Overbuilding Britain: Altnets and the Limits of Market Fragmentation

Introduction

The benefits of competition are supported by a strong economic literature and are clear to most market participants. In competitive markets, firms are forced to maintain low prices in order to gain market share or avoid being undercut by rivals, ultimately benefiting consumers. Additionally, rivalry among firms can stimulate greater product variety, higher quality, and stronger incentives to innovate. Such dynamics, however, have been shown to fail in some specific industries, characterized by high upfront infrastructure costs and structurally low margins. In economics jargon, such sectors fall into the definition of natural monopoly: high capital expenditures and other barriers to entry depending on the size of the market give the largest player an overwhelming advantage over potential competitors. This is common in capital-intensive sectors such as water services, electricity, telecommunications, and mail, where large, fixed costs create substantial economies of scale. In such contexts, duplicating infrastructure may raise overall system costs rather than reduce them. For this reason, natural monopolies (or oligopolies) are typically accepted but subject to stringent regulation.

The broadband industry represents a clear example of a capital-intensive sector, including the fiber-to-the-home (FTTH) or fiber-to-the-premises (FTTP) deployment sector, as it requires substantial upfront investments. Conversely, the customer servicing and billing layer of the industry is mostly asset-light. Yet, over the past decade, the UK has witnessed an extraordinary increase in new entrants focused precisely on building this infrastructure. Startups and independent operators, so-called "altnets", have entered a market historically dominated by few established incumbents. The result has been significant disruption at both the wholesale and retail levels, but this has also helped Britain's successful rollout of full-fiber broadband to nearly 70% of homes across the country. The two main incumbents, BT's [LSE: BT.A] network arm Openreach and Virgin Media O2, still account for the majority of coverage across the country, but altnet operators have collectively laid millions of fiber lines across the country, covering a comparable number of premises to the largest incumbent, Openreach.

However, despite their rapid expansion, many altnets continue to operate at a net loss, with lower average revenues per user and limited customer penetration. Their smaller individual scale and weaker uptake translate into significantly lower margins, and while altnets were rapid in building infrastructure they were not as successful in its monetization. This is leading to rising concerns over the state of UK altnets, as industry experts described a substantial portion of these operators as "uneconomic", warning of a potential wave of failures. Given the high leverage used to finance the infrastructure buildout, such failures could have material consequences for lenders and investors who backed their expansion.

In light of their current struggles, we analyzed whether, in a sector defined by high fixed costs and scale economies, competition in UK broadband has shifted from being welfare-enhancing to becoming value-destructive.

What are "altnets" and why have they emerged?

Altnets are defined as broadband providers that either own and operate their own broadband networks or offer services that are not supplied via BT's Openreach or Virgin Media infrastructure. They invested large amounts of capital upfront to build their own fiber infrastructure, instead of relying on wholesale access to incumbents' networks which is generally the common approach for smaller start-up firms in this industry. In turn, this meant they positioned themselves as competitors also in the infrastructure segment rather than just in reselling activities.

Many altnets also differentiated from incumbent providers by offering more advantageous pricing and speedier connections thanks to their full-fiber networks. In fact, while their networks were directly built for FTTP, Openreach and Virgin Media still had significant portions of their network relying on slower copper technology.

Altnets' coverage, however, is not nationwide. They tend to focus on specific geographies, with some preferring dense urban areas and others rural regions underserved by existing providers.

Within this fragmented landscape, there is however a small number of altnets that have emerged. CityFibre is the largest independent player, with approximately 4.3m premises across various cities. It operates predominantly with a wholesale model, leasing network access to Internet Service Providers such as Vodafone, TalkTalk and Sky. Thanks to such partnerships, it reached around 510,000 customers by 2025. Hyperoptic, another key altnet firm, has instead focused on densely populated apartment blocks. With around 340,000 customers and 1m city premises, it has achieved higher take-up rates than most altnets. However, as its footprint expanded in recent years, this figure started to decline. Community Fibre, concentrated in London, is a successful example of an altnet that changed its focus from infrastructure building to customer acquisition. It paused expansion in late 2024 after reaching around 600,000 premises but has since managed to grow its customer base from 100,000 to 310,000. Other notable altnets include Netomnia, which combined with ISP "brsk"; rural specialist Gigaclear; and Northern Ireland-based Fibrus.

