leverage, with margins peaking at c. 39% in FY25 (32% in terminal state). Our bear case implies 25x CY25 P/E.

Risk Reward – Fortnox AB (FNOX.ST)

KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Organic growth (%)	29.5	27.3	24.6	23.8
Operating margin (%)	36.4	39.6	41.0	41.7
ARPC (SKr)	233	269	306	351
Number of customers (000s)	480	533	580	622

INVESTMENT DRIVERS

- Organic growth and continued margin expansion
- Increased cross-selling of adjacent products
- Further M&A which is accretive to the overall TAM

GLOBAL REVENUE EXPOSURE

● 100% Europe ex UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

RISKS TO PT/RATING

RISKS TO UPSIDE

- Continued ability to leverage above inflation pricing increases on core products
- Success in servicing larger enterprises, which is accretive to ARPC
- Opportunistic M&A expands the TAM
- International expansion

RISKS TO DOWNSIDE

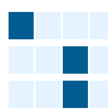
- Decelerating new customer growth
- Slowing momentum in the financing business
- Cross- and up-selling efforts of non-core products stall
- Increased investment puts pressure on margins

OWNERSHIP POSITIONING

Inst. Owners, % Active 87%

HF Sector Long/Short Ratio 1.7x

HF Sector Net Exposure 5.4%



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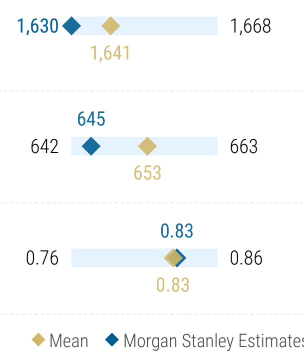
MS ESTIMATES VS. CONSENSUS

FY Dec 2023e

Sales / Revenue (SKr, mn)

EBIT (SKr, mn)

EPS (SKr)



Source: Refinitiv, Morgan Stanley Research

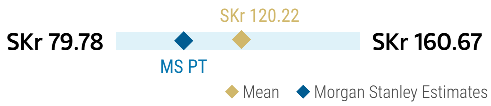
Risk Reward – Hexagon AB (HEXAb.ST)

Facing macro headwinds

PRICE TARGET SKr 101.00

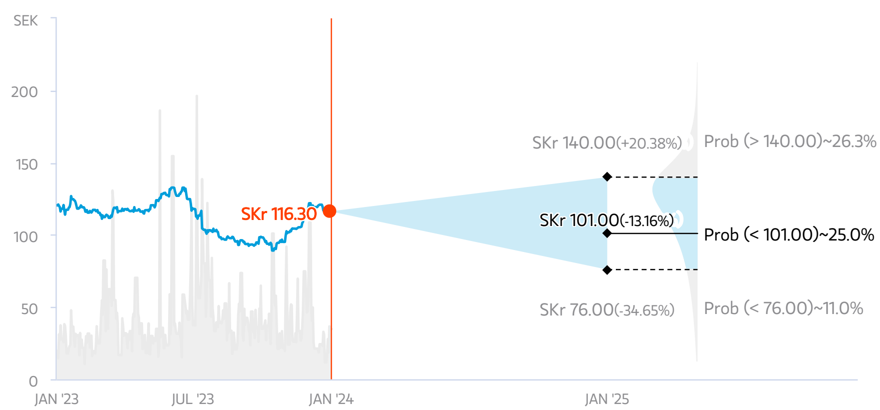
We use a 10-year DCF to value Hexagon, with a WACC of 8.5% and terminal growth rate of 2.5%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



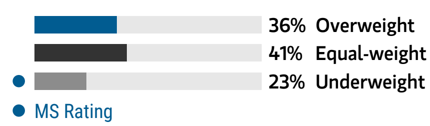
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 12 Jan 2024. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology here

UNDERWEIGHT THESIS

- Hexagon's exposure to smart solutions (e.g. manufacturing, cities) leaves it with a structural growth backdrop in the mid-term. Hexagon continues to transition its revenue mix towards a higher proportion of software and services. This equates to higher recurring revenues and improved earnings quality over time.
- After a tough FY20 (sales -c. 4% org.), growth rebounded to 12% org. in FY21 and 8% in FY22. Hexagon is exposed to cyclical end markets (e.g. manufacturing, surveying).
- Trading on a FY24 FCF multiple of c. 23x, we see growth moderating into 2024
- Company targets: c. 5-7% org. revenue growth CAGR through to FY26, +3-5% from M&A

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Technology Diffusion: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE SKr 140.00

Shifting to permanently higher cycle growth

FY24 org. growth accelerates, driven by product launches, pricing power, and increased infrastructure stimulus. Hexagon delivers in smart solutions, with a c. 7% group revenue CAGR FY24-27e and c. 5% FY28-FY34e (c. 1.5pps above our base case). Hexagon benefits from operating leverage via the transition to higher margin software revenues; adj. EBIT margins reach c. 31% in FY26e, c. 36% long-term. We apply 3% terminal growth. Our bull case implies c. 24x FY25e adj. P/E, c. 6x EV/Sales.

BASE CASE SKr 101.00

Growth starts to normalise in FY23

After delivering above-trend growth in FY21 (c. 12.0% org.), supply chain constraints and continued China lockdowns meant growth moderated to c. 8% in FY22. A weaker macro in FY23 keeps growth lower (MSe c. 8%). FY24-27 revenue CAGR is c. 6%, and c. 4% for FY28-34. Continued shift towards software helps Hexagon achieve c. 30% adj. EBIT margins in FY25, and low-30s% in the long-term. Our base case implies c. 18x FY25e adj. P/E, c. 4.4x EV/Sales.

BEAR CASE SKr 76.00

Smart solution ambitions wane

Ambitions around smart solutions fail to materialise, leaving Hexagon susceptible to industrial sector demand cycles. Supply chain difficulties, a macro slowdown and tough comps drives broadly flat organic growth in FY24. Stated growth is at a c. 4% CAGR in FY24-27e and c. 3% in FY27-33e. Margin expansion is muted, at c. 29% in FY26e, and c. 28% in terminal state as re-investment is critical to sustain growth. We use 2% terminal growth. Our bear case implies c. 15x FY25 adj. P/E, c. 4x EV/Sales.

Risk Reward – Hexagon AB (HEXAb.ST)

KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
IES organic growth (%)	6.0	9.1	5.5	6.0
GES organic growth (%)	14.0	6.0	5.3	5.8
Group organic growth (%)	8.0	7.6	5.4	5.9
Adj. EBIT margin (%)	29.3	29.1	29.7	30.2

CATALYST CALENDAR

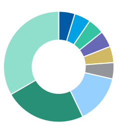
Date	Event
01 May 2024 - 05 May 2024	Hexagon AB Annual Shareholders Meeting

Source: Refinitiv, Morgan Stanley

INVESTMENT DRIVERS

- Further increasing the share of more recurring revenues (software), and services, ~60% currently.
- M&A (particularly in software).
- Capital and technology expenditure in key industries such as consumer electronics, surveying, automotive, aerospace.

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% India
- 0-10% Japan
- 0-10% Latin America
- 0-10% MEA
- 0-10% UK
- 10-20% Mainland China
- 20-30% Europe ex UK
- 30-40% North America

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

4/5 **MOST**	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

Renewed strength in macroeconomic environment, particularly in surveying and manufacturing.
New product development drives step-change in growth and stickiness of Hexagon's products.

RISKS TO DOWNSIDE

Further weakness in macroeconomic environment, particularly in surveying and manufacturing.
Oil & gas market weakness impacts PPM division.

OWNERSHIP POSITIONING

Inst. Owners, % Active	85%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e

	Low	Morgan Stanley Estimates	Mean	High
Sales / Revenue (€, mn)	5,397	5,472	5,462	5,533
EBIT (€, mn)	1,202	1,593	1,479	1,599
Net income (€, mn)	841	1,174	1,133	1,255
EPS (€)	0.31	0.44	0.42	0.45

◆ Mean ◆ Morgan Stanley Estimates

Source: Refinitiv, Morgan Stanley Research

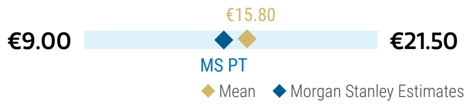
Risk Reward – Indra (IDR.MC)

Fairly priced leading IT services player in Spain

PRICE TARGET €14.80

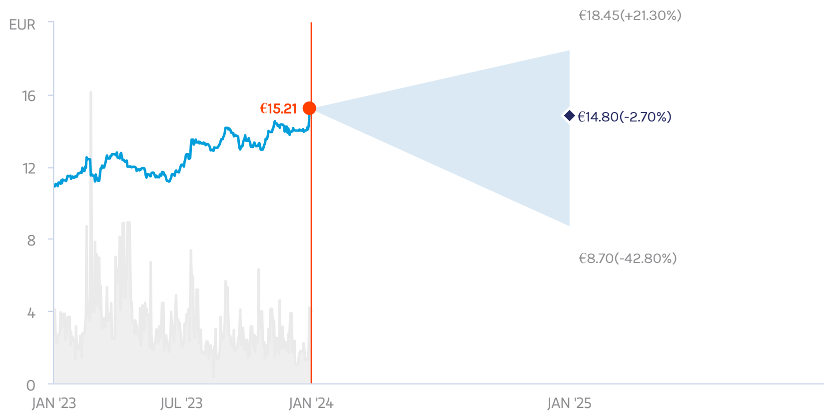
We use a DCF to value Indra, with a WACC of 9.5% and terminal growth rate of 1%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



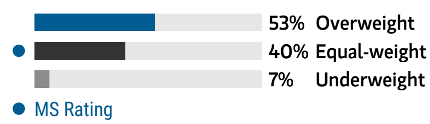
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research

EQUAL-WEIGHT THESIS

- Indra has delivered a solid performance so far in FY23, with organic top line growth c. 11% y/y in 9M23, driven largely by its Defence & Security division (part of T&D), which continues to benefit from higher defence spending in Europe.
- While we expect further tailwinds from increased defence spending to drive resilient T&D revenue growth in 2024, we expect the outlook for Minsait to be incrementally tougher, given continued uncertainty in the IT spending landscape.
- At c. 11x FY24 adj. P/E, we think this represents fair value given the uncertainty into 2024.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Self-help: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €18.45

Resilience in the face of weaker macro

Spain returns to consistent growth and emerging markets continue to improve. Minsait performance is more resilient than expected, while Defence accelerates. We model Indra accelerating growth to c. 5% over FY24-27 and sustaining c. 3% over FY28-34. In our bull case, EBIT margins reach c. 8% in terminal state.

BASE CASE €14.80

More consistent delivery of financial targets

After a strong FY23, benefitting from Defence-related growth tailwinds, the slowdown in Minsait drags on group revenue growth in 2024. We forecast revenue growth of c. 4% over FY24-27, and sustaining c. 2% growth over FY28-34. In our base case, adj. EBIT margins stabilise at c. 7% in terminal state.

BEAR CASE €8.70

Indra is negatively impacted by weakening macro

Spain sees declining revenues as the macro environment weakens, a function of higher inflation/lower GDP growth, increasing problem contracts. This results in c. 3% revenue growth over FY23-26 and flat growth in FY28-34, while margins decline towards 6% in the outer years. At c. 0.3x EV/ 2025 sales (IT Services average historical trough valuation), our bear case valuation is €8.70.

Risk Reward – Indra (IDR.MC)

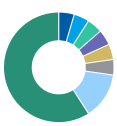
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Group organic revenue growth (%)	8.9	8.3	6.5	4.0
Stated EBIT margin (%)	7.8	7.9	8.2	8.3

INVESTMENT DRIVERS

- FCF / working capital management improves (and is sustained)
- Top-line growth acceleration
- EBIT margin expansion

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% India
- 0-10% MEA
- 0-10% Mainland China
- 0-10% North America
- 0-10% UK
- 10-20% Latin America
- 60-70% Europe ex UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

2/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- An uptick in macro conditions in LATAM and Spain / EU recovery fund spend on digitalisation / higher defence spend
- Cost cutting and actions to reduce overruns and improve efficiency could drive margins ahead of our expectations
- Accretive M&A

RISKS TO DOWNSIDE

- FCF generation remains weak and unpredictable
- Margin expansion is more difficult to achieve in light of a weaker macro backdrop

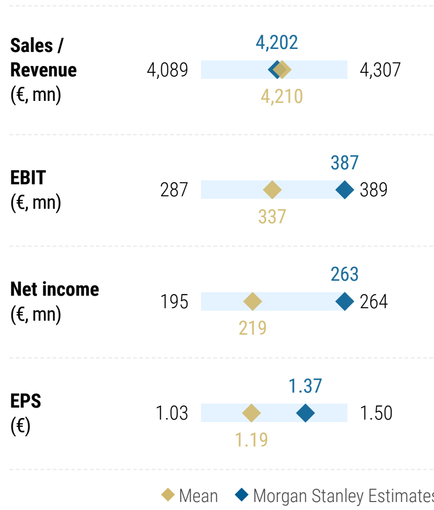
OWNERSHIP POSITIONING

Inst. Owners, % Active	86%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

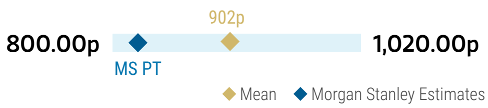
Risk Reward – Informa (INF.L)

Up with events

PRICE TARGET 820p

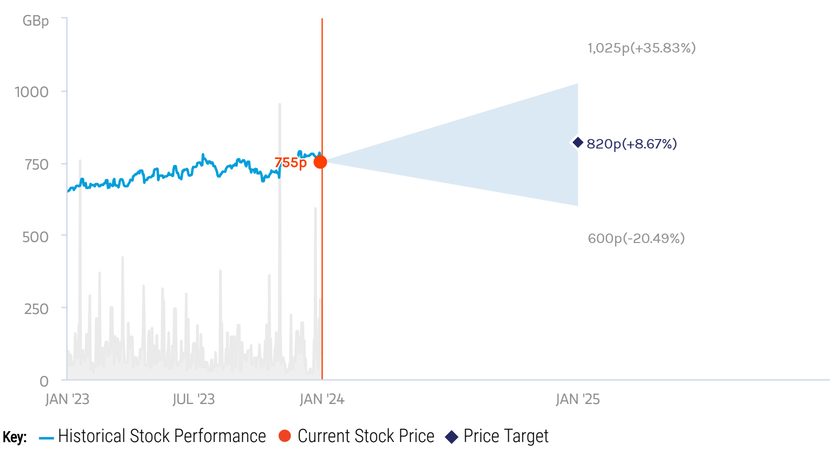
We use a 10-year DCF to value Informa, with a WACC of 8.5% and terminal growth rate of 2.0%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART

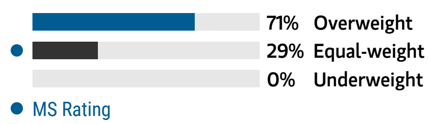


Source: Refinitiv, Morgan Stanley Research

EQUAL-WEIGHT THESIS

- Informa is the leading global exhibitions organiser. Exhibitions is typically a GDP+ growth business with attractive margins and cash flow qualities. However, this structurally attractive setup was impacted by COVID disruption, mainly in 2020 and 2021.
- The company has reshaped its structure over recent years, focusing in more closely on the Events industry. Today, this is the majority of group revenues and profits. We see an attractive structural growth profile, and the business returning towards 30% margins over the next few years.
- Under 'normal' conditions, we see Informa as a mid sd % pa underlying revenue growth business with scope to add to this with M&A.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Technology Diffusion: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE 1,025p

Digital enables stronger, durable growth rates

Informa's GAP II investments in digital are successful and help broaden addressable spend pools at corporates, to also tap into marketing budgets, alongside sales budgets. Informa drives (what is mainly organic) growth at a c. 7.5% CAGR FY24-27, c. 4% FY28-34, above our base case assumptions. Informa delivers on its c. 30% FY25 adj. EBIT margin target, above consensus expectations currently, and sustains 32% on adj. EBITDA to terminal state. Our bull case target implies c. 18x FY25 adj. P/E.

BASE CASE 820p

Growth normalising back towards a mid-sd run-rate

Informa returns to a more normalised growth profile post-pandemic, delivering mid-single-digit % organic growth through the mid-term, on average. Operating leverage enables the group to continue to scale up margins, reaching c. 29% on adj. EBIT in FY25. This represents continued y/y improvement under the GAP 2 plan, but is slightly below the company's c. 30% adj. EBIT target. ~3.5% FY28-34 growth CAGR, and high-20s% terminal adj. EBITDA margin. Our base case target implies c. 15x FY24 P/E.

BEAR CASE 600p

Digital initiatives wane, slowing macro bites

Digital initiatives lose momentum, which combined with a subdued macro outlook (and pressure on more discretionary spend) drives near-term organic growth comfortably lower than our base case. We assume a c. 3% sales CAGR FY24-27, c. 2.5% FY27-33, with the overall profile impacted by a tighter competitive environment. The lower top-line growth means adj. EBITDA margins remain strong, but are around mid-20s% levels into terminal state. Our bear case target implies c. 13.5x FY24 adj. P/E.

Risk Reward – Informa (INF.L)

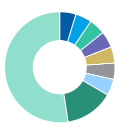
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Constant currency growth (%)	33.2	41.5	9.0	7.3
MSe organic growth (%)	31.4	29.1	7.9	5.1
Adj. EBITDA Margin (%)	25.8	30.2	32.0	33.6

INVESTMENT DRIVERS

- Exhibitions typically a GDP+ grower
- Further use of the balance sheet for value-accretive M&A
- Roll-out of digital initiatives across the group portfolio, firstly through Informa Tech
- Macro cycles driving corporate budget sensitivity
- FY23 results

GLOBAL REVENUE EXPOSURE



0-10%	APAC, ex Japan, Mainland China and India
0-10%	India
0-10%	Japan
0-10%	Latin America
0-10%	MEA
0-10%	Mainland China
0-10%	UK
10-20%	Europe ex UK
50-60%	North America

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

2/5 MOST | 3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Continued importance of the events slate post pandemic as businesses look to engage their sales channels and customers
- Digital initiatives could drive improved earnings quality
- FX: Majority of generated revenues/operating profit is in US$.

RISKS TO DOWNSIDE

- Risk to events revenue in aggregate from macro slowdown (particularly higher-margin sponsorships)
- Competition from virtual/hybrid shows in the long-run

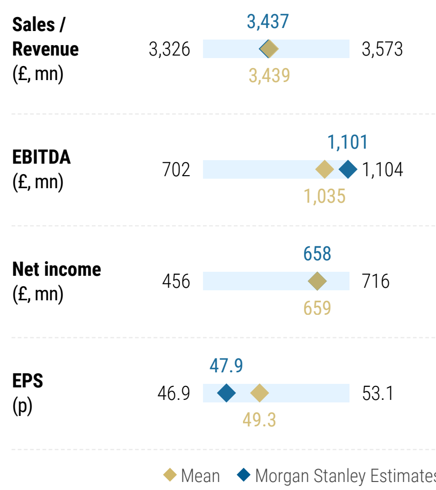
OWNERSHIP POSITIONING

Inst. Owners, % Active	79.4%
HF Sector Long/Short Ratio	2.3x
HF Sector Net Exposure	5.5%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2024e



Source: Refinitiv, Morgan Stanley Research

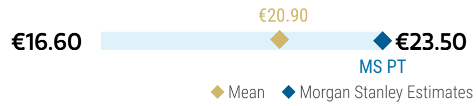
Risk Reward – IONOS Group SE (IOSn.DE)

Helping customers to move online. A platform for solid growth

PRICE TARGET €23.50

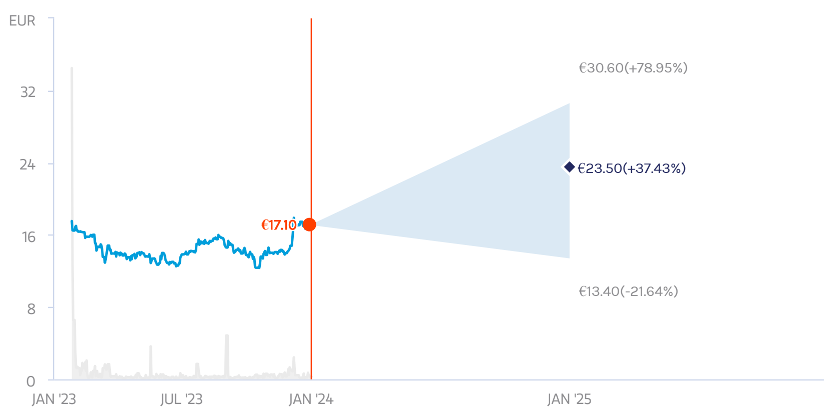
We use a 10-year DCF to value IONOS, with a WACC of 8.5% and a terminal growth rate of 2.0%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



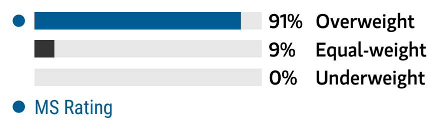
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research

OVERWEIGHT THESIS

- IONOS predominantly plays in the Web Presence & Productivity market, helping individuals and organisations to build an online presence. The company's toolset here is broad, though with key services offered related to purchasing and maintaining a domain name presence and webhosting.
- A greenfield structural growth opportunity; McKinsey data shows that ~50% of solo-preneurs and micro SMBs do not have a website.
- The company also has a nascent cloud IaaS division looking to tap into the cloud market opportunity.
- We see valuation as excessively discounting IONOS' mid-term growth profile, and while our forecasts are moderately below the company's targets, we see an attractive risk/reward skew.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Secular Growth: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €30.60

Execution strong, aligned to mid-term targets

In our bull case we model IONOS executing well on its mid-term targets, with strong growth across WP&P and Cloud. We model a c. 9% FY24-27 revenue CAGR and adj. EBITDA margins reaching into the low 30s%. The company sustains high-single-digit growth in core WP&P, and stronger than base case growth in both Aftermarket WP&P and Cloud Solutions (at a ~20% CAGR in the latter). FY28-34 growth CAGR is c. 3.5%. Terminal adj. EBITDA margin is c. 31% and we apply a higher 2.5% terminal growth rate.

