



Digital Competition Expert Panel

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Introduction

1. BT Group plc is pleased to respond to the Digital Competition Expert Panel's consultation into the state of competition in the digital economy. As a leading provider of fixed, mobile and TV services in the UK and in international markets, BT is an established player in digital markets, and also interacts with other digital players across a range of different services.
2. We have requested Professor Robert Hahn to provide an economic perspective to competition policy in digital markets.¹ His paper is provided alongside BT's response, and focuses on why the regulatory environment should promote dynamic efficiency, rather than static efficiency alone and why careful consideration should be given to the incentives that competition policy provides for investment and innovation.
3. Global technology firms have achieved faster growth than traditional telecommunications companies in the past decade. Large tech firms, such as Google, Facebook and Amazon have seen revenue growth of 94% in the past five years,² compared to a decline of 1% for UK telecoms companies over the same period.³ UK telecoms companies have faced increasing competitive pressure in various parts of the value chain, including from over-the-top (OTT) players, telecoms infrastructure investors and content providers.
4. Existing regulation in telecoms markets will need to adapt to these changes in digital competition. Ofcom continues to impose ex ante regulation in a number of the markets that BT serves, some of which are increasingly being disrupted by technology developments. We therefore welcome the Government's review into how competition regulation may need to adapt to take account of such changes in competition due to growth of digital markets.
5. Whilst the central focus of the panel's review is on how competition policy is suited to addressing competition issues in digital markets, we believe this review cannot simply review ex-post competition law application without also reviewing aspects of traditional ex-ante regulation. Given the interlinkages between digital markets and adjacent markets such as the telecoms sector and the degree of substitution between existing and new technologies, the panel should ensure there is a consistency in the principles applied to competition law with ex ante regulation. We understand this review is not intended to evaluate ex ante regulation in detail, but we believe the panel should

¹ Hahn, R (14 December 2018): "Competition policy for digital markets: An economic perspective", A response to the call for evidence on competition in the digital economy.

² Between 2012 and 2017, total revenues of Amazon, Facebook and Google grew by 94%. Source: Amazon, Facebook and Google 10-K filings for years ended 31 December 2012 to 13 December 2017.

³ Ofcom Communications Market Report 2018, Office for National Statistics. Note: Ofcom reported total revenues for telecoms sector is adjusted from real to nominal terms using CPI for consistency with nominal revenues for US technology firms.

undertake its review of competition policy in digital markets in the context that it is partly 'anchored' in ex ante regulated network markets.

Global technology firms place competitive constraints in adjacent markets

6. Global technology firms have achieved remarkable success in a relatively short period of time. As of March 2018, 10 of the top 20 largest publicly listed companies in the world were technology or digital services companies compared to only 2 out of 20 in March 2009.⁴ The global technology sector has seen growth in value of 322% in the last nine years, compared to 42% for the telecommunications sector.⁵
7. Part of the capital gain in the technology sector could be a justifiable reward for innovation. The technology sector typically engages in high amounts of R&D, and earns rewards by developing new products and services that consumers are quick to take up. The rewards for investors in these sectors may be seen as compensation for the high risk they often bear, because customer demand is typically highly uncertain (and innovative products can themselves be disrupted in fast moving segments).
8. The success of these firms has implications for competitive conditions in adjacent sectors. Companies earning high returns can use these funds (and customer relationships) to leverage into adjacent markets.
9. BT has already observed such disruption by global technology firms in the markets in which it currently operates:
 - **OTT players:** Over-the-top content providers are providing services that are substitutes for some of the services provided by BT. The growth of WhatsApp and VoIP services such as Skype have reduced demand for fixed and telecoms voice and messaging services. In the UK, mobile call volumes per subscription declined in 2017 for the first time in ten years and texts per subscription have declined since 2012,⁶ demonstrating the impact that OTT players have had on the market. At the same time, global technology companies are providing TV content services, including sports content in the UK, with new monetisation strategies.⁷
 - **Mobile services:** Traditional mobile companies face disintermediation and margin erosion by handset suppliers providing handsets and e-SIMs.⁸ For example, Amazon sells mobile handsets online at low prices, potentially funded through advertisements on the other side of the two-sided market that it operates in. Amazon preloads handsets sold on its website with its own apps, such as Prime

⁴ PwC (31 March 2018): "Global Top 100 companies by market capitalisation", 31 March 2018 update.

