The tangled web of mobile telecommunication mergers draws together Hutchison Whampoa, Telefónica and BT

Purpose: This paper aims to demonstrate how consolidation within Europe's mobile telecommunication markets requires willing buyers and sellers.

Design/methodology/approach: After highlighting the resurgence in merger and acquisition activity in mobile telecommunications, the paper draws on a variety of secondary sources to analyse the strategies of three companies.

Findings: The paper highlights the interwoven nature of the strategies of three companies: BT, Hutchison Whampoa and Telefónica. BT has returned to the mobile telecommunications market in the UK, with the company it did not acquire being purchased by Hutchison. As Hutchison implements a 'double or quits' strategy in Europe, it has acquired operations from Telefónica, which, in turn, has exited most of its non-Spanish operations to focus on Latin America.

Research limitations/implications: The paper relies on secondary data and thus highlights the challenges of doing so and the need for more information regarding mergers and acquisitions to be in the public domain.

Practical implications: There is a need to adopt a sector wide or regional approach to analysing the strategies of telecommunication companies.

Originality/value: The paper uniquely provides an overview of three corporate strategies to show how they interact with one another.

Keywords: Mergers and acquisitions, Europe, consolidation

Paper type: Research paper

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1. Introduction

Over the course of the last year or so, the global telecommunications industry has shown a renewed interest in merger and acquisition (M&A) activity. In Mexico, for example, AT&T has acquired Iusacell and Nextel Mexico as it positions itself to compete against América Móvil (AT&T, 2015; Cellular-news, 2015b; Crow, Fontanella-Khan and Webber, 2015; Lennighan, 2015g), while in Canada, Rogers Communications has agreed to acquire Mobilicity (Lennighan, 2015l). In Africa, Orange is in talks to acquire four of Bharti Airtel's subsidiaries (Lennighan, 2015o). Merger rumours are widespread in India and several possible combinations of operators – for example, Telenor and Tata, RCom and Sistema – have been discussed in the press (Cellular-news, 2015c; Lennighan, 2015c).

Merger and acquisition activity has been particularly pronounced across Europe. In France, for example, Altice not only acquired SFR for €13.33 billion in late 2014 but followed this up in June 2015 with a bid of €10 billion for Bouygues Télécom (Morris, 2014; Wood, 2015c). More modest deals have taken place in Spain and Switzerland. In Spain, Orange paid €3.18 billion to acquire control of Jazztel (Lennighan, 2015m) while, in Switzerland, NJJ Capital acquired Orange Switzerland for €2.3 billion from Apax (Lennighan, 2014a). Elsewhere, it is rumoured that Deutsche Telekom has offered the Slovakian government €900 million to acquire the 49 per cent of Slovak Telekom that it does not already own (Lennighan, 2015i). In other countries, mergers have occurred or are planned. In Macedonia, for example, the mobile operations of Telekom Austria and Telekom Slovenije were authorised to merge in July 2015 (Cellular-news, 2015d; Lennighan, 2015n), although in Denmark the planned merger between Telenor and TeliaSonera collapsed as a consequence of the regulatory conditions that were imposed and then rejected by the operators (TeliaSonera, 2015; Thomas, 2015j).

While these mergers and acquisitions highlight how the European telecommunications landscape is changing, there is a tendency to focus on individual countries or deals. As such, the 'bigger picture' that links several countries together and reflects the changing strategic priorities of telecommunications companies is overlooked. Accordingly, it may not be clear why operators are exiting certain countries while investing in others. Within Europe it is possible to identify three companies – Hutchison Whampoa, Telefónica and BT – where changing strategies, and hence footprints, interact with one another. As Telefónica has focused its non-Spanish European operations on Germany while simultaneously expanding its Latin American operations, its exit from Ireland and the UK has coincided with the desire of BT to once again provide mobile services and that of Hutchison Whampoa to gain scale economies through purchasing rivals in its existing markets. By looking at these three companies together, it is possible to illustrate the often overlooked point that successful M&A activity requires willing buyers and sellers (Curwen, 2015).

With this in mind, the remainder of this paper is divided into five sections. In Section 2, the focus is on Hutchison Whampoa and its purchase of competitors in Austria, Ireland

and the UK. This is followed by a discussion of the changing strategic focus of Telefónica in Section 3, and the return of BT to mobile telecommunications in the UK in Section 4. The various mergers and takeovers are discussed in Section 5, with conclusions being drawn in Section 6.

2. Hutchison Whampoa - investing yet more in Europe

Hutchison Whampoa – hereafter Hutchison – has been a patient and long-term investor in the European mobile telecommunications industry (Curwen & Whalley, 2014). After developing and then selling Orange in the UK, Hutchison returned to the European market through the 3G licensing process around the turn of the millennium. However, this return has been fraught with difficulty – competing against well-entrenched incumbents without an installed 2G subscriber base has proved to be a costly process. In each of the European markets that it entered – Austria, Ireland, Italy, Denmark, Sweden and the UK – Hutchison was for some time the smallest. As such, it lacked the scale economies to enable it to compete against its well-entrenched rivals. To counter this, the company has engaged in what can best described as a 'double or quits' strategy – it has bought larger rivals in Austria and Ireland, made an offer for a larger rival in the UK and is rumoured to be about to merge in Italy to create that country's largest mobile operator.

The first country in which Hutchison acquired another operator was Austria. In late 2011, it was reported that Hutchison 3G Austria had made an offer for Orange Austria, a rumour that was confirmed in February 2012. Hutchison offered \$1.3 billion to Mid Europe Partners and France Télécom – a sum that would be adjusted down when various assets were sold to Telekom Austria to satisfy competition concerns. After scrutiny by the European Commission the purchase was finally approved in January 2013.

The next country into which Hutchison expanded was Ireland. Although Hutchison and Vodafone had entered into an infrastructure-sharing joint venture in Ireland in July 2012, it emerged less than a year later that Telefónica was discussing selling O_2 Ireland to Hutchison. This was confirmed in late July, with Hutchison Whampoa tabling a bid worth €850 million. Interestingly, Hutchison would pay an initial €790 million and possibly an additional €70 million if O_2 Ireland achieved certain financial targets (Smyth & Johnson, 2013). Regulatory issues, again concerned with the impact of consolidation on competition in the market, delayed finalisation of the deal until May 2014 (Lennighan, 2014b). In their final approval document, the European Commission highlighted the competitive impact of 3 Ireland on the Irish market and their concern that the merger would cause this to cease despite concessions offered by Hutchison to offset this (European Commission, 2014b). Almost immediately, Hutchison sought to improve its infrastructure within Ireland, awarding a contract to Nokia Networks to modernise its network (Lennighan, 2014b). It also began to reduce its cost base, removing duplicate staff from its head office (Cellular-news, 2014b).

Shortly after the merger in Austria, it was confirmed that Telecom Italia and Hutchison 3G Italy were in merger discussions. As these discussions did not progress to the satisfaction of Hutchison, they were terminated in July 2013 (3 Italia, 2013). It was suggested at the time that the two parties could not agree on the valuation of the assets to be sold (TeleGeography, 2013). More recently, Hutchison has discussed merging its Italian operations with those of VimpelCom (branded as Wind). Although it was rumoured in mid-2014 that these discussions had stalled over the respective stakes to be held in the merged entity (TeleGeography, 2014h), talks in fact continued into 2015. It was rumoured that Hutchison would end up as the majority owner, with a 51 per cent stake (Thomas & Massoudi, 2015d), while other reports suggested that Hutchison would take over Wind (Lennighan, 2015b). The new entity would be the largest by market share in Italy, followed by Telecom Italia and Vodafone (Lennighan, 2015j). As a consequence, given that both 3 Italia and Wind had competed largely on the basis of price, it was speculated that the merger would reduce competitive pressures on Telecom Italia and Vodafone as well as enable all three remaining companies to raise prices (Lex, 2015c).

In August 2015, the details were announced: Wind and 3 Italia would merge in a deal valued at €21.8 billion (Lennighan, 2015p). Although the merger valued Wind at €13.9 billion and 3 Italia at €7.9 billion, the two parent companies would each own 50 per cent of the joint venture holding company that would, in turn, own the two mobile operators (CK Hutchison Holdings Limited, 2015; TeleGeography, 2015c). At the time of the merger it was suggested that cost savings of €700 million would be achieved within three years (Hughes and Mance, 2015), and that 'innovation and investment' within Italy would be hastened.[1] Almost two months after the merger was announcement, the Italian government stated that it would not block the combination (TeleGeography, 2015g). Despite this, the government did impose a series of obligations on the merger (TeleGeography, 2015g), which is also subject to scrutiny by the competition authorities.

