Trinity Student Managed Fund
Sector Reports

Communications

September 2025

TRINITY SMF
STUDENT MANAGED FUND

Table of Contents

Sector Overview – 3

MSCI Communication Services Index – 3

Subsectors – 5

Key Performance Indicators – 7

Current Holdings – 8

Investment Themes – 11

Risks – 13

Outlook for the Year – 15

Watchlist – 16

References – 17

Authors

Roisin Tully

Co-Sector Manager

Toby Joe Butler

Co-Sector Manager

Cillian Purcell – Senior Analyst

Senior Analyst

Sector Overview

Following changes to the composition of the Telecommunications Sector in 2018, it became the current Communications Services Sector. These adjustments broadened the sector's scope to include companies from the Information Technology and the Consumer Discretionary sectors. The institution of these developments reflected the new market dynamics that redefined the concept of communication, the way people communicate, share information and consume content. Since this reclassification, the sector has been impacted by numerous technological advances, most notably AI. The development and mass adoption of AI continue to make the Communications Services sector a dynamic area.

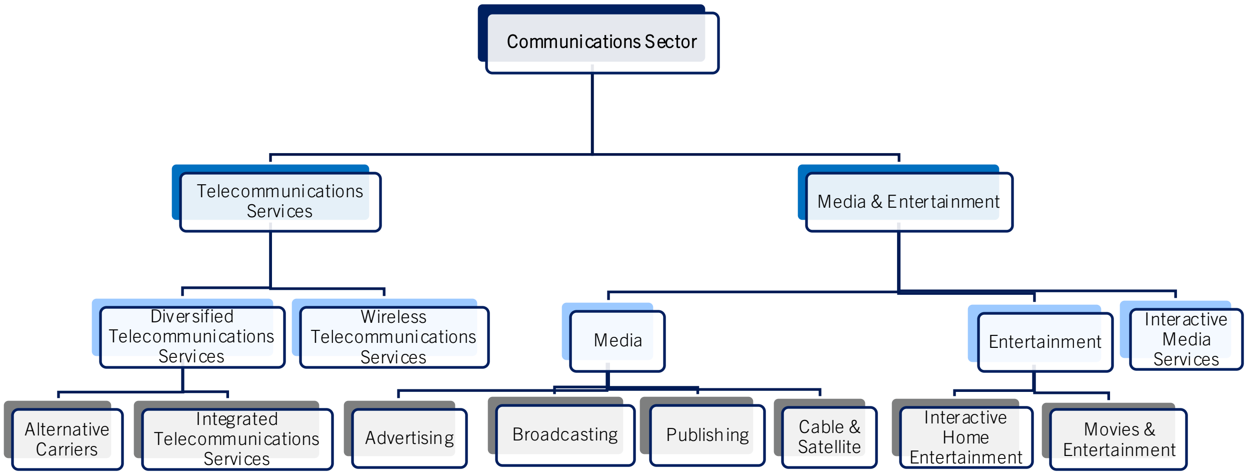
MSCI Communications Services Index

The MSCI Communications Services Sector relates to companies that provide communication services using fixed-line networks or those that provide wireless access and services. This sector also includes companies that provide internet services, advertising & marketing services, entertainment, and interactive media.

In line with Global Industry Classification Standard, the Communication Sector can be segmented into Telecommunication Services and Media & Entertainment.

These Industry Groups can be further divided into industries, with Diversified Telecommunication Services and Wireless Telecommunication Services under the scope of Telecommunication Services, while Media, Entertainment and Interactive Media Services are classified as the industries under the industry group of Media & Entertainment.

Further refinement recognises Alternative Carriers and Integrated Telecommunication Services as the sub-industries of the Diversified Telecommunication Services Industry. The sub-industries contained within Media include Advertising, Broadcasting, Cable & Satellite and Publishing, while Entertainment encapsulates Interactive Home Entertainment, as well as Movies & Entertainment (1).


Communications Sector
Telecommunications Services
Media & Entertainment
Diversified Telecommunications Services
Wireless Telecommunications Services
Media
Entertainment
Interactive Media Services
Alternative Carriers
Integrated Telecommunications Services
Advertising
Broadcasting
Publishing
Cable & Satellite
Interactive Home Entertainment
Movies & Entertainment

The Interactive Media and Services subsector has played an increasingly dominant role, a trend attributed to the growing success of Alphabet and Meta. These two companies alone account for almost 60% of the index's weight. Consequently, the weight of the Telecommunications subsector has experienced continued decline.

The prominence of Alphabet and Meta is also reflected in the geographic composition of the sector, which is significantly dominated by the United States which represents 84% of the sector's exposure. The sector primarily consists of developed markets.

