



UK Ofcom market report 2012

Beyond the figures – implications for the telecommunications industry

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This Telzed paper examines a few aspects of the Ofcom report: Communications Market Report 2012, released July 2012

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1 Introduction and key messages

1.1 Key points

Telecom service providers are squeezed in the value chain as consumers move their spends to the end-services, to content and to devices, at the two ends of the value chain.

Overall consumer spends show no growth. Telecoms gains in one market are offset by reductions in another. There is no sign of this changing. This is critical for all business plans.

Superfast broadband take up has lagged behind availability. The additional price for the extra speed surely has not been widely accepted by consumers. This suggests that the demand for such speed is currently limited. This has major implications for investors and regulators, since the take-up rate and the final take-up penetration of superfast broadband have major effects on the prices that must be charged.

Mobile broadband growth is limited. It is not seen as a viable replacement for fixed line broadband access. "Large screen" use of mobile services is not a threat to fixed lines.

Mobile value is more in small screen devices (smartphones and similar) but this does not require large volume use of the mobile network. As mobiles have some control of the end device and applications they can partly tap into the value end of the value chain.

Mobile operators do not show any inclination to take the voice market from fixed operators in a price war. As fixed line volume-declines are now becoming more rapid, so the fixed line call business is now vulnerable. This attack on fixed markets and prices is not in the mobile industries interests. This will help to ensure the traditional fixed line market will remain for a very long time.

Alternatives to traditional voice – messaging, internet-voice in all its IP forms, as well as video are now viable and are taking shares from the traditional fixed line market.

For telecoms service providers to increase value they must increase their share of the finite/static revenues of the market and/or else reduce costs. It is very likely that reducing costs will be critical as there are only a few sub-markets within telecoms that have expanding revenues to concentrate on. Moving into new markets such as content supply or TV is a very high risk move and history sounds warnings (see for example: past TV ventures; moves into international capacity services; or the provision of "internet portals" by telcos).

Lower costs must be achieved at the same time as providing faster services for similar or possibly even lower prices than today.

Investors, telecom managers, strategists and regulators must consider the trends and the deeper implications.

1.2 Background

The Ofcom report (Communications Market Report 2012, released in July) provides extensive data on the UK's whole ICT industry, covering: TV, radio, content, Internet, consumer PCs and devices, as well as the telecom markets. Along with the data, Ofcom also included some explanations for the changes and causes. The Ofcom report is essentially factual and covers

the data and trends. The implications of the data however are of great interest to industry specialists. This requires some deductions and opinions – which are generally not covered in the Ofcom report.

The Ofcom data covers the UK only, but the trends seen there are likely to be also observed in many other countries with similar levels of economic development and similar regulatory situations. Therefore lessons can be extracted that may be relevant to other countries. Clearly cultural, economic and demographic factors will alter the situation, so the key take-away points will need to be adapted to other countries. In addition, even countries with dissimilar markets may some extract useful lessons from the implications of the UK data.

Market reports on other countries' trends are usually available but they may not have the same details as produced by Ofcom. These can be used to give valuable insights to that country, especially if they are contrasted to the UK information.

The Ofcom paper has over 400 pages of data and it is recommended that this is examined in detail. This Telzed paper provides only a high level examination of some of the key telecommunications market trends (mostly taken from Section 5 of the Ofcom report). The purpose of the Telzed paper is to provide some comments that go beyond the numbers and look at the deeper implications. The insights are aimed at strategists and decision makers, including regulatory experts.

No attempt is made here to cover all of the Ofcom report. Only a selection of interesting/significant values are investigated. The Telzed commentary is focused on telecoms services, but there is of course a linkage to the other ICT areas covered in the Ofcom report such as TV, radio and content. Some of these other services make use of telecoms. The other services are also linked by revenue: if consumers spend more on one service, then they will tend to spend less on something else. Such a seemingly obvious fact can often be forgotten in business plans and history has shown that this has at times been ignored by some decision makers.