In November 2014, in the midst of the M&A speculation in the UK, it was suggested that Hutchison could 'gate crash' the deals that were being discussed (Gabriel, 2014). A merger with, for example, Telefónica's O_2 network would result in a company without fixed-wire operations that would nevertheless attract regulatory scrutiny due to the reduction in competition in mobile markets that it would represent. Just a few days later, Hutchison announced that it was preparing to bid for either EE or O_2. The same report noted that with BT and Hutchison looking to acquire a mobile operator apiece, other networks in need of a mobile link such as BSkyB and Virgin Media would be considering their responses (TeleGeography, 2014l).

With the sale of EE to BT agreed, Hutchison directed its full attention towards Telefónica and the possible purchase of O_2 UK. It was widely reported in late January 2015 that it would cost Hutchison around £9 billion to acquire O_2, and that one factor favouring the purchase was the relationship between the two companies and the pressing need for Telefónica to reduce its debt burden (Lennighan, 2015a). Not that long after these details emerged, Hutchison entered into exclusive talks to acquire O_2 UK for £10.25 billion (TeleGeography, 2015b). Of this, £9.25 billion would be paid up-front and another £1 billion once the merged entity's cash flow reached an agreed threshold (Wood, 2015a).

In March 2015, Hutchison agreed to buy O_2 for £10.3 billion (Thomas, 2015c). The split between up-front and subsequent payments was as noted above. To help fund the purchase, a stake would be sold to one or more sovereign wealth funds from the likes of Qatar, Singapore and Canada (Thomas, 2015d). In May 2015 it emerged that Hutchison had agreed deals with five investors totalling £3.1 billion in exchange for 33 per cent of the new entity (Lennighan, 2015f). Two investors would each contribute £1.1 billion, while another £900 million would come from three others (Hughes & Thomas, 2015).

Perhaps surprisingly Hutchison has discussed an initial public offering (IPO) of the new entity with these investors (Thomas, 2015k). Not only would the IPO provide a liquid market in which shares could be bought and sold, but it would also create a market value for the company.

In mid-September 2015, Hutchison submitted an application to the European Commission for approval of the merger (TeleGeography, 2015d). However, this led to speculation that the UK Competition and Markets Authority (CMA) would request the European Commission to permit the CMA the exclusive right to evaluate the merger (Lennighan, 2015r; TeleGeography, 2015e) – as indeed transpired after a preliminary analysis by the CMA concluded that it would affect competition in both retail and wholesale markets (Competition and Markets Authority, 2015b).

3. Telefónica - readjusting its strategic focus

In June 2012, Telefónica approached KPN with the intention of acquiring its German subsidiary, E-Plus. This approach was rejected by KPN as it believed that it undervalued E-Plus. Rather than returning with another bid, Telefónica opted instead for a partial exit of the German market through an IPO of its local subsidiary in October 2012. This raised €1.45 billion and enabled Telefónica to remain as majority shareholder with a 76.8 per cent stake (Curwen & Whalley, 2014). As the economic rationale for merging the third- and fourth-largest networks in Germany remained compelling, Telefónica returned to KPN in July 2013 and made an improved offer which valued KPN at €8.1 billion via a combination of €5 billion in cash and a 17.6 per cent stake in (the enlarged) Telefónica Deutschland. Should the deal be completed, Telefónica would end up owning a reduced but still a majority stake – 65 per cent – in the post-merger Telefónica Deutschland (Powell, 2013). While the merger would considerably increase the ability of the merged entity to compete against its rivals through access to scale economies, it would remain smaller than either T-Mobile or Vodafone with a market share of 30 per cent compared to their (roughly) 35 per cent apiece (Irish Times, 2013).

As expected, the purchase was subject to regulatory scrutiny. The European Commission opened its investigation into the merger at the end of 2013 (European Commission, 2013 and 2014a), noting that it might reduce competition in the retail and wholesale markets. In late February 2014, it emerged that the Commission was unhappy with the purchase (Valsamaki & Thomas, 2014; White, Rahn & Baigorri, 2014) and it was rumoured that Telefónica would shortly start to discuss a range of possible solutions with Brussels (Barker & Thomas, 2014).

In July, the EU cleared the purchase subject to several conditions. These conditions sought to enhance competition within the German mobile market, and were as follows:

- The sale of 30 per cent of the combined entity's network capacity prior to the completion of the deal to one or more mobile virtual network operators (MVNOs).
- The divestment of radio spectrum and other assets to either a new mobile network operator or a MVNO.
- The commitment to extend existing wholesale agreements with both Telefónica and E-Plus (European Commission, 2014c).

In early September, the EU finally cleared the purchase (Cellular-news, 2014a; Total Telecom, 2014). In so doing, the way was paved for E-Plus to become a wholly-owned subsidiary of Telefónica Deutschland and for KPN to receive both cash and shares in Telefónica Deutschland Holding (TeleGeography, 2014d). To fund the purchase, Telefónica Deutschland raised €3.6 billion in new capital, primarily from Telefónica (TeleGeography, 2014c). Telefónica completed the purchase of E-Plus at the start of October 2014 (Lennighan, 2014d).

In mid-October, Telefónica Deutschland announced that it would seek to reduce its costs through shrinking its workforce by 1,600 jobs by 2018 (TeleGeography, 2014g). The results announced in February 2015 highlighted the need for this – although it beat market expectations, the company's margins were low when compared to other European networks suggesting, according to the Financial Times, downward pressure on prices in the Germany market (Lex, 2015b).

In November, Telefónica announced that it had agreed to sell yourfone, one of the brands acquired as part of E-Plus, to Drillisch (TeleGeography, 2014j). The deal closed in early January 2015, and although the sale resulted in the transfer of 235,000 subscribers from E-Plus to Drillisch, the precise financial value of the sale was not mentioned – Telefónica vaguely stated in November 2014 that it expected the deal to be 'in the medium to high double digit million euro range' (TeleGeography, 2015a). This sale was consistent with the terms of the conditions imposed on Telefónica Deutschland by the European Commission. More recently, the merger has been challenged in the EU General Court (Wood, 2015d). In June 2015, Airdata AG lodged an appeal, arguing that the law had been incorrectly applied and that the concessions made by Telefónica were inadequate to protect competition (EU General Court, 2015; Wood, 2015d).[2] Airdata has also argued, albeit in a different court, that the licence conditions stated that the owners must remain independent of one another through the period covered by the licence (Wood, 2015d), and that Telefónica should have returned some of its spectrum to the regulator.

In early August 2014, it emerged that Vivendi was seeking to sell GVT, its fixed-wire Brazilian network (TeleGeography, 2014a), and a few days later Telefónica launched a bid to acquire GVT. The cash and share deal, which was valued at €6.7 billion, would simultaneously enhance its position in Brazil and reduce it in Italy (TeleGeography, 2014a). After a short-lived bidding war for GVT between Telefónica and Telecom Italia, the Spanish incumbent was able to claim victory in September 2014 (TeleGeography, 2014b). Telefónica offered to pay €4.66 billion in cash and transfer a 7.4 per cent stake in its combined Brazilian operations together with its 5.7 per cent stake in Telecom Italia (TeleGeography, 2014b; Thomson, 2014). This represented a considerable improvement over the €3.9 billion initially offered by Telefónica, and a larger cash component compared to the deal offered by Telecom Italia in August 2014.[3]

However, the initial terms of the deal were subsequently amended. Vivendi would now receive €4.99 billion in cash and a 12 per cent stake in the combined operations of Telefónica and GVT (Lennighan, 2015h), and would buy a 5.7 per cent stake in Telecom Italia from Telefónica in exchange for 4.5 per cent of its stake in the combined Brazilian operations (Lennighan, 2014d). In May 2015, the Brazilian operations of Telefónica raised €4.7 billion in new capital to fund the purchase of GVT (Lennighan, 2015h).

Telefónica had earlier raised capital of its own to partially fund the cash portion of the deal (Lennighan, 2015d).

In November 2014 it was reported that Telefónica could reconsider its presence in the UK market if it emerged that converged services were growing in popularity (TeleGeography, 2014k). While the report suggested that Telefónica itself identified little demand for such services from consumers, it noted that BT was preparing to launch a mobile service and that the situation would be reviewed again in the future (Thomas, 2014f).

At the start of 2015, rumours emerged that Telefónica was discussing the sale of its UK operations with British Sky Broadcasting (BSkyB) (Sweney, 2015). That Telefónica was looking to exit the UK market came as no surprise given that it had previously sought to sell O_2 to BT although in the event the incumbent had settled on purchasing the larger but technologically superior EE from Deutsche Telekom and Orange. However, this sale was considered unlikely as BSkyB had recently purchased Pay-TV companies in Italy and Germany (Sweney, 2015). At roughly the same time it was also rumoured that Telefónica was discussing the sale of O_2 UK with Hutchison Whampoa, the owner of 3 UK. Some reports suggested that Telefónica was willing to sell O_2 UK due to the increasing tendency of its rivals to offer converged services, something that at that time it was unable to do (Thomas, 2015g).