Figure 1. ***Weights by Subsector***

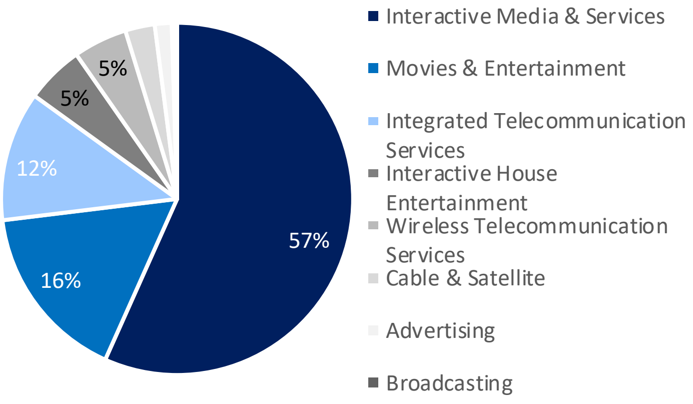
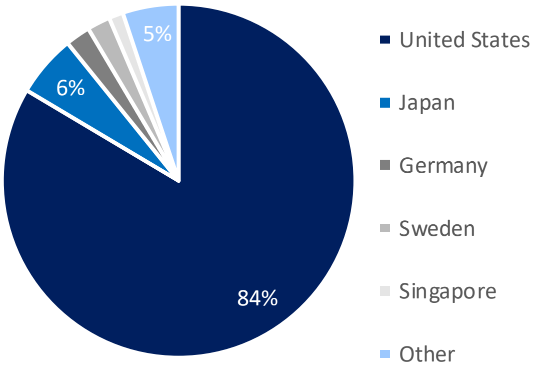


Figure 2. ***Weights by Geography***



Subsectors

Telecommunication Services

Diversified Telecommunication Services

Integrated Telecommunication Services
Operators of telecommunications networks and companies providing both wireless and fixed-line telecommunications services. Includes internet service providers offering internet access to end users and companies that construct as well as operate telecommunication towers.
Key Players: AT&T, Verizon, China Mobile, Vodafone
Key Performance Indicators: Network reliability, Net additions, Churn rate, ARPU

Wireless Telecommunication Services

Wireless Telecommunication Services
Providers of primarily cellular or wireless telecommunication services including in-flight internet providers.
Key Players: T-Mobile, Deutsche Telekom, Three
Key Performance Indicators: Latency, churn rate, throughput, data transfer rate, availability

Media & Entertainment

Media

Cable & Satellite
Companies who provide programming using cable and satellite infrastructure involved in delivering media to consumers, additionally often offered with internet and phone services, generating revenue through subscriptions, advertising and licencing agreements.
Key Players: Comcast Corporation, Charter Communications, Dish Network, Sky Group, Altice Europe
Key Performance Indicators: ARPU, subscriber growth, churn rate, content costs/revenue

Advertising
Comprised of marketing and public relations agencies that commercialise media by creating and distributing advertisements across various channels to increase sales and engagement on behalf of clients. Their services take a creative approach informed by data analytics. Particularly vulnerable to AI advances in creation of advertisements.
Key Players: WPP plc, Omnicom Group Inc., Publicis Group, Dentsu Group Inc., Interpublic Group of Companies, Inc.

Key Performance Indicators: Digital advertising revenue, client retention rate, return on advertising spend (ROAS)

Broadcasting

Consists of government managed and public outlets, such as radio and television which distribute audio and audio-visual content to mass audiences.
Key Players: BBC, Sony, Discovery
Key Performance Indicators: Ratings, viewership, revenue, cost per impression, cost per production hour

Publishing

Companies who create and distribute both print and digital content such as newspapers, magazines, information, and literature.
Key Players: News Corporation, Pearson plc, The New York Times Company, Bertelsmann, Gannett Co., Inc.
Key Performance Indicators: Digital subscription growth, circulation revenue, advertising revenue (digital and print)

Entertainment

Interactive House Entertainment

Companies that create and distribute interactive, engaging, personalised digital content directly to users, such as gaming, streaming services, virtual reality experiences.
Key Players: Electronic Arts, Activision Blizzard, Nintendo, Sony Interactive Entertainment, Tencent Games
Key Performance Indicators: Monthly active users, daily active users, in-game purchase revenue, game release success (sales and player retention)

Movies & Entertainment

Relates to the production and distribution of films, includes events and physical spaces and merchandise related to media, such as cinemas, theme parks, concerts.
Key Players: The Walt Disney Company, Warner Bros. Discovery, Netflix, Sony Pictures Entertainment, Paramount Global , Universal
Key Performance Indicators: Box office revenue, streaming subscriber growth, content acquisition cost

Interactive Media & Services

Companies who provide platforms that enable users to actively engage and interact with content and each other. Users consume and contribute to content. Includes various digital platforms, websites, social media, video games. Sharing and collaboration are critical features.
Key Players: YouTube, Facebook, TikTok
Key Performance Indicators: User numbers, churn rate, engagement levels, advertising conversion rates

Key Performance Indicators

While the sector is diverse, the majority of successful companies excel in three areas: acquiring customers, monetising them effectively, and keeping them loyal. The following KPIs represent those metrics.

ARPU (Average Revenue Per User)

Description: The average monthly revenue generated per customer. It is a measure of monetisation efficiency.

Why it Matters: Rising ARPU is a direct signal of a company's pricing power and commercial success, as well as its ability to upsell customers without the high cost of acquisition. It's a key lever for margin expansion and revenue growth.

Churn Rate (Customer Cancellations)

Description: The percentage of a company's subscribers who cancel the service.

Why it Matters: Churn is one of the best measures of customer satisfaction available. A low/falling churn rate is indicative of a healthy and loyal customer base and a protected revenue base.

Subscriber Growth

Description: The net number of new paying subscribers gained in a period.

Why it Matters: Subscriber growth is the crucial engine behind top-line growth. For companies in high-growth phases (either a newly established company or a new product launch in an existing one), it is often the most-watched metric. It validates the value proposition, strategy, and expansion efforts.