A full understanding of telecoms therefore can only been appreciated if it is seen as one part of wider ICT industry. The end user device and the applications/content and Internet are all interlinked with the access network services. The linkage is clear to the customer in terms of monthly spends and in the increasingly seamless ways that they are joined together – as seen in the use of smart phones, tablets and TVs which all use telecom services and can also be used to access similar on-line services and content.

A central issue for the telecoms industry providers is that they (mostly) do not transcend the full supply chain: telcos supply the only connectivity and the network service. The value-add is increasingly in the device and the content/application – telcos have limited ability to tap into these revenue streams at the two ends of the value chain. This type of trend is expanded on in this report.

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2 The headline numbers show telecoms to be squeezed by the rest of ICT

It is hard to capture all of the various points into one title-message, but there are a number of overriding messages in the Ofcom data that lead to this general conclusion. This can be derived from the diverse data provided in pages 3-14 of the Ofcom report. Other ICT services have shown growth but telecom services have not seen this development. The implication is that either TV and other content services have grown independently or else they are linked and the lack of telecoms growth *is* related to the other services' changes. The latter is a reasonable deduction. Of course some of the lack of growth in telecoms may be inherent in the telecom market – it is not providing attractive services and so revenues are not growing due to its own failings. Although possible, the more likely explanation is the linkage by consumers to other services and other expenditure.

Telecoms and network revenues have been falling or are static at best. This is true even of the mobile industry. Mobile revenues have **not** been rising. Fixed network revenues have been falling. This is in contrast to the revenues in TV, internet advertising, and devices – these *have* been rising. These are interlinked in a number of ways. The obvious one is in consumer's monthly spends. This naturally leads to some form of "water-bed" effect – more spends on one area lead to less somewhere else. There are areas where spends can increase and this can be purely incremental in some cases, but the overall story is that total consumer spends are limited.

The demand for *capacity and usage* of ICT grows and grows. This trend has been seen throughout the last 50 years and it will continue. Clearly this is not directly linked to revenues. This is now true even in mobile markets, where strong revenue growth *was* seen in the past as demand grew. For example there has been a notable growth in SMS (texting). This volume growth is also shown in other types of message services. Data usage has also increased. This is not reflected in a growth of the total mobile revenues. Customers are expecting more usage for the same expenditure - this is a key message from the current mobile situation.

It is open to debate how much a consumer's spend on telecoms is affected by the consumer's other spends on devices, content and applications etc. There is clearly not a synergy. If this were the case then the greater telecoms usage caused by video and internet applications should have increased overall telecom expenditure. This has not been the case in recent years. A synergy with demand for services and more network capacity surely does exist, but this need not translate into increased revenues. This provides some strong messages for the industry:

- Telecoms network service providers (fixed especially and also mobile) have not been able to tap into wider the ICT growth.
- Only some telecoms services have grown as a result of other ICT growth, but this is compensated for by other revenue reductions.
- Capacity growth is not related to revenue growth. Broadband, internet, video, messaging etc. have increased hugely in terms of volumes, but this has not translated into similar revenue changes. Revenues are generally flat or even

negative. This is not a new phenomenon, but it has profound messages for strategists. This is returned to later.

- Tablets, e-readers, smart TVs, smart phones are growing areas. This accentuates the message that the value of telecoms moves to the end device (and the application/content).
- Internet advertising revenue now exceeds TV advertising. This relates to the previous point. It shows how even “free” internet applications obtain value. Revenues are increasingly related to the end points – devices and content.