In early 2015, Telefónica agreed to sell O_2 UK to Hutchison Whampoa as discussed previously. The purchase would create the largest mobile operator in the UK (Thomas & Massoudi, 2015a) and would be financed by a combination of debt and equity, with a possible £3 billion of new equity being raised from sovereign wealth funds (Thomas, 2015e). Prior to the deal being announced, some analysts speculated that costs savings of between £2 and £5 billion were possible (Thomas, 2015a) although at the time of the purchase this had narrowed to between £3 and £4 billion (Thomas, 2015e). It was also suggested that the sale of O_2 UK would free resources that could be used to fund Telefónica's purchase of GVT in Brazil (Total Telecom, 2015a). One sector-wide advantage of the deal from the perspective of operators was that it would facilitate price increases (Thomas & Massoudi, 2015b).

4. BT - returning to mobile telecommunications

In response to the high debt burden that BT had incurred in the late 1990s, the company decided to float several of its mobile businesses as mmO_2 (Curwen & Whalley, 2004). When this occurred in November 2001 it marked the exit of BT from mobile telecommunications. As can be seen from Table 1, this absence lasted only a couple of years since in May 2004 BT Mobile signed a MVNO agreement with Vodafone (The Register, 2004). Although BT Mobile did launch a series of services and at one point claimed a subscriber base growing at 20,000 per month, the company had fewer than 100,000 subscribers when the MVNO agreement with Vodafone was renewed in March 2011 (Mobile Today, 2011; MVNO Dynamics, 2011)

[Insert Table 1 about here]

In February 2013, BT participated in the UK's 4G auction through one of its subsidiaries, Niche Spectrum Ventures. The company paid £186.5 million for 15 MHz paired and 20 MHz unpaired in the 2.6 GHz band (Ofcom, 2013). At the time of the auction it was unclear how BT would use this spectrum, and it subsequently emerged that BT was searching for a partner to assist with the development of its mobile operations (Thomas, 2013). Somewhat surprisingly, the purchase of spectrum did not result in BT ending its MVNO operations. Indeed, BT entered into exclusive negotiations with EE in October 2013 to replace Vodafone as its MVNO host (Ray, 2013). This switch was confirmed in March 2014, with 4G services eventually being launched in August 2014.

In March 2014, rumours emerged indicating that BT would soon be attempting, once again, to develop its mobile operations (Thomas, 2014c). It was suggested that BT could develop a 'quad play' service which, although uncommon in the UK, has proved to be a successful way for European incumbent operators to generate a fresh source of revenue. Alternatively, it was suggested that BT could develop a SIM-only service or seek to build on its extensive Wi-Fi infrastructure when developing new services (Thomas, 2014c). However, it was noted that this was not the first time that BT had sought to reinvigorate its mobile operations (Thomas, 2014b).

A few months later, in mid-July, BT announced a new mobile service (Thomas, 2014d). The service would be cloud-based, include 4G mobile data and Wi-Fi access and bring together the customer's mobile and fixed-wire connections. While initially available only to businesses, it was suggested by some analysts that the service would enable BT to convert some of its solely fixed-wire residential users into combined fixed-wire/mobile consumers (Thomas, 2014d). As no mention was made of these mobile initiatives in the press coverage of the quarterly results to September 2014, it is reasonable to conclude that they have not been that successful (TeleGeography, 2014i). In October, BT was forced to deny rumours that it was experiencing technical difficulties in handing over traffic between its Wi-Fi and 4G networks (TeleGeography, 2014e, 2014f).

In November 2014, BT announced that it had entered into preliminary talks with Telefónica to acquire O_2 in the UK (BBC, 2014). Moreover, BT also stated that the owners of another operator, believed to be Deutsche Telekom and Orange, had approached it to acquire EE, their UK-based joint venture.[4] Accordingly, BT was now in simultaneous negotiations to acquire either O_2 or EE. Of the two, it was suggested that the purchase of O_2 would be the more straight-forward acquisition – not only was it smaller than EE but it was owned by a single company (Thomas, 2014e). The purchase of either mobile operator would enable BT to provide 'quad-play' services, thus placing it at a competitive advantage over UK rivals like Virgin Media or Vodafone.

As was to be expected, the amount that BT would have to pay to buy either operator was somewhat unclear. Deutsche Bank, cited in the Financial Times, claimed that O_2 was worth £9 billion while other reports suggested a slightly higher figure for O_2 and between £10 and £11 billion for EE (Lex, 2014a; The Guardian, 2014; Thomas, 2014g). Other commentators stated that BT could use its shares as part-payment, with one suggesting that Telefónica would be amenable to taking some shares in BT given the importance of the UK as a source of innovations (Thomas, 2014g). One report suggested that Telefónica would be 'happy' to take a 20 per stake in BT (Handford, 2014a).

With reports emerging of support for a deal among the largest shareholders of BT (Williams & Armstrong, 2014), the momentum behind a deal was clearly building. This continued when the CEO of Orange indicated in early December that a conclusion would be reached before Christmas 2015 (Thomas & Barker, 2014). Despite this, reports were also emerging which stated that the board of BT had not yet decided to bid for either company (Wood, 2014b). The arrival of the CEO of Telefónica in London further raised expectations that BT would acquire O_2 and not EE (Wood, 2014c). However, this was not to be case as BT announced on 15 December 2014 that it would enter into exclusive talks about acquiring EE (Handford, 2014b). One reason for this was EE's 4G geographical coverage while another was its larger customer base (Lex, 2014b; Thomas, 2014h). In addition, the purchase of a substantial mobile business would reduce BT's financial reliance on Openreach, its infrastructure division (Thomas, 2014h). While BT promised 'significant synergies' (TeleGeography, 2014m), the deal would also allow the company to generate revenue through cross-selling its services and developing a 'quad-play' proposition (Thomas, 2014i).

BT offered £12.5 billion for EE, with around half of this sum being paid for in its shares (Goodley & Garside, 2014). Upon completion, Deutsche Telekom would own a 12 per cent stake in BT and be able to appoint one board member, while Orange would have a 4 per stake in the company (BT, 2014b). To help fund the deal, BT stated its intention to raise capital through a rights issue (Williams & Marlow, 2014). Initially this was expected to be in the region of £2 billion, although in the event just £1 billion was raised when it took place in February 2015 (Total Telecom, 2015b).

The deal was agreed in early February 2015. Broadly speaking, the official announcement of the purchase confirmed the details that had emerged in December 2014, namely (BT, 2015a):

- £5.1 billion paid to Deutsche Telekom, comprising 1.2 billion new shares in BT and a small cash payment.
- £5.1 billion paid to Orange, comprising 400 million new shares in BT with a total value of approximately £1.7 billion and £3.4 billion in cash.

What was newly revealed were details regarding the limitations and obligations placed on Deutsche Telekom and Orange as BT shareholders. Both would be subject to a three-year restriction on purchasing additional BT shares (BT, 2015a) although they could acquire shares from one another. If this occurred, Deutsche Telekom would be capped at holding 15 per cent of BT and Orange at 4 per cent (BT, 2015a). Once the deal was complete, Deutsche Telekom would not be able to sell its shares for 18 months and Orange for 12 months. If BT sought to cancel the deal, it would pay a £250 million break-up fee to Deutsche Telekom and Orange (Thomas, 2015f).

The confirmation of the purchase also qualified the 'substantial savings' that BT mentioned in December 2014. It was suggested that BT would be able to save as much as £4.6 billion across a range of areas – for example, sales, marketing and administration – once the two companies had been integrated (Thomas, 2014a). Other reports suggested that BT would save, by the fourth year after the purchase, £360 million a year on capital expenditure (Thomas & Massoudi, 2015c). Interestingly, the Financial Times stated that the presence of Deutsche Telekom on the BT board could help the company integrate its services (Lex, 2015a).

Predictably, the purchase would require regulatory approval. One issue raised was whether BT could continue to own Openreach as the purchase would mean that it would control two geographically extensive networks (Heath, 2014). As a consequence, the deal could result in BT dominating the UK telecommunications market (Thomas, 2014i). Another issue related to the amount of spectrum that the combined BT/EE mobile operations would own (Heath, 2014). It was suggested that owning too much spectrum could be resolved relatively easy through selling some to Hutchison Whampoa (Heath, 2014).

In March 2015, the CMA sought the views of industry participants (Thomas, 2015b) as part of the first phase of its inquiry which involved several stages with a decision due on 9th June 2015. Rivals immediately expressed their concern about the impact of the deal on the broadband market given that it could reduce the availability of fibre as well as a concern that it could enable BT to provide services to itself on preferential terms (Thomas, 2015h). More generally, as part of their response to Ofcom's strategic review of digital communications, BT's rivals have called for the CMA to investigate Openreach (Wood, 2015e). These rivals, including TalkTalk and Vodafone, have argued that Ofcom lacks the necessary regulatory powers to address the shortcomings that are present in the market, and have suggested that BT should divest Openreach (TeleGeography, 2015f; Thomas, 2015l).

