

Pricing trends for communications services in the UK

Research Document

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About this document

This report outlines Ofcom's research into trends in the pricing of residential communications services in the UK. It includes a review of prices available to consumers buying different standalone and bundled services and a summary of what consumers, on average, actually pay for these services. It also looks at the complexity of tariffs and how the prices paid by engaged consumers (i.e. those who shop around and find the best tariff for their needs) vary from those paid by unengaged consumers who are more likely to pay standard or 'list' prices.

The report also presents the results of our consumer research looking at levels of consumer engagement in the communications market, awareness of usage and the extent to which consumers engage with their bills.

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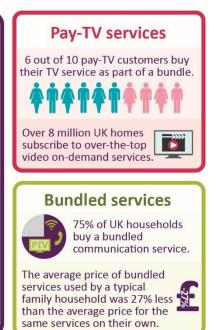
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Key metrics

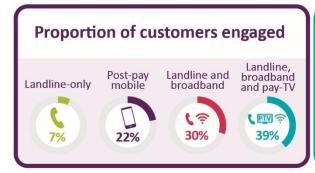


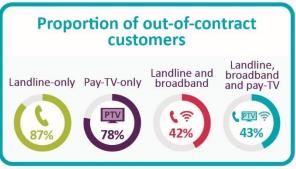
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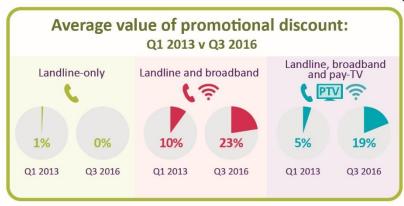


Customer engagement





Promotional discounting





Executive summary

Our assessment of residential pricing trends indicates that competition is delivering choice and value – but that not all consumers are benefiting from the choice available

Average household spend on fixed, mobile and pay-TV services increased slightly in real terms in 2015 after years of decline. However, small increases in spend come alongside big increases in the use of communications services, and the speed of data networks, following the launch of superfast fixed broadband services and the deployment of 4G mobile networks. The cost of services that are bought as part of bundles has remained relatively stable since 2011, while the price of mobile services has fallen significantly.

But we have concerns that some trends may mean certain consumer pay higher prices, and while most consumers can receive value by shopping around, not all consumers benefit from price competition. In particular, complexity in the market can make it difficult to understand what is on offer, while the 'penalty' for not participating effectively is increasing as communications providers focus on targeting offers at engaged consumers. The following pricing trends all have the potential to result in consumer detriment:

- 1) The price of fixed voice services has increased, notably line rental;
- 2) some out-of-bundle call prices are increasing, making it important that consumers understand their usage and select services that suit their needs;
- consumers may pay more for mobile handsets if they are purchased with a post-pay (contract) mobile service, and some people continue to pay their full monthly charge after the end of their contract rather than switching to a cheaper SIM-only service;
- 4) tariffs are becoming increasingly complex, potentially making it more difficult for consumers to determine and compare the overall cost of taking services, preventing them from engaging effectively in the market; and
- 5) the increasing depth of promotional discounting can result in unengaged consumers paying more than those who are engaged with the market and look around for the best deals. The sophisticated use of price discounting may compound issues around price complexity.

These trends are of particular concern as they are more likely to affect consumers who are older and/or in lower-income segments. Older consumers may have difficulty navigating the market and are less likely to be engaged in some markets, meaning they are less likely to benefit from price discounting. Those with less disposable income may be less able to purchase mobile phones upfront.² We consider each of these trends below.