⁵ Ibid.

⁶ Ofcom Communications Market Report 2018, p54.

⁷ For example, Amazon has purchased UK football TV rights, entering a market previously only including Sky and BT. Amazon can bundle its sport content with its Prime TV offering, thereby expanding its 4.3m households in the UK. Source: The Guardian (3 May 2018): "Amazon Prime Video's growth outpaces Netflix in UK".

⁸ In its latest operating systems, Apple has introduced 'e-SIMs', which allow users to virtually move between different mobile network carriers. Source: <https://support.apple.com/en-gb/HT209044>

Video, channelling customers to its own services, creating a new competitive challenge for traditional mobile operators.

- **Fixed network infrastructure:** Fixed network infrastructure has historically been viewed as an input that affords operators with market power, and BT has been designated with significant market power (SMP) in a number of fixed markets. However, global technology companies have made forays into these markets. Google rolled out Fibre-to-the-Premise infrastructure in a number of US cities, including Atlanta, Nashville, Salt Lake City and Austin.⁹ The prospect of entry by digital disruptors prompted traditional telecoms operators to accelerate their own fibre investment, demonstrating the ability of global technology firms to influence the timing of telecoms operators' investment decisions.
- **IT services:** Amazon has opened data centres in a number of European countries, including the UK, principally to provide cloud computing services. Amazon Web Services' growth has been driven by virtualisation, enabling more flexible, scalable and cost effective services than traditional services. As a result, Amazon Web Services has become the market leader in cloud computing, with 33% revenue market share in 2018, overtaking historical market leaders such as IBM, which only has 8% market share.¹⁰ BT Global Services has decided to partner with Amazon Web Services to provide cloud computing. These partnership models may become more prevalent given the position that Amazon Web Services has achieved.

10. These examples of entry by digital disruptors are relatively new phenomena in telecoms markets. Prior to the emergence of global technology companies, BT principally faced competition in retail markets from other communications companies. In many wholesale markets, BT has been and continues to be regulated by Ofcom because it has been found to have SMP. However, whilst the rise of digital disruptors has often brought positive outcomes for consumers, they have created new competitive pressures and challenges for telecoms companies in both retail and potentially wholesale markets. In order to promote fair competition, this should be reflected in the market analysis undertaken by sectoral regulators and competition authorities.

Ex ante regulation in adjacent markets should be reassessed in light of competitive pressure from digital players

11. In order to impose ex ante regulation in the telecommunications sector, the European Commission recommends applying a three-criteria test which assess whether (1) there are high and non-transitory structural, legal or regulatory barriers to entry, (2) the market does not tend towards effective competition within the relevant time horizon, and (3) competition law is insufficient to adequately address the identified market failure(s).¹¹ The emergence of global technology companies and the competitive

⁹ Source: <https://fiber.google.com/about/>

¹⁰ Synergy Research Group (27 April 2018): "Cloud Growth Rate Increased Again in Q1; Amazon Maintains Market Share Dominance".

¹¹ European Commission (27 April 2018): "Guidelines on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services", Commission Staff Working Document, p6-7.

pressure this creates should be assessed as part of the three criteria test, particularly on a forward-looking basis.