Countering these arguments, BT has announced a series of new broadband investments as well as improvements in the quality of service provided by Openreach to its customers (BT, 2015b), and has defended the existing regulatory framework (McIntosh, 2015a). Indeed, BT has gone so far as to argue that its continued ownership of Openreach is 'vital' for the UK economy (Lennighan, 2015s). Ed Vaizey, the communications minister, has also joined the fray, describing himself as being sceptical of the need to separate Openreach from BT (Thomas, 2015m). While BT's rivals would presumably be disappointed by such a statement, it is worth noting that Vaizey is also quoted as stating that he 'would go with the trend of the review' (Thomas, 2015n). By mid-October there was a widespread agreement among analysts that separation was unlikely (McIntosh, 2015b). In addition, Fitch, the ratings agency, has recently suggested that a referral to the CMA or outright structural separation would create uncertainty for bondholders (Cellular-news, 2015e). One source of uncertainty would be how the existing debt could be re-structured in the event of a separation, while another is what would happen to the pension liabilities.

On 9th June, the CMA announced that the deal would be fast tracked to phase two of the inquiry (Competition and Markets Authority, 2015a). Subsequent to the approval of the deal by BT's shareholders at the end of April 2015 (Lennighan, 2015e), BT started to promote the advantages of the deal. Interestingly, BT is promoting itself as the 'new champion for UK communications' and argues that competitive benefits will emerge as a result (Wood, 2015b). As the merger is between a fixed-wire and a mobile operator, BT has argued that it will not reduce competition in the mobile market (Lennighan, 2015k). Indeed, in its response to the CMA, Ofcom did not express significant objections to the merger (Ofcom, 2015), with Lennighan (2015q) going as far as to describe the regulator as being 'unfazed' by the purchase.

In late October 2015, the CMA approved the merger, noting that while competitors may have concerns these do not result in a competitive problem (Competition and Markets Authority, 2015c). It stated 'that the merger is not expected to result in a substantial lessening of competition in any market in the UK' (Competition and Markets Authority, 2015c). While BT welcomed the decision, its rivals continued to complain about the effect of the merger on the market (McIntosh, 2015c; Weinger, 2015).

5. Discussion

In the previous three sections, a series of mergers have been analysed. While there is a tendency to examine mergers and acquisitions in isolation, the three cases we have detailed are in practice linked to one another. They are linked in particular by the simple truth that sellers need buyers and vice versa. More substantively, the strategic reorientation of Telefónica away from northern European markets created an opportunity for Hutchison to gain the scale economies that it was missing. And the desire of BT to re-enter the mobile market in the UK, brought both O2 and EE 'into play' and ultimately resulted in two mergers being announced.

As these mergers have either only recently been completed or are still navigating the regulatory waters, it is somewhat difficult to assess their impact in terms of either costs or prices. Nevertheless, it is possible to draw on the above analysis to explore key issues within each of the mergers. The willingness of Hutchison, as a relatively new entrant, to engage in consolidation across Europe has been motivated by its need to grow so that with a larger subscriber base it will be able to achieve the scale economies necessary for it to compete against its rivals. Hence, it is important to assess the impact of the consolidation involving Hutchison on its financial performance.

Drawing on Table 2, what we can say is that in 2012 Hutchison made more money in Sweden than it did in the UK, a significantly larger market. Since then, the company's performance in the UK has improved considerably while that in Sweden has declined. The company is also performing better financially in Austria, with EBIT improving from €16 million in 2012 to €170 million in 2014. In addition, 3 Ireland more or less reached break-even in 2014 although, as this was before the cost-cutting initiatives noted above had made their full impact, it is likely that the company's performance will improve in 2015. This leaves Italy as a continued drag on 3 Group's European financial performance – the fact that the company made next to no return on its investment there between 2011 and 2013 before becoming loss-making in 2014 highlights the need for Hutchison to merge with Wind.

[Insert Table 2 about here]

For several years, Hutchison provided details in its annual report of the split between voice and non-voice average revenue per user (ARPU). This showed that an increasing proportion of ARPU across Europe was being generated from non-voice sources. This would suggest that Hutchison has been successful in adapting to a market increasing driven by smartphones and data. If we look at the figures that are available, namely for blended ARPU between 2010 and 2014 (inclusive), a complex picture appears. ARPU has halved in Italy, which comes as no surprise given the overall financial performance of the company noted above. ARPU has also fallen quite a lot in Denmark but by somewhat less in Sweden and the UK. In Ireland, however, ARPU rose initially only to fall to a slightly greater value in 2014 than it recorded in 2010.

The prospects for 2016 are cloudy if only because it is by no means certain that Hutchison will be able to purchase O_2 UK. While Hutchison has been able to acquire rivals in Austria and Ireland and Telefónica has been allowed to merge with E-Plus in Germany, it has been suggested that the collapse of the proposed Telenor merger with TeliaSonera in Denmark signifies a change in attitude by the European Commission towards deals that result in fewer operators (Thomas, 2015i; Thomas and Barker, 2015). The Danish merger would have reduced the number of operators from four to three, but with two of the remaining companies – TDC and Telenor/TeliaSonera – remaining considerably larger than Hutchison (Cellular-news, 2015a; Thomas, 2015i). For the merger to go ahead, Telenor/TeliaSonera would have been obliged to dispose of assets sufficient to create a fourth operator in the Danish market (Thomas and Barker, 2015) which they ultimately considered to be uneconomic.

The implications of the Danish merger for the UK deal are unclear. If the European Commission insists on the entry of a replacement fourth operator this will probably so undermine the economic rationale for the merger between O_2 UK and Hutchison that the deal will be terminated. However, the European Commission has stated several times that the merits of every deal are evaluated on their own terms (Thomas, 2015i; Thomas and Barker, 2015) – in other words, the conditions imposed in the Danish case are not precedent-setting so the concessions demanded in the UK may be less stringent than in Denmark. Hutchison will obviously argue that the UK and Danish markets are very different. In Denmark the merger would have created a virtual duopoly while in the UK the post-merger market structure, even excluding new entry, would be quite different, with three operators each controlling more than 20 per cent of the market: Vodafone (21.2 per cent), BT (28.1 per cent) and 3/O_2 (40 per cent) (Thomas, 2015i).

As Telefónica has reoriented its international focus away from northern Europe and towards Latin America, a reasonable question to ask is whether it has run at a profit those businesses that it acquired as part of mmO_2 in 2005/2006. Telefónica acquired mmO_2 for €26.1 billion, offset by selling Airwave O_2, Manx Telecom and O_2 Ireland collectively for €3.9 billion. In addition, when completed, the sale of O_2 UK will raise another €13.5 billion. Telefónica also raised €1.5 billion when it floated Telefónica Deutschland in 2012. Thus, while Telefónica paid €26.1 billion for mmO_2 its dismantling has raised €18.9 billion.

Between 2006 and 2014 (inclusive) Telefónica ran its operations in Germany, Ireland and the UK at a profit. The cumulative profit – defined as operating income before depreciation and amortisation (OIBDA) – in Germany was €8.321 billion compared to €1.950 billion in Ireland and €15.867 billion in the UK. Countering this was the capital expenditure of €7.835 billion in Germany, €773 million in Ireland and €7.226 billion in the UK. In other words, the surplus of OIBDA over capital expenditure was €486 million in Germany, €1.177 billion in Ireland and the much greater sum of €8.641 billion in the UK. Finally, Telefónica bought a retail chain in the UK, and E-Plus in Germany. Together these two deals cost Telefónica €5.073 billion.

[Insert Table 3 about here]

What does this mean in terms of Telefónica making a profit on its purchase of mmO_2? As we can see from Table 3, Telefónica paid out €26.135 billion but raised €18.869 billion from the sale of various operations, producing a 'loss' of €7.266 billion. The surplus of OIBDA over capital expenditure was €10.304 billion. This transformed the 'loss' into a 'profit' of €3.038 billion. However, Telefónica has paid a further €5.073 billion to acquire two companies. When this is taken into account, the 'profit' once more becomes a 'loss' of €2.035 billion. Presumably this will once again turn into a profit once Telefónica Deutschland has been run profitably for several years.

Although the purchase of GVT took place in Brazil, it has also had an impact in Italy. Since receiving its initial equity stake in Telecom Italia, Vivendi has bought additional shares in the Italian incumbent so that it now owns more than a fifth of the company (Thomas, Thomson and Sanderson, 2015). At the same time, Xavier Niel, who controls Iliad in France, has acquired an option for 11.2 per cent of Telecom Italia (Thomas, Thomson and Sanderson, 2015).[5] That more than a third of Telecom Italia is now controlled by two French companies has prompted much speculation, not least regarding whether they are acting in concert with one another (Italy24, 2015) although Xavier Niel has denied this (Mesco, 2015).