¹ Average fixed broadband data usage increased from 8GB per connection in 2008 to 97GB in 2015 (and 132GB in 2016). Average mobile data use per connection increased from 0.1GB in 2011 to 0.9GB in 2015 (and 1.3GB in 2016). Data for 2008 from IHS and 2015 and 2016 from Ofcom *Connected Nations Reports*.

https://www.ofcom.org.uk/research-and-data/infrastructure-research/infrastructure

² Ofcom's *Access and Inclusion* report explores ownership of communications services among three segments of consumers, derived from analysis of both household income and household size. These segments are: most financially vulnerable, potentially financially vulnerable and least financially vulnerable. https://www.ofcom.org.uk/ data/assets/pdf_file/0030/98508/access-inclusion-report-2016.pdf

(1) The price of fixed voice services has increased as the focus of competition has shifted towards bundled services

Fixed line rental prices have increased in recent years, despite the decline in underlying wholesale costs, as providers have used line rental to offset declining usage revenues. While these increases have affected all landline users, those purchasing standalone landline services have faced disproportionately high price increases, as they do not benefit from discounts that are available when purchasing bundled services. Standalone landline customers account for 12% of total landline customers and are more likely to be older, in lower-income segments and, potentially, more likely to face price increases.

Ofcom has a duty to ensure that competition is effective in the provision of voice services. In our consultation on the *Review of the market for standalone landline telephone services* (published on 28 February 2017),³ we identify consumer harm resulting from increasing prices, and propose a suite of remedies. These include a reduction in the price charged by BT to voice-only customers for line rental of between £5 and £7 a month, and ways of promoting competition by increasing the engagement of landline-only customers.

The EC Universal Service Directive sets the scope of universal service obligations which ensure that affordable services are available. Ofcom implements the Universal Service Order through specific conditions on BT and KCOM (the two universal service providers). The obligations mean that basic telephony services are offered at an affordable price to all consumers, including those on low incomes and with special social needs. The *BT Basic* tariff was significantly improved in December 2016: line rental is unchanged at £5.10 a month, and the price of calls to UK landline and mobile numbers is now capped at £10. Switching to *BT Basic* could enable many low-income households in receipt of specified benefits⁴ to reduce their bills. Ofcom is working with BT, the Department of Work and Pensions (DWP) and consumer organisations to increase awareness and take-up of these tariffs.

(2) The increase in out-of-bundle call prices can result in high usage-related charges

Prices for usage outside inclusive call allowances have been increasing, and these often have low prominence in tariff information, meaning that consumers may not factor them into their purchasing decisions. A wide range of tariffs are available, many of which offer good value, and it is important that consumers understand their usage (and how much they spend on services outside their package) to enable them to choose a service / tariff that suits their needs. Regularly checking bills and using price comparison sites can help them do this.

(3) Consumers may not receive value when they purchase a mobile phone with a post-pay mobile service

Around two-thirds of consumers using post-pay mobile services have a handset included in the price of their service.⁵ There are benefits to paying off the cost of a mobile phone in instalments over the course of a contract, but this may mean paying more for the device than if it were bought separately. It is therefore important that consumers consider the cost of the

³ Ofcom, Review of the market for standalone landline telephone services https://www.ofcom.org.uk/__data/assets/pdf_file/0030/97806/Consultation-Review-of-the-market-for-standalone-landline-telephone-services.pdf

 $[\]underline{http://btplc.com/inclusion/HelpAndSupport/Documents and Downloads/BTServices/BTBasic/BT_Basic.}\\ \underline{pdf}$

⁵ Represents post-pay contracts with handset connections provided by leading mobile operators as of Q2 2016: Vodafone, EE, Three, O2, TalkTalk, BT, Virgin Media and Tesco Mobile.

service and the device, and shop around for the deal that best suits them. There may be a need for greater transparency about the cost of the service, the cost of the handset and the effective interest rate on the price of the handset, in order to improve consumer decision-making. Ofcom will continue to monitor the price of handsets and test consumers' understanding through market research.

Additionally, Ofcom research shows that 6% of UK post-pay mobile customers report paying their full monthly charge after the end of their contract, rather than switching to a cheaper SIM-only service. This suggests that around a million people may be paying more than they need to, by continuing to pay a monthly fee that includes the cost of a mobile handset after their contractual commitment has ended. For consumers to avoid doing this, they need to be aware of their mobile contract status and the options available to them when this ends. They also need to be willing to engage with their provider or other providers to find cheaper options.