The emergence of altnets cannot be understood without reference to the historical structure of the UK broadband market and its regulatory evolution. The UK fixed telecom regulator, Ofcom, has tried a number of approaches over the last four decades to address concerns over BT's dominant position in the sector. Following BT's privatization in 1984, it first relied on retail price control to protect consumers from its almost monopolistic pricing power. Over time, however, it shifted toward a strategy of promoting competition within the market rather than regulating prices directly. With its first "strategic review" in 2005, Ofcom decided on the creation of Openreach as a separate entity from the rest of BT. Openreach became responsible for operating the last mile of BT's network on behalf of all communications providers, allowing all competitors to access the infrastructure on equal terms. This approach proved successful, as between 2004 and 2014 the average price of a residential broadband connection fell by 40% in real terms. Yet, according to the regulator, this method had fundamental limitations: it provided limited incentives for Openreach to upgrade the underlying fixed network and offered limited incentives for possible competitors to invest in an independent infrastructure. In 2015, this led Ofcom to the conclusion that infrastructure-level competition was necessary. With a new strategic review, Ofcom favored deregulation and greater reliance on competition. Regulators argued that direct infrastructure competition would encourage all players, including incumbents like Openreach, to deploy capital towards improving their service performance. They recognized the risk of network duplication, implying the erosion of economies of scale and pricing power in a sector where high upfront CapEx makes profit margins particularly important, but considered it a lesser evil. At the same time, Ofcom pushed for large-scale adoption of fiber using FTTP technology, which also meant reducing the competitive advantage of incumbents with their large copper networks. It also noted that a number of smaller operators, i.e., the first altnets, were already deploying FTTP and committed to facilitating their investments in their advanced infrastructure.

Finally, the rise of altnets was facilitated by macro-financial conditions. Their expansion coincided with a prolonged period of historically low interest rates during the 2010s, which made large upfront infrastructure investments appear more justifiable from a return perspective. The early 2020s also saw a surge of investment in UK broadband, with venture funds, infrastructure investors and banks investing billions into altnet operators. Industry participants have later described the period as a "gold rush", when the operational challenges of construction and the issue of customer penetration were underestimated.

The economics of networks and broadband companies

Altnets are exposed to a higher risk compared to incumbent broadband companies, mostly due to their investment phase. However, the economics of network providers and broadband companies are generally similar, regardless of their market positioning. The shared goal is, in fact, economic sustainability, as defined by the ability of the network provider to remain financially viable once the network is operational and the provider is offering services. In particular, broadband companies are characterized by some essential features.

Perhaps the most prominent are the high costs of these networks, particularly the upfront expenditures required to build the assets, that is, the companies' CapEx. The cost is typically upfront and is depreciated over the useful life of the network; it includes labor for construction and connection, engineering, permitting, materials, land, upgrades and replacements, and construction equipment. If companies are able to leverage existing infrastructure, that would reduce CapEx, which tends to be in civil works such as permitting and construction. Alternatively, by working with local and country level entities to take advantage of planned construction work in relevant areas, providers can lower mobilization costs. Additionally, CapEx depends on the economic cycle for operators: after the growth phase, companies scale down on network investments in favor of acquisitions. If a target is acquired, the company returns to high CapEx levels a few years after a deal has closed to implement network integration, system migration, and other infrastructure upgrades to realize the benefits of the merger.

However, financial long-term viability depends on OpEx and, specifically, on the ability of the company to realize a margin over its day-to-day costs to run and maintain a network. OpEx, which does not include depreciation and the servicing cost of CapEx, covers costs such as power, sales and marketing, middle mile fees (if they do not own the whole network), network maintenance, customer support, and rent. OpEx needs to be controlled over a project's lifetime, as network maintenance and middle-mile access fees can often represent key factors for a project's financial viability, especially in rural areas.

Accounting standards also affect broadband companies' cost structure and their CapEx. Adoption of IFRS16 leads to leases being recognized on the balance sheet as right-of-use assets and corresponding liabilities. For network providers, which actively use leases for cell sites, network infrastructure, and equipment, this leads to a large capitalization of what was previously considered an operating expense, and by extension, larger balance sheets and stronger financial metrics like EBITDA and debt ratios. While accounting standards have led to increased CapEx measures, companies are striving to reduce heavy capital investments using several strategies. One, the cell site spin-off, aims to recreate those leasing agreements now capitalized under IFRS16 by selling tower and infrastructure assets to specialized independent companies or creating separate entities that manage these assets. While the CapEx related to infrastructure declines, this strategy reduces control over critical network infrastructure and renders CapEx requirements no longer wholly trustworthy from an investment perspective.

The time it takes to deploy network infrastructure represents another central factor that contributes to the risk profile of broadband companies, as longer build times increase costs and delay both revenue generation and returns for investors. Networks typically have a long payback period, 10-15 years in the UK, whereas assets can have a life between 20 and 40 years. This results in high time sensitivity, as the long duration of the investment, mixed with the high investment upfront, can materially affect returns in case of delays. However, long asset lives can lead to many years of stable cash flows at profitability, and equity investors can maximize their upside after bank debt is repaid.