The ultimate “over the top [OTT]” use of ICT and telecoms is in the final business of these final services and content suppliers. One example of this is in retail sales. The on-line retail sales revenue (internet based business) remains small compared to total high street revenues but with 30% year on year growth, the future is clear. This leads to some issues that are beyond the scope of the Ofcom paper, and also are outside this Telzed commentary. There are consumer and general economic welfare benefits from this trend. This is offset by high street sales losses and other economic impacts (e.g. less travel). The overall net impacts of the positive and negative effects may need to be examined, for those who wish to analyse the results. The net economic effect is surely positive unless trade moves overseas. This may be more of an academic exercise as it is unlikely that any decisions should be made to alter this trend: the changes are part of the natural free market forces at work. If anything, some policies might encourage the trend. Such policies are beyond the scope of this commentary.

The movement to OTT delivery of TV and video on demand is taking off and this has profound messages for the usage of broadband networks and for traditional TV content suppliers. It may be the consumer spur for superfast broadband, *if* consumers will pay extra to the telcos.

3 The telecoms industry has problems

In this section we look a little deeper at the Ofcom data and the resulting implications. This is focused at the network and telecoms services, not TV/content/devices etc. The three main areas of the telecoms industry are:

- Fixed.
- Mobile/wireless.
- Broadband/internet access.

Of course broadband/internet is conveyed over both fixed and mobile networks. Although there is convergence of fixed and mobile networks, the service providers can still be categorised separately and this has enabled Ofcom to identify the different industry segments.

3.1 Static revenues even for mobile networks

The headline message is that telecoms is standing still, at best¹. There is some overall decline in revenues. This is not a recent phenomenon. Even given the UK recession, this sends a profound message. The total monies in the industry are static at best and so the players must fight for their own larger-slice of a finite cake. Only if there was a growth in GDP and the overall economy can there be any reasonable expectation of real growth in revenues. Even then, there is no certainty that total revenues would rise: the current evidence suggests that these will probably fall in real terms.

This is not a new observation. Back in the 1990s² when there was much enthusiasm for the growth in telecoms, the underlying figures suggested that real growth was so not significantly more than GDP rate changes. Inflation accounted for much of the growth. Within the overall industry there were high growth areas (say mobile), but other areas did not see much growth. Clearly today's situation is more pessimistic than in the 1990s and the Ofcom data does not provide any clear indications of an imminent overall increase in revenue. There may still be areas *within* the telecoms industry that will grow.

The finite or falling total income is emphasised by the overall per-household spend (Figure 1.13). This shows TV spends to be static but fixed internet, fixed voice to be falling. More interestingly mobile spends have also fallen. Note that this is per household spends – the total household numbers have risen.

The usage of broadband has risen (see Figure 1.3). The speed of access has also risen. This does not translate into more money. This implies:

¹ E.g. Figure 1.1. NB this report does not reference every data set from the Ofcom report as this Telzed paper focusses on the general messages, not on the detailed numbers

² The author's observations at the time

- The use of dongles³ and use of mobile networks as a primary broadband internet access medium for PCs did not “take off.” The growth is limited (see figure 5.7). This “large screen” use of mobile broadband is different from “small screen” usage of smart phones.
- Consumers do use smart phones for the general internet access – but this is not a primary use of broadband. The main broadband access for larger volumes and large screen usage, including TV, is mainly carried out over fixed lines.

The messages are most profound for the mobile industry. Mobile service providers have not “taken on” the fixed line broadband business. The service is not a substitute. It remains a sizable niche. The smart phone use of internet does not create the capacity-demand for data that PC-dongles do. The trends imply that the service providers realise:

- There is more value in smart phones than dongles.
- PC-dongle internet services create big network capacity demands, and the resulting incremental cost leads to low value-add.
- Mobile service providers cannot or will not try to take way the fixed line internet broadband markets.

This is supported by the basic observations that 3G is not available in many areas⁴ – if it were a universal broadband medium, which was highly profitable, then it would have been rolled out more comprehensively. The performance of mobile data is limited and despite the speed increases, it lags well behind fixed broadband, so the service providers therefore have to focus on the value-add of mobility and handsets. Large download capacity and speed are not the attraction of mobiles.

3.2 Broadband grows but not as many might expect

The full details of the telecom industry are covered in section 5 of the Ofcom report (page 280 onward).