BASE CASE €23.50

Solid growth & margin recovery, but below targets

After 14% cc growth in FY22, IONOS delivers c. 10%/11% cc growth in FY23/FY24, with double-digit growth in Aftermarket WP&P and Cloud Solutions. The company executes on its structural growth opportunity, with brand investments helping sustain mid/high single-digit % cc growth in core WP&P, while Cloud grows double-digit %. Our FY24-27 revenue CAGR is c. 7.5%. Adj. EBITDA margin settles slightly below 30% in terminal state (low 20s% on adj. EBIT). Our base case PT implies c. 14.8x FY25 adj. P/E.

BEAR CASE €13.40

Competition builds and growth fades

IONOS faces growing competitive pressures in the WP&P market, driven by a scenario where there is significantly increased investment by 'big tech' players and US website builders that take a higher share of new customers. As a result, there is a firm focus on pricing in the market, and higher customer acquisition costs (marketing / sales). We model a c. 5% FY24-27 revenue CAGR, dropping to c. 2.5% FY28-34 and apply a 1.5% terminal growth rate. Adj. EBITDA margin is c. 25% in terminal state.

Risk Reward – IONOS Group SE (IOSn.DE)

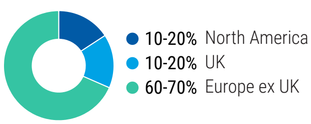
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Constant currency growth (%)	14.3	10.5	10.5	8.5
MSe organic growth (%)	14.2	10.5	10.5	8.5
Adjusted EBITDA Margin (%)	26.7	27.5	28.4	29.8

INVESTMENT DRIVERS

- Rate of digitalisation in SMB market across Europe, driving structural growth
- Expansion of the product portfolio in WP&P, combined with rate of customer product cross-selling
- M&A (predominantly in WP&P)
- 4Q23 results

GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

RISKS TO PT/RATING

RISKS TO UPSIDE

- Brand investments drive customer stickiness and higher new customer acquisition
- Growing importance of data sovereignty in the Cloud Solutions market
- Value-accretive M&A in WP&P

RISKS TO DOWNSIDE

- Expansion of Google's presence in the WP&P market drives lower growth for IONOS in WP&P
- Creation of a new EU Privacy Shield 2.0 reduces competitive differentiation in the competitive Cloud Solutions market

OWNERSHIP POSITIONING

Inst. Owners, % Active	98.1%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e

	Low	Morgan Stanley Estimates	Mean	High
Sales / Revenue (€, mn)	1,384	1,416	1,419	1,428
EBITDA (€, mn)	376	390	387	393
EBIT (€, mn)	250	303	274	303
EPS (€)	0.76	1.09	0.94	1.15

Mean · Morgan Stanley Estimates

Source: Refinitiv, Morgan Stanley Research

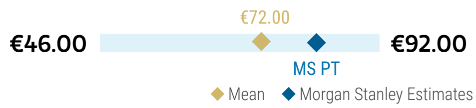
Risk Reward – Nemetschek SE (NEKG.DE)

Secular growth, but at a premium valuation

PRICE TARGET €81.25

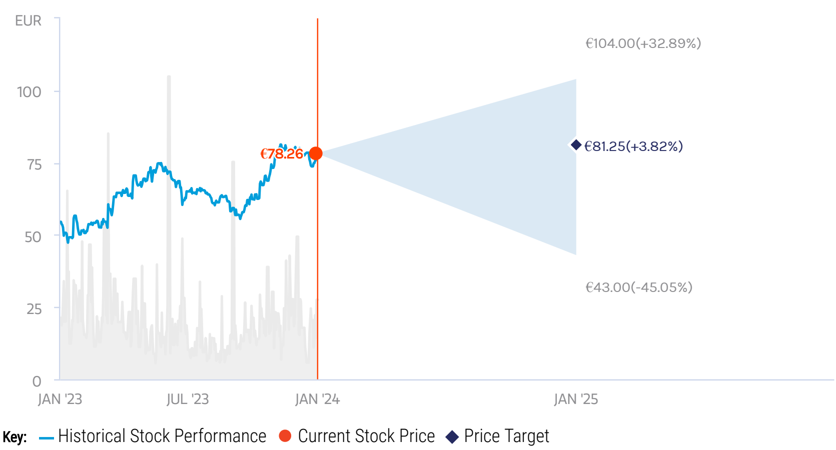
We use a 10-year DCF to value Nemetschek, with a WACC of 8.5% and terminal growth rate of 3.5%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART

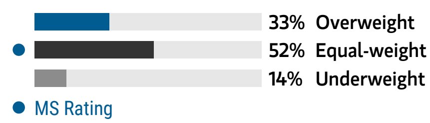


Source: Refinitiv, Morgan Stanley Research

EQUAL-WEIGHT THESIS

- **A long-term growth compounder...** Nemetschek has a track record of double-digit annual growth, with strong organic and inorganic growth. Revenues rose from c. €100m in 2002 to c. €802m in 2022.
- **... in a secular growth market.** Nemetschek primarily provides software to the AEC industry, which itself is one of the least digitalised sectors. The company has a leading position in design, and is rapidly growing its build and media segments.
- **Equal-weight in our software coverage:** Near-term macro conditions remain a headwind to end market AEC demand. We also await signs of success around the company's subscription shift to help increase confidence in a sustainable mid-teens growth post-transition.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption:	*Positive*
Secular Growth:	*Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €104.00

Turning on the growth engine

BIM regulation accelerates while expansion of Bluebeam into Europe is faster than we expect, which helps offset US growth moderating in outer years. The Bluebeam subscription is also highly successful, driving durable growth and margin expansion above our base case. Our FY24-27 revenue CAGR is c. 14%, and a c. 8% CAGR FY28-38. We incorporate a terminal growth rate of 4%. Our terminal EBITDA margin assumption is c. 40%. Our bull case equates to c. 47x FY25 adj. P/E, c. 10.8x EV/sales.

BASE CASE €81.25

Durable growth after subscription transition dip

Organic growth runs at c. 10% in FY24 as Bluebeam continues its subscription transition and macro conditions are more stabilised vs. 2023. We forecast a c. 13% revenue CAGR FY24-27, c. 7% FY27-33. EBITDA margins contract in 2022 and 2023 as cost investment returns, and the Bluebeam shift weighs, but margin expands longer term as growth fades. Our terminal adj. EBITDA margin is c. 40%. We apply 3.5% terminal growth. Our base case equates to c. 38x FY24e adj. P/E, c. 8.4x EV/sales.

BEAR CASE €43.00

Growth deceleration drives derating

Macro weakness leads to more subdued growth from FY24 (7%) and a c. 9% total revenue CAGR between FY24-27 (clearly lower vs. our base case at a 13% CAGR). The Bluebeam subscription transition drags while Nemetschek faces higher competition from industry competitors. Our terminal adj. EBITDA margin is lower vs. our base case, at c. 33%. Our total revenue CAGR is c. 4% in FY28-FY38. We apply lower 2.5% terminal growth. Our bear case equates to c. 25x FY25e adj. P/E, c. 4.6x EV/sales.

Risk Reward – Nemetschek SE (NEKG.DE)

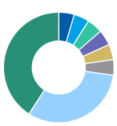
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Group MSe ex-FX growth % (%)	12.1	7.7	10.3	14.1
Group MSe organic (ex-FX, ex-M&A) growth % (%)	9.6	7.7	10.3	14.1
Group adj. EBIT margin % (%)	28.7	26.4	27.6	29.4

INVESTMENT DRIVERS

- 4Q23 results
- M&A activity, particularly in the build and manage segments
- Rate of organic growth is the key investor focus; margin expansion is secondary
- Success of subscription transition in Bluebeam (inc. new/transitioning customer economics)

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% India
- 0-10% Japan
- 0-10% Latin America
- 0-10% Mainland China
- 0-10% UK
- 30-40% North America
- 40-50% Europe ex UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

2/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Introduction of BIM regulations into new markets
- Price increases/successful subscription transitions across core brands (e.g. Bluebeam)
- Earnings/growth accretion from M&A

RISKS TO DOWNSIDE

- Increased penetration of Autodesk into Europe
- Construction industry rebound is transitory, particularly in Germany
- Unsuccessful subscription transitions, characterised by higher churn through the process

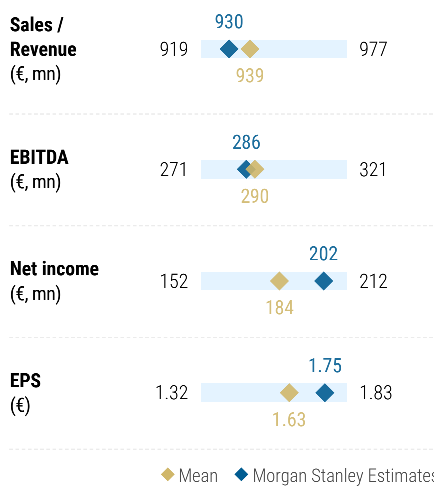
OWNERSHIP POSITIONING

Inst. Owners, % Active	69.8%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2024e



Source: Refinitiv, Morgan Stanley Research

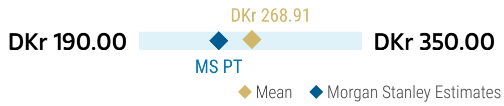
Risk Reward – Netcompany Group A/S (NETCG.CO)

From North European challenger to pan-European contender

PRICE TARGET DKr 245.00

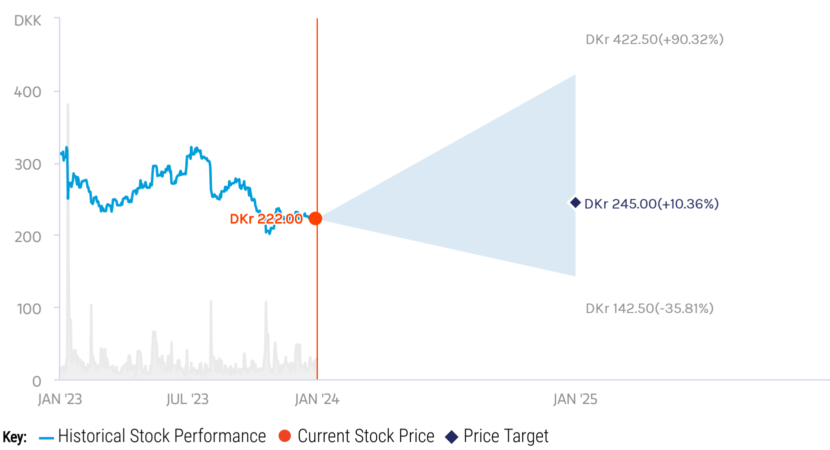
We use a 10-year DCF model to value Netcompany, applying a WACC of c. 9% and 3% terminal growth rate.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART

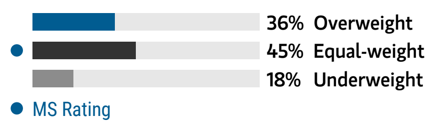


Source: Refinitiv, Morgan Stanley Research

EQUAL-WEIGHT THESIS

- Relatively high-growth European IT Services player: Netcompany is a digital-focused IT services company operating with an overhead-light model where IT people lead IT people. It has a Danish heritage but is expanding into the UK, Norway and the Netherlands, and now broader European markets (e.g. Greece, Benelux) via the acquisition of Intrasoft.
- Pure play on digital IT services with a solid financial profile: Netcompany's core has a strong, long track record of sustaining high organic growth. It is exporting the Denmark business model elsewhere.
- Navigating margin headwinds: margins compressed in FY22 and FY23 on cost inflation and strategic investments. We await evidence of stabilisation.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Secular Growth: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE DKr 422.50

Full velocity durable growth mode

Netcompany executes strongly against supportive market tailwinds with Intrasoft delivering strongly. Execution on expansion plans in core export markets is strong, with margins emulating Denmark in terminal state. Intrasoft delivers a c. 9% FY27-34 revenue CAGR in an early-stage market, with a terminal 15% margin. Group growth: c. 12% CAGR FY24-27e, c. 8.5% FY27-34, terminal adj. EBIT margin c. 16%. We assume a higher 3.5% terminal growth rate. Our bull case implies c. 26x FY25e adj. P/E.

BASE CASE DKr 245.00

Denmark engine continues to run into the mid-term

After c. 10% organic growth in FY23, growth continues at a solid 8-10% rate across FY23-27. Denmark slows to mid-single-digit % from 2026 as the growth runway fades. Other markets grow double-digits over the mid-term, but do not emulate Denmark's success. Intrasoft grows 7.5% across FY23-26. Adj. EBIT margins inc SBC in Denmark decline to mid-teens % in terminal state, international markets are low/mid-teens, Intrasoft c. 12.5%. Our base case implies a FY25e adj. P/E of c. 17x.

BEAR CASE DKr 142.50

A lack of new contract wins slows growth

Beyond 2022, new business weakens as tender activity falls and competition rises; this means Netcompany struggles to sign new large contracts (mainly in Denmark) to support double-digit growth. Group revenue CAGR c. 6.5% in FY23-26, c. 3.5% in FY25-32. Adj. EBIT margin (inc SBC) compresses to c. 11% in terminal state as the business fails to sustain its operating efficiencies at larger scale. We apply lower c. 2% terminal growth rate. Our bear case implies an FY25e adj. P/E multiple of c. 14x.

Risk Reward – Netcompany Group A/S (NETCG.CO)

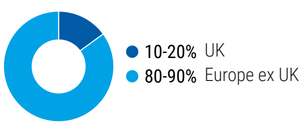
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Denmark organic growth % (%)	11.1	(0.0)	3.5	6.5
Group organic growth % (%)	13.3	9.6	8.2	9.8
Co. adjusted EBITA margin % (%)	17.5	12.3	14.1	15.2

INVESTMENT DRIVERS

- Large contract wins in the core Danish market or the EU via Intrasoft
- Headcount growth and revenue visibility as lead growth indicators
- Demonstrating the successful export of the Danish business model (particularly margin expansion in UK/Norway)

GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

RISKS TO PT/RATING

RISKS TO UPSIDE

- Large contract wins, particularly in the Danish public sector or internationally (i.e. UK, NO, NL, EU institutions)
- Sustained margin expansion in: UK/NO/NL/Intrasoft

RISKS TO DOWNSIDE

- Competition in next-gen IT services intensifies
- Challenges renewing & winning new contracts in the Danish public sector
- Difficulty in maintaining quality of delivery and recruitment in new markets
- Cost overruns eroding project margins

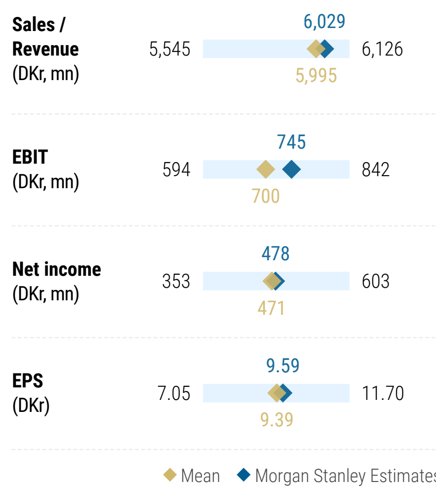
OWNERSHIP POSITIONING

Inst. Owners, % Active	84.7%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

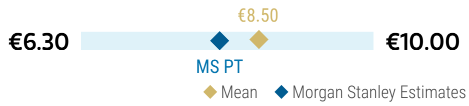
Risk Reward – Nexi SpA (NEXII.MI)

Cautious on growth outlook into 2024

PRICE TARGET €8.00

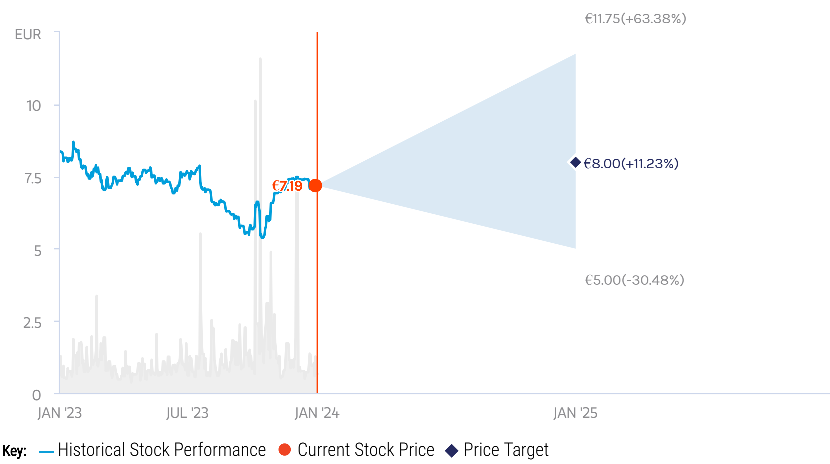
We use a DCF approach to value Nexi, applying a WACC of 9% and terminal growth rate of 1%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART

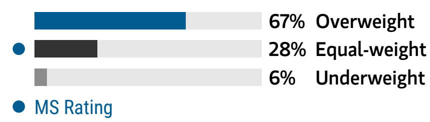


Source: Refinitiv, Morgan Stanley Research

EQUAL-WEIGHT THESIS

- Post Nets and SIA acquisitions, Nexi is present in more than 25 markets (or ~65% of European consumption), and has a €4.6tn addressable market opportunity (a ~4x jump from Nexi on a standalone basis).
- We are below street/company guidance for FY24-25 and see risks to the growth outlook given a weaker macro.
- We are cautious on integration and synergies, which create some risk to Nexi's competitive positioning, while debt levels and non-recurring charges remain elevated.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption:	*Negative*
Self-help:	*Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €11.75

Growth accelerates on back of integrations

The acquisitions of Nets/SIA prove successful, meaning Nexi is able to sustain close to 7% organic growth out to FY27, and a c. 4% revenue CAGR thereafter. Cost synergies are realised, with operational leverage driving adj. EBITDA margins to c. 57% in terminal state. We apply a 2% terminal growth rate.

BASE CASE €8.00

Weaker growth into 2024

We expect the combined group to deliver a c. 5% revenue CAGR across FY24-27, and c. 2% FY28-34. Margins expand to ~54% on adj. EBITDA by 2025 on the back of merger synergies, and increase towards 55.8% in terminal state. We use a 1% terminal growth rate in our base case

BEAR CASE €5.00

Growth slows

Competition within the payments industry intensifies (particularly in acquiring/processing), as vendors build scale and focus less on pricing on incremental volumes. It proves challenging to extract synergies from the Nets and SIA acquisitions, with platform complexity an increased debate for investors. We model a c. 3% FY24-27 growth CAGR, c. 0.5% FY28-34 and use 0% terminal growth, and a ~ 54% terminal adj. EBITDA margin.