Engagement (Daily/Monthly Active Users – DAU/MAU)

Description: The number of unique users who actively engage with a platform or service within a day/month. This metric is a measure of 'stickiness'.

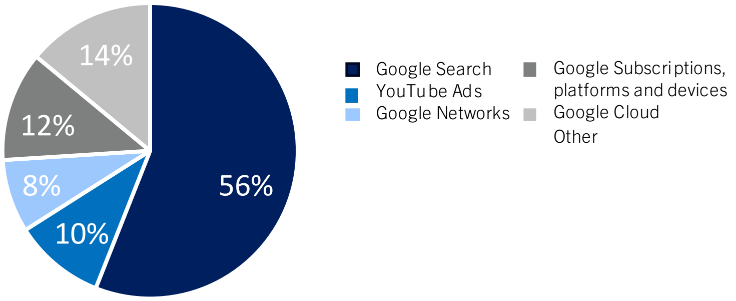
Why it Matters: For social media, interactive media, and gaming companies, user engagement is the core product. It serves as a leading indicator of platform health, directly fueling advertising revenue and in-platform purchases. High and rising engagement signals a large and increasingly attentive audience for advertisers, as well as a more valuable network for users, contributing to a durable competitive moat.

Current Holdings

Alphabet Inc. (NASDAQ: GOOG)–HOLD

Alphabet Inc., the parent company of Google, is an international conglomerate delivering a range of digital services. Alphabet has amassed billions of users across the United States, Europe, the Middle East, Africa, the Asia-Pacific, Canada, and Latin America through its products and platforms, including Google Search, Google Maps, Chrome, Cloud, YouTube and Android. Alphabet generates revenue through digital advertising, cloud-based solutions, platform services, fee and subscription-based products, apps, and devices.

Figure 3. ***Revenue Split by Product***



Hold Thesis

AI Related Gains: Despite initial concerns regarding traditional search's potential obsolescence, Alphabet has made strong progress in AI advances and integration. AI-related capex, which drove much of the +70% YoY capex growth, is proving fruitful as revenue (+14% YoY) benefits from AI gains. The development of Gemini and integration of AI overviews, +2M monthly users (2), showcases Alphabet's ability to monetise AI. Additionally, growth in AI infrastructure and generative AI solutions underpin Google Cloud's success (3).

Cloud Computing Dominance: Growing demand for cloud computing services has fuelled +32% YoY Google Cloud revenue growth. Alphabet's Google Cloud Platform continues to maintain a dominant position in the cloud computing space providing valuable diversification benefits. Google Cloud Services are utilised by all Gen AI models furthering Alphabet's revenue streams and diversification effects.

Digital Advertising Prominence: Continuous increasing allocation of advertising budgets towards digital channels positions Alphabet as a dominant player in digital advertising, evident from YouTube Ads +13% YoY revenue growth. Coupled with Alphabet's harnessing of AI to increase efficiency and aid creativity, Alphabet is well positioned to capitalise on its enduring digital advertising prowess.

Risks to Thesis: Antitrust violations, weakening US consumer, investor concerns regarding failure of revenue to reflect high AI capex which is compounded by AI bubble concerns.

Netflix (NASDAQ: NFLX) – HOLD

Netflix is a global leader in the streaming market, offering a best-in-class subscription and advertising video on demand service to more than 300mn subscribers in over 190 countries. The company offers television series, documentaries, feature films, and games across various genres and languages. Netflix allows its subscribers to stream its deep library of high quality, original and licensed content on any internet-connected device including TVs, PC, and mobile devices.

Hold Thesis

Recent Performance: Netflix reported a strong 2Q, beating expectations across revenue (+15.9% YoY, +17% FX-neutral), operating income ($3.78bn vs. $3.68bn est.), and EPS ($7.19 vs. $7.05). Growth was broadly based with all regions showing double-digit gains. Management raised guidance for revenue/margins indicating durable growth drivers (4).

Subscriber Runway: Ongoing shift from linear TV to streaming is accelerating, especially internationally, providing growth potential and further benefit to Netflix from its strong brand. Continued investment in original and localised content should mean that Netflix will capture an increasing share of global entertainment consumption.

Ad-Supported Tier: Introduction of a lower-cost, ad-supported subscription tier widens total addressable market by attracting price-sensitive consumers. Opens a significant revenue stream to complement subscriptions. Date-driven ad-targeting enhances monetisation and margin expansion.

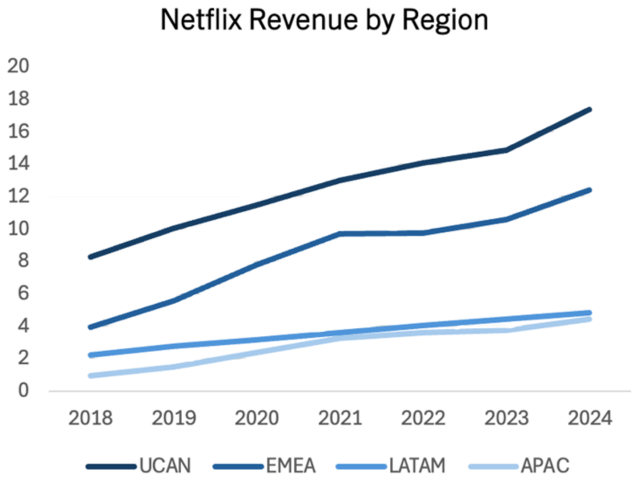


Figure 4.