(4) Tariffs are becoming increasingly complex, potentially making it more difficult for consumers to identify the service that offers them the best value

Complexity in the way in which tariffs are structured and presented can make it difficult to determine the overall cost of taking a service. Consumers buy telecoms and TV services together in bundles, and this offers convenience, choice and value, but also results in an increasing range of tariffs and permutations. The availability of promotional discounts, time-limited offers and service 'add-ons' (such as call bundles and additional TV channels) may compound the issue and make it difficult to compare the overall price of different services.

Price comparison websites can play an important role in helping consumers navigate the market and identify the tariffs which best meet their needs. Ofcom's accreditation scheme certifies those where the information provided to consumers is accessible, accurate, transparent, comprehensive and up to date. We are also supporting the Competition and Markets Authority (CMA) in its market study into digital comparison tools. The CMA is due to report its interim findings in March 2017. Additionally, the Advertising Standards Authority (ASA) implemented new guidelines on fixed broadband on 31 October 2016, and these have improved clarity in broadband pricing.

(5) The increasingly sophisticated use of price discounting means that unengaged consumers may not be benefiting from competition

The importance of standard or 'list' prices in driving competition is declining as providers target new customers with discounts, and offer retention discounts to existing customers. While new customers buying bundled services rarely pay standard tariffs (as most plans offer promotions that reduce the monthly cost), unengaged customers do not benefit from discounts, and typically pay higher prices. The depth of promotions has also increased as providers offer large discounts to offset the increase in standard tariffs. Spend data collected from large providers show that bundled service customers who are within their minimum contract period pay significantly less than those who are out of contract.

⁶ Source: Ofcom *Switching Tracker*. 6% of standalone post-pay mobile customers whose contract included a handset said they were out of contract but their monthly cost remained broadly similar to when they signed up.

⁷ https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/costs-and-billing/price-comparison

Ofcom has a wide programme of work to help consumers benefit from choice in the market and switch to the deals which best meet their needs

Ensuring that people are aware of the choices available to them and can switch easily to the services which best meet their needs is a priority for Ofcom. In June 2015, we streamlined industry rules for switching broadband or landline between providers who use the Openreach telecoms network - such as BT, EE, Sky and TalkTalk – so that people simply have to contact their new provider who will manage the switch for them. We have consulted on proposals to reform the process for switching mobile provider and the processes for switching across different platforms (for example, switching between the Openreach and Virgin Media networks, or switching services that include pay-TV and telecoms services).

We are also exploring what information and set of prompts would help make customers aware that they may benefit from changing tariff or provider.

It is essential that people have the information they need to make informed decisions about their communication services. Price comparison websites can be an excellent way for consumers to find tariffs that best meet their needs, and Ofcom's accreditation scheme certifies those where the information provided to consumers is accessible, accurate, transparent, comprehensive and up to date. Ofcom also publishes maps and information about broadband availability and mobile coverage. Next month we will be publishing our first annual report on quality of service to make it easier for people to compare services.

Targeted actions directed at low-engagement consumer segments such as older consumers and landline-only users may also be required. In our consultation on the *Review of the market for standalone landline telephone services*, ¹⁰ we outline the potential options to increase engagement among landline-only consumers. These include the potential to run trials to test customers' responses to different ways of presenting information.

When transparency measures are insufficient, Ofcom will intervene more directly if there is evidence that complexity is resulting in consumer harm – as for example we did in 2015 in requiring that 0800 and 0808 numbers were free for consumers to call from all phones, fixed and mobile¹¹, and in 2007 when we introduced the 03 number range as an alternative to chargeable 08 numbers.¹²

The Government has also announced plans for a Consumers and Markets Green Paper and we are working with them to identify further improvements in the telecoms sector.