Risk Reward – Nexi SpA (NEXII.MI)

KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Org. revenue growth (%)	8.0	6.6	4.6	5.0
EBITDA (€, mn)	1,592	1,745	1,868	2,000
EBITDA margin (%)	50.6	52.1	53.3	54.3

INVESTMENT DRIVERS

- Organic growth rates
- Synergies from existing M&A transactions (e.g. Nets, SIA)
- Adj. EBITDA margin expansion
- Future M&A

GLOBAL REVENUE EXPOSURE

● 100% Europe ex UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

5/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Structural tailwinds around cash-to-card shift proving more resilient than expected
- Large-scale value-accretive M&A and increased confidence in availability of large-scale payments assets

RISKS TO DOWNSIDE

- Signs of technology integration challenges following the significant amount of M&A conducted by Nexi/Nets
- Increased pricing pressure in payments processing
- Increased competition/valuation multiples in payments M&A

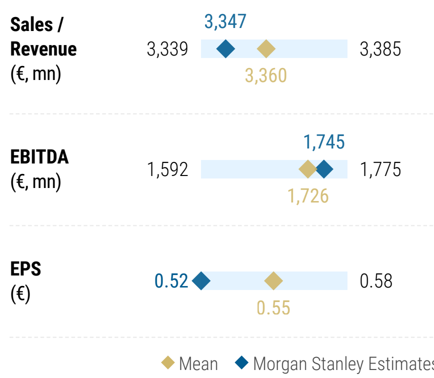
OWNERSHIP POSITIONING

Inst. Owners, % Active	89.4%
HF Sector Long/Short Ratio	2.3x
HF Sector Net Exposure	19.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

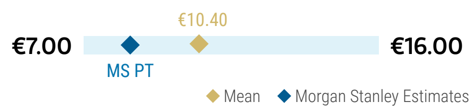
Risk Reward – OVH GROUPE SAS (OVH.PA)

Heavy capex to drive future growth, but questions on return on capital remain

PRICE TARGET €8.30

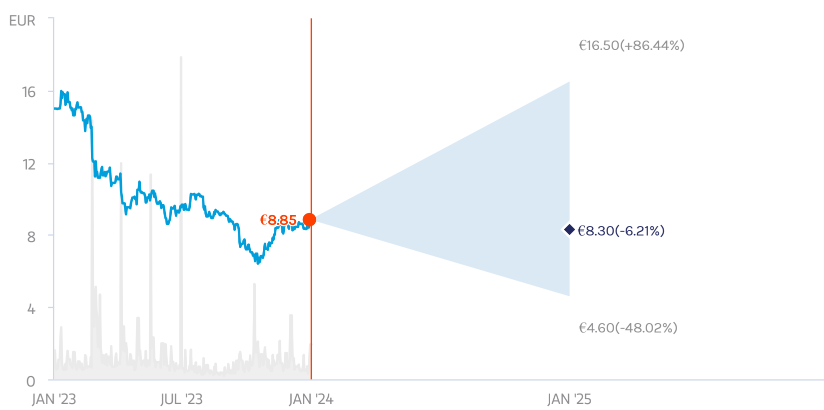
We value OVH Groupe shares using a 15-year DCF, applying a WACC of 8.5% and a 1.5% terminal growth rate.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



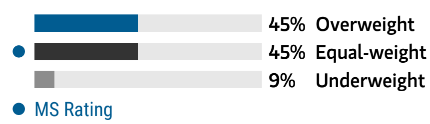
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research

EQUAL-WEIGHT THESIS

- OVH Groupe is a European cloud market leader well positioned to drive its differentiation around data sovereignty and broad solution offering (web, private and public cloud).
- We forecast growth to remain around low-teens % through to FY26, driven by significant capex. As a result, we do not see the company generating positive FCF (post leases, interest) over the period.
- We calculate historical capex has generated low/mid-single-digit % returns on capital. We believe long-term IaaS sector profitability is likely to be lower than margins today imply. Pending clarity on this and a ROIC framework, we see valuation (through an ex-growth capex lens) as fair.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Secular Growth: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €16.50

Secular growth, but at lower organic rates

In our bull case, OVH grows above our base case. We assume c. 15% stated growth in FY24, accelerating to c. 20% in FY25. Adjusted EBITDA margins are stronger vs. our base case, with the company reaching c. 40% levels in FY25. Growth and capital returns justify incremental growth capex and we assume this continues to FY34. The bull case revenue CAGR is c. 18% over FY24-27, c. 10% in FY27-38. The terminal margin is c. 20% on an adj. EBIT basis. Our valuation implies c. 3.1x FY25 EV/sales.

BASE CASE €8.30

Macro/competition limit growth acceleration

Growth picked up after the Strasbourg fire in FY21, and reached c. 17% cc in FY22, 13.4% L4L in FY23. However, competition limits the ability to accelerate beyond 12-13% growth through to FY26. Cost inflation leave FY24 adj. EBITDA margin at ~37%, only moderately improving to c. 39% by FY25. Growth capex ceases after FY28, at which point the growth reverts to low-single-digit %. Our terminal adj. EBIT margin is mid-teens % as competition/pricing pressure hits IaaS profitability in the long-term.

BEAR CASE €4.60

Growth capex plans revised, focus on FCF

OVH halts further growth capex as the company focuses on free cash generation. In this scenario OVH would represent a mature and low-growth business and face long-term margin compression (in our view, per our base case), albeit with high cash generation. As a result, by FY30, bear case revenue is only c. €1.2bn. Terminal margins are c. 10% (vs. c. 15% in base case), reflecting a more highly commoditised offering. Our bear case equates to c. 7x FY25 EV/FCFF ex-growth capex.

Risk Reward – OVH GROUPE SAS (OVH.PA)

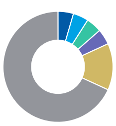
KEY EARNINGS INPUTS

Drivers	2023	2024e	2025e	2026e
Organic growth (%)	13.4	11.8	13.2	12.6
Adjusted EBITDA margin (%)	36.3	37.2	38.4	38.9
Adjusted EBIT margin (%)	1.3	2.8	4.7	5.8

INVESTMENT DRIVERS

- ROIC generated on new capex
- Success on PaaS solution roll-out
- Regulations requiring public cloud tenders to adhere to EU GDPR/data sovereignty requirements
- M&A either in IaaS (user base expansion) or PaaS

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% Japan
- 0-10% MEA
- 0-10% UK
- 10-20% North America
- 70-80% Europe ex UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

2/5 MOST | 3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

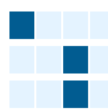
- M&A
- Market share gains as data sovereignty differentiation takes hold
- Growth capex deployed generates positive incremental ROIC

RISKS TO DOWNSIDE

- Growth capex deployed generates negative incremental ROIC
- Unsuccessful/slower than expected PaaS roll-out
- Increased competition (including lowered pricing) from hyperscalers and other cloud players

OWNERSHIP POSITIONING

Inst. Owners, % Active 97.4%
HF Sector Long/Short Ratio 1.7x
HF Sector Net Exposure 5.4%

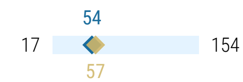


Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

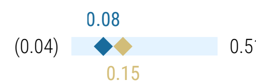
MS ESTIMATES VS. CONSENSUS

FY Aug 2025e

EBIT (€, mn)



EPS (€)



◆ Mean ◆ Morgan Stanley Estimates

Source: Refinitiv, Morgan Stanley Research

Risk Reward – Publicis Groupe SA (PUBP.PA) Top Pick

Sustainable competitive advantage not priced in

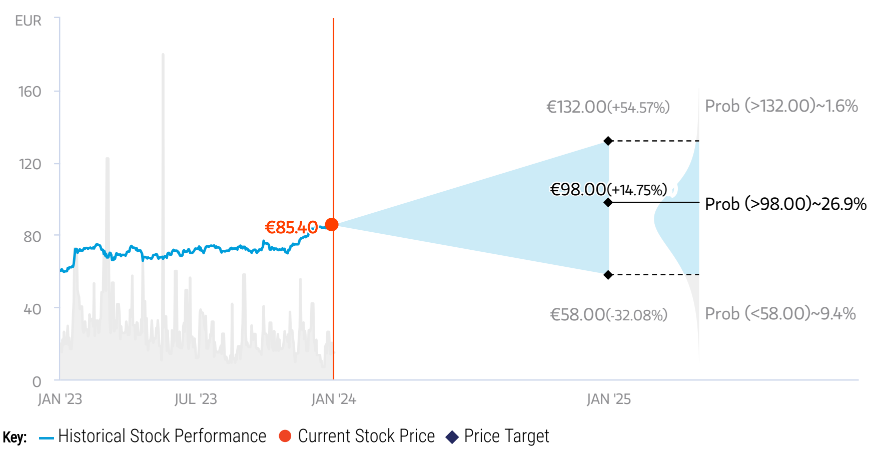
PRICE TARGET €98.00

We value Publicis using a 10-year DCF with a 8.5% WACC and 1.5% terminal growth rate.

Consensus Price Target Distribution

Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)

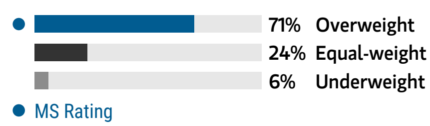


Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 12 Jan 2024. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology here

OVERWEIGHT THESIS

- Transformational acquisitions and successful integration have strengthened Publicis's product offering and increased revenue diversification away from pure advertising
- We see PUB as well-placed to continue outperforming its peers: 1) Above-industry-average profitability thanks to strong operational efficiencies and country model, which allows the company to continue reinvesting in the business, 2) Relatively low leverage and strong FCF generation provide M&A firepower to continue improving the product portfolio
- We forecast PUB to grow its net revenue/adj. EBIT/adj. EPS at 4%/4.5%/4.5% FY23-26 CAGR
- We think it should trade at a higher premium to WPP given higher growth

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €132.00

Better macro and larger outperformance vs peers

Faster macro rebound and larger outperformance vs peers than in our base case drive faster growth. Also aided by the successful expansion of Epsilon's US data capabilities internationally and successful acquisitions.

Publicis grows net revenue at ~7% FY24-27 CAGR (+3ppt vs base case) and ~3% FY28-34 CAGR (+1.5ppt vs base case). Adjusted EBITDA grows at a ~6.5% 24-27 CAGR and ~3.5% 28-34 CAGR. We use a 2.0% terminal growth rate .

In our bull scenario, Publicis would trade on a ~18x 2024 P/E.

BASE CASE €98.00

Publicis sustains its competitive advantage

For FY24, we expect organic growth to sequentially accelerate each quarter from 1Q24, resulting in 4.3% for the year.

We forecast Publicis to grow its net revenue at a ~4% FY24-27 CAGR and ~1.5% FY28-34 CAGR. The company's adj. EBITDA margin gradually increases to 22.5% of net revenue by FY26 then slowly declines to reach 22% in terminal state, reflecting a higher level of commoditsation of the product offering in the long-term.

In our base case, Publicis would trade on a ~14x 2024 P/E

BEAR CASE €58.00

Challenging FY24 macro, peers catch up to PUB

More challenging FY24 macro, others peers catch up to Publicis' product portfolio, go-to-market and operational efficiencies. In the mid to long term, increasing share of insourcing of creative work and going direct for media buying challenge growth.

We use a 0% terminal growth rate.

Publicis grows net revenue at ~1% FY24-27 CAGR (3ppt below base case) and -0.5% FY28-34 CAGR (2ppt below base case). Adj. EBITDA grows at a ~0% 24-27 CAGR and -2.5% 28-34 CAGR

Publicis would trade on a ~8x 2024 P/E

Risk Reward – Publicis Groupe SA (PUBP.PA)

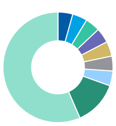
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Net revenue organic growth (%)	0.0	5.8	4.3	4.9
Operating margin post restructuring	2,266	2,353	2,427	2,558
Headline diluted EPS (Publicis)	6.35	6.86	6.89	7.34

INVESTMENT DRIVERS

- Market share versus other agencies and consultancy peers
- Marketing spending by large corporate customers
- Advertiser receptiveness to retail media
- Successful M&A

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% India
- 0-10% Japan
- 0-10% Latin America
- 0-10% MEA
- 0-10% Mainland China
- 0-10% UK
- 10-20% Europe ex UK
- 60-70% North America

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

1/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Faster macroeconomic rebound
- Successful expansion of Epsilon's US data capabilities into Europe
- Strong traction in retail media
- Successful M&A strengthening product offering

RISKS TO DOWNSIDE

- Challenging macro environment persists
- Peers catch up to Publicis in terms of product offering and operational efficiencies
- Increasing insourcing of creative work and going direct for media buying

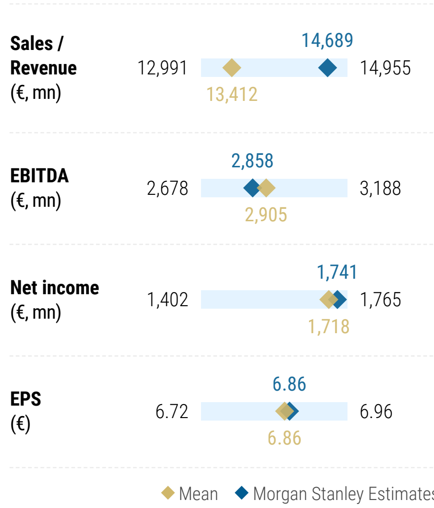
OWNERSHIP POSITIONING

Inst. Owners, % Active	79.4%
HF Sector Long/Short Ratio	2.3x
HF Sector Net Exposure	5.5%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

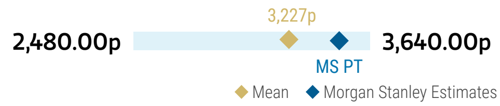
Risk Reward – RELX (REL.L)

Sustaining c. 6% underlying growth

PRICE TARGET 3,470p

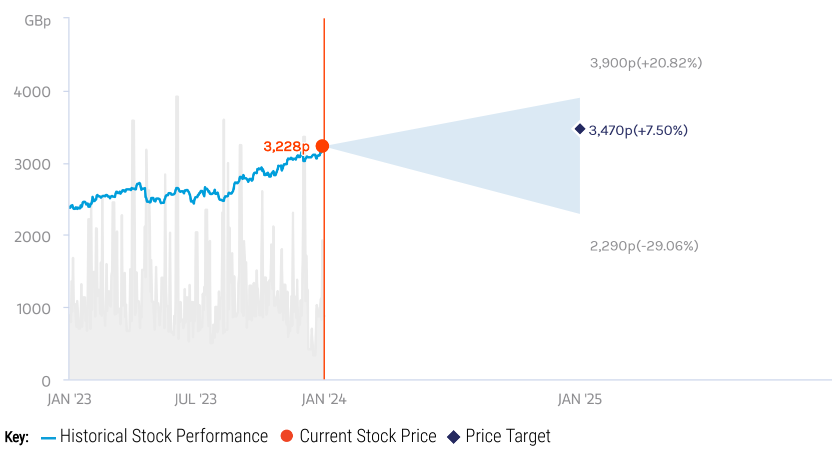
Our price target is derived from our DCF, which uses a WACC of ~7.5% and a long-term growth rate of 2.5%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART

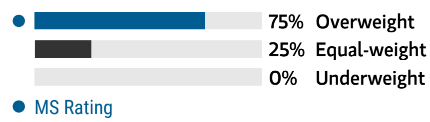


Source: Refinitiv, Morgan Stanley Research

OVERWEIGHT THESIS

- Compounder: RELX is well managed with strong franchises.
- Faster growth RELX is c40% of sales. Risk (34%) grew organic revenue/EBITA 4% pa over 2015-21. Exhibitions (7%) grew 10/11% pa 2015-19. Slower-growth RELX is STM (37%) (3% pa revenue/EBITA growth) and Legal (34%) at 2% pa revenue/3% pa EBITA growth.
- RELX generates >£2.0bn of FCF pa, holding leverage at c2-2.5x net debt/EBITDA.
- Against global data analytics peers, the relative multiple of RELX remains modest.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE 3,900p

Firing on all growth cylinders

Underlying group organic 2023-26 revenue CAGR accelerates to 7-7.5% pa, with both Risk and Legal sustaining high single-digit growth (Legal on the back of Lexis+ AI). STM sustains mid-single-digit % growth within the overall group mix. Adjusted operating profit sustains at a high single-digit % growth rate through the mid-term. Group adj. operating profit margin expands from 31% in 2022 to 34% by 2026 and towards 40% in terminal state. Our bull case PT implies c. 28x FY25 adj. P/E.

BASE CASE 3,470p

Solid growth - c. 6% FY23-26 org. sales CAGR

Underlying group organic 2023-26 revenue growth accelerates to 6% on average, with Risk at 7-8% across the period, Legal sustaining c. 7% underlying (backed by Lexis+ AI), Exhibitions running at a mid-single-digit % rate, and STM at c. 3-4%. The group continues to make solid operational progress across its portfolio. Group adjusted operating profit (post-JVs) margin expands from 31.4% in 2022 to 33% by 2026, and high-30s% in terminal state. Our base case PT implies c. 27x FY25 adj. P/E.

BEAR CASE 2,290p

Back onto a slower growth path

Competitive and macro pressures drive slower growth; the c. 2023-26 revenue CAGR slows to 4% pa (c. 2pps below our base case at a c. 6% CAGR). Risk still outgrows the group, but closer to a mid-single-digit % rate, and with Legal/STM at a mid/low-single-digit % as Lexis+ AI fails to gain adoption. Group adj. EBIT margins moderately decline through to FY26 (to c. 30%) , and flat-line around here to terminal state as investments fail to bear fruit. Our bear case PT implies c. 20x FY25 adj. P/E.

Risk Reward – RELX (REL.L)

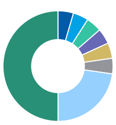
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Constant currency growth (%)	11.0	6.9	6.9	5.0
MSe organic growth (%)	9.0	8.0	6.3	5.7
Adj. EBITDA Margin (%)	37.1	38.2	38.7	39.1

INVESTMENT DRIVERS

- RELX combines high % of subscription revenues with investment-led organic growth, high ROIC and strong FCF generation.
- Organic growth complemented by inorganic bolt-ons, and capital returns (dividends and share buybacks).
- Strong balance sheet

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% India
- 0-10% Latin America
- 0-10% MEA
- 0-10% Mainland China
- 0-10% UK
- 20-30% Europe ex UK
- 50-60% North America

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

5/5 **MOST**	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Greater appreciation of the changing mix of businesses and higher-quality earnings
- Lexis+ AI drives durable step-up in Legal segment growth rates and margin expansion
- Switch to open access to accelerate STM growth

RISKS TO DOWNSIDE

- Transactional sales in Risk division at lower-ebb given financial conditions, Exhibitions macro-impacted
- STM: Fears persisting over transition in payment model
- c. 5% of revenues in print

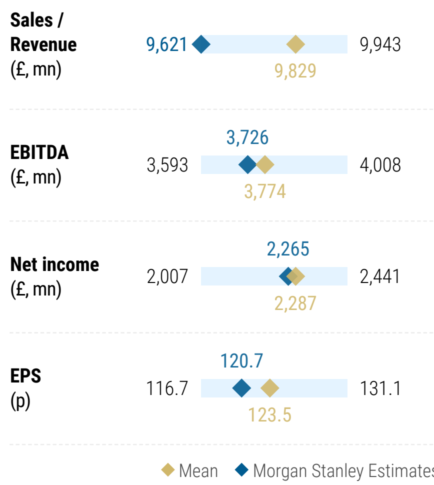
OWNERSHIP POSITIONING

Inst. Owners, % Active	77.8%
HF Sector Long/Short Ratio	2.3x
HF Sector Net Exposure	23.5%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2024e



Source: Refinitiv, Morgan Stanley Research

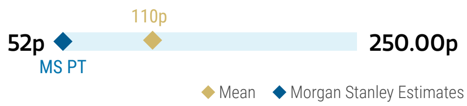
Risk Reward – S4 Capital PLC (SFOR.L)

Tech-led agency facing headwinds

PRICE TARGET 52p

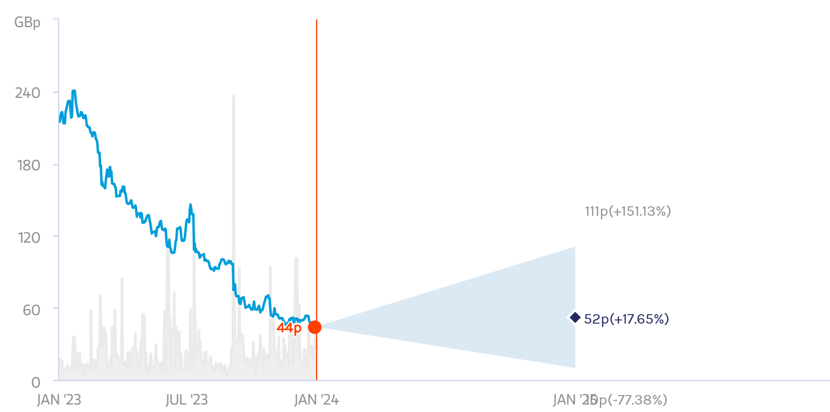
We value S4 using a DCF model with an 12% WACC and 1.5% long-term growth rate. Our higher WACC than Publicis and WPP reflects 1) the higher cyclicality and uncertainty of the business (high client concentration and high exposure to one client's sector - 50% of revenue from technology clients -) and 2) the relative lower liquidity of the stock.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART

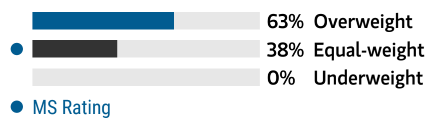


Source: Refinitiv, Morgan Stanley Research

EQUAL-WEIGHT THESIS

- S4 Capital enjoyed above industry average historical growth rates due to its focus on fast growing sectors within advertising (mostly digital) and growth being off a small revenue base
- However its like-for-like growth has significantly decelerated due to high exposure to tech clients (~45% of revenue) and the company expects negative growth for FY23
- We see S4 Capital's high client concentration and exposure to technology clients as a risk but view this as priced in at current levels
- S4 trades on a ~6x 2024e adj. P/E and ~9% 2024e FCFF yield, a significant discount to Publicis and WPP, which we see as justified given the uncertainty on growth prospects

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Self-help: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE 111p

Faster macro rebound and market share gains

The macro environment rebounds more quickly than in our base case, with advertising spend of tech returning to healthy growth from 2024. S4 outperforms the advertising spend market.