The overall operator revenues are falling but this is in part due to wholesale revenues falling. The retail revenues are more static. Wholesale revenues are frequently partly balanced by costs paid to other network operators. The UK (and most of Europe) is reducing voice interconnection charges so the total wholesale revenues (and costs) will fall further. This benefits some but negatively impacts some other service providers.

The retail revenues show the total input to the industry (ignoring the inter-operator wholesale payments). This is static for both fixed *and* mobile. Internet broadband (which has high volume growth) has only a small revenue growth.

³ USB sticks

⁴ The Ofcom report shows 3G to be very widely available. This is misleading as it only shows “at least one 3G operator has coverage.” Many of the mobile operators have significant gaps in 3G service supply. These “Not-spots” (as defined by Ofcom) have been the subject of other studies.

Mobile trends

More details of the mobile broadband take up (Figure 5.7) demonstrate that mobile growth is more related to smart phones and not to general broadband dongle or tablet use. The latter two are growing but remain relatively small segments. The use of smart phones with tethering (which provides internet access to a PC – in effect the handset is an internet modem) is a noted growth area. What is less clear are the volumes of traffic carried by tethering. It is likely to be relatively small (at least compared to fixed line internet use). This is likely to be constrained by the mobile broadband tariffs and the premium prices if a mobile per-month capacity limit is exceeded. Another constraint is the limited download speed that will help to ensure the usage is more occasional rather than every day/continuous (as is normal for fixed access).

The trends have some messages for the mobile industry:

- With increasing tethering and smart phone use, there could be major risks from “all you can eat” (unlimited data-volume tariffs). Increasing tablets for internet access would also give similar risks. UK operators are surely well aware of these risks and have ways to control the cost implications.
- There seems to be no direct attempt by mobile service providers to “take on” the fixed broadband market using mobile devices.

The latter moves are sensible. A price war on fixed broadband with reduced tariffs would increase both customer numbers and mobile data usage but the net value increase to the mobile industry is likely to be limited. This follows from the relatively flat revenues. The mobile operators would have more traffic, (and more capacity-costs) but not very much larger revenues, even if this took business from the fixed market players. More data fees are likely to reduce some voice revenues. The strategic choice is whether to retain higher value services, or else to have more mobile data customers (and more data traffic), but at lower margin. The UK data implies that mobiles are not attempting to take on the lower value market of general broadband access – this is addressed by fixed line access that can deliver high volumes per month and high speeds. Mobiles are not attempting to compete in this space.

This “lack of attack” on fixed markets is also supported by Figure 5.56 that shows that mobile-only households have not continued to rise and this mobile-only penetration level has stopped at 15%. Clearly predictions that the “future is mobile” that were being made in the past, have not happened. The fixed-mobile migration subject is looked at again below, when voice services are discussed. It may be reasonably speculated that mobile players have accepted this smaller fixed to mobile migration (but with higher value contributions) and the figures are not a sign of failure.

The growth in mobile data is driven to a high degree by business users. This is logical as the value of mobility is clear to businesses and the premium price is more willing to be paid by business users. Domestic customers will more likely not be willing to pay the additional amount for the convenience of mobility and so will access the internet at “fixed” locations. Although domestic customers are numerically greater than business users (business users were 27% of mobile broadband market), it is reasonable to presume that business ones account for relatively more of the revenue and the network capacity usage.

While there are some increases in mobile data revenues this is also accompanied by reduction in the voice/messaging revenues. This again shows the effect of overall revenue spends per customer being relatively fixed. More time surfing the internet may reduce time

spent talking in order to keep the monthly spends more constant. The total mobile talk minutes has steadily been rising (but with some reduction in the last year – Figure 5.25) but tariffs also fall and so the net effect is that the total voice call spends have not risen significantly.