⁸ https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/costs-and-billing/price-comparison

⁹ https://checker.ofcom.org.uk/

¹⁰ Ofcom, Review of the market for standalone landline telephone services https://www.ofcom.org.uk/__data/assets/pdf_file/0030/97806/Consultation-Review-of-the-market-for-standalone-landline-telephone-services.pdf

¹¹ https://www.ofcom.org.uk/about-ofcom/latest/media/media-releases/2015/call-charges-clearer-from-wednesday

¹² https://www.ofcom.org.uk/about-ofcom/latest/media/media-releases/2007/ofcom-introduces-uk-wide-03-number

Introduction

Background to this report

Ofcom exists to make communications markets work for everyone. Integral to this is our goal to promote competition and ensure that markets work effectively for consumers. A key indicator of whether competition is delivering good consumer outcomes is the prices people pay and the value they get from communications services. In this report, we outline trends in the pricing of residential communications services, and the implications of these trends for consumers, and therefore for Ofcom's policy considerations.

Our principal duty is to further citizen and consumer interests

Ofcom's principal duty is to further the interests of citizens in relation to communications matters and to further the interests of consumers in relevant markets, where appropriate by promoting competition.

In our Annual Plan 2016/17,¹³ we outlined some priority work areas in relation to the prices that consumers pay for communications services. This report on trends in residential pricing follows our commitment to monitor price increases. The consultation on the *Review of the market for standalone landline telephone services*,¹⁴ which was published on 28 February 2017, follows our commitment to assess outcomes for standalone landline customers.

Pricing data sources used in this report

We have used a number of datasets to analyse residential pricing trends. In this section, we set out the sources of these datasets, how they are derived and the way in which they have been used in the report.

Tariff information

- Pure Pricing: We have used retail tariff information taken from Pure Pricing's monthly Broadband Tracker reports to analyse residential line rental and bundled service prices.
- **SimplifyDigital:** We have used SimplifyDigital residential retail tariff information to understand the trends in pricing of landline voice and bundles, including the number of tariffs offered, the depth and frequency of promotional discounting, and trends in standard and discounted prices.

Basket-based pricing analysis

Teligen: We use a model provided by pricing consultancy Teligen to analyse prices
of baskets of communications services, based on different usage profiles. The model
is populated with tariff data for landline voice, mobile phone voice and data, fixed
broadband, mobile broadband, television and bundled services, and identifies the

¹³ https://www.ofcom.org.uk/about-ofcom/annual-reports-and-plans

¹⁴ Ofcom, *Review of the market for standalone landline telephone services* https://www.ofcom.org.uk/ data/assets/pdf_file/0030/97806/Consultation-Review-of-the-market-for-standalone-landline-telephone-services.pdf

tariffs that offer the lowest prices for meeting the requirements of each usage profile. Further details can be found in the Methodology section of this report.

Operator data

For the purpose of this report, we have collected information from leading providers of residential fixed and mobile services in the UK,¹⁵ covering:

- Average spend data: The data represent average revenue per user (ARPU) by service/ combination of services (standalone landline, mobile, and pay-TV services plus dual-play, ¹⁶ triple-play and quad-play bundles), but does not account for usage. These data were collected from the leading providers for Q2 2016, and the figures included in the report are weighted averages.
- Customer base data: Customer base data, as at the end of June 2016, was collected from service providers by service/ combination of services taken, and has also been used to calculate weighted average spends.
- **Distribution of customer base by monthly spend:** This data shows the distribution of landline and mobile phone customers by average monthly spend and tariff type.

Consumer research

Consumer engagement with bills: We conducted a bespoke piece of consumer research to understand how much consumers know about their contracts, how they engage with their communications bill/s, and the prices they pay for their services. The research was conducted online, with an initial screening sample of 2,087 UK consumers, representative of the UK population.