Password Sharing: A crackdown on password sharing converting non-paying users into paying subscribers, increasing revenue without added content costs. Early rollouts show promising results.

Risks to Thesis: Content costs rising and pressuring margins (though necessary for retention). Licensing restrictions causing content gaps in ad-supported tier. Resistance/backlash to curbing password sharing. Economic downturns tightening consumer budget (5).

Universal Music Group (Euronext: UMG – Hold)

Universal Music Group is the world's leading music-based entertainment company, with core operations in recorded music, music publishing, and merchandising. The company leverages its extensive artist roster and catalogue to drive revenue from streaming, licensing, and live content, while investing in new markets and digital growth.

Hold Thesis

Streaming Performance: In 2025, UMG delivered steady growth, driven primarily by an increase in streaming. In Q2, subscription revenues rose by 8.5% YoY, while ad-supported streaming grew by 9.1%, supported by subscriber growth across global markets and favorable YoY comparisons. (9) Recorded Music revenues increased by 6.5% in the first half of the year, with subscription streaming up 8.9% (FX-neutral) (10). In 2024, UMG reported total revenue of €11.83 billion, up 7.6% from 2023, while subscription streaming exceeded €4.62 billion, a 9.1% annual increase. Adjusted EBITDA rose 13.8% YoY to €2.66 billion, underscoring the scalability of the business model. (11)

Strategic Initiatives: UMG is executing its "Streaming 2.0" strategy, which focuses on premium pricing models, superfans, and AI driven monetisation. In early 2025, the company secured multi-year licensing deals with Amazon and Spotify, strengthening visibility and supporting long-term growth.(12) Publishing also remains a strong contributor, with Q2 2025 publishing revenue up 14.5% YoY, including 16.2% growth in digital publishing (13). While merchandising revenue has softened due to weaker touring demand, the company's diversified model provides resilience.

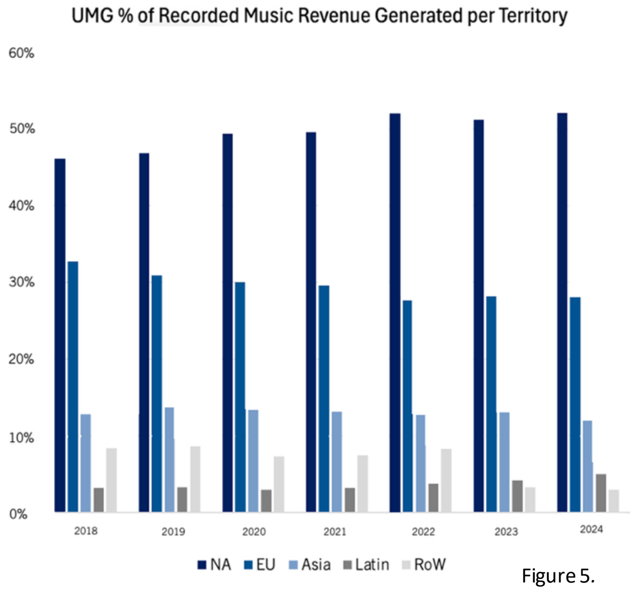


Figure 5.

Risks to Thesis: UMG faces several headwinds. It is heavily reliant on streaming platforms which leaves margins vulnerable to changes in royalty models and recommendation algorithms. Any change to fee structures or visibility could directly impact margins.

In addition, copyright disputes and new issues around AI-generated music create uncertainty for future revenues. Finally, the shift toward "super-premium" pricing models may be difficult to execute, with adoption possibly slower than expected or reducing uptake of existing subscriptions (13).

Investment Themes

AI Applicators

AI is the pivotal force driving innovation and progress across all sectors. The investment opportunity in AI has thus far been concentrated on the "picks and shovels" of AI, primarily semiconductors and infrastructure (e.g., Nvidia and AMD). While there was vast opportunity in this for cloud service providers and data-centre REITs etc. and the infrastructure remains crucial, the next wave of value accumulation will be captured by AI applicators. Bottom-line-focused defensive, once- off uses (one AI model replacing a team of 20 people or automating customer service), are accessible to any company. The offensive opportunities go beyond leveraging AI as a product. They consist of weaving it into a core business model to fundamentally enhance core offerings. The historical parallel is clear: upon the conception of the internet, the value was captured by those who honed its application: Google with search; Facebook with social networking; Amazon with e-commerce.

This shift can already be seen within the sector. Digital advertising giants like Meta and Alphabet are increasing advertiser ROI and pulling budget share from traditional media by AI-powered improved ad targeting and measurement. Content leaders like Netflix and Spotify boost engagement and retention, directly support their pricing power, by using AI-driven personalisation. Looking forward, in telecoms for example, forward-thinking operators could pivot from being pure connectivity providers to AI-driven platforms by leveraging their vast network data to offer analytics services. Those left behind? Companies that solely focus on bottom-line efficiency that will see margin protection but will inevitably lack the growth engine needed to be worthy of a premium valuation.