S4 grows net revenue at ~12% FY24-27 CAGR (+5ppts vs base case) and ~6% FY28-34 CAGR (+3ppts vs base case). Adjusted EBITDA grows at a ~20% 24-27 CAGR and ~6% 28-34 CAGR.

S4 would trade on ~19x 2024 P/E

BASE CASE 52p

MSD growth in FY24, then acceleration

We forecast S4 Capital to return to positive growth in FY24 and grow ~4% on improving macro environment leading tech companies to grow their ad spend

We forecast S4 to grow its net revenue at a ~6% FY24-27 CAGR and ~3% FY28-34 CAGR. The company's adj. EBITDA margin gradually increases to 16% of net revenue by FY26 then starts gradually declining to reach ~15.5% in terminal state, reflecting a higher level of commoditsation of the product offering in the long-term.

BEAR CASE 10p

Loss of a key client not offset by new wins

More challenging FY24 macro, later than expected recovery of tech clients' ad spend and loss of a key client which is not offset by new wins. In the mid to long term, advertising spend is challenged with an increasing share of insourcing of creative work and going direct for media buying.

S4 grows net revenue at ~3% FY24-27 CAGR (3 ppts below base case) and ~0% FY28-34 CAGR (2.5ppt below base case). Adjusted EBITDA grows at a ~15% 24-27 CAGR and ~-2% 28-34 CAGR.

S4 would trade on 4x 2024 P/E

Risk Reward – S4 Capital PLC (SFOR.L)

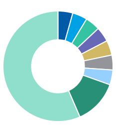
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Net revenue organic growth (%)	25.9	(0.5)	3.8	8.7
Operating margin post restructuring (S4) (%)	12.2	8.1	10.8	13.2
Adjusted diluted EPS (GBp)	11.22	4.94	7.39	10.83

INVESTMENT DRIVERS

- Small share in substantial market
- Industry disruption plays into the digital first strategy
- Well-established base of major customers and 'land and expand' approach to grow with them
- Increasing size will offer economies of scale
- Bolt-on M&A

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% India
- 0-10% Japan
- 0-10% Latin America
- 0-10% MEA
- 0-10% Mainland China
- 0-10% UK
- 10-20% Europe ex UK
- 60-70% North America

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

RISKS TO PT/RATING

RISKS TO UPSIDE

- S4 is a small player and has considerable scope for incremental growth as digital grows in the marketing mix
- Fast recovery in tech clients' ad spend

RISKS TO DOWNSIDE

- Rapid growth trajectory makes forecast risk high
- Ability to acquire attractive assets and integrate them successfully
- Inadequacies in company structure have led to issues relating to audit delays and headcount budget
- High client concentration

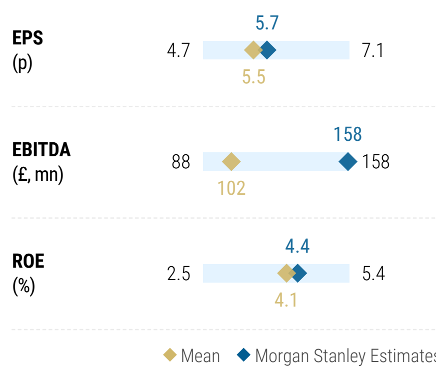
OWNERSHIP POSITIONING

Inst. Owners, % Active	95.1%	
HF Sector Long/Short Ratio	2.3x	
HF Sector Net Exposure	5.5%	

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

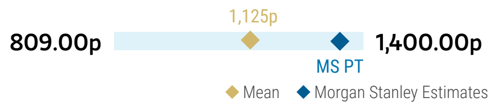
Risk Reward – Sage (SGE.L)

Reaping the benefits of significant investment

PRICE TARGET 1,335p

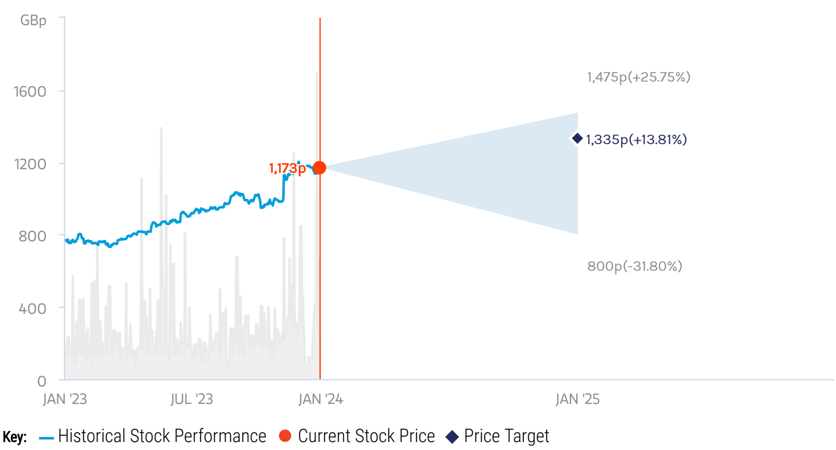
We use a 10-year DCF to value Sage, with a WACC of 8.0% and terminal growth rate of 2.5%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART

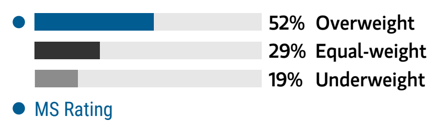


Source: Refinitiv, Morgan Stanley Research

OVERWEIGHT THESIS

- Sage has invested significantly over the past few years into R&D to S&M to rejuvenate its market positioning against increased low-end competition in certain end markets (most notably the UK). We think this programme of investment is showing clear success with a notable improvement in NCA, while renewal rates have remained resilient.
- We see the margin trajectory having firmly inflected, with the company poised to deliver durable top-line growth and margin expansion beyond FY23. Long-term, we see margins back into the high 20s% range.
- We view valuation as attractive, given Sage's high single-digit org. revenue growth, combined with margin expansion (~50-100bps per annum) .

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Secular Growth: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE 1,475p

Success in cloud drives LT growth

Adoption of Sage's cloud native products (including Sage Intacct) accelerates, allowing it to sustain a stronger growth profile than in our base case, while also achieving a slightly higher long-term margin at c. 32%. In our bull case, Sage grows revenues c. 10% CAGR FY24-27, c. 6% CAGR FY28-34. We apply 2.5% terminal growth. Our bull case implies c. 36x FY25e adj. P/E, c. 6.0x EV/Sales.

BASE CASE 1,335p

Deriving benefits from heavy investment

Sage continues to drive strong growth on the back of its multiyear investment in its product portfolio and go-to-market. Following its strong end to FY23, Sage continues to drive growth and margin expansion, driven by strength in its Cloud Native and Connected product portfolios. Sage delivers a c. 9% total revenue CAGR FY24-27 with organic margins gradually improving to c. 24% in FY27. Terminal margins are c. 30%. Our base case implies c. 33.2x FY25 adj. P/E, c. 5.6x EV/Sales.

BEAR CASE 800p

Recent momentum stalls, more product investments

Sage struggles to sustain recent growth momentum, with further investment into product and sales and marketing required. This drives limited margin expansion in the next 2-3 years with margins flat in FY24. Sage Intacct growth slows in North America and internationalisation plans stall. Sage delivers a c. 7% total revenue CAGR FY24-27 with margin expansion slower, reaching c. 22% in FY27. Terminal margins are c. 24%. Our base case implies c. 22x FY25 adj. P/E, c. 3.6x EV/Sales.

Risk Reward – Sage (SGE.L)

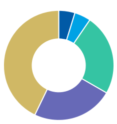
KEY EARNINGS INPUTS

Drivers	2023	2024e	2025e	2026e
Group organic growth % (%)	9.9	9.6	9.3	9.4
Adj. EBITA margin % (%)	20.9	21.7	22.5	23.2

INVESTMENT DRIVERS

- Org. growth in subscriptions/support and margin expansion.
- Growth in the US, success in expansion of Sage Intacct.
- M&A, particularly of cloud-native products.
- Changes in the competitive environment (e.g. in the UK, with Intuit/Xero)

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% MEA
- 20-30% Europe ex UK
- 20-30% UK
- 40-50% North America

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

2/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- M&A activity
- New product development aids accelerating growth
- Shift to cloud connected/cloud native products
- Regulation requiring connected accounting systems

RISKS TO DOWNSIDE

- Stalled momentum around product development (particularly cloud products)
- Traction subsides in internationalising Sage Intacct
- Continued investment leaves margins depressed

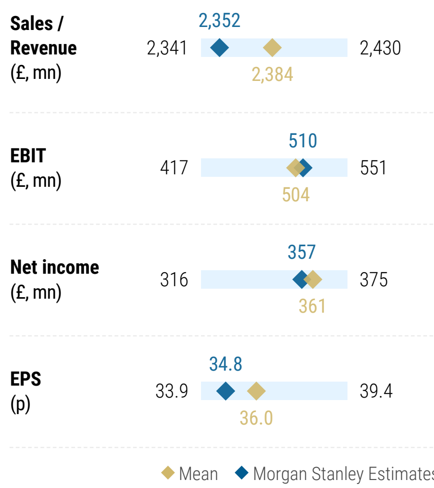
OWNERSHIP POSITIONING

Inst. Owners, % Active	76.8%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Sep 2024e



Source: Refinitiv, Morgan Stanley Research

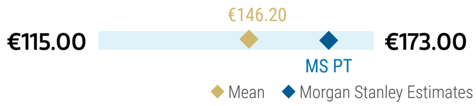
Risk Reward – SAP SE (SAPG.DE) Top Pick

Executing on strong cloud growth

PRICE TARGET €163.00

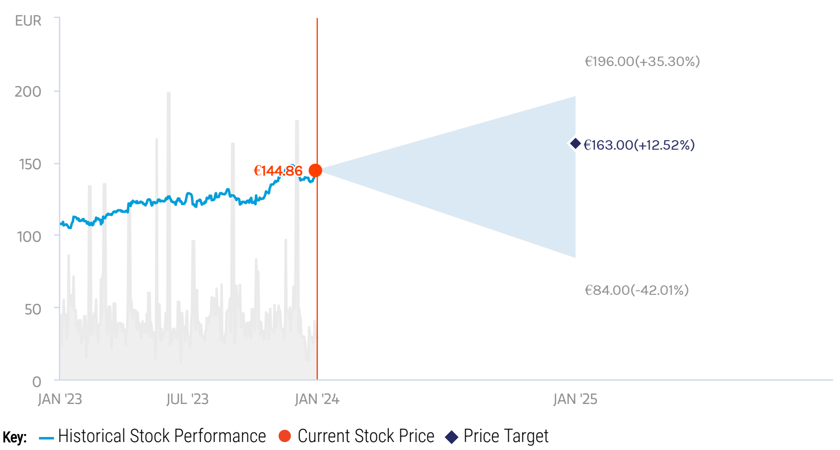
We use a 10-year DCF to value SAP, with a WACC of 8.5% and terminal growth rate of 2.5%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART

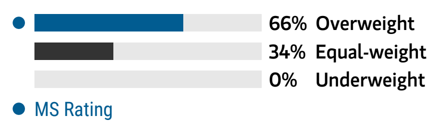


Source: Refinitiv, Morgan Stanley Research

OVERWEIGHT THESIS

- SAP offers a mix of high recurring revenues (c. 80% of total), business-critical products, and large enterprise exposure. Its cloud business (40% of revs) is growing c. 25%, while maintenance (c. 40%) will benefit from price increases in 2024. Improved product integration is leading to strong cross-selling.
- With licences expected to account for c. 5% of group revenues by FY23 end (due to the ongoing subscription transition), we see a more limited impact from further weakness.
- SAP currently trades on c. 25x CY25 adj. P/E (including SBC), which we view as an attractive level for the global leader in mission critical ERP software at the inflection point of its subscription/platform shift.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption:	*Positive*
Pricing Power:	*Positive*
Secular Growth:	*Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €196.00

Top-line growth acceleration & margin expansion

Focus on product integration and cross-sell into the large installed base enables accelerating revenue growth, with an improving macro backdrop. The S/4 HANA product cycle accelerates, supporting better licence performance than in our base case. SAP delivers a FY24-27 sales CAGR of c. 13% and c. 8% FY28-34. Adj. EBIT margins (inc-SBC) reach c. 27% in FY26 and c. 30% in terminal state. Our bull case implies 34x FY25 adj. P/E (inc-SBC), c. 6x EV/Sales.

BASE CASE €163.00

Product integration and cloud transition

SAP executes on its plan to better integrate its acquired cloud products, which helps drive a re-acceleration in growth to double-digit % organic revenue growth from FY24. Our FY24-27 revenue growth CAGR is c. 11%, and c. 7% FY28-34. Adj. EBIT margins (inc-SBC) are c. 22% in FY24, expanding to c. 26% LT. Our base case target implies a FY25 adj. P/E of 29x (inc-SBC), c. 5x EV/Sales.

BEAR CASE €84.00

Revisiting historical trough valuations

Continued macro uncertainty is front and centre moving through FY24 impacting licence and cloud sales. Meanwhile, customer enthusiasm for adoption RISE starts to fade, and broader market competition from best of breed cloud vendors steps up. This drives growth clearly lower than our base case; we model c. 6% FY24-27 CAGR and 3% FY28-34. We apply 1.5% terminal growth. Adj. EBIT inc-SBC margins reach c. 24% in the long-term. Our bear case target implies a FY25 adj. P/E of c. 21x, c. 3x EV/Sales.

Risk Reward – SAP SE (SAPG.DE)

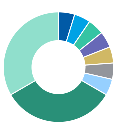
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Group revenue organic growth (%)	6.2	8.7	10.0	10.4
Licence revenue organic growth (%)	(40.6)	(21.4)	(22.5)	(20.0)
Cloud revenue organic growth (%)	24.5	22.8	24.4	25.6
Cloud & Software revenue organic growth (%)	5.3	8.9	10.5	12.0
Adj. EBIT margin (%)	26.0	28.0	28.8	31.0

INVESTMENT DRIVERS

- Organic cloud growth
- Scale of margin expansion
- Pace of organic licence decline / cannibalisation dynamics. Success of RISE
- S/4 HANA migration cycle

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% India
- 0-10% Japan
- 0-10% Latin America
- 0-10% MEA
- 0-10% Mainland China
- 0-10% UK
- 30-40% Europe ex UK
- 30-40% North America

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

3/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- RISE with SAP offering gains traction.
- S/4 HANA cycle accelerates, supporting growth ambitions.
- Macro backdrop strengthens.
- M&A activity.

RISKS TO DOWNSIDE

- Macro backdrop remains subdued, impacting end customer spending.
- Cloud subscription growth weaker than we expect.
- Systems integrators suffer from bottlenecking, slowing adoption of S/4.

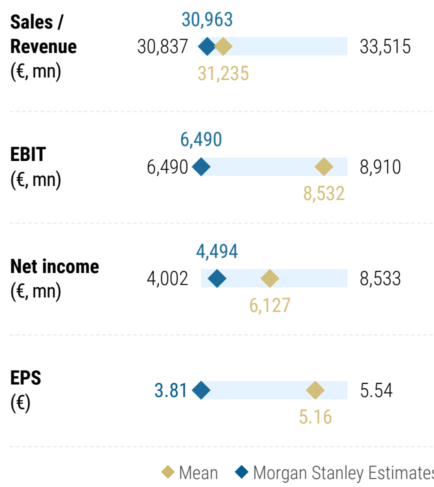
OWNERSHIP POSITIONING

Inst. Owners, % Active	70.7%	
HF Sector Long/Short Ratio	1.7x	
HF Sector Net Exposure	5.4%	

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

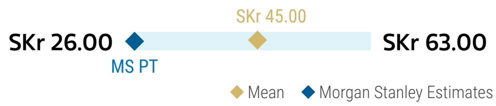
Risk Reward – Sinch AB (SINCH.ST)

Market expectations on growth prospects are too high

PRICE TARGET SKr 26.00

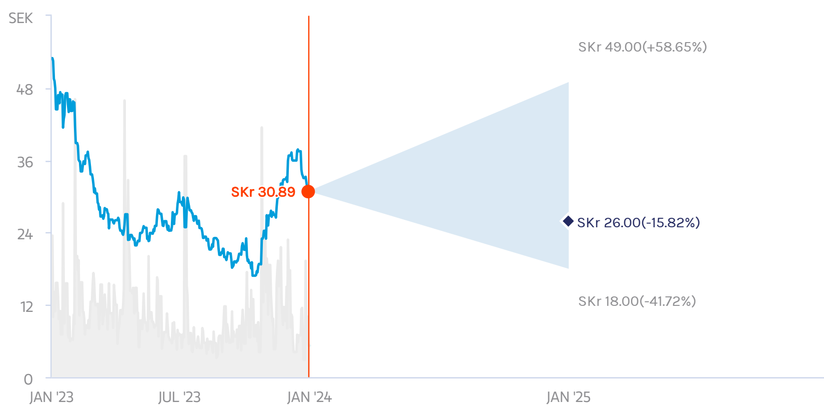
We use a DCF with a terminal growth rate of 1.0% and a WACC of 9.0%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



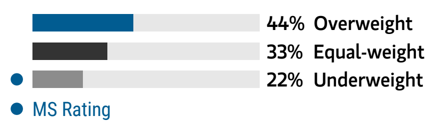
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research

UNDERWEIGHT THESIS

- We think Sinch should trade at a larger discount to our European software coverage given the difference in business model quality with CPaaS and growth prospects.
- Sinch is implementing a new operating model (from product to regional organisation) which we think carries significant execution and business disruption risk during 2024.. The plan relies on the successful integration of the large acquisitions Sinch made in 2021.
- We think market expectations on growth are too high and stand ~10% below consensus for 2024-2025. We think the market underestimates the execution risk of its new operating model plan.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Pricing Power: *Negative*

View descriptions of Risk Rewards Themes here

BULL CASE SKr 49.00

New operating model benefits Sinch

Sinch's GP grows at 9% 24-27 CAGR due to the successful implementation of its new operating model which leads to higher cross-selling. Competitive pressures ease as some smaller players do not survive. GP grows at ~5% FY28-34. Although initially lower than in our base case due to investments, adj. EBITDA margin gradually increases to 43% by 2033. Our bull case implies ~5x EV/gross profit and ~20x 2024e adj. P/E.

BASE CASE SKr 26.00

Some disruption from new operating model

Sinch's GP grows ~4% in 2024. The overall business growth is negatively impacted by the implementation of the new operating model. Beyond 2024, we assume some cross-selling benefits from the new op model. Sinch grows gross profit at a 4% CAGR to 2027 and 1% in FY27-33. Adj. EBITDA margin expands to ~39% (% of GP) by 2026 and reaches ~40% in terminal state. Our base case implies 3x EV/2024 GP and 12x 2023e adj. P/E.