Ofcom tracker surveys: The report also draws upon data from a number of established Ofcom tracker surveys, including:

- Technology Tracker: A face-to-face in-home survey among UK adults aged 16+
 covering mobile and fixed telecoms, internet use, TV, video on demand, radio and
 bundling. It provides Ofcom with a continued understanding of consumer behaviour
 in UK communications markets, to help monitor changes and assess the degree and
 success of competition.
- **Switching Tracker:** An annual face-to-face survey among household decision makers, which monitors levels of participation in terms of switching and engagement activities. The survey looks at landlines, mobile, internet/broadband markets, and TV, as well as dual and triple-play bundles. The data have been weighted to ensure the sample is representative of the UK adult population.

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¹⁵ Fixed telecoms providers: BT (including Plusnet), Sky, Virgin Media and TalkTalk; mobile providers: EE, O2, Vodafone, Three, Virgin Media, Tesco Mobile, BT Mobile and TalkTalk Mobile.

¹⁶ 'Dual-play' bundles comprise landline and fixed broadband services.

The market context

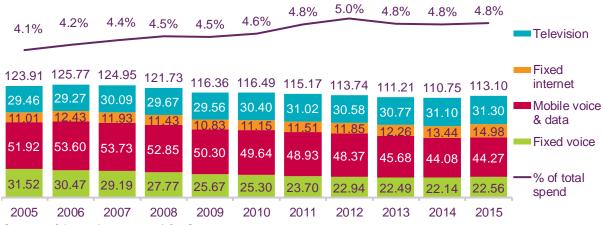
Overview

Communications services play an integral part in people's lives as they use voice and data services to stay in touch, conduct business and for leisure purposes. In this section of the report we summarise trends in the usage of communications services over recent years, to help give some context to the pricing trends which we observe later in the report.

Spend on telecoms and TV services has fallen over the last decade, despite rapid growth in the use of data services

Trends in average household spend on telecoms and TV services,¹⁷ suggest that, overall, consumer outcomes have been positive over the last decade. Between 2005 and 2015, average monthly household spend on telecoms and TV services fell by 9% to £113 in real terms (i.e. adjusted for inflation), although there was a small (2%) year-on-year increase in 2015 due to a combination of usage and price-related factors.

Figure 1.1 Average household spend on communications services: 2005 to 2015



Source: Ofcom / operators/ ONS

Notes: Adjusted for CPI (December 2015); historic telecoms figures have been re-stated, so are not comparable to those published in previous reports; television excludes download-to-own services.

Declining household spend comes in the context of higher take-up, use and quality of services

The most notable changes in the market over the last decade have been in the use of data services and the technologies used to deliver them. In 2006, 3G mobile services were relatively new, accounting for 11% of all mobile connections at the end of the year. The growing popularity of smartphones since the first Apple iPhone launched in 2007 has revolutionised the consumption of mobile data services, and by 2016 over two-thirds of UK adults (68%) accessed data services on a mobile phone. At the same time, mobile network providers (MNOs) have invested in 4G infrastructure (providing average connection speeds

¹⁷ Calculated by dividing residential revenues by the number of UK households.

¹⁸ Ofcom: Communications Market Report 2010.

¹⁹ Ofcom Technology Tracker H2 2016

of around three times those over 3G networks)²⁰. At the end of 2015, just under half of mobile subscriptions were 4G, and in June 2016 outdoor 4G coverage was available to 86% of UK premises.²¹

Superfast broadband services (i.e. those with a download speed of 30Mbit/s or higher) have similarly revolutionised the fixed broadband industry since the first widely-available residential service launched in 2008, and were available to 89% of UK premises by June 2016. Data provided to Ofcom by the UK's largest internet service providers (ISPs) shows that 42% of UK residential fixed broadband connections had an advertised speed of 'up to' 30Mbit/s or higher by the end of 2015 (up from 1% in 2010), and we estimate that this proportion had risen to around half of connections by the end of 2016. The migration from standard to superfast services has resulted in the average speed of a UK residential fixed broadband connection increasing from 4Mbit/s to 29Mbit/s between 2008 and 2015, vastly improving the experience of using these services.