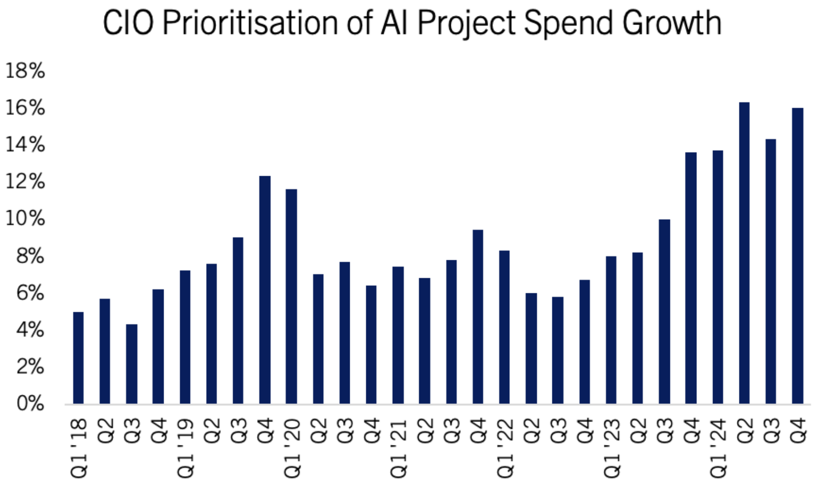


Figure 6.

Telecoms: In-Market Consolidation

Traditional telecom and legacy media sectors are increasingly becoming characterised by slow or no growth, incessant capex demands, intense competition, and heavy debt. They have more or less been abandoned in favour of high-growth, asset-light segments. While at a slow rate, companies like the telco giants have always been able to progress. There appears to be a lack of realisation in the broader market as to what the next step is: An incoming wave of in-market consolidation, driven by the unsustainable and irrational economics of sub-scale competition building parallel 5G and fibre networks with cost of capital above returns. Future acquisition targets, as well as the consolidators themselves, are poised to benefit from significant cost synergies and market repair and now represent a compelling opportunity. Consolidation is no longer optional.

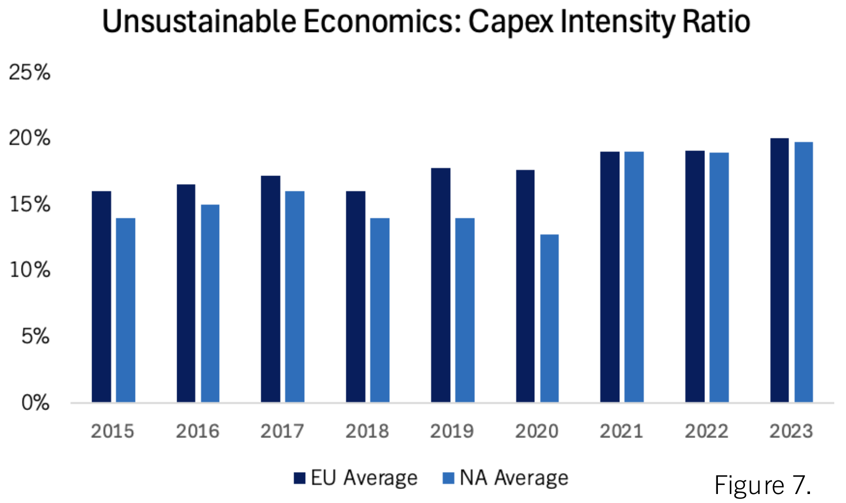


Figure 7.

European regulators that have been afraid thus far of discouraging fair market competition are beginning to acknowledge that this shift may be necessary to create strong national players that are capable of global competition and the investment in infrastructure required for it. The UK's Competition and Markets Authority (CMA) noted the need for "scale" for investment as it approved the Vodafone/Three UK Merger before the beginning of the year (6). The European Commission is also showing signs of wanting repair in the broken telecom market, considering loosening its criteria to allow mergers that create more viable competitors (7). Swisscom's recent (Jan 2025) acquisition of Vodafone Italia is among the most notable deals in Europe (8). This merger has created Italy's second largest broadband operator while increasing scale and cost efficiency. The deal is proceeding, still under some regulatory scrutiny, but importantly underscoring the push for consolidation to achieve sustainable scale.

Risks

5G Vulnerabilities and Europe's Lag

The ongoing rollout of 5G networks continues to face significant challenges. Compared to previous generations, 5G is far more software-defined and cloud-dependent. This broadens the cyberattack surface with increases in multitenancy, network slicing, and cloud isolation vulnerabilities. All mentioned can be exploited through weaknesses in the software supply chain. Recent warnings from US CISA/NSA highlight concerns that poorly configured 5G standalone networks can expose critical infrastructure, emphasizing supply-chain and configuration risks that could spill over into critical services riding on telecom networks (14).

Europe has lagged other regions in 5G adaptation, specifically in the enterprise segment, raising concerns that delays in implementation will derail competitiveness and industrial digitalization, highlighting risk in execution and regional growth (15).

Antitrust Scrutiny

Many large-scale companies such as Alphabet and Meta remain subject to heightened antitrust pressure. In the US, Google faces two active Department of Justice cases: one targeting its search monopoly, where remedies could include divestiture of Chrome or limits on default-search agreements, and another in ad-tech, where the DOJ prevailed in 2025 (16). In Europe, the Commission is enforcing the Digital Markets Act, issuing findings against Alphabet and Meta for non-compliance. Remedies could include fines or forced structural changes, representing a material risk to earnings and valuations (17, 18). Whilst in the U.K, Alphabet is under investigation by the Competition and Markets Authority, following the institution of new laws aimed at sanctioning players who are found to hold too much power in a particular market (26).