However, asset lives are not the only feature that resembles utility infrastructure. EBITDA margins of UK incumbent broadband providers are around 30%-40%, similar to the 25%-50% EBITDA margin range for utilities. Conversely, new fiber entrants such as altnets often have negative free cash flow with negative or modest EBITDA, hinting at the overall high volatility of revenues, which is much lower in utilities due to regulation. Other infrastructure assets with similar EBITDA margins include freight rail (35%-40% due to the high barriers of entry and regional monopolies), while railways have lower EBITDA margins (10%-25%) due to many systems being subsidized, labor cost intensity being high and pricing power limited.

The combination of these characteristics seems to suggest that the UK fiber infrastructure industry could converge towards a natural monopoly based on cost conditions alone. Civil engineering costs are high, fixed, and irreversible, while adding customers is relatively cheap once the network is in place. Additionally, one network can often serve an area at a lower average cost than two, making duplication of infrastructure inefficient and further implying the efficiency of a monopoly. In practice, in the EU, due to regulation on wholesale access remedies and overbuild in densely populated areas, networks are not pure monopolies but have rather different market structures depending on the country.

In Spain, the market presents as a competitive oligopoly, with extensive overbuild in urban areas, high penetration of fiber network, and strong retail competition, while in France, the model used is one of co-investment with infrastructure sharing and joint investments to reduce duplication. In Germany, fiber rollout is slower and infrastructure competition is increasing, still behind other European countries. By contrast, the Swedish model is open access, with municipal networks and open wholesale fiber platforms. These models serve as examples of how regulation and policy intervention intentionally prevent full monopolies despite this industry having natural monopoly features.

The UK case: was it overbuilding and too much fragmentation?

The altnet market has almost doubled in size in the last two years, reaching 16m premises, but this growth has seen a significant slowdown, shown by the slower building pace, reluctant consolidation, and increasing costs. Most importantly, there is a shift in the source of competitive advantage and strategy, which will be driven by commercial resilience and CapEx management. Although expected, consolidation hasn't happened yet, and the biggest reason for that is the disagreement on price. Altnets have borrowed at extraordinarily cheap rates and aggressively invested to expand their network. The industry, though, hasn't matched its infrastructure expansion with revenues, and it is estimated that the industry has a total of $9b in debt while generating only $544m in revenues, which makes it hard for an M&A deal to pay back the initial investment. The slowdown is shown in the decrease in the average monthly build rate for the top 10 altnets, which fell from 26,000 in 2024 to 19,300 in 2025. A bigger problem for altnets is the increasing overbuilt infrastructure, creating opportunities for different mergers that would reduce costs. In Q2 2025, 10.9m premises had access to 2 or more FTTP (fiber to the premises) networks, while 1.75m was covered by 3 or more FTTP networks, a 12.4% increase. One extreme example of overbuilding is Braintree, where 5 full-fiber networks are overbuilding each other.

The biggest problem of the industry is a low take-up rate ranging from 4% to 50%. Take-up rates are the percentage of people who actually accept an offer. The low percentage of the take-up rate is a direct effect of minimal commercialization. Initially, altnets assumed that, by expanding, take-up rates would naturally follow, but a worsening macroeconomic environment and investment climate forced altnets to increase their focus on securing new customers. Some altnets even stopped further network expansions to focus on the monetization of the already existing infrastructure. The take-up rate has been severely reduced by altnet-on-altnet overbuilding. A provider could attainably achieve a 25%-35% take-up if competing only against an incumbent infrastructure, but it becomes more difficult when altnets also have to compete against each other. Compared to the past, building costs have also been on the rise, paired with lower access to funding, as investors shifted their interest from simple infrastructure expansion measured by THP (Total Homes Passed) to take-up rates, a key ROI measure. Altnets cite high interest rates as the main reason for difficulty in finding funding, paired with strict lending criteria. Furthermore, BT announced the reduction in PSTN exchanges in use, which are widely used by altnets, creating gaps in their infrastructure, and which will cost them on average £1.4m.

Additionally, altnets are facing a total of £1.5b losses in 2024 due to high operating costs and unpayable interest burdens. Even the best companies hardly achieve EBITDA breakeven and cannot cover their customer acquisition

investments. With the current funding freeze, it has become crucial to talk about operational efficiency, ARPU (Average Revenue per User), and breakeven timelines. An unsustainable and expensive expansion campaign focused on customer acquisition and network building is no longer acceptable due to a lack of new funding access. There are big differences in payback periods for altnets, ranging from 6-7 years for best urban altnets like Hyperoptic or Community Fibre, while a London niche operator like G.Network was expected to recoup its investment after 80+ years but is currently under a distressed sale scenario. Altnets operating in dense cities or apartment blocks can achieve faster returns compared to villages.