This aside, it has been speculated that either or both of the French companies may be positioning themselves to be a 'king maker' – the merger of Telecom Italia's Brazilian operations with Oi is one possible deal that has been mentioned, while another is the purchase of Telecom Italia itself by another operator (Thomas, Thomson and Sanderson, 2015). Alternatively, Vivendi may view its stake in Telecom Italia strategically, facilitating its expansion into southern Europe (Thomson, 2015) and helping with the distribution of content in Italy (Thomas, Thomson and Sanderson, 2015). It has also been suggested that Niel is simply a financial investor in Telecom Italia (Italy24, 2015) although given the arguably precarious nature of the Italian company's finances such a strategy would be risky (Lex, 2015d)

Given the scale of the challenges that Hutchison has encountered as it has sought to develop its mobile operations in Europe, it does beg the question as to why BT has sought to re-enter the mobile market in the UK. While the purchase of EE would correct the anomaly of BT being the only incumbent telecommunications operator in a major European country without a substantial mobile business, there is a clear financial driver behind the purchase. Table 4 charts the financial performance of BT between 2006 and 2014, both at the group and divisional level. At the group level, revenue peaked in 2009 at £21.390 billion before declining to £18.287 billion. Net debt also peaked in 2009 before declining to just over £7 billion by 2014. In contrast, EBITDA dipped in 2009 before recovering to £6.116 billion by 2014.

[Insert Table 4 about here]

Considerable differences exist between the divisions of BT Group. The single largest source of operating profit is Openreach. Not only was this true for 2014, but it was also true for most of the period covered in Table 3 – Openreach was the most profitable division within BT Group with the exception of only two years (2010 and 2011). Throughout the whole period the least profitable division was BT Global Services;

indeed, this part of the company made a loss between 2009 and 2011 (inclusive) of just over £1 billion. While BT Wholesale has been profitable throughout the period covered, a noticeable decline has occurred in recent years: after three years of operating profits of more than £670 million, this significantly declined from 2012 onwards to below £400 million. Furthermore, BT Business is a more profitable part of the group than BT Consumer. This gap appears to be widening as BT Consumer profitability is declining while that of BT Business is improving.

Viewed as a whole, BT Group is faced with a dilemma, namely how to reduce its reliance on Openreach and improve its financial performance in the retail sector. BT has sought to resolve this dilemma through developing its television business in general and BT Sport in particular. The company has acquired content, primarily football, and sought to use this to attract new customers as well as to lock in existing ones. It is perhaps too early to say whether this strategy has been successful, although we can say that it has been expensive. It has been estimated that BT invested more than £2 billion (to mid-2015) to develop its sports content (Bogdanov, 2015) and BT has started to complement this investment with the purchase of other types of content (Bogdanov, 2015).

The purchase of EE will provide another means for BT to lock in consumers. Regardless of the extent to which BT offers mobile services as part of quad-play products and services, the purchase will provide BT with a significant new line of business that will reduce its dependence on Openreach. The challenge, however, will be for BT to improve the competitiveness of EE in relation to the potentially enlarged 3 UK and to Vodafone which could itself potentially merge with Virgin Media to provide quad-play products. That Deutsche Telekom and Orange are willing sellers of EE does raise the concern that the market is overly competitive with the result that profitability will continue to decline in the near future. If so, BT will remain dependent on Openreach, a highly regulated business, for the main source of its profitability.

It may be argued that the purchase of EE could play another role within BT. If Ofcom does suggest that BT should divest Openreach, then the purchase of EE effectively replaces one source of revenue and operating profit with another. This would maintain the operational diversity of BT and allow it to bundle mobile with its other services. However, it is unclear at this stage whether EE would offer the same level of contribution to BT's overall profitability as Openreach currently does. Moreover, structural separation would also bring into question the wisdom of investing so heavily in content, not least because it would raise the issue as to whether BT could afford to make so many expensive purchases of content after divesting its most profitable division.

6. Conclusions

This paper serves to illustrate the maxim that the authors have noted many times previously that structural adjustments in mobile markets require both willing buyers and willing sellers. Over the past decade there have been a good many transactions, primarily in Europe, but there is increasing evidence that the large multi-national operators are seeking to rationalise their network assets by discarding the smaller and/or less profitable (or, increasingly, the loss-making) among them and concentrating upon particular countries/regions. As a result, a number of what would not long ago have been regarded as 'core' assets, such as the UK networks of Deutsche Telekom, France Télécom and

Telefónica in the UK, have come onto the market and, in response, the likes of BT, Hutchison Whampoa and France's Iliad have stepped forward as willing buyers because they have a substantially different view of how to build a profitable presence in Europe.

In this regard, the move towards the provision of quad-play has become increasingly significant. In the early 2000s the emphasis was upon specialisation – Vodafone, for example, preferred to shed fixed-wire assets acquired in its takeovers – but that is no longer the way forward. The ubiquity of smartphones means that mobile subscribers increasingly want high-speed Internet connectivity to access all kinds of applications including video and films which they could not access until HSPA+ and LTE became the norm. But video and film was traditionally the preserve of, for example, cable companies like Liberty Global and mobile network operators have accordingly been forced to acquire non-mobile assets at prices inflated by the sudden surge in demand.

Selling unprofitable networks is one way to finance this new strategy and it is not always the obvious networks that are being put up for sale – as noted, putting EE on the block looks quite surprising if judged purely in terms of ownership (France Télécom and Deutsche Telekom). These networks are unlikely to attract bids from comparable operators which face the same kinds of financing issues. However, they do seem attractive to operators which need to scale-up and are well-funded (predominantly Hutchison), which need to move away from their traditional spheres of influence in the hope of offsetting increasing competitive and regulatory pressure (for example América Móvil) or which seek, as does BT, to re-enter previously exited markets in the pursuit of quad-play.

Needless to say, this restructuring involves large sums of money. That Hutchison has sought the financial assistance of a range of sovereign wealth funds suggests that there are limits to even its financial resources. More broadly, however, the consolidation needs to be justified financially. While cost cutting and scale economies will undoubtedly make a (significant) contribution in this respect, bundled 'quad-play' services and price increases are also likely to play a role. Operators will want to raise prices, but as the number of companies in the market decreases through consolidation they will come under increased scrutiny and pressure from regulators and consumer groups. The outcome of this clash between regulator and regulated is certainly intriguing.

The extent to which operators will be able to raise prices is one area of future research. A reasonable expectation is that prices will increase, but not by as much as operators would like and more than consumer groups would want. A second area of future research is to examine how bundling, especially in the context of fewer operators and expensive sports content, will impact on the marketplace. For example, will bundling replace price competition as the driver of churn within the marketplace?

Notes

1. While reports at the time of the merger suggested that part of the combined operator's annual investment of around €3 billion would be directed towards 'developing digital offerings' (Hughes and Mance, 2015), it was unclear what this meant in practice. Moreover, it was also unclear how the merger would quicken the pace of innovation and investment within Italy.

2. It is perhaps worth noting that while Airdata AG has lodged an appeal against the merger at the EU General Court, almost no information is provided on the court's website regarding this action.

3. In August 2014, Telecom Italia offered just €1.7 billion in cash plus 15 per cent of a combined GVT/TIM and 20 per cent of Telecom Italia (Wood, 2014a).

4. In mid-November 2014, the CEO of Orange stated that EE would not continue as a joint venture between Deutsche Telekom and Orange beyond the short term (Lennighan, 2014e).

5. Interestingly the options are held by Rock Investment and not by Iliad itself (Italy24, 2015).

References

AT&T (2015) AT&T closes acquisition of Mexico wireless provider Iusacell, 16 January, available at: www.att.com

Barker, A. and Thomas, D. (2014) EU lays out antitrust case against Telefónica's E-Plus deal, 26 February, available at: www.ft.com

BBC (2014) BT and Telefonica in 'preliminary' talks over O2 deal, 24 November, available at: www.bbc.co.uk

Bogdanov, D. (2015) BT share price: company signs exclusive deal for AMC's UK channel, 16 June, available at: www.invezz.com

BT (2008) *Keeping BT ahead of the game. Annual report and form 20-F*, London, UK.

BT (2009) *Annual report and form 20-F*, London, UK.

BT (2011) *Bringing it together. Annual report and form 20-F*, London, UK.

BT (2014a) *We use the power of communications to make a better world. Annual report and form 20-F*, London, UK.