BEAR CASE SKr 18.00

Sinch faces intense competition

Sinch does not improve its offering (especially integration and higher growth products) and competition intensifies at the lower end of the value chain, which leads to gross margin erosion. Gross profit grows at a 1% FY24-27e CAGR and 0% FY28-34e. Adj. EBITDA margin expands in line with our base case (to 38.5%) until FY25 then gradually compresses to 34%. Our bear case implies ~2x EV/gross profit and a ~8x 2024e adj. P/E.

Risk Reward – Sinch AB (SINCH.ST)

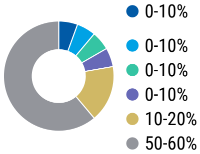
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Organic gross profit growth (%)	(2.6)	1.8	3.8	4.9
Gross profit margin (% of revenue) (%)	31.8	33.1	33.3	33.0
Adjusted EBITDA margin (% of gross profit) (%)	35.5	37.6	38.0	38.6

INVESTMENT DRIVERS

- A platform offering could help Sinch move up the value chain, making it more immune to pricing pressure, although this would require smart investments and successful implementation of the announced new operating model
- M&A is integral to strategy.

GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

4/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Successful execution of new operating model drives cross-selling and higher value-add use cases.
- Platform offering also leads to less margin erosion due to higher customer stickiness and pricing power.

RISKS TO DOWNSIDE

- Implementation of new operating model causes business disruption beyond 2024.
- Competition intensifies, pricing pressures increase, gross margin decreases.

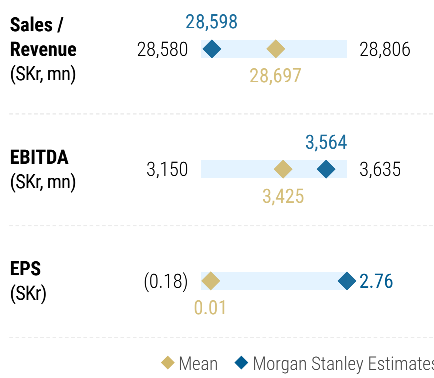
OWNERSHIP POSITIONING

Inst. Owners, % Active	71.2%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

Risk Reward – Softcat PLC (SCTS.L)

High quality VAR trading at a premium multiple

PRICE TARGET 1,520p

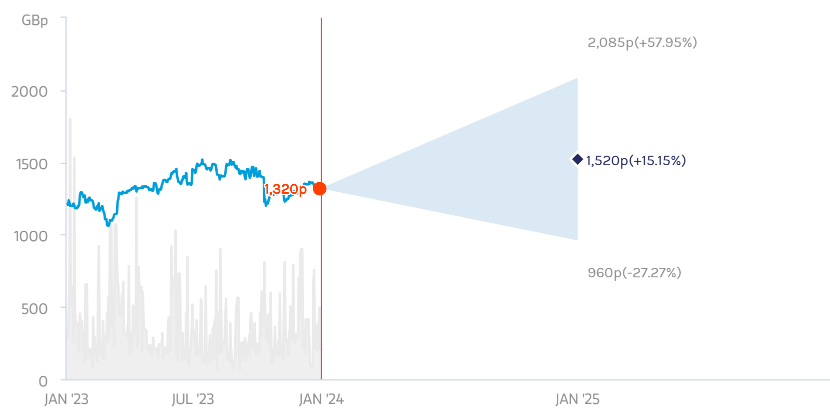
We use a DCF analysis to value Softcat, applying a 9% WACC and 2.5% terminal growth rate.

Consensus Price Target Distribution 1,180.00p — 1,559p — MS PT — 2,010.00p

◆ Mean ◆ Morgan Stanley Estimates

Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



Key: — Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research

EQUAL-WEIGHT THESIS

- We see Softcat as well positioned to continue to outgrow the market given: 1) strong balance sheet/growth investments; 2) SME rebound; and 3) an underpenetrated TAM, with culture being the final secret sauce.
- Softcat estimates its wallet share with existing customers is c. 15%, with headroom for this to reach c. 50-60% over time, suggesting considerable further upside.
- On a c. 21x CY24e P/E, we see valuation as challenging in the face of a weaker macro and await a better entry point

Consensus Rating Distribution

69%	Overweight
● 15%	Equal-weight
15%	Underweight

● MS Rating

Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Secular Growth: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE 2,085p

Secular drivers drive double digit growth

Growth accelerates meaningfully as digitalisation/cloud adoption gain traction. This drives bull case growth c. 2.5pps above our base case. FY24-28 revenue CAGR c. 13%, and 10% out to FY34. We incorporate a terminal growth rate of 3% (vs. 2.5% in our base case). Terminal adj. EBIT margin assumption is c. 16%.

BASE CASE 1,520p

Growth maintained, market share gains continue

We expect organic growth to accelerate towards c. 10% over FY24-28. Below the line, we forecast adj. EBIT margins down vs. FY22, given lower costs due to COVID-19 (lower travel/events). Combined we forecast a c. 10% EBIT CAGR FY24-28 and c. 8% FY28-34.

BEAR CASE 960p

Scale of rebound disappoints

Growth slows more than anticipated with a c. 7% CAGR in FY24-28, as growth fails to re-accelerate across all divisions. Below the line, margin compression accelerates due to rebound in costs post COVID and higher investment requirements to support growth, resulting in a 7% EBIT CAGR FY24-28. Combined, our bear case sees a FY24-28 total revenue CAGR of c. 7%, and c. 4% out to FY34.

Risk Reward – Softcat PLC (SCTS.L)

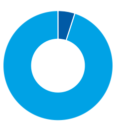
KEY EARNINGS INPUTS

Drivers	2023	2024e	2025e	2026e
Total gross revenue (£, mn)	985	1,001	1,121	1,239
Organic growth (%)	(8.3)	1.5	12.0	10.6
Adj. EBIT (£, mn)	144	162	180	196
Adj. EPS (£, mn)	58	61	68	74

INVESTMENT DRIVERS

- Organic top-line growth
- Margin expansion
- Addition of high-growth vendor relationships
- M&A

GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

2/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Further earnings upgrades driven by successful up/cross-sell
- SME exposure results in larger than expected rebound post COVID
- Potential expansion into new markets

RISKS TO DOWNSIDE

- Reliance on Microsoft and any changes to partnership terms
- Investments accelerate resulting in margins/earnings surprising to the downside
- Weaker UK macro

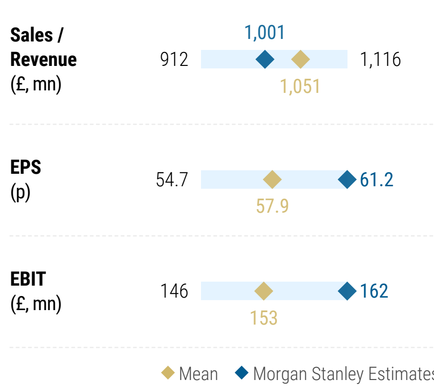
OWNERSHIP POSITIONING

Inst. Owners, % Active	81.5%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Jul 2024e



Source: Refinitiv, Morgan Stanley Research

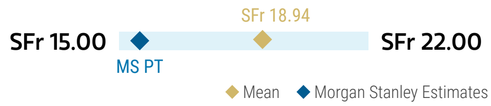
Risk Reward – Softwareone Holding AG (SWON.S)

Services-led growth likely to weigh on margins

PRICE TARGET SFr 15.50

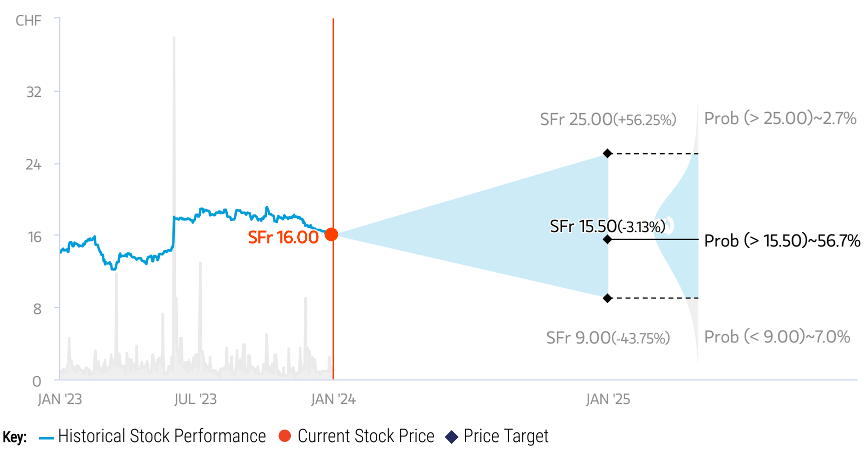
We use a DCF analysis to value SoftwareONE, applying a 9% WACC and 1.5% terminal growth rate.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)

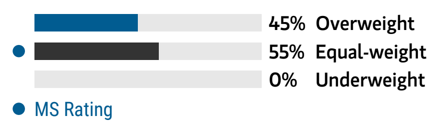


Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 12 Jan 2024. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology here

EQUAL-WEIGHT THESIS

- SoftwareONE is an attractive play on the digitalisation theme, benefiting from secular growth in software and outsized exposure to Microsoft.
- In Solutions & Services, we see a clear opportunity to cross-sell into the Comparex base, while also benefitting from cloud adoption, however in recent years this has been partly driven by a shift to pay-as-you-go contracts, resulting in less upfront revenue and acting as a headwind to Sale of Software
- We expect the continued shift towards services to weigh on margins and we sit slightly below mid-term guidance for margins to remain >25%.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption:	*Positive*
Secular Growth:	*Positive*
Self-help:	*Positive*

View descriptions of Risk Rewards Themes here

BULL CASE SFr 25.00

Growth accelerates, margin expansion delivered

Growth accelerates meaningfully as digitalisation/cloud adoption gain traction. Cross-selling sees Solutions & Services growth reach high teens. The acceleration of Sale of Software helps to support margins and drive margin expansion. This drives bull case growth c. 3.5pps above our base case. FY24-27 revenue CAGR c. 8%, and 6% out to FY33. We incorporate a terminal growth rate of 2% (vs. 1.5% in our base case). Terminal adj. EBITDA margin assumption is c. 27%.

BASE CASE SFr 15.50

Margin pressure due to shift to services

We expect organic growth of c. 5-7% over FY23-26. We forecast low to mid-single-digit growth in the Sale of Software division and 8-10% growth in Solutions & Services. Higher services growth results in downward pressure on adj. EBITDA margins, which finish at c. 24% in our terminal year vs. c. 25.7% in FY21.

BEAR CASE SFr 9.00

Growth stalls, margins decline

Growth slows more than anticipated with a c. 4% CAGR in FY24-27, as growth fails to re-accelerate in the Sale of Software division. A lack of cross-selling in Solutions & Services means growth fails to reach high teens, as implied by mid-term guidance. Higher growth in services continues to result in margin pressure. Assumes a FY24-27 total revenue CAGR of c. 4%, and c. 1% out to FY32. Terminal adj. EBITDA margin c. 21%.

Risk Reward – Softwareone Holding AG (SWON.S)

KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Organic ex-FX revenue growth % (%)	9.5	4.2	7.2	6.4
Adj. EBIT margin % (%)	24.5	23.9	25.0	23.8

INVESTMENT DRIVERS

- Organic top-line growth
- Delivery on synergy targets around Comparex acquisition
- Addition of high-growth software publisher relationships
- M&A

GLOBAL REVENUE EXPOSURE

- 0-10% Japan
- 0-10% Latin America
- 0-10% UK
- 10-20% APAC, ex Japan, Mainland China and India
- 10-20% North America
- 50-60% Europe ex UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

5/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Growth accelerating ahead of mid-term targets, driven by cross-selling in Solutions & Services
- M&A

RISKS TO DOWNSIDE

- Reliance on Microsoft and any changes to partnership terms
- Higher services growth results in downside risk to mid-term margin guide

OWNERSHIP POSITIONING

Inst. Owners, % Active	87.3%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e

	Low	Morgan Stanley Estimates	Mean	High
Sales / Revenue (SFr, mn)	1,006	1,028	1,023	1,040
EBIT (SFr, mn)	113	186	159	199
Net income (SFr, mn)	78	123	113	140
EPS (SFr)	0.63	0.79	0.77	0.91

◆ Mean ◆ Morgan Stanley Estimates

Source: Refinitiv, Morgan Stanley Research

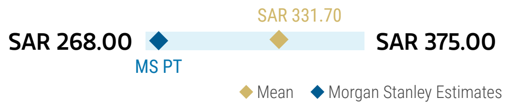
Risk Reward – Solutions by STC (7202.SE)

Structural growth, but at a high valuation given normalised growth rates

PRICE TARGET SAR 273.00

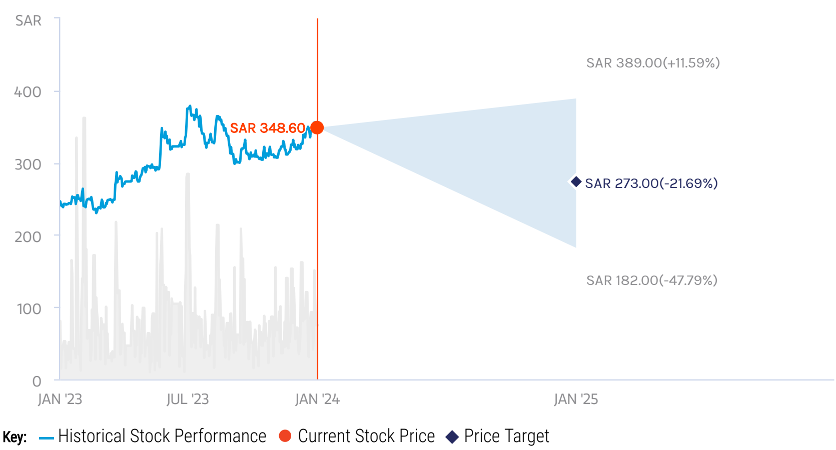
We value Solutions by STC with a 10-year DCF, using a WACC of 9%, and a 2.5% terminal growth rate.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART

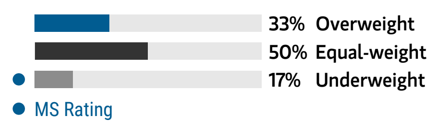


Source: Refinitiv, Morgan Stanley Research

UNDERWEIGHT THESIS

- Strongly positioned to help support KSA Vision 2030 by enabling technology adoption in the public and private sectors across Saudi Arabia.
- We forecast Solutions to grow revenues organically at a c. 9% CAGR FY23-26. In the context of ICT services, this represents a relatively high rate of growth, reflecting KSA's earlier positioning on the IT adoption maturity curve.
- We consider project mix and gross margins to be at a relatively high ebb. We expect margins to normalise lower into 2024, and to be sustained within a 12.5-13% range (on an adj. EBIT basis).
- We see the current valuation multiple as expensive in the context of high-single-digit % forward adj. EPS growth.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Secular Growth: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE SAR 389.00

Double-digit organic growth momentum

As was the case over FY19-22, Solutions continues to win large new ICT contracts, driving growth materially above the company's guidance. We forecast c. 16% total growth in FY24 and c. 14% in FY25 (vs. 9% in our base case). Operating leverage drives adj. EBIT margins higher and Solutions sustains >13% margins through the mid-term, and reaches ~15% in terminal state. The FY24-27 revenue growth CAGR is c. 12%, c. 6.5% FY27-33. Our bull case equates to c. 25.5x FY25 adj. P/E, or c. 2.9x EV/Sales.

BASE CASE SAR 273.00

Growth in-line with the market, margins normalise

After c. 17% org. growth in FY22, Solutions continues to deliver strong growth. We forecast c. 7% org. for FY23 (25% total growth), c. 10% for FY24. EBITDA margins compress vs. FY23 levels, reflecting M&A impacts and project mix. Stated EBITDA margins ease from 16.5% in FY23 to ~15% , as gross margins normalise. The FY28-34 revenue growth CAGR is c. 5.5%. Adj. EBIT (post normalised impairments) margins improve gradually to ~13% in terminal state. Our base case equates to c. 21x FY25 adj. P/E.

BEAR CASE SAR 182.00

Increased competition drives below-market growth

Beyond FY23, Solutions' top-line growth moderates below the wider market, driven by increased competition. We model total growth of 8%/7%/6% for FY24/25/26. Adj. EBIT margins compress to <13% in FY23, and to around 10% in terminal state, as mix shift weighs, currently higher-margin work commoditises, and margin improvements in more nascent divisions (e.g. digital) prove limited. The FY24-27 revenue CAGR is c. 6%, c. 3% FY27-33. Our bear case represents c. 16x FY25 adj. P/E, or c. 1.4x EV/Sales.

Risk Reward – Solutions by STC (7202.SE)

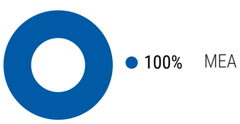
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Group y/y revenue growth (%)	22.2	25.4	11.4	8.7
Group adj. EBIT margin (%)	12.2	14.9	13.1	12.8
Group stated EBITDA margin (%)	15.8	16.5	15.4	15.1

INVESTMENT DRIVERS

- Large new contract wins
- Relative growth of high versus low margin business segments
- Expansion of activities in private sector end market
- M&A inside KSA or in other GCC countries
- Delivery quality on large contracts already being serviced
- 4Q23 results

GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

2/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- New contract wins particularly with the KSA government
- International expansion
- Bolt-on M&A
- Gross margin sustained at high levels

RISKS TO DOWNSIDE

- Slowdown in contract wins or contract losses once they reach the end of their term
- Weaker than expected delivery on existing large contracts leading to margin compression
- Impairments/provisions on contracts/inventory
- Longer working capital cycles than expected

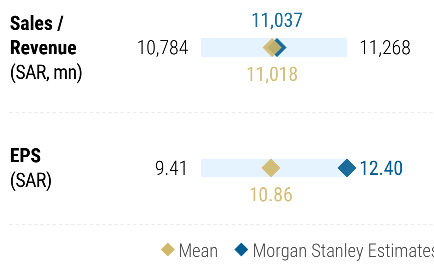
OWNERSHIP POSITIONING

Inst. Owners, % Active	49.4%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

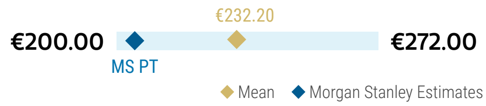
Risk Reward – Sopra Steria Group (SOPR.PA)

Fairly priced European IT services middleweight

PRICE TARGET €204.00

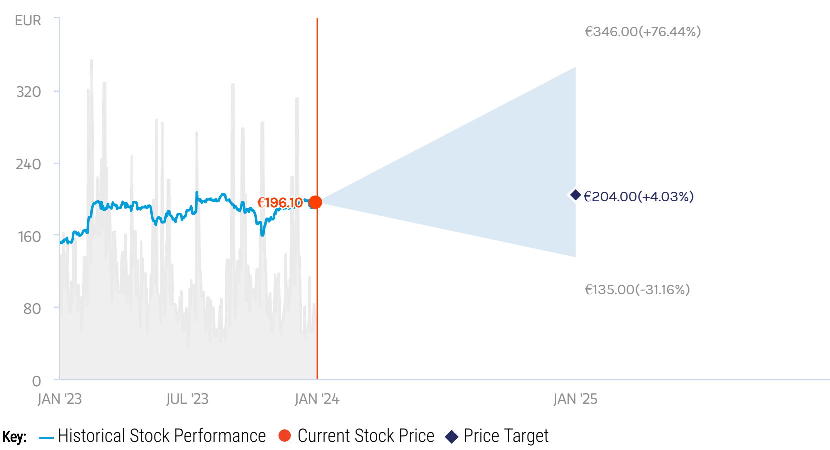
We use a 10-year DCF to value Sopra Steria, with a WACC of 9.0% and terminal growth rate of 2%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART

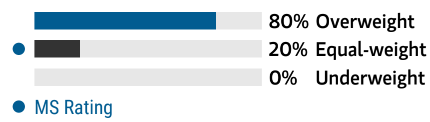


Source: Refinitiv, Morgan Stanley Research

EQUAL-WEIGHT THESIS

- A fairly priced European IT services player, with a relatively large exposure (~50% of revs) to sectors which are resilient to macroeconomic downturns (public, energy, aerospace & defense)
- We wait for more evidence Sopra Steria can increase its offering's value-add and its EBIT margins
- Valuation fair: we see Sopra Steria's valuation as fair versus key peers, given similar average organic growth profiles projected.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

BULL CASE €346.00

Delivering sustained higher growth and margins

Our bull case incorporates faster growth (due to the successful shift of the company's product offering towards more value-add/digital/higher share of consulting) and more margin improvement than in our base case. Sopra grows ~2.5ppts faster than in our base case in the mid-term at ~5.5%. Its adj. EBIT margin gradually expands to ~10% by FY25. Beyond FY27, Sopra grows revenue ~3.5% per annum. Our terminal adj. EBIT margin is ~10.5%. Our bull case implies c. 16.5x FY24 adj. P/E, c. 1.2x EV/Sales.