12. The telecoms sector has historically tended to have higher barriers to entry at the fixed infrastructure level, due to high fixed and sunk costs associated with deploying infrastructure. However, these barriers to entry are being eroded by a range of factors including the emergence of global technology firms, whose access to capital allows them to invest in network infrastructure should they see value in doing so. Google's investment into FTTP networks in the US is an example of such entry.
13. With regards to the second criterion, telecoms companies are facing greater competition from digital players whose services increasingly act as substitutes to their products. The growth in data messaging services such as WhatsApp have come partly at the expense of traditional fixed and mobile voice and messaging services, which brings into question whether telecoms companies hold market power in these segments. So far Ofcom has disregarded data messaging and VoIP services as a competitive constraint on fixed and mobile services, relying principally on historical trends to come to its conclusion.¹²
14. Part of the challenge for regulators is to reframe their analysis to take account of the fast pace of change in digital markets. The European Commission's SMP guidelines state that "*market characteristics should be analysed not only in a static but also in a dynamic and forward-looking manner*".¹³ In order to do so, regulators should place greater emphasis on future trends in how the market could evolve, in particular, the capacity for disruption of traditional markets by global technology companies who are constantly innovating including by expanding into adjacent markets in order to build customer relationships.
15. The European Commission recommends that "*anticipated events must be expected within a precise timeframe and on the basis of concrete elements...rather than something which may be only theoretically possible*".¹⁴ In digital markets, regulators face a challenge in anticipating innovation because, by its nature, innovation involves creating products and services that are not easily conceivable today.
16. Innovation in digital markets (and its likely impacts) cannot easily be predicted over specific time horizons or based on concrete elements in the manner the Commission describes, and yet digital players still place competitive constraints on existing suppliers. Regulators should take a broader view of how a market may tend towards effective competition encompassing competitive constraints arising from digital competition. For example, regulators could consider how these constraints trigger responses from

¹² Ofcom (30 November 2017): "Narrowband Market Review: Statement - Markets, market power determinations and remedies for wholesale call termination, wholesale call origination and wholesale narrowband access markets", paragraphs 4.58-4.59, p60-61; Ofcom (28 March 2018): "Mobile Call Termination Market Review 2018-2021 – Final Statement", paragraphs 3.45-3.49, p27-28.

¹³ European Commission (9 October 2014): "Commission Staff Working Document Explanatory Note accompanying the document Commission Recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services, p9.

¹⁴ Ibid, p10.

existing firms with regards to changes in their business models and/or more investment in research and development, instead of just a focus on changes in price and quality of existing products and services.¹⁵

17. The final criterion states that ex ante regulation should only be imposed where competition law remedies are insufficient to address the competition problem identified. In Professor Robert Hahn's paper accompanying this response, he notes that in digital markets an ex post approach has some advantages over ex ante regulation because of the difficulties of identifying market failures on a forward-looking basis.

Competition law and regulation must place greater emphasis on quality rather than solely price

18. In general terms, we agree with the current principle-based analytical framework applied in competition law and used as a foundation for SMP regulation. That principle-based system has evolved transparently through EU and UK administrative and judicial proceedings to provide a flexible yet predictable analytical framework. We would caution against changes to those principles and are concerned that well-meaning changes might have unintended consequences beyond the scope of this review.¹⁶ Rather, we think it would be more appropriate to focus on the application of these principles to digital technology companies specifically, in particular to market analysis. In this regard, it is especially important for the application of the competition law principles to be forward-looking and take into account the dynamism in relevant digital markets.
19. In this regard, market definition is an important first step in any discussion of competition concerns (whether in a competition law or SMP regulation context), and can be particularly challenging in digital markets. The purpose of market definition is "identifying the competitive constraints acting upon a supplier of a given product or service".¹⁷ The ease with which consumers can switch to substitute products and the constraints placed by other competitors in the market define the relevant product market over which market power can be assessed.
20. Market definition is often assessed by reference to a conceptual framework which posits a Small but Significant Non-transitory Increase in Price test (SSNIP test). Under this test, a market is defined as a group of products or services across which a hypothetical monopolist could profitably impose a SSNIP (i.e. without this being undermined due to volume losses). The SSNIP test provides a useful tool for market definition where

¹⁵ Telecoms operators have accelerated investment in recent years in areas where the digital economy may make a difference, including BT's partnerships with university research facilities and Deutsche Telekom's investment in data analytics, cloud disruptions and network asset utilisation. Source: Copenhagen Economics (20 September 2017): "Review of SMP guidelines", A study prepared for ETNO, p21-22.

¹⁶ For completeness, we note that we would be particularly concerned about any change to the standard of review for appeals of competition law decisions. The current full merits review for Chapter 1/Article 101 and Chapter 2/Article 102 infringements is important to ensure robust decision making and protection of the rights of undertakings given the quasi-criminal nature of any breach finding.