BT (2014b) BT enters into exclusive negotiations to acquire EE, 15 December, available at: www.bt.com

BT (2015a) BT agrees definitive terms to acquire EE for £12.5bn to create the UK's leading communications provider, 5 February, available at: www.bt.com

BT (2015b) *BT CEO Gavin Patterson delivers vision for Britain's digital future*, 22 September, available at: www.bt.com

Cellular News (2014a) Telefonica O2 secures approval for E-Plus takeover, 2 September, available at: www.cellular-news.com;

Cellular News (2014b) Three Ireland starts culling staff following O2 takeover, 10 September, available at: www.cellular-news.com

Cellular-news (2015a) EU to investigate merger of Danish telecoms networks, 8 April, available at: www.cellular-news.com

Cellular-news (2015b) Nextel Mexico sold to AT&T, 30 April, available at: www.cellular-news.com

Cellular-news (2015c) Indian mobile networks in merger talks, 16 June, available at: www.cellular-news.com

Cellular-news (2015d) Macedonian competition authority approves merger of Vip operator with ONE, 14 July, available at: www.cellular-news.com

Cellular-news (2015e) UK incumbent telecoms structural separation would create financial challenges, 4 November, available at: www.cellular-news.com

CK Hutchison Holdings Ltd (2015) CK Hutchison and VimpelCom to form joint venture of their telecoms businesses in Italy, 6 August, available at: www.ckh.com.hk

Competition and Markets Authority (2015a) *BT/EE merger fast-tracked to phase 2 investigation*, 9 June, available at: www.gov.uk/competition

Competition and Markets Authority (2015b) CMA requests UK review of O2/Three merge, 2 October, available at: www.gov.uk

Competition and Markets Authority (2015c) CMA provisionally clears BT/EE merger, 28 October, available at: www.gov.uk

Crow, D., Fontanella-Khan, J. and Webber, J. (2015) AT&T's Mexican deal puts pressure on Carlos Slim, 26 January, available at: www.fto.com

Curwen, P. (2015) Consolidation is finally top of the agenda, *info*, Vol. 17(5)

Curwen, P. and Whalley, J. (2004) *Telecommunications Strategy – Cases, Theory and Applications*, Routledge: London, UK

Curwen, P. and Whalley, J. (2014) *Mobile Telecommunication Networks*, Edward Elgar: Cheltenham, UK

European Commission (2013) *Mergers: Commission opens in-depth investigation into Telefónica Deutschland's acquisition of E-Plus*, 20 December, Brussels, Belgium.

European Commission (2014a) *Mergers: Commission continues investigation of Telefónica Deutschland / E-Plus merger without referral to Germany*, 30 January, Brussels, Belgium

European Commission (2014b) *Mergers: Commission clears acquisition of Telefónica Ireland by Hutchison 3G, subject to conditions*, 28 May, Brussels, Belgium

European Commission (2014c) *Mergers: Commission clears acquisition of E-Plus by Telefónica Deutschland, subject to conditions*, 2 July, European Commission, Brussels, Belgium.

EU General Court (2015) Action brought on 5 June 2015 – Airdata v Commission, Case T-305/15, available at: curia.europe.eu
Gabriel, C. (2014) Now UK's fourth cellco may join M&A dance, 28 November, available at: www.rethink-wireless.com
Goodley, S. and Garside, J. (2014) BT in talks to buy mobile phone operator EE for £12.5 bn, 15 December, available at: www.theguardian.com
The Guardian (2014) EE's owners confirm talks to sell mobile network operator to BT, 26 November, available at: www.theguardian.com.
Handford, R. (2014a) BT pushes on with takeover talks, 11 December, available at: www.mobileworldlive.com
Handford, R. (2014b) BT/EE talks raise questions for O2, 16 December, available at: www.mobileworldlive.com
Heath, A. (2014) BT's Gavin Patterson wants to become king of the quad-play market, 15 December, available at: www.telegraph.co.uk
Hughes, J. and Thomas, D. (2015) Li Ka-sing lines up backers for £10bn O_2 buyout, 8 May, available at: www.ft.com
Hughes, J. and Mance, H. (2015) VimpelCom and Hutchison to merge their Italian mobile units, 6 August, available at: www.ft.com
Hutchison Whampoa (2011) *Milestones achieved through solid fundamentals. 2010 annual report*, Hong Kong, Hong Kong SAR.
Hutchison Whampoa (2012) *A new dawn. 2011 annual report*, Hong Kong, Hong Kong SAR.
Hutchison Whampoa (2013) *Radiant growth. 2012 annual report*, Hong Kong, Hong Kong SAR.
Hutchison Whampoa (2014) *Reaching new heights. 2013 annual report,* Hong Kong, Hong Kong SAR.
Hutchison Whampoa (2015) *Advancing with stability. 2014 annual report,* Hong Kong, Hong Kong SAR.
Irish Times (2013) KPN's $11bn deal with Telefonica tests European anti-trust stance, 23 July, available at: www.irishtimes.com
Italy24 (2015) A French "takeover" of Telecom Italia greeted with silence in Rome, 30 October, available at: www.italy24.ilsole24ore.com
Lennighan, M. (2014a) Neil buys Orange Switzerland for €2.3bn, 18 April, available at: www.totaltele.com.
Lennighan, M. (2014b) 3 Ireland kicks off €300m network investment plan, 22 August, available at: www.totaltele.com
Lennighan, M. (2014c) Telefonica finalizes GVT deal, 19 September, available at: www.totaltele.com
Lennighan, M. (2014d) Telefonica becomes Germany's biggest mobile operator as E-Plus deal closes, 1 October, available at: www.totaltele.com
Lennighan, M. (2014e) BT in talks to buy O2, one other UK mobile op, 24 November, available at: www.totaltele.com
Lennighan, M. (2015a) 3UK talking to O2 about £9bn takeover, 19 January, available at: www.totaltele.com
Lennighan, M. (2015b) 3 Italia, Wind reportedly close to mobile merger deal, 11 March, available at: www.totaltele.com
Lennighan, M. (2015c) Telenor said to merge with Tata in India after auction, 12 March, available at: www.totaltele.com
Lennighan, M. (2015d) Telefonica set to announce €3bn capital hike for Brazil buy, 20 March, available at: www.ft.com
Lennighan, M. (2015e) BT shareholders approve EE deal, 30 April, available at: www.totaltele.com
Lennighan, M. (2015f) Hutch to sell 33% of UK mobile op for £3.1bn, 8 May, available at: www.totaltele.com
Lennighan, M. (2015g) AT&T closes Nextel Mexico buy, 1 May, available at: www.totaltele.com.
Lennighan, M. (2015h) Telefonica Brazil raises €4.7bn for GVT buy, 8 May, available at: www.totaltelecom.com
Lennighan, M. (2015i) Deutsche Telekom said to offer €900m for Slovak Telekom, 13 May, available at: www.totaltele.com.
Lennighan, M. (2015j) Wind, 3 Italia parents confirm merger talks, 14 May, available at: www.totaltele.com

Lennighan, M. (2015k) EE deal will enhance competition in the UK, BT tells CMA, 18 May, available at: www.totaltele.com

Lennighan, M. (2015l) Consolidation comes to Canada as Rogers does Mobilicity deal, 25 June, available at: www.totaltele.com

Lennighan, M. (2015m) Orange takes 95% of Jazztel shares, remainder to follow, 29 June, available at: www.totaltele.com.

Lennighan, M. (2015n) Telekom Austria, Telekom Slovenije get OK for One.Vip merger, 10 July, available at: www.totaltelecom.com

Lennighan, M. (2015o) Orange in talks to buy four Bharti businesses in Africa, 20 July, available at: www.totaltele.com

Lennighan, M. (2015p) Consolidation in Italy as Wind, 3 ink €21.8bn merger, 6 August, available at: www.totaltele.com

Lennighan, M. (2015q) UK regulator unphased by BT/EE, 14 August, available at: www.totaltele.com

Lennighan, M. (2015r) UK competition body may ask to oversee 3UK/O2 merger, 20 September, available at: www.totaltele.com

Lennighan, M. (2015s) BT says retaining Openreach 'vital' for UK digital economy, 9 October, available at: www.totaltele.com

Lex (2014a) BT: reversed auction, 24 November, available at: www.ft.com

Lex (2014b) BT and EE: washing up, 15 December, available at: www.ft.com

Lex (2015a) BT and EE: crossing the t's, 5 February, available at: www.ft.com

Lex (2015b) Telefónica Deutschland: call waiting, 24 February, available at: www.ft.com

Lex (2015c) Wind and 3: Italian job, 28 April, available at: www.ft.com

Lex (2015d) Telecom Italia: plus ça change, 4 November, available at: www.ft.com

Ofcom (2013) Ofcom announces winners of 4G mobile auction, 20 February, available at: www.ofcom.gov.uk

Ofcom (2015) *Anticipated acquisition by BT plc of EE Limited. Ofcom's phase 2 submission to the CMA,* 31 July, Ofcom, London.