BASE CASE €204.00

Growth above market, SBS revenue growth recovers

We forecast Sopra to grow its revenue at a ~3% CAGR in the mid-term (FY24-27) with some small margin expansion (+30bps for FY23-26). Beyond FY27, we expect the company to grow its revenue ~2% per annum and for adj. EBIT margin to remain broadly flat at 9.3%. This is below the company's mid-term guidance for 4-6% organic growth and adj. EBIT margin around 10%. We wait for more evidence company can improve offering and margins. Our base case implies a FY24 adj. P/E of c. 10x, c. 0.8x EV/Sales.

BEAR CASE €135.00

Attempts to grow market share prove unsuccessful

Sopra's attempts to shift its offering to more digital and increase market shares face headwinds. Its client proximity approach becomes less successful as many clients turn to the leaders. Adj. EBIT margins are also pressured due to top line pressures. We assume FY24-27 revenue CAGR of 2.5% with margins declining to 8.5% by FY25. Post FY27, Sopra grows its revenue at ~1.5% and our terminal adj. EBIT margin is 7.0%. We use 1.5% terminal growth rate. Our bear case implies c. 7x adj. P/E.

Risk Reward – Sopra Steria Group (SOPR.PA)

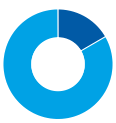
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Organic growth (%) (%)	7.6	6.1	3.7	3.7
OPBA margin (%) (%)	NA	0.0	0.0	0.0
FCF (€, mn)	285	0	0	0

INVESTMENT DRIVERS

- Sustained demand for digital transformation
- Further increases in operating scale and a shift towards improving business mix

GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

4/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Banking software market share accelerates
- Successful move of product offering towards more digital
- Successful large margin expansion (as per mid-term guide)
- M&A activity

RISKS TO DOWNSIDE

- Indian heritage vendor competition intensifies
- Public-sector re-insourcing picks up; this segment accounts for c.20-25% of group revenues
- Global macro and geopolitical situation leads to a slowdown that weighs on Sopra Steria

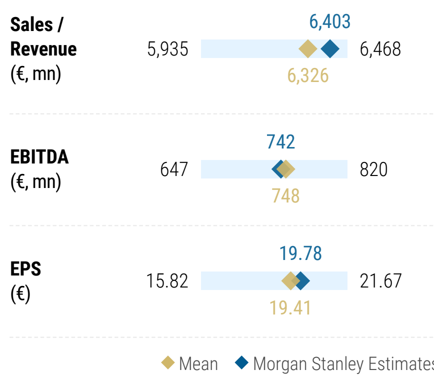
OWNERSHIP POSITIONING

Inst. Owners, % Active	83.1%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2024e



Source: Refinitiv, Morgan Stanley Research

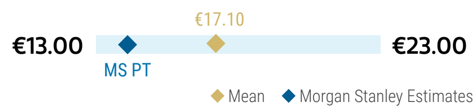
Risk Reward – TeamViewer AG (TMV.DE)

High margins and cash generation but on a slowing growth path

PRICE TARGET €14.00

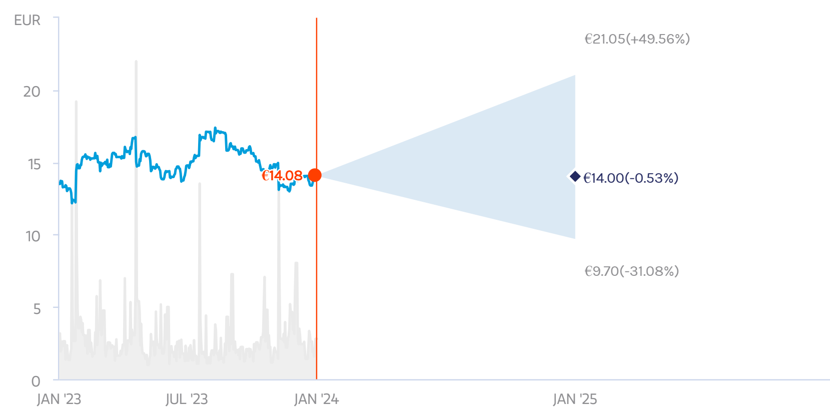
We use a 10-year DCF, with a WACC of c. 9% and terminal growth rate of 1%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



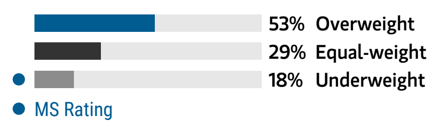
Key: Historical Stock Performance, Current Stock Price, Price Target

Source: Refinitiv, Morgan Stanley Research

UNDERWEIGHT THESIS

- TeamViewer is a leader in the market for remote access, support and control software. The market is benefiting from secular trends such as remote working and IoT but is maturing in IT.
- However, execution issues around growth opportunities, pandemic-related demand dynamics, as well as increasing competition in the core SMB IT market have led to clear deceleration in group growth rates. Demonstrating stabilisation in new business trends is key from here.
- The company has a free for personal use, paid for commercial use model. This creates a large funnel of free users to monetise in a low-cost manner.
- Key growth drivers: geographic expansion, product cross-sell, enterprise/IoT expansion.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Self-help: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €21.05

Rebounding to high-teens growth

Competitive pressures ease and TeamViewer delivers on durable mid-term growth, albeit lower than previously targeted high-teens % levels. Growth is led by Enterprise, which shows success in AR as well as IT use cases. The FY24-27 billings CAGR is c. 7%, and c. 4.5% for FY27-33. Adj. EBITDA margins moderate, but are still maintained at c. 40% in terminal state. We apply higher (than base case) 2% terminal growth rate. Our bull case valuation implies c. 4.5x FY25 EV/billings.

BASE CASE €14.00

Growth further decelerates below mid-term targets

Growth weakens as competition bites and pricing levers fade, with billings growth moderating from c. 8% cc in FY23 to mid-single-digit % by FY25. The FY24-27 billings CAGR is c. 4%, c. 2.5% FY27-33. Higher investment is needed to open up new growth avenues and stem a faster deceleration; adj. (cash) EBIT margins fall to high-30s % in terminal state. We use 1% terminal growth to reflect increasing maturity of the IT remote access & support segment and potential long-term structural headwinds.

BEAR CASE €9.70

Facing a battle of long-term market relevance

Growth further decelerates as TeamViewer struggles to grow within its core SMB IT end market due to competition. Enterprise traction stalls and FY23 macro headwinds hit. In the longer run, the core remote IT market commoditises and FY24 shows clear macro demand headwinds. Terminal adj. EBITDA margin is in the low-30s % range. We model a c. 1% billings CAGR in FY24-27 and c. 1% in FY28-34. We apply 0% terminal growth rate. Our bear case valuation implies c. 2.5x FY24 EV/billings.

Risk Reward – TeamViewer AG (TMV.DE)

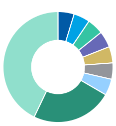
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Organic billings growth % (%)	10.9	7.5	3.5	4.1
Adj. EBITDA margin % (%)	40.6	41.9	42.7	45.3

INVESTMENT DRIVERS

- Increased rate of billings growth driven by new subscription additions
- Increase in the net retention rate
- Secular trends: shift towards remote working, connected devices (IoT)
- Success in either the enterprise segment, or into IoT devices

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 0-10% India
- 0-10% Japan
- 0-10% Latin America
- 0-10% MEA
- 0-10% Mainland China
- 0-10% UK
- 20-30% North America
- 40-50% Europe ex UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

1/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Success in growing enterprise / OT businesses
- Rebound in group renewal rates
- Growth acceleration/more durable from significant marketing spend increases (e.g. Manchester Utd partnership)

RISKS TO DOWNSIDE

- Introduction of new free competition (particularly if offering widescale device/OS compatibility)
- Long-term: Remote access market could shrink as more applications are delivered over the internet
- Security breaches

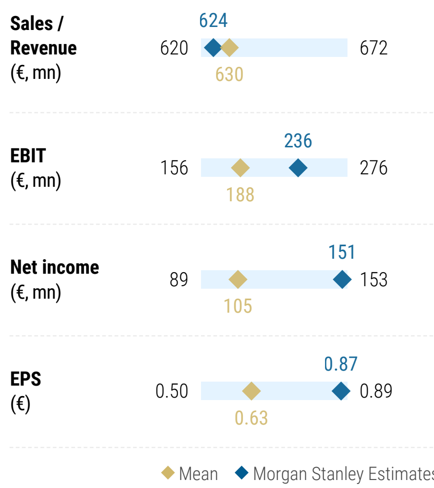
OWNERSHIP POSITIONING

Inst. Owners, % Active	80.8%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

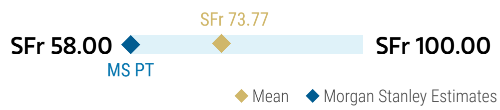
Risk Reward – Temenos Group AG (TEMN.S)

Uncertainty around growth outlook in face of weakening macro / CEO search

PRICE TARGET SFr 58.00

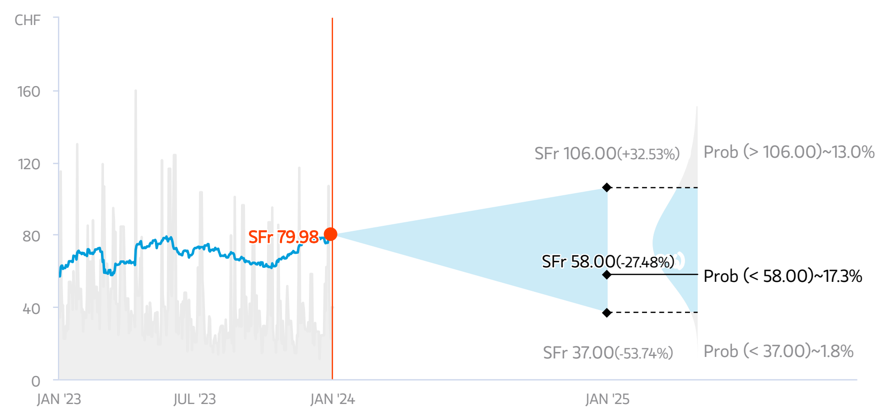
We use a DCF to value Temenos, with a WACC of 9% and terminal growth rate of 1.5%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



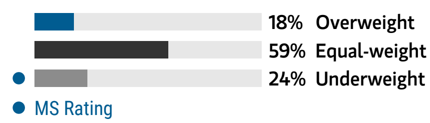
Key: — Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 12 Jan 2024. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology here

UNDERWEIGHT THESIS

- Temenos' strength is in on-premise core banking where demand has been weaker – Temenos is weaker in front office and cloud core banking where demand is stronger / competition more intense
- Significant uncertainty heading into 2024 around the growth outlook, especially considering the weakening macro backdrop and recent stress in banking sector. CEO search also adds to uncertainty around future strategy.
- We believe Temenos has underinvested in the business even ex cloud migration – see expense growth / declines in 2019/2020.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption: *Positive*
Secular Growth: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE SFr 106.00

Growth rebounds

In our bull case, we assume growth recovers post a very weak FY22. We assume Temenos can sustain its non-IFRS long-term revenue target of 10-15% through the mid-term, while margin expansion resumes of the lower FY22 base. We model a FY24-27 revenue CAGR of c. 12%, c. 8% FY28-34. Adjusted EBIT margins (ex-SBC) reach c. 35% in terminal state. We apply 2% terminal growth.

BASE CASE SFr 58.00

Long-term penetration slower than expected

The reluctance of large Tier 1 banks to move their core banking system to packaged software / competition in front office prevents a meaningful mid-term acceleration. Operating margin trends up gradually to c. 32% in 2026e before reaching 33% in terminal year. We model a c. 6% FY24-28 and c. 4% FY28-34 revenue CAGR.

BEAR CASE SFr 37.00

Growth stalls as banks stick in-house

Growth stalls as the macro turns and large Tier 1 and 2 banks stick with in-house solutions and competition in the front office intensifies. We model a c. 4% top-line CAGR over FY23-26. Margins fail to recover strongly vs. FY22 as Temenos invests to try to drive growth - the terminal margin is 29%. This aligns with a trough multiple of 4.5x recurring.

Risk Reward – Temenos Group AG (TEMN.S)

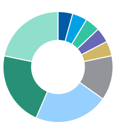
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
License Growth (%)	(17.5)	(4.1)	3.6	4.0
Mse Organic Revenue Growth (%)	1.8	4.1	6.2	6.5
Temenos adjusted EBIT margin (%)	28.7	30.7	31.4	32.1
FCF (US$, mn)	155	191	225	288

INVESTMENT DRIVERS

- Signing new mega deals
- M&A to build out the existing product portfolio
- Quarterly results

GLOBAL REVENUE EXPOSURE



- 0-10% India
- 0-10% Japan
- 0-10% Latin America
- 0-10% Mainland China
- 0-10% UK
- 10-20% APAC, ex Japan, Mainland China and India
- 20-30% Europe ex UK
- 20-30% MEA
- 20-30% North America

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

2/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Large Tier 1 Bank signings have the potential to drive significant licence growth in a single quarter
- Lack of visibility could result in a sudden mega-deal signing, which would lift licence growth above our high single digit forecast

RISKS TO DOWNSIDE

- Recovery from COVID remains muted, investors question mid-term guidance
- Margin pressure as costs / investment returns

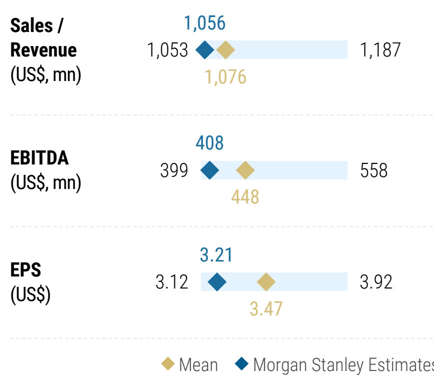
OWNERSHIP POSITIONING

Inst. Owners, % Active	76.6%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2024e



Source: Refinitiv, Morgan Stanley Research

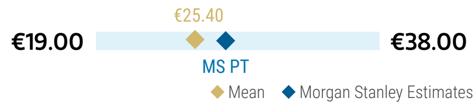
Risk Reward – Tietoevry Oyj (TIETO.HE)

Leading Nordic IT Services company at a cheap valuation

PRICE TARGET €27.50

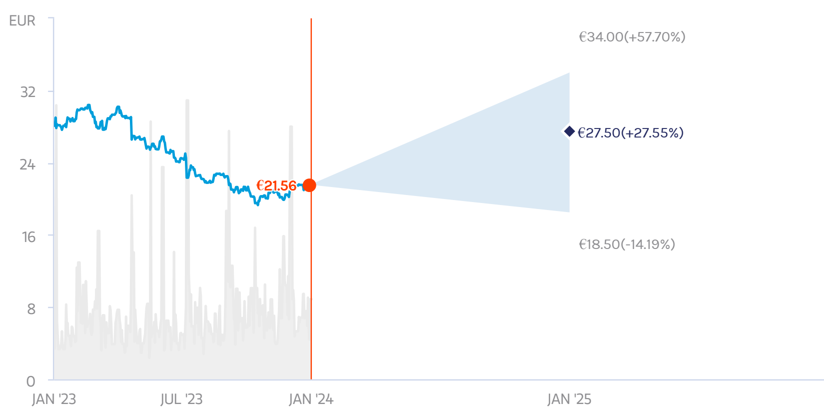
We use a 10-year DCF to value Tietoevry, with a WACC of c. 8.5% and terminal growth rate of 2.0%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



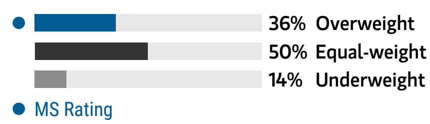
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research

OVERWEIGHT THESIS

- The late 2019 merger of Tieto and EVRY created a leader in Nordic IT services (#1 in Norway, Sweden and Finland), with a focus on moving towards more data-driven IT services, and with the enlarged group better positioned to address pricing pressures in the traditional IT infrastructure market.
- The strategy to re-organise into 5 business units could help revitalise growth, albeit we think the company's ability significantly to outgrow its end markets organically is limited by its high market share, and materially increasing margins from here will prove challenging.
- Outcomes from the two running strategic business unit reviews could unlock value.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

BULL CASE €34.00

Full steam ahead

We bake in 2H24 recovery in IT demand, with digital consulting projects ramping up in 2H24 and FY25. Clarity is given around strategic review outcomes, removing its overhang on the stock. Growth reaches c. 5% in FY26, with adj. EBITA margin reaching c. 13.5%. We model a c. 5% FY24-27 revenue CAGR, c. 3% in FY28-34, with terminal margins of 13.5%. Restructuring averages at a lower c. 1% of sales p.a. Our bull case implies c. 14x FY25e adj. P/E, c. 1.5x EV/sales.

BASE CASE €27.50

Moving up the growth curve

In our base case we model steady near-term growth as uncertainty remains around the recovery in IT spend. We forecast growth of c. 3.0% org. in FY24, as the downturn in IT spend continues to impact Create and Tech Services. The adj. EBIT margin in FY24 is 12.7%. We model growth at c. 4% over FY24-27, a CAGR of c. 3% for FY28-34. In the longer run, restructuring is c. 1.25%/sales p.a. and the terminal adj. EBIT margin is c. 12%. Our base case implies c. 11.8x FY25e adj. P/E, c. 1.3x EV/sales.

BEAR CASE €18.50

Lost growth momentum and market positioning

Weakness in IT spending weighs in FY24. Higher competition, pricing pressures, and continued weakness in legacy businesses impacts growth over the mid-term. The revenue CAGR is c. 3% FY24-27, c. 2% p.a on average in FY28-34. Restructuring averages c. 1.75% of sales p.a. and the terminal adj. EBIT margin is c. 10.5%. We use a 1.5% terminal growth rate. The bear case equates to c. 8.4x FY25e adj. P/E, c. 1.0x EV/Sales.

