## an investment analyst

I have covered the UK communications sector for nearly 20 years.

Unashamedly, my main interest is in trying to help investors make money in the communications sector. Quite understandably the ability of investors to profit from this wonderful sector is well down your list of priorities. That said, the willingness of investors to support companies that are willing to invest their money in building the next generation of access networks is a key facilitator of your vision, assuming of course, that the government has little interest in footing the  $\pounds 20$ -30bn bill that a full-fibre deployment across the UK will likely cost...

I am not going to tell you how to get FTTP built in the UK, although I will make some observations that may help you in forming your own view. Creating the right construct that balances incentives to invest and safeguards consumer interests is a brutally difficult exercise, despite what the odd FTTP evangelist may tell you. My overall sense is that the pendulum has swung a little too far towards consumer protection, but you will very fairly say that someone in my position would say that. But I will tell you that investors see the regulatory overhang in the UK as a bigger disincentive to invest in pretty much any other major European market and certainly the US....

First of all, if you want the private sector to deploy FTTP, then you should expect the companies involved to want to make a reasonable return on their investment. We can certainly argue over what a reasonable return constitutes, but in order to raise and spend the capital needed, FTTP-builders need to present a reasonable investment case. I will return to this point later..

Bad actors. Sadly, current policy has attracted many bad actors into the communications market place who have become conditioned to receiving regulatory handouts, but have little or no interest in deploying their own capital. Meanwhile those that are building networks often do so for entirely disingenuous reasons. Let me elaborate.

Let's start with TalkTalk. I have no doubt that Talk Talk will lobby hard for (a) Openreach to be fully separated, (b) the lowest possible wholesale GEA costs and (c) the lowest possible wholesale costs for FTTP. Meanwhile it will spend next to no capital of its own. Why is this? Talk's entire rationale over the last decade has been the enrichment of senior management. This has led it into value-destructive acquisitions (Tiscali), egregious management incentive schemes based solely on share price appreciation,

and paying out hundreds of millions of pounds, and a foolish dividend policy which has paid its chairman nearly £200m since 2012 and left the company dangerously indebted. When the company preaches on the virtues of the Gigabit society, please take its stance with a pinch of salt. Nor should you imagine for a second that Talk is in some way protecting the less well-off members of UK society by providing them with cheap broadband. The company gave up its value credentials years ago, and slavishly aped its larger competitors' price rises in its ill-advised pursuit of a high "EBITDA margin" (all part of the plan to enrich senior management through its generous "LTIP".) Unfortunately this strategy of enriching management has now backfired as poor customer service and lack of differentiation has seen its competitive position crumble, while it's very stretched balance sheet precludes major investment. None of this is the fault of policy or regulation, both of which gave Talk a major initial leg-up. It is the fault of TalkTalk's management, whose greed has sabotaged the company.

And what about Sky? Our biggest Pay-TV provider has done far more for the UK (and certainly its under-performing footballers) than TalkTalk, but when it comes to fibre, its public position is just as disingenuous and its words every bit as hollow. Despite the enormous regulatory leg-up provided by cheap LLU-access and the creation of a large broadband base, Sky has no interest in allocating any of its own capital to fibre. It has preferred to spend its money on expanding its Pay-TV empire across Europe, an ill-conceived "carry-trade" when it swapped it's largely £-debt into Euros just ahead of the EU referendum that was aimed at minimising its interest costs, and maximising "earnings" but ended up costing the company  $\sim$ £700-800m and has seen its leverage soar to >3x net debt / EBITDA. Its desperation to retain its own Pay-TV dominance also saw the company bid a scarcely believable £1.4bn/annum for Premier League football rights, which has set the bar so high that no rational bidder can now compete for these over-priced rights, while Sky likely loses money on its flagship Sky Sports channels. Its recent position on FTTP and Openreach separation is, in our opinion, based solely on weakening its largest UK competitor and reducing competition for premium sports rights - not some altruistic effort to bring the Gigabit Society (a daft term if ever there was one) to the UK. And while Executive enrichment is no bad thing per se, and Sky is not in the same league as TalkTalk when it comes to poorly constructed management incentive schemes, with the CEO earning >£40m over the last 4 years and the CFO >£20m, one may want to question whether they are best placed to lead the debate on what's best for the UK's longer term interests when it comes to FTTP.