AI-Focused Capex

The ongoing race to implement and scale artificial intelligence has created capital expenditure requirements. Companies such as Alphabet and Meta are investing heavily in data centres, advanced chips, and supporting infrastructure. While this supports long-term growth, it creates short-term risks such as long payback periods, uncertain monetisation, and potential obsolescence given rapid AI development cycles. Concerns surrounding the extent of high Capex spooked markets and fuel the AI bubble narrative. Integration and implementation challenges around data quality, cybersecurity, and system compatibility further the risk that these large investments may fail to generate adequate returns (19, 20, 21). However, AI related revenue gains, as seen by Alphabet (2), serve to diminish unproductive Capex concerns.

Risks

Macroeconomic Risk: Weak Consumerism

The Communication Sector is particularly sensitive to macroeconomics shift, specifically changes in consumer sentiment. A weaker economy reduces discretionary spending, directly impacting entertainment purchases, e.g., subscriptions for platforms such as Netflix and Disney. This also adds pressure to advertising budgets at Alphabet and Meta. According to Dentsu's June 2025 Global Ad Spend Forecast, worldwide advertising growth is expected to slow from 6.7% in 2024 to 4.9% in 2025, reflecting reduced economic momentum despite outperforming GDP growth (22). A deterioration in consumer conditions could therefore negatively affect both revenue and investment across the sector.

Streaming Risk: Content and Sports Rights Inflation

Streaming platforms face increasing cost pressures due to intense competition for premium content. (Disney recently secured NBA broadcasting rights under a new long-term package at significantly higher rates than previously, while new entrants like Amazon and NBC have further intensified the market. The heightened sports rights and content cost risks shortening profit margins and limiting price flexibility. To combat these pressures Disney and Netflix are both expanding ad-supporting tiers and promoting bundled offerings. However, execution risk remains high as consumers grapple with entertainment costs and subscription fatigue (23, 24).

Political and Regulatory Risk

Political and regulatory scrutiny continue to weigh heavily on the sector. As previously mentioned, Alphabet remains subject to multiple antitrust cases (16).

In Europe, the Digital Markets Act is being actively enforced. The EU Commission issued findings against Alphabet and Meta in 2025 for non-compliance, which could result in heavy fines or structural remedies (17, 18). Meanwhile, telecom operators such as Verizon face ongoing scrutiny over pricing and spectrum allocation, with additional oversight of legacy infrastructure adding to compliance costs (25) .

Additionally, amidst a politically volatile backdrop, the sector is exposed to swings in the political pendulum. This is actively reflected in shifting dynamics amongst major players, such as Meta who eliminated third-party fact checking (27) and retired diversity, equity and inclusion efforts (28). In the U.S, the sector's largest geography, the Federal Communications Commission is being increasingly utilized as a political tool to exert pressure on major broadcasters, as seen by Disney's ABC decision to pull J*immey Kimmel Live* and CBS's cancellation of *The Late Show with Stephen Colbert* (29).

Outlook for the Year Ahead

The communication services sector is currently chiefly affected by its macro environment defined by policy shifts, geopolitical fragmentation, and the loss of long-term economic anchors. (30) These are not cyclical adjustments but structural ones that can lead to many very different outcomes. A highly selective investment approach is demanded by this uncertainty.

The primary driver of value in telecoms will be industry consolidation. To confront unsustainable competition, telecom operators are pursuing M&A to achieve the scale required for rational pricing and cost synergies. The 'market repair' is accelerating. In the first half of 2025, global telecom deal value surged 44% YoY to $63 billion. This surge was dominated by scale-driven deals like Charter's $34.5 billion acquisition of Cox (31). Private equity firms fund and validate this trend providing a valuation floor and engaging in creative deal structures (32).

Within AI, the investment landscape is splitting in two. Disintermediation represents the most significant risk as Big Tech invests over $100 billion in network capex through 2030 to build their own long-haul fibre, potentially bypassing traditional carriers (32). In our view, the corresponding opportunity lies in AI application. The market will reward those who use AI offensively to generate top-line revenue from things like enterprise analytics and enhanced advertising. We believe the rollout of AI-enabled smartphones is a key trend to watch, predicted to boost global shipments by 7% just in 2025 (32).

The media sector is undergoing a significant realignment as well. The focus is shifting from 'subscriber acquisition at any cost' to achieving sustainable profitability and scale. A wave of strategic portfolio moves points to this. For example, the August 7th Paramount-Skydance merger and Comcast's spin-off of NBCU assets (33). In the advertising space, the model has evolved to an AI-driven full-funnel approach. Omnicom and Interpublic's recently approved $13.25 billion merger is a direct response to this evolution, designed to allow these two companies to compete with data-rich tech platforms (34).

Ultimately, overweighting consolidators and AI applicators while avoiding the vulnerable sub-scale players is the strategy required to navigate the near and medium-term future. The key risks include macroeconomic sensitivity pressuring ad spend and subscriptions, and execution risk on promised M&A synergies and AI investment.

Watchlist

Pinterest Inc. (NYSE:PINS)

Pinterest (1y: +17%, YTD: 19.7%) is a global visual discovery and social media platform, benefitting from strong user and advertiser growth especially in international markets.