Risk Reward – Tietoevry Oyj (TIETO.HE)

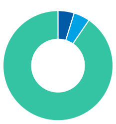
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Organic ex-FX sales growth (%)	6.0	3.8	2.9	3.5
Adj. EBIT margin (%)	13.0	12.5	12.7	13.1

INVESTMENT DRIVERS

- Rate of organic growth
- Rate of organic and inorganic margin expansion and levels of one-off costs/restructuring
- Transition from traditional IT services to digital IT services
- Bolt-on M&A
- Potential action to unlock value from software businesses

GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

3/5 MOST | 3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Outcomes from two currently running business unit reviews could help unlock value in the business
- Contract wins in Tietoevry's software businesses
- International expansion / growth of software businesses

RISKS TO DOWNSIDE

- Macro headwinds re-emerging into 2023, particularly impacting Tietoevry's more project-based businesses (e.g. Create)
- Faster commoditisation of infrastructure outsourcing/IaaS markets

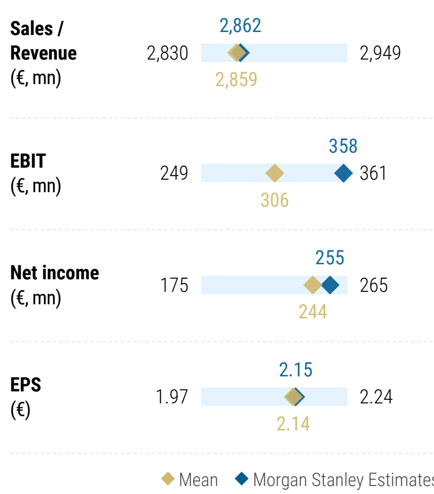
OWNERSHIP POSITIONING

Inst. Owners, % Active	85.1%
HF Sector Long/Short Ratio	1.7x
HF Sector Net Exposure	5.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2023e



Source: Refinitiv, Morgan Stanley Research

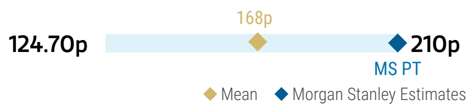
Risk Reward – Trustpilot (TRST.L)

Pioneering a consumer brand in the commerce ecosystem

PRICE TARGET 210p

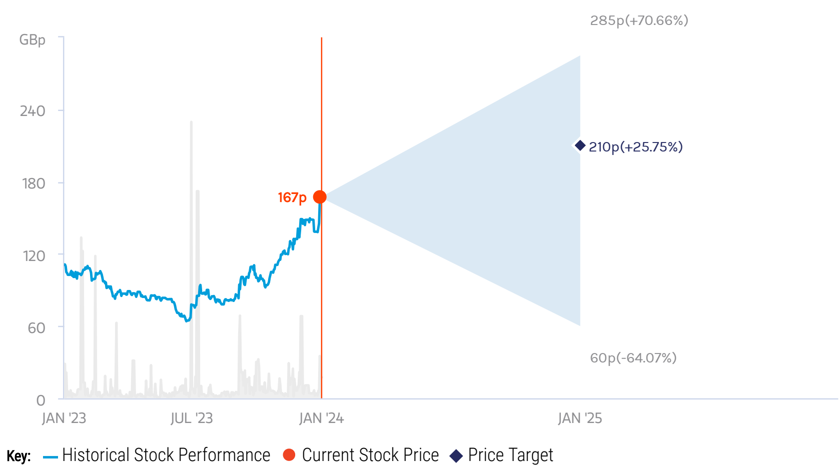
We value Trustpilot using a 15-year DCF model, applying a 2.5% terminal growth rate and a 9.0% WACC.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART

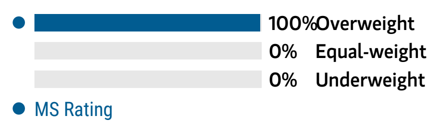


Source: Refinitiv, Morgan Stanley Research

OVERWEIGHT THESIS

- **Scale leader in consumer horizontal business reviews**, with a review platform that has amassed over 140 million consumer reviews and profiles for over 600,000 business domains. Dual-sided ecosystem drives network effects and builds barriers to entry.
- **Aligned with structural growth themes**, around e-Commerce, digital marketing, and digitalisation more broadly. Trustpilot sees its total serviceable addressable market at c. €19bn.
- **Strong growth track record**, with a >30% cc revenue CAGR since 2015.
- **Key debates:** (1) ability to re-accelerate growth in the US and (2) achievable user unit economics over time.
- We see a durable growth pathway for Trustpilot and material upside to our price target.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Secular Growth: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE 285p

Unlocking the US opportunity and durable growth

Trustpilot reaccelerates growth in the low-to-mid 20s % range from FY24 as S&M reorganisation and investments bear fruit. We assume a c. 23% FY24-27 CAGR, c. 8.6% in FY28-39. Terminal adjusted EBIT margins are c. 27%, moderately above our base case assumption at 25%. We apply a higher 3.0% terminal growth rate. Our bull case implies c. 5.7x FY25 EV/sales.

BASE CASE 210p

Mid-term growth story intact

Against macro headwinds, we see Trustpilot delivering solidly in 2024 accelerating top line growth to c. 19% in FY24 and 22% in FY25. In the longer run, Trustpilot successfully executes on N. America expansion. We forecast a c. 21% FY24-27 sales CAGR, c. 7.9% FY28-39. Adj. EBIT margin reaches c. 25% in terminal state, growth 2.5% in terminal state. Our base case implies c. 4.2x FY25 EV/Sales.

BEAR CASE 60p

Growth aspirations lose traction

Revenue growth dips to c. 14% stated in FY24 on prolonged macro weakness, while competition and a tough macro keeps FY25 growth rates onwards subdued. The notable drag is North America, where Trustpilot struggles with adoption. We assume a c. 11% FY24-27 sales CAGR, c. 4% FY28-39. Adj. EBIT margins reach c. 13% in terminal state and we apply a lower 2% terminal growth rate. Our bear case implies c. 1.1x FY24 EV/Sales.

Risk Reward – Trustpilot (TRST.L)

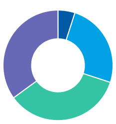
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Organic growth (%)	23.9	17.0	16.6	22.1
Adj. EBITDA margin (%)	(3.0)	8.0	8.1	8.4

INVESTMENT DRIVERS

- Growth in Trustpilot's overall consumer and business ecosystem
- North America growth rates (revenue, ARR, bookings) through FY22
- User economics trends across key geographies (retention rates, LTV/CAC)
- Brand adoption rates across key geographies

GLOBAL REVENUE EXPOSURE



- 0-10% APAC, ex Japan, Mainland China and India
- 20-30% North America
- 30-40% Europe ex UK
- 30-40% UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

RISKS TO PT/RATING

RISKS TO UPSIDE

- Successful re-acceleration of growth in the US
- Improving user economics in geographies as Trustpilot moves up the 'J-curve' of brand awareness and adoption
- Improvement in paid business penetration over time

RISKS TO DOWNSIDE

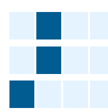
- Inability to re-accelerate growth in the large US market
- User economics outside of the UK/Denmark stagnate on limited brand recognition
- Long-term profitability profile currently unknown

OWNERSHIP POSITIONING

Inst. Owners, % Active 92.9%

HF Sector Long/Short Ratio 2.3x

HF Sector Net Exposure 5.5%



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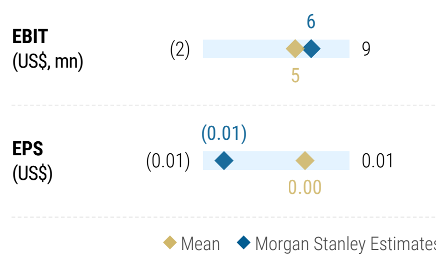
MS ESTIMATES VS. CONSENSUS

FY Dec 2024e



Source: Refinitiv, Morgan Stanley Research

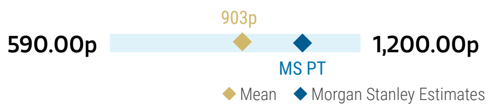
Risk Reward – Wise PLC (WISEa.L) Top Pick

Enabling the journey to free transfers

PRICE TARGET 1,050p

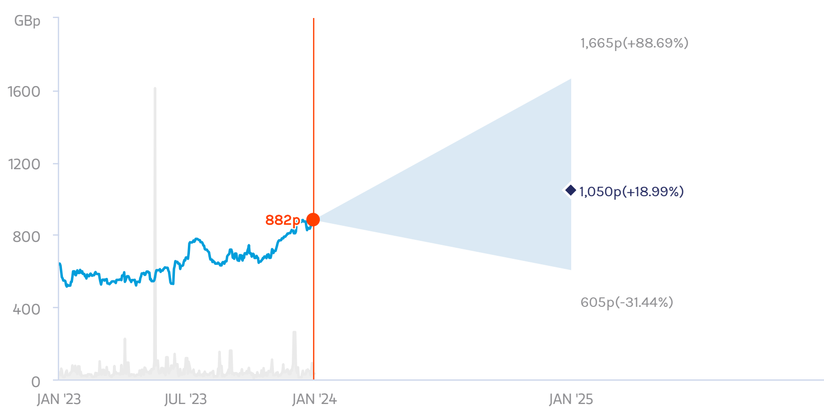
We use a DCF to value Wise, with a WACC of 8.5% and terminal growth rate of 3%

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART



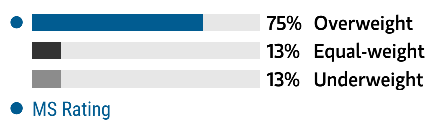
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research

OVERWEIGHT THESIS

- Wise's unique focus on local infrastructure and P2P transfers/netting, as well as its regulatory/licence footprint, underpins its position as the lowest cost/most transparent provider, supporting continued share gains
- In FY24, we forecast c. 47% total income growth (vs. 73% FY23), with Wise benefitting from net interest income tailwinds from Wise Account balances
- On valuation, Wise trades on 30x CY25 P/E or a 5% FCFF yield, which we see as an attractive entry point for a quality compounder with a low penetration of a large and growing TAM

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption:	*Positive*
Secular Growth:	*Positive*

View descriptions of Risk Rewards Themes here

BULL CASE 1,665p

Disruption accelerates

Wise delivers growth ahead of FY24 guide and remains ahead of mid-term guide (>20%), supporting a 21% CAGR FY24-28 and a 17% CAGR FY28-34, as share gains accelerate and the platform business scales. Adj. EBITDA margin reaches ~36% in FY24 and ~32% in terminal state.

BASE CASE 1,050p

Compounding growth

Wise delivers total income growth above the FY24 guide (47% vs. 33-38% guide), with organic revenue growth coming in at c. 28%. We forecast c. 17% total-income CAGR (FY24-28e) and ~12% CAGR (2027-33e), as growth is supported by continued share gains in both Personal and Business divisions.

BEAR CASE 605p

Growth slows

Total income growth slows to a 14% CAGR FY24-28 and a 8% CAGR FY27-33, as share gains slow and the platform business fails to gain meaningful scale. Adj. EBIT margin reaches 31% in FY24 and 25% in terminal state.

Risk Reward – Wise PLC (WISEa.L)

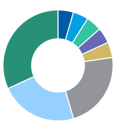
KEY EARNINGS INPUTS

Drivers	2023	2024e	2025e	2026e
Volume Growth (%)	22	15	0	0
Organic Revenue Growth (%)	24	28	0	0
Adjusted EBITDA Margin (%)	28	34	0	0

INVESTMENT DRIVERS

- Organic revenue growth (Personal & Business)
- Share gains vs. traditional banks / next-gen competitors
- New product traction
- EBITDA margin expansion

GLOBAL REVENUE EXPOSURE



- 0-10% India
- 0-10% Japan
- 0-10% Latin America
- 0-10% MEA
- 0-10% Mainland China
- 20-30% North America
- 20-30% UK
- 30-40% Europe ex UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

4/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Share gains vs. traditional banks and next gen players
- Higher volume business division sustains outsized growth
- New products gain traction
- Platform offering scales quickly
- Wise Account balance growth

RISKS TO DOWNSIDE

- Regulatory risk
- Licence risk
- FX exposure risk
- Failure to comply with rules & regulations could cause customer harm, financial losses, reputational damage and a loss of operating licence.

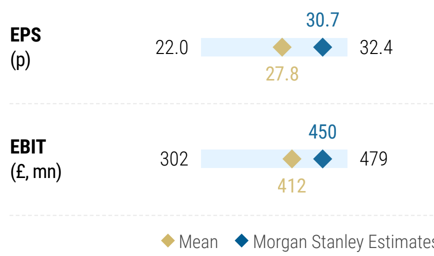
OWNERSHIP POSITIONING

Inst. Owners, % Active	82.5%
HF Sector Long/Short Ratio	2.3x
HF Sector Net Exposure	19.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Mar 2024e



Source: Refinitiv, Morgan Stanley Research

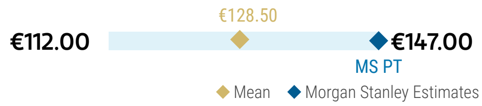
Risk Reward – Wolters Kluwer (WLSNc.AS)

Expert Solutions transition continues and a long margin runway

PRICE TARGET €147.00

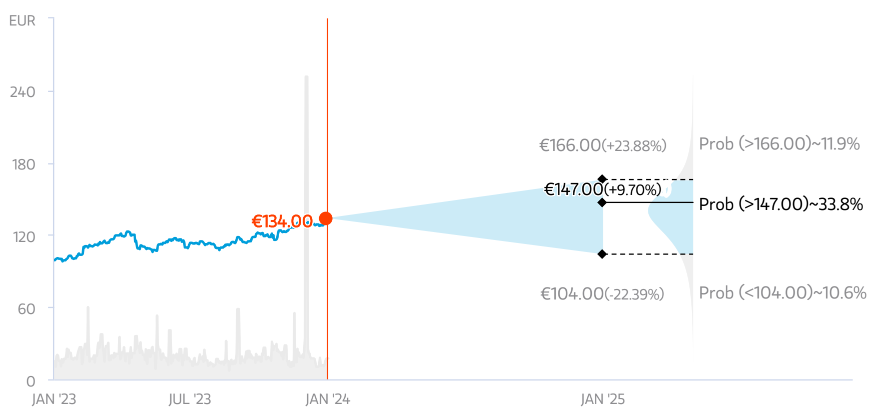
We use a 10-year DCF to value Wolters Kluwer, with a WACC of ~7.5% and terminal growth rate of ~3%.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



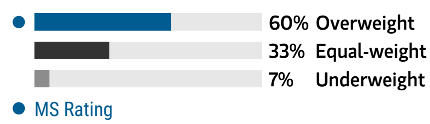
Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 12 Jan 2024. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology here

OVERWEIGHT THESIS

- WK has a strong growth profile in European data analytics. We expect the group's organic top-line growth to continue to run at 6% per annum through the mid-term, with margin expansion.
- >90% of revenues are digital, with digital and services subscription revenues growing by 8% org. in both 2021 and 2022. The continued transition towards digital and expert solutions should support continued solid group growth and provide upsell opportunities.
- WK's adj. EBIT margin is below that of many data analytics peers. We note margins are relatively low in both L&R and CP&E divisions. The migration from information to expert systems (software driven; deep domain expertise) should drive up margins.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Pricing Power:	*Positive*
Technology Diffusion:	*Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €166.00

An expert in delivering growth

We assume slightly higher group growth, sustaining c. 7% across FY24-27, and closer to 4.5% across FY27-33, as product investment pays off, driving higher adoption of software and cloud solutions. Competitive pressures are relatively muted. In turn, this drives operating leverage, with margins reaching closer to 30% by FY26 (vs. c. 28.% in our base case). Longer-term, adj. EBIT margins expand to c. 33% in terminal state. Our bull case implies a multiple of c. 28x FY25 bull case adj. P/E.

BASE CASE €147.00

Consistent growth (revenue ~6% y/y p.a. organic)

We forecast WK to continue to steadily grow its top-line, benefiting from increased adoption and roll-out of Expert Solutions. Margin improvement is broad-spread, but particularly aided by improvement in L&R and CP&E divisions. We forecast a c. 6% revenue CAGR FY24-27, c. 4% FY28-34, with adjusted EBIT continuing to steadily expand (and reaching >28% by FY26). In the long-run, we expect margins to reach >31% on adj. EBIT. Our base case implies a multiple of c. 26x FY25 adj. P/E.

BEAR CASE €104.00

Onto a lower growth pathway

Competition combined with weakening macro drive moderating growth, with top-line growth running in the 3-4% range through the mid-term. In particular, growth rates of T&A and CP&E divisions moderate. Revenue growth is only c. 4% FY24-27, c. 3% FY28-34. This hampers WK's ability to expand margins and investment keeps adj. EBIT margins around 25% through the mid-term; it remains at a mid-20s% level into terminal state. Our bear case implies a multiple of c. 20x FY25 bear case adj. P/E.

Risk Reward – Wolters Kluwer (WLSNc.AS)

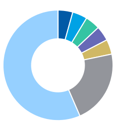
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Constant currency growth (%)	5.1	4.4	5.9	5.9
MSe organic growth (%)	6.1	5.7	5.9	5.9
Adj. EBITDA Margin (%)	31.7	31.5	32.0	32.9

INVESTMENT DRIVERS

- Recurring revenues (>80% of the mix) growing above average (~7% org. FY22/1H23)
- Continued shrinking of non-recurring revenue in the sales mix (18% 1H23)
- Continued scope for margin improvement beyond 2023
- Recycling FCF (post dividend) into buybacks

GLOBAL REVENUE EXPOSURE



0-10%	APAC, ex Japan, Mainland China and India
0-10%	Latin America
0-10%	MEA
0-10%	Mainland China
0-10%	UK
20-30%	Europe ex UK
60-70%	North America

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

5/5 MOST	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

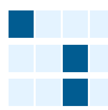
RISKS TO UPSIDE

- Scope to redeploy significant FCF generation into shareholder returns (buybacks, dividends).
- Some divisional margins are low vs peers and capable of improvement.
- Strong growth in software-based sales.

RISKS TO DOWNSIDE

- c. 6% of 2022 revenue was derived from Print revenues (which are declining y/y).
- Some macro sensitivity in transactional and non-recurring revenues (c. 20% of the group FY22 revenue mix).

OWNERSHIP POSITIONING

Inst. Owners, % Active	78.1%	
HF Sector Long/Short Ratio	2.3x	
HF Sector Net Exposure	23.5%	

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

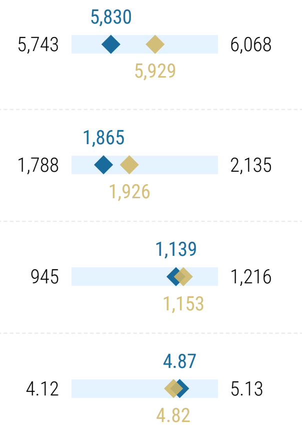
FY Dec 2024e

Sales / Revenue (€, mn)

EBITDA (€, mn)

Net income (€, mn)

EPS (€)



Source: Refinitiv, Morgan Stanley Research

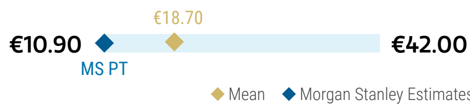
Risk Reward – Worldline SA (WLN.PA)

High degree of uncertainty around the growth outlook/FCF generation

PRICE TARGET €10.90

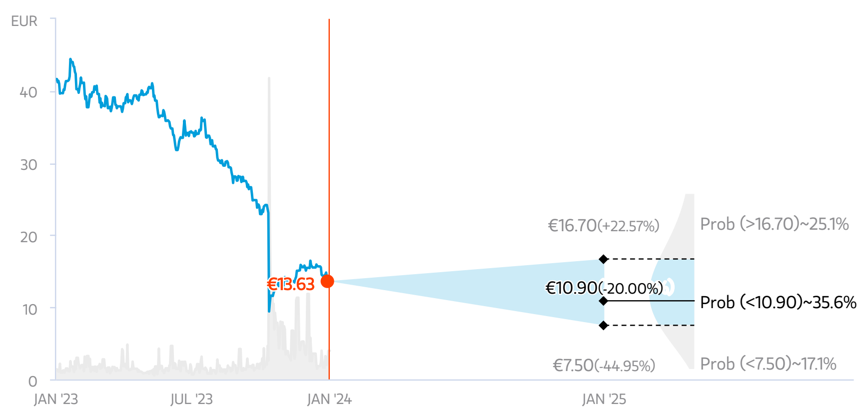
We value Worldline on a 12.5% 2025e base case adjusted FCFE yield, which we think reflects the relatively higher risks around the growth outlook post the recent miss, and is at a discount to peers (Nexi)

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART AND OPTIONS IMPLIED PROBABILITIES (12M)



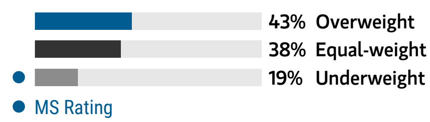
Key: — Historical Stock Performance ● Current Stock Price ◆ Price Target

Source: Refinitiv, Morgan Stanley Research, Morgan Stanley Institutional Equities Division. The probabilities of our Bull, Base, and Bear case scenarios playing out were estimated with implied volatility data from the options market as of 12 Jan 2024. All figures are approximate risk-neutral probabilities of the stock reaching beyond the scenario price in either three-months' or one-years' time. View explanation of Options Probabilities methodology here

UNDERWEIGHT THESIS

- Broad payments offering gives Worldline a wide coverage span of the payments value chain. The company's revenue mix is skewed to the offline payments space.
- Higher non-recurring charges set to weigh on FCF generation, which we expect to remain depressed through FY24-25.
- Trading on a ~7% CY25e EV/FCFF yield, we position as a relative Underweight in the sector.

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Disruption:	*Negative*
Self-help:	*Positive*

View descriptions of Risk Rewards Themes here

BULL CASE €16.70

FCF conversion improves

In our bull case, we assume FY25 FCFE 20% ahead of our base case and a ~10% yield, as macro headwinds ease and growth reaccelerates in 2H24. This implies a valuation of €16.7.

BASE CASE €10.90

Focus on FCF conversion

In our base case, we take our FY25 FCFE forecast and apply a 12.5% FCF yield, which implies a base case PT of €10.9. We think a 12.5% FCF yield is appropriate given the heightened risks around both the growth outlook, as well as concerns raised by the involvement of BaFin.