Powell, R. (2013) Europe M&A: Telefonica to buy E-plus from KPN, 23 July, available at: www.telecomramblings.com

McIntosh, F. (2015a) BT share price: Company's CEO defends current regulatory regime, *Invezz*, 13 October, available at: invezz.com

McIntosh, F. (2015b) BT share price: Analysts deem Openreach separation 'unlikely' to happen, *Invezz*, 14 October, available at: invezz.com

McIntosh, F. (2015c) BT share price jumps as CMA provisionally approves EE takeover, *Invezz*, 28 October, available at: invezz.com

Mesco, M (2015) Iliad's Niel confirms sights on big Telecom Italia stake, 4 November, available at: www.morningstar.com

Morris, A. (2014) Altice completes SFR deal, gets green light for Virgin Mobile purchase, 26 November, available at: www.fiercewireless.com

Mobile Today (2011) Vodafone and BT Mobile MVNO renew contract, 6 June, available at: www.mobiletoday.co.uk

MVNO Dynamics (2011) Vodafone renews its contract with BT Mobile for an MVNO for a further five years, 15 March, available at: www.mvnodynamics.com

Ray, B. (2013) BT Mobile inks network deal with EE, dumps Vodafone, 10 October, available at: www.theregister.co.uk

The Register (2004) BT, Voda confirm mobile link-up, 18 May, available at: www.theregister.co.uk

Smyth, J. and Johnson, M. (2013) Hutchison Whampoa buys Telefónica's Irish O2 business, 24 June, available at: www.ft.com

Sweney, M. (2015) Sky holds talks with O2 owner in bid to add mobile phones to media packages, 20 January, available at: www.theguardian.com

Telefónica (2007) *Annual report 2006*, Madrid, Spain

Telefónica (2008) *Annual report 2007*, Madrid, Spain

Telefónica (2009) *Annual report 2008*, Madrid, Spain

Telefónica (2010) *Annual report 2009*, Madrid, Spain

Telefónica (2011) *Annual report 2010*, Madrid, Spain

Telefónica (2012) *Together transforming...the digital experience - Annual report 2011*, Madrid, Spain

Telefónica (2013) *The future is digital - Annual report 2012*, Madrid, Spain
Telefónica (2014) *Be more digital - Annual report 2013*, Madrid, Spain
Telefónica (2015) *Connect with transparency - Annual report 2014*, Madrid, Spain
TeleGeography (2013) H3G, TIM merger plans hit the skids, 3 July, available at: www.telegeography.com
TeleGeography (2014a) Telefonica launches USD9bn bid for Vivendi's Brazilian unit GVT, 5 August, available at: www.telegeography.com
TeleGeography (2014b) Telefonica agrees to buy GVT from Vivendi, ending weeks of talks, 19 September, available at: www.telegeography.com
TeleGeography (2014c) Telefonica Deutschland completes cash capital increase, 25 September, available at: www.telegeography.com
TeleGeography (2014d) Telefonica Deutschland closes E-Plus acquisition, 1 October, available at: www.telegeography.com
TeleGeography (2014e) BT struggling with handover issues between WiFi and 4G networks, 6 October, available at: www.telegeography.com
TeleGeography (2014f) BT refutes claims of delays to MVNO plans, 8 October, available at: www.telegeography.com
TeleGeography (2014g) Telefonica Deutschland seeks EUR5bn in synergies from E-Plus merger, plans to shed 18% of workforce by 2018, 20 October, available at: www.telegeography.com
TeleGeography (2014h) Vimpelcom and Hutchison in Italian stalemate, 29 October, available at: www.telegeography.com
TeleGeography (2014i) BT reports stagnant revenues, EBITDA, 30 October, available at: www.telegeography.com
TeleGeography (2014j) Telefonica and Drillisch sign deal for the sale of yourfone, 14 November, available at: www.telegeography.com
TeleGeography (2014k) Telefonica could consider O2 UK sale if market moves towards converged services, 21 November, available at: www.telegeography.com
TeleGeography (2014l) Three's a crowd: Hutchison poised for UK M&A action, 28 November, available at: www.telegeography.com
TeleGeography (2014m) BT opts for EE over Telefonica as it enters exclusive negotiations with DT and Orange Group, TeleGeography, 16 December, available at: www.telegeography.com
TeleGeography (2015a) Telefonica and Drillisch close yourfone deal, 5 January, available at: www.telegeography.com
TeleGeography (2015b) Telefonica and Hutchison in exclusive talks over GBP10.25bn O2 UK deal, 23 January, available at: www.telegeography.com
TeleGeography (2015c) Hutchison, Vimpelcom agree to merge 3 Italia, Wind Italy in 50/50 JV, 7 August, available at: www.telegeography.com
TeleGeography (2015d) CK Hutchison formally seeks EC approval for O2 UK acquisition, 15 September, available at: www.telegeography.com
TeleGeography (2015e) CMA could request oversight of O2 UK, Three UK deal, 17 September, available at: www.telegeography.com
TeleGeography (2015f) BT rivals call for CMA probe of nation's broadband services, 21 September, available at: www.telegeography.com
TeleGeography (2015g) Italian government will not block merger of Wind and 3, 24 September, available at: www.telegeography.com
TeliaSonera (2015) *TeliaSonera and Telenor withdraw from merger in Denmark*, 11 September, available at: www.teliasonera.com
Thomas, D. (2013) BT seeks mobile partner in 4G push, 24 April, available at: www.ft.com
Thomas, D. (2014a) BT-EE deal sets stage for European telecoms shuffle, 5 February, available at: www.ft.com
Thomas, D. (2014b) BT has long history of trying to revive consumer mobile business, 31 March, available at: www.ft.com
Thomas, D. (2014c) BT turns its attention to shaking up UK mobile market, 31 March, available at: www.ft.com
Thomas, D. (2014d) BT returns to mainstream mobile market, 17 July, available at: www.ft.com
Thomas, D. (2014e) BT gets set to shake up the telecoms market one more time, 24 November, available at: www.ft.com

Thomas, D. (2014f) Telefonica keeps options open on British business, 20 November, available at: www.ft.com
Thomas, D. (2014g) BT in £10bn move to reclaim dominant position, 24 November, available at: www.ft.com
Thomas, D. (2014h) BT harks back to the future with potential £12.5bn offer for EE, 15 December, available at: www.ft.com
Thomas, D. (2014i) Analysts and investors welcome BT's move for EE, 16 December, available at: www.ft.com
Thomas, D. (2015a) Telefónica seeks O2 engagement, 21 January, available at: www.ft.com
Thomas, D. (2015b) UK competition watchdog asks for industry views on BT-EE merger, 15 March, available at: www.ft.com
Thomas, D. (2015c) Hutchison Whampoa agrees to buy O2 for £10.3bn from Telefónica, 24 March, available at: www.ft.com
Thomas, D. (2015d) Hutchison Whampoa and Telefónica set to close £10.5 deal for O_2, 24 March, available at: www.ft.com
Thomas, D. (2015e) O2 deal catapults Three from smallest to biggest UK mobile group, 25 March, available at: www.ft.com
Thomas, D. (2015f) BT expects price cuts in mobile market after buying EE, 1 April, available at: www.ft.com
Thomas, D. (2015g) Telefónica seeks O2 engagement, 21 January, available at: www.ft.com
Thomas, D. (2015h) CityFibre raises concern about impact of BT-EE merger, 23 March, available at: www.ft.com
Thomas, D. (2015i) Hutchison's O_2 deal to test Brussels competition stance,, 11 September, available at: www.ft.com
Thomas, D. (2015j) Danish telecoms merger shelved after competition concerns, 11 September, available at: www.ft.com
Thomas, D. (2015k) O2 to become public company again after merger with Three, 20 September, available at: www.ft.com
Thomas, D. (2015l) BT rivals call for probe of UK broadband services, 21 September, available at: www.ft.com
Thomas, D. (2015m) Ed Vaizey 'sceptical' of need for BT broadband split, 30 September, available at: www.ft.com
Thomas, D. (2015n) Ed Vaizey delivers blow to rivals' hopes of BT broadband split, 30 September, available at: www.ft.com
Thomas, D. and Barker, A. (2014) Orange chief says BT poised to decide on bid for EE or O2, 4 December, available at: www.ft.com
Thomas, D. and Barker, A. (2015) EU gets tough on mergers ahead of Hutchison's O_2 deal, 11 September, available at: www.ft.com
Thomas, D. and Massoudi, A. (2015a) Telefonica set to agree to sell O2 to Hutchison Whampoa for £10bn, 22 January, available at: www.ft.com
Thomas, D. and Massoudi, A. (2015b) Telefónica poised to sell O2 to Hutchison Whampoa for £10bn, 23 January, available at: www.ft.com
Thomas, D. and Massoudi, A. (2015c) BT seals £12.5bn deal to buy EE, 5 February, available at: www.ft.com
Thomas, D. and Massoudi, A. (2015d) Hutchison Whampoa and VimpelCom in advanced talks on Italy merger, 10 March, available at: www.ft.com
Thomas, D., Thomson, A. and Sanderson, R. (2015) Telecom Italia' fate lies in the hands of French tycoons, 4 November, available at: www.ft.com
Thomson, A. (2014) Vivendi inks deal to sell GVT to Telefónica, 19 September, available at: www.ft.com
Thomson, A. (2015) Xavier Niel buys options on potential 11% Telecom Italia stake, 29 October, available at: www.ft.com
Total Telecom (2014) Telefonica Deutschland clears final EU hurdle in E-Plus deal, 1 September, available at: www.totaltele.com
Total Telecom (2015a) Telefonica considers using O2 UK sale proceeds to help fund GVT buy, 3 February, available at: www.totaltele.com