Fixed markets

Fixed broadband penetration levels rise and speeds increase. This is not accompanied by large increases in fixed broadband revenue, but at least there *is* an increase. This reflects the continued rise in broadband numbers exceeding the price reductions. Some increase in broadband revenue may be ascribed to take up of faster (and higher priced) services.

The most interesting moves in broadband are in the take up of superfast broadband (30 Mbit/s or more). The data shows that a significant percentage of the country has had superfast broadband being available. However the take up has had a significant lag. Recently superfast take up has been growing rapidly, but from a low level. Highlights (note that some readers might consider these to be “lowlights” depending on how the data is viewed) include:

- Superfast *availability* has reached 60% of households. Even in 2010 it was available in 50% of households.
- The take up of superfast rose from 1.2% to 6.6% (2010 to 2012) of all broadband connections. This shows a growth of 3-4 times in one year. The 6.6% (1.4million connections) is only about 7% of households.

A number of take away messages come from this:

- Availability of a service (superfast broadband) does not result in immediate take up.
- Consumers are shown be reluctant to pay the additional per month premium required for superfast. This premium is now about £5-£10 per month.

This has implications for fibre in the loop investments. This is a major topic of interest to regulators, governments and operators/investors. The take up clearly lags behind the availability so this has a cash flow implication. How long the delay is and the shape of the S-curve of take up, have major implications on cost-recovery. Also the final percentage take up of superfast broadband relative to the homes-past is still guesswork. The UK is only in the early stage of the S-curve. Whether this will flatten off at 70% or 50% or 90% of households that have superfast available as a service, is not known.

Given that the clear evidence is that consumers are reluctant to spend any additional telecoms money, then if superfast broadband has a price premium (as it will surely have to have⁵) then some other telecoms expenditure will need to be negatively impacted. The question is: which telecom services will be affected or will it be the other ICT areas?

⁵ Even if superfast/fibre costs fall, then copper/slow broadband will also fall in price. This will still result in a price increase for the move to fibre, that customers will have to agree to take. The fact that future fibre prices might be the same as current copper-based service prices will not alter the need to persuade customers to pay more to make the change.

The superfast take up will be pushed by the end services (such as TV and video downloads) but the history shows that consumers expect more volumes and speed for almost the same price. Will the desire for faster services overcome this reluctance to pay more? So far there is no strong evidence for this.

The prices for superfast will fall. But so will the prices for normal broadband: so there will remain a price premium to pay. This has some implications for wholesale pricing of broadband. Copper based wholesale services are priced at €10 per month today⁶, but superfast services are priced at €15 per month. If copper prices fell to €3 per month then the fibre/superfast services have a *greater* price premium. Arguably the fibre prices would have to rise above €15 to take up some of the common costs that are then not included in the copper prices⁷. Consumers will happily accept the lower prices for copper legacy broadband, but the price premium is then higher for the move to superfast/fibre. Given the history that shows UK customers are not willing to pay more, then the conclusions are:

- Lower copper prices are not likely to increase fibre/superfast take up.
- Lower copper prices could increase fibre prices (unless the copper costs and common business costs can be totally removed).
- The main ways in which superfast/fibre take-up increases are if the price premium is very low, or else some other monthly expenditure is cut, or else the demand side pull from desiring faster downloads becomes over-powering⁸. The latter seems unlikely in the short term, except for households that are very intensive users of video and other speed-dependent services.

This has implications for regulators and price managers. The implications for broadband business strategy planners and investors are clear. The risks are high, the revenues and take up rates are likely to be less promising than optimists might claim. The risks clearly rise if the investor is paying high interest rates to fund the fibre – the payback times may well drift.

Another implication is that although the marginal cost of making superfast deliver 100Mbit/s compared to 30Mbit/s is relatively low, with many customers reluctant to pay more even for 30Mbit/s, there is likely to be very limited willingness to pay the additional cost for 100Mbit/s. This additional speed investment would then have to be mostly written off. This obliges operators to build capacity only for the main market demand – this does not yet extend to 100Mbit/s and some may argue does not yet even reach 30Mbit/s. This may explain why there is relatively little build out of 100Mbit/s services – something that is relevant to the EU Digital Agenda targets, which might not be met.