- 17% revenue growth, 11% MAU growth YoY (Q2 2025)
- Adjusted EBITDA Margin – 25% (Q2 2025)
- Free Cash Flow Margin – 20% (TTM Q2 2025)
- Monthly Active Users – 578m (Q2 2025)

Comcast Corporation (NASDAQ: CMCSA)

Comcast (1y: -14%, YTD: -9.22%) is a diversified communications and entertainment conglomerate with robust cable, broadband, and media operations across North America and Europe.

- 2.1% revenue growth, 3.3% adjusted EPS growth (Q2 2025)
- Free Cash Flow $4.5bn up sharply YoY (Q2 2025)
- Adjusted EBITDA – $10.3bn, +1.1% YoY (Q2 2025)
- P/B: 1.9x, Dividend Yield: 3.7%

The Trade Desk Inc. (NASDAQ: TTD)

The Trade Desk (1y: -45.9%, YTD: -53.57%) is a leading programmatic advertising technology platform focused on data-driven marketing and Connected TV enablement.

- 19% revenue growth (Q2 2025); Q1: +25% YoY
- EBITDA Margin – 35%
- P/S – 16.5x
- Profitability: Consistently profitable since IPO; low debt

Why the dip: Slowing revenue growth guidance, competitive pressure form amazon, tariff/macroeconomic uncertainty, CFO resignation. **Potential:** sharp selloff focused on risks to near-term growth and macro pressures. The company maintains strong fundamentals and growth potential of its AI-driven platform.

Disclaimer

The content presented in this publication is for informational purposes only and should not be considered as investment advice. The Trinity Student Managed Fund does not endorse, recommend, or provide any warranties regarding the accuracy, completeness, or reliability of the information provided herein. All opinions expressed in this publication are those of the respective authors and do not necessarily reflect the views of the Trinity Student Managed Fund.

Readers are strongly advised to conduct their own research and consult with qualified financial professionals before making any investment decisions. The Trinity Student Managed Fund disclaims any liability for any financial loss or damage arising from reliance on the information contained in this publication.

All rights to the content, including articles, artwork, and any other material published in this periodical, (exclusive of sources) are the exclusive property of the Trinity Student Managed Fund. Reproduction, distribution, or any other use of the content without prior written permission from the Trinity Student Managed Fund is strictly prohibited. For inquiries regarding the content or permission to use, please contact admin@trinitysmf.com.

References

(1) MSCI. (2025) GICS Map 2025 GICS® structure & Sub-Industry definitions

(2) Alphabet. (2025) 2025 Q2 Earnings Call

https://abc.xyz/2025-q2-earnings-call/

(3) Alphabet. (2025) Second Quarter 2025 Results https://abc.xyz/assets/cc/27/3ada14014efbadd7a58472f1f3f4/2025q2-alphabet-earnings-release.pdf

(4) Netflix. (2025) Second Quarter 2025 Results Shareholder Letter https://s22.q4cdn.com/959853165/files/doc_financials/2025/q2/FINAL-Q2-25-Shareholder-Letter.pdf

(5) Netflix. (2025) Form 10-K https://d18rn0p25nwr6d.cloudfront.net/CIK-0001065280/51d60f3a-7a64-4b35-84e9-a063664ec77c.pdf

(6) Gov.uk./CMA (2025) Press Release: CMA clears Vodafone/Three merger https://www.gov.uk/government/news/cma-clears-vodafone-three-merger-subject-to-legally-binding-commitments

(7) Financial Times. (2025) European telecom groups line up deals https://www.ft.com/content/0834f6ec-5343-4ed4-8715-df1d130a07d8

(8) Swisscom. (2025) Acquisition of Vodafone Italia https://www.swisscom.ch/en/about/investors/acquisitionvodafoneitalia.html?srsltid=AfmBOorwQ269Z2Bek4YD5rIzT6amjS0UPS5jgXp6YVmHk0fiLc4GsHf6

References

(9) Universal Music Group. (2025, July 31). *Q2 & H1 2025 Financial Results: Subscription and Ad-Supported Streaming Growth*. Press Release via PR Newswire.
Available at: prnewswire.com

(10) Music Business Worldwide. (2025, July 31). *Universal Music Group generated €3.38bn in Q2 2025, up 4.5% YoY, driven by Morgan Wallen, Timelesz, Lady Gaga*.
Available at: musicbusinessworldwide.com

(11) Music Business Worldwide. (2025, February 27). *Universal Recorded Music subscription streaming revenues topped €5bn in 2024, up 9.1% YoY*.
Available at: musicbusinessworldwide.com

(12) The Verge. (2025, January 27). *Spotify and Universal Music Publishing renew multi-year agreement, adding superfan subscriptions and new monetisation models*.
Available at: theverge.com

(13) Music Business Worldwide. (2025, July 31). *UMG Publishing revenue up 14.5% YoY in Q2 2025, digital publishing +16.2%*. Available at: musicbusinessworldwide.com
Seeking Alpha. (2025, February 2025). *Universal Music Group: Still Confident on the Growth Outlook*.
Available at: seekingalpha.com

(14) CISA & NSA. (2021, December 16). *Security Guidance for 5G Cloud Infrastructures Part IV: Ensure Integrity of Cloud Infrastructure* [PDF]. U.S. Cybersecurity and Infrastructure Security Agency & National Security Agency.n

https://www.cisa.gov/sites/default/files/2024-08/SECURITY_GUIDANCE_FOR_5G_CLOUD_INFRASTRUCTURES_PART_IV_20211216_508.pdf