The increased competition from altnets radically shifted the pricing power of broadband providers. Gigabit internet is now considered a commodity, and consumers will switch towards the cheaper alternative, resulting in a lack of ability to charge high premiums and margins being built on operational efficiency and scale. Altnets try to achieve this by cost-cutting measures such as shedding staff, renegotiating vendor contracts, and scaling back construction plans. Cityfibre is an example where it worked and the measures allowed it to reach EBITDA breakeven, with aims of cash flow breakeven in 2026. Although symbolic since it shows only that the business model can work, it gives hope for the sector, in which companies are still far away from reaching free cash flow breakeven, a crucial figure that shows that the company does not require new funding injections. The largest altnet lenders were NatWest and Lloyds, which currently have scaled back lending as they set aside capital for expected losses on loans they provided. The banks will now set a higher bar in terms of requirements to be accepted for loans. The most notable altnet borrower is CityFibre, which secured £1.5b financing in March 2025 and was part of its £2.3b fundraising in July. This has created a gap in financing, which gives opportunities to private credit groups like HPS, which granted a £225m facility to Grain Connect in July 2025.

Consolidation & other outcomes

The funding in 2024 was limited to a few deals, such as the £1.5b debt package for Gigaclear, although used for refinancing and contingent credit, Hyperoptic £150m from the state-backed UK infrastructure bank, and Netomnia, which managed to raise debt through a consortium of lenders with state-backed banks. Community Fibre also got access to £125m by institutional investors which were convinced thanks to its urban plans. Those were the last noteworthy transactions, as funding froze and altnets resort to consolidation and M&A to help their struggling business models. In mid 2024, Netomnia and Brsk merged. A key factor was that they shared a major investor and aimed at reaching 3m premises by 2025, while creating a capital efficient contender. The same Netomnia was later acquired by the incumbent Virgin Media O2 and the PE firm InfraVia Capital for £2b. In total, the new entity will cover 8m homes and will have access to 20m premises. In January 2025, FullFibre and Zzoomm merged to create an operator of 600k premises, both backed by big infrastructure funds such as Basalt and Oaktree.

CityFibre, on the other hand, decided to pursue the acquisition route. The company has signed a major wholesale agreement with Sky, but it requires the company to reach 8m premises. The goal can almost certainly be achieved only through M&A, and since then, CityFibre has gone on an M&A spree. The most recent one was its acquisition of Connexin, which, although it has small FTTP assets (only 100k premises), also takes control of the £58.6m Project Gigabit contract. Furthermore, in 2024 the company acquired LitFibre, which is a network and ISP operator, from Newlight Partners in an all-share deal, which added 300k premises. Interestingly, the ISP branch was resold to its original owners, while maintaining the infrastructure side of the business. Not all operators are able to find mergers or potential acquirers, and need to work around their distressed balance sheet. Fire sales are becoming more common, and some were forced to sell even in 2023. One of them was Broadway Partners, which collapsed and sold itself for £6.3m, despite spending £29m in cash on the same assets. One of the most recent examples is that of G.Network, which was sold to distressed debt specialist FitzWalter Capital. The company has £300m in debt, while servicing only 25k customers. Many of its original lenders, such as NatWest and Santander,

are expected to suffer losses on their investment. As a wave of consolidation unfolds, the altnet industry is evolving, with the mentality of just digging and building not being enough. The companies with higher take-up rates, a cost-efficient structure, and a sound path to profitability will thrive and increase their market share in the fiber market. The infrastructure will be absorbed by stronger players, allowing for efficient cost allocation and reduction of unnecessary staff.

Conclusion

The UK broadband market represents a sector with natural monopoly cost characteristics, where infrastructure duplication can erode scale economies and cost conditions seem to favor concentration. However, regulation has actively favored entry and competition, which has led to overbuild and fragmented take-up. In this context, altnets are the newest fiber companies to have experienced the drawbacks of competition. After their rapid coverage expansion, fueled by high leverage and competition, investors have realized that firms are experiencing a monetization lag and have now turned to consolidation for a solution.

The M&A activity resulting from this transition, as well as the industry losses driven by high operating costs and heavy interest burdens, shows how competition in these kinds of sectors can be dynamic but unstable. While financial conditions and regulatory frameworks amplified entries, fiber network companies are responding rationally by looking to scale through consolidation.

TAGS: Infrastructure, Consolidation, Competition, Distressed, M&A