⁶ Illustrative numbers only

⁷ Of course this depends on the definition of the correct, relevant copper costs that need to be recovered. If the *true* costs of copper are only €3, then there is still a larger price difference than before. Fibre costs are not reduced by this change. Fibre retail prices could be reduced by competitive wholesale access (unbundling), but the fibre price premium over copper must remain high. It is still being argued whether this will increase fibre investment and take up or not. The EC Kroes policy statement (July 2012) suggests that low copper prices are not required, but other experts still disagree.

⁸ Superfast demand can also be cultural – consumers can want services because it is seen as desirable. An example is the way HD TVs became essential to some customers even when there was no HD content. Perhaps some of the marketing of superfast is already trying to make such an appeal: as much on the basis of fashion as a real need being satisfied

The broadband dangers are compounded for the incumbent fixed players who also rely on fixed voice service revenues. These are also under pressures. This voice market is also related to broadband markets:

- Voice and broadband are increasingly bundled. Therefore analysis of revenues (as in Ofcom report) will become increasingly difficult to separate.
- PSTN line rental charges are (arguably) only notionally related to voice access costs. As the cost of copper wires, fibre duct and digging assets are shared, there is an access cost – some of this is PSTN and some of this is broadband related. Customers have to buy PSTN rental because they *need* broadband⁹. If fixed line voice service numbers continue to decline then either PSTN line rental prices must rise (which contributes further to the decline), or else broadband may have to bear more of the cost. This is only partly offset by the general reduction in costs that are continuing to occur in telecoms.

The PSTN rental charge is unavoidable. Even if voice calls are not made, a line is still required. In effect the PSTN charge is now an access charge that also relates to broadband.

3.3 Fixed voice services decline but mobile growth has not compensated

The decline seen for many years in both revenues and volumes for fixed voice, continues. Mobile volumes have risen and now are slightly more than the fixed line traffic volumes. Mobile call volumes per subscriber however are not rising and have actually fallen in the last year after increasing in previous years. This means that the total voice traffic is relatively static or declining. The limited growth in mobile voice calls is not substituting completely for the decline in fixed line calls.

In terms of revenues, fixed line voice revenues are declining and even mobile revenues are close to static (Figure 5.22). PSTN fixed line rentals revenues are rising, but this does not compensate for the decline in voice-minute revenues.

The Ofcom report noted the changes and proposed that VoIP and messaging (of all types) are substituting for the decline voice traffic. This seems reasonable. It may be noted that this trend has been discussed long ago, but the demise of fixed voice calls has not happened suddenly – fixed traffic has declined slowly. There were some predictions that traditional switched voice calls (fixed or even mobile) would be quickly replaced by cheap or close to free VoIP. This did not happen.

Clearly VoIP has not been a complete substitute for traditional voice calls. Even for high priced international calls. The market for fixed network calls has only declined steadily over time. This strongly suggests that VoIP has been, to a major degree, *incremental* traffic: users made calls and talk in ways that would not have been done on the fixed network. If the VoIP did not work then there would have been no fixed network call made instead.

⁹ Many do not *need* fixed line voice as almost everyone has a mobile handset and this now provides the quality needed

Messaging (including social networks) has grown and clearly this is taking up some of the voice traffic. Mobile texts (SMS) have reduced in prices significantly and so have not been substituted by internet/data based messages. This suggests that mobile service providers are adapting to meet this threat (internet *et al* messaging) to the very profitable SMS business. The response is mainly by tariff packaging (SMS bundles). Also it implies that internet/data messaging has not yet been able to appeal to consumers in quite the same way as an SMS¹⁰. It is reasonable to expect that internet/data messaging will begin to take a greater share of the messaging market from the mobiles, but mobiles can also probably defend their market.