BEAR CASE €7.50

Further headwinds to growth

In our bear case, we cut our FY25 FCFE forecast by ~25%, reflecting higher non-recurring charges/greater macro headwinds, and apply a 13.5% discount rate, implying a valuation of €7.50.

Risk Reward – Worldline SA (WLN.PA)

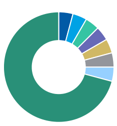
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Group net revenue (€, mn)	4,364	4,618	4,744	4,962
Organic growth (%)	1.9	6.1	3.1	4.6
OMDA (€, mn)	1,136	0	0	0
OMDA margin (%)	26.0	0.0	0.0	0.0

INVESTMENT DRIVERS

- Organic growth rates
- Synergies from existing M&A transactions (e.g. SIX Payment Services, Ingenico)
- Macro backdrop
- Future M&A

GLOBAL REVENUE EXPOSURE



0-10%	APAC, ex Japan, Mainland China and India
0-10%	India
0-10%	Japan
0-10%	Latin America
0-10%	Mainland China
0-10%	North America
0-10%	UK
80-90%	Europe ex UK

Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

5/5 **MOST** | 3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

- Faster than expected consolidation in European payments with more bank-focused M&A deals
- Accelerated move into/success in online payments increases growth potential of the business

RISKS TO DOWNSIDE

- Accelerating price pressure in payments processing
- Macro weakness
- Further regulatory pressures

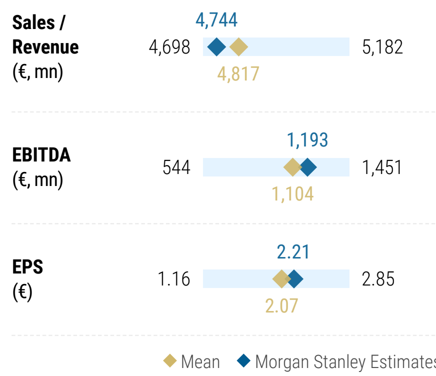
OWNERSHIP POSITIONING

Inst. Owners, % Active	89.9%
HF Sector Long/Short Ratio	2.3x
HF Sector Net Exposure	19.4%

Refinitiv; MSPB Content. Includes certain hedge fund exposures held with MSPB. Information may be inconsistent with or may not reflect broader market trends. Long/Short Ratio = Long Exposure / Short exposure. Sector % of Total Net Exposure = (For a particular sector: Long Exposure - Short Exposure) / (Across all sectors: Long Exposure – Short Exposure).

MS ESTIMATES VS. CONSENSUS

FY Dec 2024e



Source: Refinitiv, Morgan Stanley Research

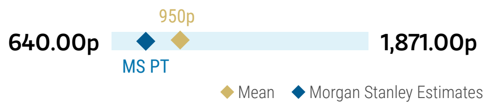
Risk Reward – WPP Plc (WPP.L)

Large ad agency fairly priced

PRICE TARGET 790p

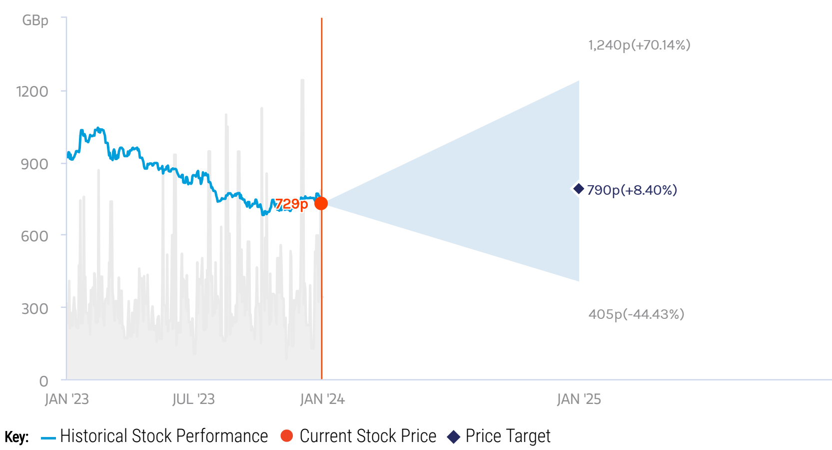
We value WPP using a 10-year DCF with a 8.5% WACC and 1.5% terminal growth rate.

Consensus Price Target Distribution



Source: Refinitiv, Morgan Stanley Research

RISK REWARD CHART

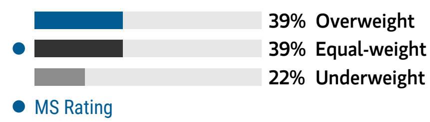


Source: Refinitiv, Morgan Stanley Research

EQUAL-WEIGHT THESIS

- We think WPP is trading at a relatively fair valuation. We would prefer to own Publicis than WPP
- The gap in product offering between Publicis and WPP is likely to continue widening due to 1) WPP's management team's focus on back-office transformation and offering simplification and 2) WPP's higher leverage giving the company less M&A firepower
- We forecast WPP to grow its net revenue, adj. EBIT and adj. EPS at a 2%, 3.5% and 2.5% FY23-26 CAGR
- WPP's high exposure to technology companies' ad spend (20% of rev.) adds uncertainty to near-term growth
- Evidence that WPP can execute on its back-office transformation and further simplify its offering would make us more constructive

Consensus Rating Distribution



Source: Refinitiv, Morgan Stanley Research

Risk Reward Themes

Self-help: *Positive*

View descriptions of Risk Rewards Themes here

BULL CASE 1,240p

Faster macro rebound, successful execution

A combination of a faster macro rebound and successful simplification of its product offering and go-to-market resonating well with clients drives faster growth than in our base case. Also aided by successful acquisitions which strengthen WPP's product offering.

WPP grows net revenue at ~5.5% FY24-27 CAGR (+2.5ppts vs base case) and ~3% FY28-34 CAGR (+1.5ppts vs base case). Adjusted EBITDA grows at a ~6% 24-27 CAGR and ~3.5% 28-34 CAGR.

WPP would trade on a ~12x 2024 P/E

BASE CASE 790p

Slower growth than peers, some margin expansion

We forecast WPP to grow its net revenue at a ~3% FY24-27 CAGR and ~1.5% FY28-34 CAGR. The company's adj. EBITDA margin gradually increases to ~19% of net revenue by FY26 then slowly declines to reach ~18% in terminal state, reflecting a higher level of commoditisation of the product offering in the long-term.

We forecast WPP to grow at a slower rate than Publicis in the mid-term, due to 1) its higher exposure to tech companies' ad spend (20% of revenue) and 2) a less diversified revenue mix

BEAR CASE 405p

More challenging macro, permanent share losses

More challenging macro in FY24, later than expected recovery in tech companies' ad spend. In the mid to long term, advertising spend is challenged with an increasing share of insourcing of creative work and going direct for media buying.

WPP grows net revenue at ~1% FY24-27 CAGR (2 ppts below base case) and ~-0.5% FY28-34 CAGR (2ppt below base case). Adjusted EBITDA is flat during 24-27 and declines at a ~-2% 28-34 CAGR.

WPP would trade on a 4x adj. P/E

Risk Reward – WPP Plc (WPP.L)

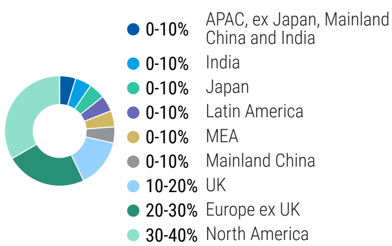
KEY EARNINGS INPUTS

Drivers	2022	2023e	2024e	2025e
Net revenue organic growth (%)	6.9	0.5	1.6	3.1
Headline operating margin (WPP) (%)	14.8	14.6	14.8	15.0
MS operating profit (post restructuring) (£, mn)	1,524	1,510	1,521	1,617

INVESTMENT DRIVERS

- Market share versus other agencies and consultancy peers
- Marketing spending by large corporate customers
- Proportion of client spend deployed in-house versus to third parties including agencies and consultants
- M&A

GLOBAL REVENUE EXPOSURE



Source: Morgan Stanley Research Estimate
View explanation of regional hierarchies here

MS ALPHA MODELS

2/5 **MOST**	3 Month Horizon

Source: Refinitiv, FactSet, Morgan Stanley Research; 1 is the highest favored Quintile and 5 is the least favored Quintile

RISKS TO PT/RATING

RISKS TO UPSIDE

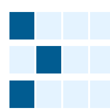
- Successful execution of back-office transformation and offering simplification plan, leading to growth acceleration and margin expansion
- Faster rebound in technology companies' ad spend
- Successful M&A

RISKS TO DOWNSIDE

- Technology companies' muted ad spend growth persists
- More companies in-housing creative work and going direct for media buying
- Execution challenges

OWNERSHIP POSITIONING

Inst. Owners, % Active	70%	
HF Sector Long/Short Ratio	2.3x	
HF Sector Net Exposure	5.5%	



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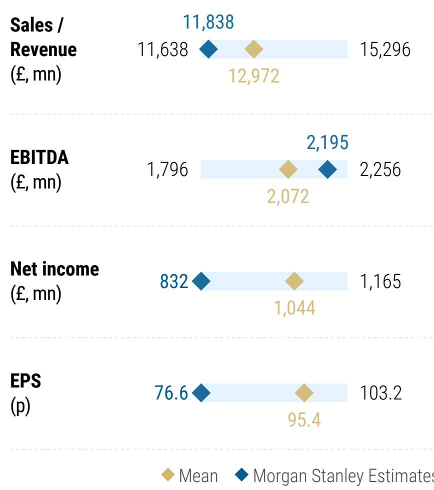
MS ESTIMATES VS. CONSENSUS

FY Dec 2024e



Source: Refinitiv, Morgan Stanley Research

Morgan Stanley & Co. International plc ("Morgan Stanley") is acting as financial advisor to Informa PLC ("Informa") in relation to the proposed merger of Informa's tech business with TechTarget, Inc as announced on January 10, 2024. Informa has agreed to pay fees to Morgan Stanley for its financial services. Please refer to the notes at the end of the report." AND "Morgan Stanley & Co. International plc ("Morgan Stanley") is acting as financial advisor to Credit Agricole SA in relation to the proposed Joint Venture between Credit Agricole payments and Worldline as announced on 19 April 2023. The transaction is subject to regulatory and other closing conditions. Credit Agricole SA has agreed to pay fees to Morgan Stanley for its financial services, including transaction fees that are subject to the consummation of the transaction. Please refer to the notes at the end of the report

Risk Reward Reference links

1. View explanation of Options Probabilities methodology - Options_Probabilities_Exhibit_Link.pdf

2. View descriptions of Risk Rewards Themes - RR_Themes_Exhibit_Link.pdf

3. View explanation of regional hierarchies - GEG_Exhibit_Link.pdf

4. View explanation of Theme/Exposure methodology - ESG_Sustainable_Solutions_External_Link.pdf

5. View explanation of HERS methodology - ESG_HERS_External_Link.pdf

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Analyst Certification

The following analysts hereby certify that their views about the companies and their securities discussed in this report are accurately expressed and that they have not received and will not receive direct or indirect compensation in exchange for expressing specific recommendations or views in this report: Mark Hyatt; Laura C Metayer; Alastair P Nolan; Nigel van Putten; Lee Simpson; Terence Tsui; George W Webb; Adam Wood.

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As of December 29, 2023, Morgan Stanley beneficially owned 1% or more of a class of common equity securities of the following companies covered in Morgan Stanley Research: Adyen NV, Aixtron SE, Amadeus IT Holdings S.A., BE Semiconductor Industries NV, Cadence Design Systems Inc, Capgemini, Darktrace PLC, Infineon Technologies AG, Informa, Network International Holdings PLC, Nexi SpA, Nokia Oyj, Nordic Semiconductor ASA, Publicis Groupe SA, RELX, Sage, SAP SE, STMicroelectronics NV, Synopsys Inc., TeamViewer AG, Temenos Group AG, Trustpilot, Wise PLC, Worldline SA, WPP Plc.

Within the last 12 months, Morgan Stanley managed or co-managed a public offering (or 144A offering) of securities of Exclusive Networks.

Within the last 12 months, Morgan Stanley has received compensation for investment banking services from ASM International NV, BE Semiconductor Industries NV, Capgemini, Ericsson, Informa, SAP SE, WPP Plc.

In the next 3 months, Morgan Stanley expects to receive or intends to seek compensation for investment banking services from Adyen NV, Aixtron SE, Amadeus IT Holdings S.A., ASM International NV, ASML Holding NV, BE Semiconductor Industries NV, Cadence Design Systems Inc, Capgemini, CompuGroup Medical SE & Co KgaA, Dassault Systemes SA, Ericsson, Exclusive Networks, Hexagon AB, Indra, Infineon Technologies AG, Informa, IONOS Group SE, Nemetschek SE, Netcompany Group A/S, Nexi SpA, Nokia Oyj, Nordic Semiconductor ASA, OVH GROUPE SAS, Publicis Groupe SA, RELX, S4 Capital PLC, Sage, SAP SE, Sinch AB, Softcat PLC, Soitec SA, Sopra Steria Group, STMicroelectronics NV, Synopsys Inc., Temenos Group AG, Tietoevry Oyj, Trustpilot, VAT Group AG, Wise PLC, Wolters Kluwer, Worldline SA, WPP Plc.

Within the last 12 months, Morgan Stanley has received compensation for products and services other than investment banking services from Amadeus IT Holdings S.A., ASM International NV, Atos SA, BE Semiconductor Industries NV, Cadence Design Systems Inc, Capgemini, Ericsson, Exclusive Networks, Hexagon AB, Infineon Technologies AG, Informa, Nexi SpA, Nokia Oyj, OVH GROUPE SAS, RELX, SAP SE, Synopsys Inc., Tietoevry Oyj, Wise PLC, Worldline SA, WPP Plc.

Within the last 12 months, Morgan Stanley has provided or is providing investment banking services to, or has an investment banking client relationship with, the following company: Adyen NV, Aixtron SE, Amadeus IT Holdings S.A., ASM International NV, ASML Holding NV, BE Semiconductor Industries NV, Cadence Design Systems Inc, Capgemini, CompuGroup Medical SE & Co KgaA, Dassault Systemes SA, Ericsson, Exclusive Networks, Hexagon AB, Indra, Infineon Technologies AG, Informa, IONOS Group SE, Nemetschek SE, Netcompany Group A/S, Nexi SpA, Nokia Oyj, Nordic Semiconductor ASA, OVH GROUPE SAS, Publicis Groupe SA, RELX, S4 Capital PLC, Sage, SAP SE, Sinch AB, Softcat PLC, Soitec SA, Sopra Steria Group, STMicroelectronics NV, Synopsys Inc., Temenos Group AG, Tietoevry Oyj, Trustpilot, VAT Group AG, Wise PLC, Wolters Kluwer, Worldline SA, WPP Plc.

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Global Stock Ratings Distribution

(as of December 31, 2023)

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	Coverage Universe		Investment Banking Clients (IBC)			Other Material Investment Services Clients (MISC)	
Stock Rating Category	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1346	37%	266	41%	20%	605	39%
Equal-weight/Hold	1668	46%	317	49%	19%	717	46%
Not-Rated/Hold	3	0%	0	0%	0%	1	0%
Underweight/Sell	598	17%	61	9%	10%	224	14%
Total	3,615		644			1547	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

Analyst Stock Ratings

Overweight (O). The stock's total return is expected to exceed the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Equal-weight (E). The stock's total return is expected to be in line with the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Not-Rated (NR). Currently the analyst does not have adequate conviction about the stock's total return relative to the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Underweight (U). The stock's total return is expected to be below the average total return of the analyst's industry (or industry team's) coverage universe, on a risk-adjusted basis, over the next 12-18 months.

Unless otherwise specified, the time frame for price targets included in Morgan Stanley Research is 12 to 18 months.

Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

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Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index or MSCI sub-regional index or MSCI AC Asia Pacific ex Japan Index.

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INDUSTRY COVERAGE: Technology - Software & Services

COMPANY (TICKER)	RATING (AS OF)	PRICE* (01/12/2024)
Adam Wood		
Amadeus IT Holdings S.A. (AMA.MC)	O (12/16/2015)	€64.44
Atos SA (ATOS.PA)	U (12/08/2021)	€4.86
Capgemini (CAPP.PA)	E (12/12/2022)	€192.25
Dassault Systemes SA (DAST.PA)	O (09/26/2019)	€44.81
Hexagon AB (HEXAb.ST)	U (03/20/2020)	SKr 116.30
Indra (IDR.MC)	E (03/25/2022)	€15.21
Sage (SGE.L)	O (12/08/2021)	1,173p
SAP SE (SAPG.DE)	O (03/20/2020)	€144.86
Temenos Group AG (TEMN.S)	U (12/15/2017)	SFr 79.98
Trustpilot (TRST.L)	O (12/08/2021)	167p
Alastair P Nolan		
Computacenter PLC (CCC.L)	E (03/09/2021)	2,764p
Exclusive Networks (EXN.PA)	O (09/27/2022)	€19.48
Softcat PLC (SCTS.L)	E (12/08/2021)	1,320p
Software AG (SOWGn.DE)	E (03/03/2023)	€37.68
Softwareone Holding AG (SWON.S)	E (03/04/2022)	SFr 16.00
George W Webb		
Darktrace PLC (DARK.L)	O (01/25/2023)	352p

COMPANY (TICKER)	RATING (AS OF)	PRICE* (01/12/2024)
IONOS Group SE (IOSn.DE)	O (06/14/2023)	€17.10
Nemetschek SE (NEKG.DE)	E (07/13/2022)	€78.26
Netcompany Group A/S (NETCG.CO)	E (01/26/2023)	DKr 222.00
OVH GROUPE SAS (OVH.PA)	E (10/25/2023)	€8.85
TeamViewer AG (TMV.DE)	U (12/12/2022)	€14.08
Laura C Metayer		
CompuGroup Medical SE & Co KgaA (COP1n.DE)	E (01/14/2024)	€35.84
Sinch AB (SINCH.ST)	U (01/14/2024)	SKr 30.89
Sopra Steria Group (SOPR.PA)	E (07/28/2023)	€196.10
Mark Hyatt		
Fortnox AB (FNOX.ST)	U (10/06/2023)	SKr 54.06
Tietoevry Oyj (TIETO.HE)	O (01/14/2024)	€21.56

Stock Ratings are subject to change. Please see latest research for each company.
* Historical prices are not split adjusted.

INDUSTRY COVERAGE: Technology - Payments

COMPANY (TICKER)	RATING (AS OF)	PRICE* (01/12/2024)
Adam Wood		
Adyen NV (ADYEN.AS)	E (08/21/2023)	€1,198.20
Alastair P Nolan		
Eurowag (WPS.L)	O (11/18/2021)	90p
Network International Holdings PLC (NETW.L)	++	391p
Nexi SpA (NEXII.MI)	E (02/22/2022)	€7.19
Wise PLC (WISEa.L)	O (07/22/2022)	882p
Worldline SA (WLN.PA)	U (10/26/2023)	€13.63
Nida Iqbal		
Kaspi.kz (KSPIq.L)	O (05/25/2023)	US$97.90

Stock Ratings are subject to change. Please see latest research for each company.
* Historical prices are not split adjusted.

INDUSTRY COVERAGE: Technology - European Semiconductors

COMPANY (TICKER)	RATING (AS OF)	PRICE* (01/12/2024)
Lee Simpson		
Aixtron SE (AIXGn.DE)	E (05/25/2023)	€33.08
ASML Holding NV (ASML.AS)	O (11/07/2022)	€649.30
Infineon Technologies AG (IFXGn.DE)	E (11/07/2022)	€34.27
Soitec SA (SOIT.PA)	O (05/25/2023)	€147.35
STMicroelectronics NV (STMPA.PA)	O (11/01/2023)	€39.72
Nigel van Putten		
ASM International NV (ASMI.AS)	E (03/28/2023)	€450.30
BE Semiconductor Industries NV (BESI.AS)	O (11/07/2022)	€128.65
Melexis N.V. (MLXS.BR)	E (06/13/2023)	€81.55
Nordic Semiconductor ASA (NOD.OL)	E (06/13/2023)	NKr 112.30
VAT Group AG (VACN.S)	O (06/13/2023)	SFr 398.00

Stock Ratings are subject to change. Please see latest research for each company.
* Historical prices are not split adjusted.