References cont'd

(15) GSMA. (2024). *The Mobile Economy Europe 2024*. GSMA Intelligence. https://www.gsma.com/mobileeconomy/europe/

(16) U.S. Department of Justice. (2025, April 17). *DOJ Prevails in Landmark Antitrust Case Against Google*. https://www.justice.gov/opa/pr/department-justice-prevails-landmark-antitrust-case-against-google

(17) European Commission. (2025, March 19). *Preliminary Findings to Alphabet Under the DMA*. https://digital-markets-act.ec.europa.eu/commission-sends-preliminary-findings-alphabet-under-digital-markets-act-2025-03-19_en

(18) European Commission. (2025, April 22). *Commission Finds Apple and Meta in Breach of the DMA*. https://ec.europa.eu/commission/presscorner/detail/en/ip_25_1085

(19) Alphabet Inc. (2025, April). *Q1 2025 Earnings Call Transcript*. Alphabet Investor Relations. https://abc.xyz/investor/

(20) Meta Platforms Inc. (2025, April). *Q1 2025 Earnings Call Transcript*. Meta Investor Relations. https://investor.fb.com/

(21) Bloomberg. (2025, April 25). *Meta and Alphabet Warn of Rising AI Infrastructure Costs*. https://www.bloomberg.com/news/articles/2025-04-25/meta-and-google-warn-of-higher-ai-infrastructure-spending

(22) Dentsu. (2025, June 12). *Ad Spend Forecast to Grow by 4.9% in 2025 Despite a Reduced Economic Outlook*. https://www.dentsu.com/news-releases/ad-spend-forecast-to-grow-by-four-point-nine-percent-in-2025-despite-a-reduced-economic-outlook

(23) Reuters. (2025, May 22). *Disney, Amazon, NBC Secure NBA Rights in Record $76bn Deal*. https://www.reuters.com/sports/basketball/disney-nbc-amazon-land-nba-rights-2025-deal-2025-05-22/

References cont’d

(24) Variety. (20 25, May 23). *NBA Rights Deal Reshapes Sports Streaming Landscape*. https://variety.com/2025/tv/news/nba-rights-deal-espn-nbc-amazon-1235915738/

(25) Wall Street Journal. (2024, July 13). *Telecom Giants Face Scrutiny Over Legacy Lead-Sheathed Cables*. https://www.wsj.com/articles/telecom-lead-cables-verizon-at-t-epa-2024-safety-review

(26) Kleinman, Z. (2025). Google may be forced to link to rival search platforms in the UK.BBC.

https://www.bbc.com/news/articles/cy4ym77rkgeo

(27) Bradshaw, T. (2025). Meta ends third-party fact-checking programme. *The Financial Times*

https://www.ft.com/content/7693fb45-4981-4f00-bfdf-4ce7a93349f7

(28) Murphy, H. (2025). How Mark Zuckerberg unleashed his inner brawler. *The Financial Times*

https://www.ft.com/content/a86f5ca3-f841-4cdc-9376-304e085c4cfd

(29) The Financial Times. (2025, September 19). *Disney’s ABC pulls Jimmy Kimmel’s show over Charlie Kirk comments*

https://www.ft.com/content/4d59dfa7-3aef-4804-992c-a147e60e38c6

(30) Blackrock. (2025) Global Investment Outlook https://www.blackrock.com/us/individual/insights/blackrock-investment-institute/outlook#global-investment-outlook

(31) Bain. (2025) Telecom M&A https://www.bain.com/insights/telecom-m-and-a-here-are-the-latest-deal-trends-worldwide-interactive/

(32) Deloitte. (2025) 2025 Global Telecommunications Outlook https://www.deloitte.com/us/en/insights/industry/technology/technology-media-telecom-outlooks/telecommunications-industry-outlook-2025.html

(33) PwC. (2025) 2025 mid-year outlook https://www.pwc.com/gx/en/services/deals/trends/telecommunications-media-technology.html

(34) PwC. (2025) US Deals 2025 mid-year outlook https://www.pwc.com/us/en/industries/tmt/library/telecom-media-deals-outlook.html

References cont'd

Graphs

Figures 1,2: MSCI (2025) MSCI World Communications Index Factsheet https://www.msci.com/documents/10199/a4ec7b1f-b538-4e2e-8305-80bf110b4084

Figure 3: Alphabet. (2024). Annual Report 2024 https://www.abc.xyz/assets/70/a3/43ba8a804b49ac2fa2595c3c6704/2024-annual-report.pdf

Figure 4: Netflix. (2025) Q2 Earnings Report https://s22.q4cdn.com/959853165/files/doc_financials/2025/q2/FINAL-Q2-25-Shareholder-Letter.pdf

Figure 5: Music Business Worldwide (2025)

https://www.musicbusinessworldwide.com/downtown-debate-whats-universal-music-groups-actual-distribution-market-share-in-europe/

Figure 6: Robeco. (2025) Tracking AI in Charts https://www.robeco.com/files/docm/docu-20250408-tracking-ai-in-10-charts.pdf

Figure 7: Arthur Little. (2025) Reshaping Telecom Investment https://www.adlittle.com/en/insights/viewpoints/reshaping-telecom-investment-next-generation-world