The number of traditional pay-TV subscriptions increased by almost a quarter (24%) to 17.9 million in the five years to 2015, while service quality has improved, with a proliferation in the number of HD channels that are on offer, and the inclusion of on-demand/catch-up services with pay-TV subscriptions.²⁴

Average revenue per user has not reflected the increasing data consumed by fixed broadband and mobile users

Data provided to Ofcom by service providers show that shifts in average spend have not always reflected changing usage patterns among fixed broadband and mobile data users. Increasing take-up of superfast broadband has gone hand-in-hand with increasing use of streaming video services such as BBC iPlayer and Netflix, resulting in rapid growth in the average monthly volume of data consumed per residential connection, which increased by 67% year on year to 97GB per month in 2015 (132GB in 2016).²⁵ Despite the steep increase in data usage, the average revenue per residential fixed broadband connection increased by just 8%, to £19 per month in 2015, and was 36% lower than in 2005. Similarly, the average data use per mobile SIM increased year on year by around two-thirds to 0.9GB per month in 2015 (1.3GB in 2016),²⁶ while operator data show that average revenue per user (ARPU) was unchanged year on year at £16 per month (including VAT), a 32% fall compared to 2005.

While fixed broadband and mobile phone users have benefited from competitive prices over the last decade, this is not the case for residential landline users. Operator data show that despite a 56% fall in average outgoing voice call volumes per residential landline in the decade to 2015, average revenue per line fell by just 1%.²⁷

²⁰ Ofcom's March 2016 *Smartphone Cities* report found that average 4G speeds were 17Mbit/s, compared to 6Mbit/s over 3G.

²¹ Ofcom *Connected Nations Report* 2016; data is for outdoor coverage from at least one MNO's 4G networks; comparatively, indoor premise 4G coverage from all four MNOs was 72%.

²² Ofcom Connected Nations Report 2016.

²³ Ofcom Home Broadband Performance / Fixed-line Broadband Performance Reports

²⁴ Ofcom Communications Market Report 2016

²⁵ Ofcom *Connected Nations Reports*. Based on average data per residential broadband connection in June 2015 and June 2016.

²⁶ Ofcom Connected Nations Reports.

²⁷ Both call volume and revenue figures exclude non-geographic voice calls.

The ways in which services are made available to consumers have changed

As the use of communications services has evolved, so have the ways in which they are made available to consumers. For example, the widespread take-up of fixed and mobile broadband services has enabled the launch of 'over-the-top' (OTT) subscription video-on-demand services such as Netflix and Amazon Video, which provide a lower-cost alternative/complement to traditional pay-TV and were being used in over eight million UK homes in 2016.²⁸

The growing take-up and consumption of data services has also resulted in shifts in the way services are marketed. For example, many current post-pay mobile phone tariffs provide generous inclusive call and text allowances, with tariffs being tiered according to the inclusive data allowance. Likewise, many fixed broadband plans offer unlimited data allowances, with tariffs tiered by the headline speeds and/or TV elements of the bundle.

The bundling of communications services has also increased in popularity, and Ofcom research suggests that the proportion of homes buying more than one service from the same supplier as part of a bundle more than doubled to 75%²⁹ in the decade to 2016, making the notion of individual service pricing less relevant.

With increased levels of bundling has come a proliferation in the number of tariffs that are available, and SimplifyDigital data show that the total number of core dual- and triple-play tariffs offered by the UK's largest providers of residential services increased from 294 to 551 between Q1 2013 and Q3 2016. Growth in the number of tariffs has been compounded by the availability of tariff 'add-ons' (such as call packages and TV channels) and promotional discounts, which are frequently offered to new bundled service customers. Together, these increase the need for consumers to engage effectively in the market in order to select a service which suits their requirements.