And now Virgin Media. Virgin will simply push for government and Ofcom to do as little as possible and claim that the market is best placed to allocate capital towards an FTTP build. And I have some sympathy with that view, which may not surprise you. That said, ask yourself this? Is it really sensible to leave the future of the UK's digital infrastructure in the hands of a company that has accumulated £12.5bn of net debt against EBITDA of £2.2bn - leverage approaching 6x? And why is it so levered? It is not down to the Project Lightning investment on which Virgin Media has spent £500-600m so far. It is largely because this is a company so focused on growing

its share price that it borrows as much as it can get away with in these generous credit markets primarily to buy back its own shares (parent company, Liberty Global). And the reason for this is that its executives are rewarded vast sums, generally in the aforementioned stock. Liberty Global's CEO has been paid ~\$190m over the last three years, having taken virtually no personal equity risk. Liberty's only interest in rolling out "fibre" is like TalkTalk, the enrichment of an already egregiously well rewarded senior management team.

Which leaves us with BT. Now, BT is a long way from being perfect and has not had its problems to seek over the last 12 months. But if you want fibre to be rolled out to UK premises over the next decade, it is really the only serious national contender. Aside from its exogenous pension issues, BT has kept its balance sheet in good order over the last 7-8 years, rewarded shareholders sensibly and executed its VDSL roll-out extremely well, surpassing its original targets - a rare feat amongst telecoms operators. Management has shared the pain of its financial woes by handing back previously earned bonuses (unlike, for example, talkTalk) and there is a genuine desire to find a sensible regulatory framework for investing in FTTP.

Regulation. The truth is that few in the investment community fully understand the role of an industry regulator, typically seeing it as an irritation and an obstacle to free-market economic animal spirits being allowed to hold sway. It is also the case that regulating the Communications sector in today's complicated and dynamic digital landscape is a fiendishly difficult task. However, if you expect the private sector to build the FTTP you so clearly crave, it is not unreasonable for those providers of capital / investors to be afforded a degree of regulatory certainty and as mentioned above, the companies building these networks to be able to make a return. Marrying the need for a return on investment with affordability for consumers is the (fiendishly) tricky part, although in truth no one will build a network and then set a price at a level that generates insufficient volume to make a return. But our observation is that Ofcom has become (a) PR-focused and (b) unpredictable.

The truth is that LLU, its centrepiece regulatory initiative of the last decade has been a flop when it comes to promoting investment. It has certainly helped foster retail competition and kept prices low. But it singularly failed to build the ladder investment case for ISPs with large customer bases to invest in their own access networks - the reason being that the CPs and their customers have become terminally conditioned to expectations of low retail prices. The low price ceiling for established operators makes the investment case for new networks almost impossible. Meanwhile Ofcom's CEO joins in the easy point-scoring bashing of the incumbent in front of Commons Select Committees, refusing to acknowledge any failings of her own and regulation as a whole, not to mention the self-interested CPs who do all they can to obstruct a reasonable regulatory template for FTTP. Meanwhile we flounder on how to control the massive digital giants that manage to sidestep all the regulatory obstacles that makes life so much harder for their "old-world" would-be competitors. As a starting point, we need longer regulatory cycles that afford greater certainty and we need a fresh pair of eyes on the conflicting vested interests

that are influencing UK regulatory policy. Is it the regulator's fault that the likes of Sky and Talk failed to innovate around broadband and may have to face up to the fact their LLU-estate must be largely written off in an FTTP world? We don't think so.

In the UK, building out FTTP looks like a natural monopoly and asking multiple operators to overbuild each others' access networks, a gigantic waste of scarce resources. There are specific reasons that markets like Spain and Portugal have gone the way they have - most pertinently largely ducted networks serving largely tenament'd housing stocks - not overhead wiring serving terraced houses. Policy should be set accordingly - not around some unrealistic "pipe dream" (excuse the pun), based on completely different market structures and network architectures. I wish the likes of CityFibre all the success in the world, but my long experience in the sector leads to me believe that it will lack the capital and the scale to fulfil its grandiose ambitions and will seek to sell out to a bigger operator as quickly as it can.

But whatever you do, do not listen to intently to the likes of TalkTalk, Sky and Virgin Media too intently. Self-evidently, BT will also present a self-interested case. But at least (for now) it has the balance sheet, the motive and the desire to upgrade the UK's communications infrastructure - and executive enrichment is further down the list of motivating factors than any of its rivals.