The fixed line voice volume-decline has accelerated recently. This might indicate that finally the move away from fixed voice networks is really happening in a big way. Predictions for the demise of fixed network voice calls have been made for a long time, but VoIP (and mobile calls in the early days of 2G networks) services have not actually been able to be real substitutes. The quality, reliability and convenience of a fixed line did not exist using VoIP.

Mobiles *now* have the quality (plus convenience of mobility) but the quality was lacking in the early years. However the cost of a mobile call has always been higher than a fixed call. This has surely held back the fixed to mobile substitution and this trend (fixed to mobile) has clearly almost stopped. There are a number of reasons for the observed changes. These are likely to include:

- The marginal cost of a fixed line call is small.
- The effective total cost of a fixed call (as shown in Figure 5.53) is almost identical to a mobile call. This includes line rental. This suggests that customers should prefer mobile as it gives the same conversation with added mobility. Clearly this is not happening – customers will make the fixed line call because of the lower marginal cost. This figure also suggests there is no price war on going in either the fixed or mobile markets – price changes have levelled off. The reasons for the steady prices required further study.
- PSTN line rental is rising and more bundled minutes are included. Although this has not stopped fixed line decline it has probably contributed to the lack of mobile volume gains. The PSTN line rental is unavoidable. With most households taking broadband, they have to incur the PSTN cost, even if no calls are made. This is a significant point and shows how voice costs and broadband costs are inter-related. If there was no PSTN line service, then broadband prices would be higher.
- Mobile operators seem to be willing to accept the lower mobile traffic volumes but with the related higher prices. The minutes per mobile customer are much lower than the fixed line volumes¹¹. Lower mobile prices would result in more traffic, but the net total revenue is likely to remain roughly constant (see earlier points about spends per month) and as more traffic requires more network costs, the additional profit from doubling the mobile traffic might be small (or even be negative). Mobile operators

¹⁰ Some other countries have low SMS usage and very large usage of other messaging services

¹¹ This is true of the UK but this varies significantly by country. Some countries have more mobile minutes per customer than fixed. This reflects the culture, the fixed line penetration levels and the mobile prices.

surely know how to maximise the outcomes: less traffic at more of a price premium is better than more traffic at lower margin.

This suggests that the mobile industry has “saved the fixed network.” If aggressive attacks had been made on mobile retail prices then the fixed line decline would surely have been far worse. The mobiles surely did not act in an altruistic way: their interests (higher mobile prices and lower volumes) coincidentally help to maintain the fixed line volumes. The recent fixed line decline is not a mobile gain – the Ofcom data suggests that the gain is in messaging and “alternative voice” services (VoIP and video).

With further changes in the “alternative voice” markets, the acceleration in fixed line decline can be expected to now increase. This does not mean the death of fixed line traffic – there is a long, long way to go before it gets close to disappearing. The alternative voice markets now offer much better quality and are more convenient. OTT¹² VoIP services certainly work, and are now reasonably reliable (the quality is of course variable) and video now works reasonably well. Both of these now work much better because most broadband speeds are now well greater than the service speeds and the applications are easier to use. With better voice and video applications these alternatives are now a more realistic substitute for fixed line voice and are no longer something that is only: “Nice to try, though it does not usually work.”

Fixed network income from voice remains vulnerable – if mobiles attempted a price war, then the demise of fixed line traffic could be further accelerated. The income is also vulnerable to alternative voice and video. This price war is probably not in the mobile industry’s interests at present. A loss of fixed calls is also less likely to be a major disaster for the fixed operators, than if that had happened 10 years ago. The voice income has been declining and now is no longer the major revenue source that it once was – that source is moving to broadband and PSTN rental. The latter might best be called the “access service” as the price paid for PSTN line rental will become yet more intertwined with the broadband access charges. As shown in Figure 5.27 the fixed line calls provide only 30% of all of the fixed access revenues. Furthermore, when other value added services are considered, then the voice traffic is clearly an even smaller percentage of the total. This is not good news for any business that is very highly dependent on fixed line calls – but in the UK there are fewer of these existing today. Traffic resellers and call back operators who had small networks but provided mainly low price voice calls have declined. Such players who are still in this market are now also major broadband providers, and so are less affected by the demise of fixed voice revenues.