²⁸ BARB Establishment Survey

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²⁹ The methodology was revised in 2016 to report the proportion of UK adults purchasing multiple services from a single provider, based on stated main provider used for each service, and as such 2006 is not directly comparable to 2016 figures. Previously, data related to the proportion of customers self-reporting a bundle of services. Analysis for 2016 now also includes those who pay line rental in addition to their broadband service as a bundle.

Pricing of landline voice services

Line rental prices have been increasing despite a decline in wholesale costs

Residential landline prices have increased significantly in real terms over the last decade, driven by landline telephone line rental prices that have steadily increased despite a decline in underlying wholesale line rental (WLR) charges.

Tariff data provided by Pure Pricing show that average line rental prices³⁰ increased by 34% in real terms in the decade to December 2016, while over the same period WLR rental declined by 31%. The major residential providers' telephone line rental prices have also converged. As of December 2016, the lowest line rental price offered by any of the providers shown below represented a saving of 11% compared to that of the most expensive provider, whereas this difference had been 27% in December 2013.

Analysis of the residential revenue and line data provided by fixed telephony providers shows that steady increases in line rental prices, along with the growing take-up of call bundles, resulted in the proportion of spend that is attributed to line rental and bundled calls increasing from 46% in 2005 to 74% in 2015. ³¹ Average monthly outgoing call minutes per line fell by 56% (to 133) during this period, while the average spend on landline services fell by 27% in real terms (to £23.46).

10 yr change £ per month (December 2016 prices) +38% 20 Plusnet +30% Virgin Media +38% 15 TalkTalk n/a 10 Sky +26% EE +34% 5 Post Office +36% MPF (wholesale) -13% 0 WLR (wholesale) -31% Dec-09 **Dec-11 Jec-13 Jec-15**

Figure 1.2 Residential line rental tariffs: December 2006 to December 2016

Source: Pure Pricing broadband updates

Notes: Adjusted for CPI (December 2016); excludes line rental saver pre-payment tariffs; no line rental figures are available for TalkTalk following changes in broadband advertising guidelines, which came into effect in October 2016. See https://www.asa.org.uk/News-resources/Media-Centre/2016/Insight-We-confirm-tougher-approach-to-broadband-price-claims-in-ads.aspx#.WKWGEW-LSK5 for more details.

Usage outside inclusive allowances can be expensive

In addition to line rental fees, the price of many out-of-bundle calls has risen, and an hourlong daytime call to a landline made outside an inclusive call allowance would typically have

³⁰ Average of line rental prices for five providers: BT, Virgin Media, Sky, EE and Post Office

³¹ Ofcom: Communications Market Report 2015

incurred a cost of over £7 in 2016, a 22% increase in real terms compared to 2013.³² However, out-of-bundle call prices tend to have low prominence in tariff information, and consumers may not factor them into their purchasing decisions. While the price of inclusive call packs has increased (up by 23% between 2013 and 2016),³³ they continue to offer value and a way for many landline users to reduce their overall spend, and call bundles which offer inclusive calls to mobiles and international destinations have become more commonplace.

In order to be able to take advantage of call bundles and navigate the market effectively, it is essential that consumers understand their usage (the amount and type of calls that they make) and select a tariff suited for this usage, otherwise they may end up paying significant call charges. The importance of selecting the right tariff is covered in the Tariff complexity and discounting section.