Total Telecom (2015b) BT raises £1bn through placing to help fund EE takeover, 12 February, available at: www.totaltele.com

Valsamaki, I. and Thomas, C. (2014) European Commission questions Telefónica Deutschland / E-Plus merger, 5 March, available at: www.hlmediacomms.com

Weinger, M. (2015) BT-EE merger cleared by Competition and Markets Authority, 28 October, available at: www.ft.com

White, A., Rahn, C. and Baigorri, M. (2014) Telefonica said to face EU objections over buying E-Plus, 19 February, available at: www.bloomberg.com

Williams, C. & Armstrong, A. (2014) BT shareholders back £10bn mobile takeover plans, 25 November, available at: www.telegraph.co.uk

Williams, C. and Marlow, B. (2014) BT plans £2bn rights issue to fund EE takeover, 17 December, available at: www.telegraph.co.uk

Wood, N. (2014a) Telefonica beats Telecom Italia in battle for GVT, *Total Telecom,* 28 August, available at: www.totaltele.com.

Wood, N. (2014b) BT board debates O2, EE deals, 10 December, available at: www.totaltele.com

Wood, N. (2014c) Telefónica CEO heads for London for BT talks, 12 December, available at: www.totaltele.com

Wood, N. (2015a) Hutchison enters exclusive talks to acquire O2 for £10.25bn, 23 January, available at: www.totaltele.com

Wood, N. (2015b) BT begins EE charm offensive to win over competition watchdog, 7 May, available at: www.totaltele.com

Wood, N. (2015c) Altice launches Bouygues bid, 22 June, available at: www.totaltele.com.

Wood, N. (2015d) Airdata fires legal challenge to Telefonica Deutschland/E-Plus merger, 8 June, available at: www.totaltele.com

Wood, N. (2015e) UK telcos call for CMA to probe Openreach, 21 September, available at: www.totaltele.com

3 Italia (2013) 3 Italia not to continue discussions with TI, 4 July, available at: www.hutchison-whampoa.com

Table 1: BT's involvement in mobile telecommunications post mmO_2 IPO

Date	Event
2001	November – Divestment of mobile operations as mmO_2
2004	May – BT Mobile signs MVNO agreement with Vodafone. BT Mobile claims subscriber growth of 20,000 customers per month
2008	May – BT ToGo service launched using a HTC device
2009	January – rumours of a three way joint venture between T-Mobile, 3 UK and BT emerge
2011	March – BT renews its MVNO contract with Vodafone for five years. It is claimed that BT Mobile has less than 100,000 subscribers
2013	February – Niche Spectrum Ventures Ltd pays £186.5 million for 4G spectrum
	April – BT begins search for a company to help support its expansion into the mobile telecommunications market.
	October – BT enters into exclusive talks with EE to replace Vodafone as its MVNO provider.
2014	March – BT signs MVNO deal with EE
	August – launches 4G services using EE as its MVNO
	October – BT denies rumours that its MVNO plans are behind schedule due to technical problems associated with WiFi / 4G traffic handover
	November – BT enters into talks with Telefónica to acquire O_2 UK
	November – Telefónica's CFO states that selling O_2 UK is one way for them to reduce its year-end debt to the targeted €43 billion
	November – BT announces that it in talks to acquire either EE or O_2 UK
	December – BT enters into exclusive talks to acquire EE for £12.5 billion in cash and shares
	December – BT plans £2 billion rights issue to fund purchase of EE
2015	February – BT agrees to buy EE for £12.5 billion in cash and shares.
	February – raises £1 billion to help fund purchase of EE
	March – launches low cost handset offers onto the market
	March – launches SIM only 4G services
	May – BT Mobile claims 50,000 customers for its 4G services

Source: BT (2008, 2009, 2011, 2014a, 2015a), Curwen and Whalley (2004), Mobile Today (2011), MVNO Dynamics (2011), Ray (2013), The Register (2004), TeleGeography (2014e, 2014f), Thomas (2013)

Table 2: Earnings (loss) before interest and tax, 3 Group, 2010-2014

Country (currency)	2010	2011	2012	2013	2014
Austria (€ mn)	4	2	16	106	170
Denmark (DKK mn)	-	360	349	420	425
Ireland (€ mn)	(78)	(54)	0	(29)	0.1
Italy (€ mn)	96	6	0.5	0.3	(46)
Sweden (SEK mn)	-	1171	1065	807	994
Sweden & Denmark (SEK mn)	137	-	-	-	-
UK (£ mn)	17	30	101	207	314

Source: Hutchison Whampoa (2011, 2012, 2013, 2014, 2015)

Table 3: Telefónica's finances in relation to O_2 Group. € million.

	Year									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Germany										
Capital expenditure	1,224	850	924	122	2,057	558	609	642	849	-
OIBDA[1]	583	473	770	918	944	1,219	1,351	1,308	755	-
Purchase – E-Plus	-	-	-	-	-	-	-	5,000[4]	-	-
Sale – initial public offering	-	-	-	-	-	-	1,450	-	-	-
Ireland										
Capital expenditure	141	117	83	63	60	61	192	56	-	-
OIBDA	310	316	301	302	275	206	130	110	-	-
Sale – O_2 Ireland	-	-	-	-	-	-	-	780[5]	-	-
UK										
Capital expenditure	760	832	717	602	717	732	748	1,385	733	-
OIBDA	1,777	1,923	1,839	1,680	1,830	1,836	1,601	1,637	1,744	-
Purchase – The Link	-	73.5	-	-	-	-	-	-	-	-
Purchase – O_2 Group	26,135[2]	-	-	-	-	-	-	-	-	-
Sale – Airwave O_2 Ltd	-	2,982	-	-	-	-	-	-	-	-
Sale – Manx Telecom	-	-	-	-	157[3]	-	-	-	-	-
Sale – O_2 UK	-	-	-	-	-	-	-	-	-	13,500

Notes:
1. OIBDA = operating income before depreciation and amortisation
2. Telefónica started acquiring shares in late 2005 and completed the purchase in early 2006.
3. The sale resulted in a €61 million gain for Telefónica.
4. This sum is comprised of two elements: €3,700 million that was part of the purchase of KPN and another €1,300 million when Telefónica purchased 4.4 per cent of the floated company.
5. The headline figure was €850 million, composed of an upfront €780 million payment and an additional €70 million that was performance related.

Source: Telefónica (2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015)

Table 4: Financial performance. BT Group. 2006-2014. £ million

	Year								
	2006	2007	2008	2009	2010	2011	2012	2013	2014
BT Retail									
EBITDA	1,226	1,357	1,495	1,585	1,777	1,784	-	-	-
Operating profit	814	912	1,050	1,159	1,318	1,341	-	-	-
BT Consumer									
EBITDA	-	-	-	-	-	-	3,925	3,846	4,019
Operating profit	-	-	-	-	-	-	630	720	614
BT Business									
EBITDA	-	-	-	-	-	-	1,098	1,047	1,037
Operating profit	-	-	-	-	-	-	789	802	892
BT Global Services									
EBITDA	700	735	861	261	457	593	835	832	932
Operating profit	85	70	117	-515	-358	-141	134	207	326
BT Wholesale									
EBITDA	1,447	1,500	1,395	1,316	1,353	1,356	667	620	614
Operating profit	609	592	502	670	673	697	408	366	369
Openreach									
EBITDA	2,028	1,927	1,911	1,996	1,960	2,132	2,618	2,642	2,601
Operating profit	1,228	1,220	1,222	1,218	1,104	1,255	1,202	1,214	1,195
BT Group									
EBITDA	5,517	5,633	5,784	3,301	5,162	5,557	6,034	6,143	6,116
Revenue	19,514	20,223	20,704	21,390	20,859	20,076	19,397	18,339	18,287
Net debt	7,500	7,914	9,460	10,361	9,283	8,816	7,797	9,082	7,028

Sources: BT (2008, 2009, 2011, 2014a)