¹⁷ Office of Fair Trading (2004), "Market Definition - Understanding competition law", OFT Competition Law Guidelines, paragraph 2.1.

changes in price are the key instrument by which a hypothetical monopolist could exercise market power.

21. However, in digital markets, the traditional SSNIP may not identify appropriate product markets for a number of reasons.
22. Firstly, digital markets are often two-sided, with suppliers interacting on both sides of the platforms with users and advertisers. A supplier's optimisation decision would take into account the profits from both sides of the market. Therefore, the SSNIP test may need to consider changes in price on both sides of the market and consider the demand-side and supply-side response on both sides simultaneously.
23. However, in digital markets, users on one side of the market often do not pay a monetary price. Users of Facebook, Google, Instagram, Youtube and other social media platforms and search engines do not typically pay for the service. With a zero price, conducting a SSNIP test is not viable for defining the relevant market. In such digital markets, users effectively pay for their use of the platform by providing their personal data, which can be monetised by the other side of the market, usually advertisers. For example, users of Google provide data about their preferences based on their search queries, which advertisers are then able to use to provide targeted goods and services.
24. In this setting, market definition may need to consider how a *change in the amount and/or quality of data* that is provided by users affects the demand-side and supply-side response on both sides of the market. This would provide a more complete view of the ability of the hypothetical monopolist to profit, taking into account all of the tools it has to exploit any market power.
25. Expanding the use of the traditional SSNIP test to changes in quality has been considered by China's Supreme Court in *Tencent vs Qihoo*, where the Supreme Court noted the inadequacy of traditional analysis based on changes in price. The Supreme Court discussed the use of changes in quality being used to define the product market, but found that the exercise could only be conducted in qualitative terms. The difficulty in quantifying changes in the quantity and/or quality of data supplied by users may mean that demand and supply side responses can only be assessed in qualitative terms.
26. A second challenge with market definition in digital markets is that consumers often regard services and products with differing capabilities as being viable substitutes. Users can migrate to different digital platforms, switching their attention, even though the platforms may provide different services under strict product market definitions. For example, the growing use of Snapchat has coincided with declining use of Facebook by younger users, as their attention has switched due to innovations by Snapchat. Although Facebook and Snapchat offer differentiated services across multiple dimensions including text updates, news content and advertising, the two platforms may constrain each other to some extent through the measures they use to seek users' attention.
27. We therefore believe competition and regulatory authorities should take a wider view of market definition in digital markets, recognising the practical constraints placed by users, who often view products with different capabilities as substitutes. Greater analysis of switching behaviour across adjacent product markets, customer surveys and

recognition of quality as well price factors will enable authorities to better define appropriate product markets.

Competition and regulatory authorities should ensure a level playing field in the ability to accumulate data across industries and the use of that data

28. The Digital Competition Expert Panel has requested responses on whether the concentration of data within a small number of firms has an impact on competition. Companies such as Google and Facebook collect data about their users, and in some cases, this data accumulation may constitute a barrier to entry for other firms. The accumulation of data has been likened to the high fixed costs associated with fixed infrastructure, which could result in findings of market power. We agree that the accumulation of such data and the subsequent use of that data (e.g. whether it is used to embed or leverage market power) is an important area of focus for competition and regulatory authorities.
29. The majority of the data that users of digital platforms provide tends to be highly personalised and have a limited shelf-life. Clicks on online shopping websites, likes on social media platforms and views on online video channels all represent the preferences and choices of the users at the point in time in which they are made. Digital players value this data highly at the point in time in which they gather it, because it is more likely to be monetised, for example through targeted advertising to induce further consumer spending. Over time, the value of such data declines because user preferences and choices change, and the data cannot be monetised so easily.
30. Because such data decays in value over time, digital players constantly adapt their operating models to engage their users such that they continue to supply their data. Facebook's move towards video content, Instagram's 'Stories' feature and Snapchat's filters feature are all innovations that consumers value enough to continue supplying their data to the platforms. Failure to keep users' attention may lead to users switching to alternative suppliers, providing strong incentives for the digital players to innovate and provide services that users continue to value. The rapid decline of MySpace provides an example of a digital platform failing to maintain user attention, and, as a result, losing market share.
31. As discussed earlier, users in such two-sided platforms in effect pay for their use of the platforms using their data. Constraining their ability to do so could prevent users from benefitting from services they currently value (often at zero price) and may undermine the incentive to create new services.
32. These principles apply more generally. For example, in telecoms markets, firms may also collect data about their customers, including the amount of data they consume, the type of content they prefer and time at which they consume services. In addition, telecoms markets are highly competitive at the retail level, which means firms are competing to