¹² Over the top – internet based services that do not make use of systems within the transport network

4 Summary of key points

This paper can only provide a short insight to the telecoms industry trends and their implications. Clearly every country will have different outcomes, but the UK situation can be used to give additional perspectives and the comparison of outcomes and trends will help to create more reliable strategies.

Messages from this review include:

- The telecoms industry, as a whole, does not have increasing revenues. They are static or even falling.
- Telecoms revenues are moving from traditional voice services to broadband related, however the broadband income is not rising very significantly.
- Mobile total revenues are static, with broadband and data compensating for voice stagnation. Therefore greater value must be derived from reductions in costs.
- The fixed to mobile migration of customers and revenues seems to have slowed or stopped.
- Mobile data especially for big screen users is not seen as a threat to fixed broadband services. It is a higher value service where mobility is valued – it is not a substitute other than for a relatively small percentage of users.
- There are no obvious moves by the mobiles to aggressively compete with fixed line voice services, even though these are now declining more rapidly. Voice markets are certainly vulnerable to attack, especially as prices are not falling but volumes are falling. Such an attack is probably not in the mobile operator's interests.
- The fixed line voice price trends, plus falling wholesale voice termination prices could have encouraged voice re-sellers to make inroads to the market. Seemingly this has not happened. With fixed voice prices moving to a fixed amount per month with bundled calls and bundles with broadband, the re-seller's opportunity is reduced.
- Alternatives to traditional voice calls are increasingly practical and replacing the traffic. Messaging in all of its forms and internet/broadband based voice and video must be taking up the "lost" traffic – reflecting that these data based transports are just about becoming viable because broadband speeds are increasing and applications are better.
- Fibre (superfast broadband) take up lags well behind availability. This has major implications for prices setting (both retail and wholesale prices); investor cost recovery; and meeting the EU Digital Agenda targets. This also implies that currently customers do not need the bandwidth and/or are unwilling to pay any extra for speed that is not yet really needed.
- The customer value is increasingly moving to the device and the applications, at the far ends of the service provision chain. This squeezes the telecom service provider in the middle. As mobiles have more control of the end device (smart phones in particular) and some services (such as controls of VoIP by-pass) they are currently able to retain value.

- Fixed voice has a long life ahead, even if the volumes and revenues will decay further. Fixed line telco's will be concerned with this but the call revenue is already a small percentage of the total and the telco income is moving to other services, including general access rentals (this currently is for voice PSTN and data access, but the separate charges will converge to cover all access services since the costs are increasingly inseparable).

Many other implications can be drawn. These can be debated and surely there will be no agreement between all industry experts. After the reasons for change and the implications are understood then the next stage is to decide on the new strategies to defend profits or to benefit from the changes. BT has recently acquired UK premier league football rights: a strategy that clearly agrees with the observations of this Telzed report relating to where value is moving (to content and video supply services). Only the future will show if BT can make this venture profitable.

Regulators (and governments) must appreciate the industry changes and need policies that cover all of ICT. Regulatory remedies are increasingly centred on broadband and fibre access. The access prices must encourage competition and investment. Early lessons from the UK and other countries must be examined carefully to ensure the realities are reflected in the remedies. The potential repercussions of erroneous regulatory controls on fibre access are far higher than in other regulated markets.

The comments in this paper may not be agreed to by all readers. This is expected. If everything was obvious then there would be no regulatory debates in the industry. Provoking further discussion is one of the aims this paper.

Telzed can assist with further examinations of the trends and the implications in the UK and other countries. This can help with policies, investment plans, business strategies, regulatory plans and remedies.

Please contact Telzed for further discussion and assistance.