attract customers, and one such competitive dimension could be the amount of data that is supplied in return for valuable communications services.

33. We therefore believe a consistent approach should be applied when considering concentration of data in different sectors. Allowing firms in one sector to collect user data, but not firms in other sectors creates competitive distortions that harm overall consumer welfare.¹⁸ Similarly, any regulatory efforts to promote consumer switching should not be restricted to individual sectors, and should also consider switching behaviour in digital markets. BEREC is currently consulting on such issues, including on fostering interoperability obligations and data portability.¹⁹
34. We recognise consumer concerns about privacy and the way that their data is handled. Digital players and firms in all sectors have a responsibility to ensure that consumers' rights to data privacy are protected and consumers are provided information on how their data is used. We believe such data privacy issues are best addressed outside of the competition regime, and through consumer policy. Measures such as GDPR are an example of how regulators can protect consumers without resorting to competition regulation, which is not the appropriate tool for addressing consumer concerns about data privacy.

¹⁸ For example, telecoms operators can provide valuable digital security services by collecting data about their customers' mobile phone locations when they withdraw funds from a bank account. Restricting telecoms operators from collection and use of data limits such innovation in digital security, thereby harming consumer outcomes in the long-run.

¹⁹ BEREC Public Consultation on the data economy, 4 October 2018.

Conclusion

35. Growth in digital markets has undoubtedly created new challenges for firms in adjacent sectors, customers, and competition and regulatory authorities. BT is facing new forms of competitive threat across a range of its products and services, including OTT content, mobile handsets, fixed network infrastructure and IT services. In each of these areas, the pace and materiality of disruption has been far in excess of what has been observed historically. Regulatory authorities have so far been slow to adapt regulatory models in the face of this digital disruption, and have continued applying ex ante regulation in telecoms markets despite increasing competitive constraints from digital disruptors.
36. The services provided by digital firms include OTT voice calls, data messaging services and video sharing, which all act as substitutes to traditional fixed and mobile services offered by telecoms companies. This market convergence has so far been given little weight in telecoms regulation, partly because of a tendency to focus on historical trends rather than future competitive constraints. A greater emphasis on how markets are evolving (and the pace of change) will help to ensure that competitive constraints across adjacent markets are recognised.
37. This does not mean that the current principle-based analytical framework needs to be changed. Rather, we think it would be more appropriate to focus on the application of these principles to digital technology companies specifically, in particular to market definition assessments. In this regard, it is especially important for the application of the competition law principles to be forward-looking and take into account the dynamism in relevant digital markets.
38. With regards to market definition, traditional tools may need to be adapted, for example a hypothetical monopolist test for two-sided markets which captures the demand-side and supply-side response on both sides of the market. Incorporating a qualitative assessment of responses to changes in quality is important to achieve, a more appropriate assessment of substitutes. A broader approach to market definition also has implications in adjacent markets such as telecoms, where it will allow regulators to recognise how new digital services are widening product markets.
39. Finally, we do not see the accumulation of data by a few firms necessarily results in greater market power, as the value of data is time-limited such that firms are constantly innovating to encourage users to willingly supply data. This property of data means the accumulation of such an asset should not necessarily be seen as a barrier to entry. However, we note that this applies in a number of sectors, and not just in digital markets, so regulators should be conscious of applying regulations in one sector that prevent a level playing field in the use of data to provide valuable services to consumers. We believe concerns associated with data privacy are best addressed through consumer protection policy rather than competition policy.