Figure 1.3 Summary table of out-of-bundle and call bundle charges for landline services: 2013 and 2016

	2013	2016	% change
Call connection fee (pence/call)	14.05	17.98	28%
UK geographic call (pence/minute)	9.42	11.50	22%
Non-Three UK mobile call (pence/minute)	14.16	14.34	1%
Three UK mobile call (pence/minute)	17.29	14.34	-17%
Evening & weekend call bundle (£/month)	3.38	4.17	23%
Anytime call bundle (£/month)	6.52	8.00	23%

Source: SimplifyDigital

Notes: Data are for the end of each year; figures are the average of the prices offered by BT, Sky,

TalkTalk and Virgin Media; adjusted for CPI (December 2016)

Price of standalone landline services has increased since 2012

Standalone landline users are defined as being those who purchase only a landline service from their fixed telephony provider.³⁴ The impact of fixed voice price increases is likely to be disproportionately high for those who purchase standalone landline services, as they rarely benefit from promotions or discounts, which are typically offered when purchasing bundled services. We discuss promotional discounts offered with standalone and bundled services in the Tariff complexity and discounting section.

Analysis using Teligen's pricing model and four hypothetical usage profiles (or baskets) shows that standalone landline prices³⁵ increased in real terms for all four baskets between

This definition differs from the voice-only customer classification in the *Review of the market for standalone landline telephone services* as it also includes those who buy fixed broadband services from an ISP other than their landline supplier,

 $\underline{https://www.ofcom.org.uk/__data/assets/pdf_file/0030/97806/Consultation-Review-of-the-market-for-\underline{standalone-landline-telephone-services.pdf}$

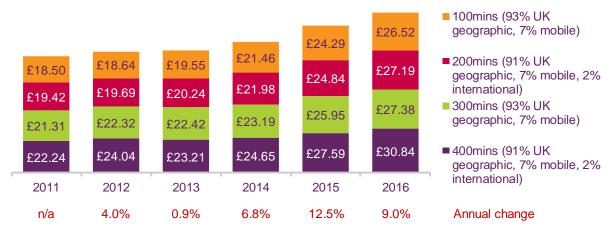
³⁵ The analysis is based on the lowest prices available to meet the requirements of the basket. Between 2011 and 2013, the prices were weighted by the market share of the provider and therefore

³² Using call charge of 11.5p per minute and call connection fee of 17.98p per call in 2016 and 9.42p per minute and 14.05p per call in in 2013.

³³ For further analysis of retail call prices (call plans and out-of-bundle calls), refer to the *Review of the market for standalone landline telephone services - Annexes* (paragraphs A8.80 to A8.108), https://www.ofcom.org.uk/__data/assets/pdf_file/0027/97812/Annexes-Review-of-the-market-for-standalone-landline-telephone-services.pdf

2011 and 2016. These increases ranged from 28% to 43%, with the price of the lowest usage basket recording the largest increase, a reflection of rapidly increasing line rental prices.

Figure 1.4 Monthly price of baskets of standalone fixed voice services: 2011 to 2016



Source: Ofcom / Teligen

Notes: Tariff data collected in July each year; adjusted for CPI (July 2016); includes promotional discounts

Standalone landline is a small, but important, segment of the landline market³⁶

Ofcom research shows that standalone landline customers account for 12% of total landline users and are more likely to be older and/or in less affluent groups³⁷. Among all those who buy standalone landline services, 64% are aged 65+ and 37% are in DE socio-economic group,³⁸ and the vast majority (90%) do not have a fixed broadband service and the remainder buy a broadband service from another provider. They may be more likely to face disproportionate price increases as they do not benefit from promotions that are typically offered when purchasing bundled broadband services, and this is a concern for Ofcom.

represent 'weighted average' prices. However, data from 2014 onwards represent BT prices, as the model only tracks prices available on the websites of providers. Further details about the Teligen-provided pricing model used for the analysis can be found in the Methodology annex of this report ³⁶ In total, standalone landline consumers equate to 12% of the landline market, of which 11% do not have broadband at all and 1% purchase broadband from another provider. Among those who do not have broadband, 71% are aged 65+ and 40% are in the DE socio-economic group.

This equates 11% of UK households, as reported in Ofcom's Access and Inclusion report.
 Across the whole of the sample, 20% of respondents were 65+, and 25% were in the DE socio-economic group.

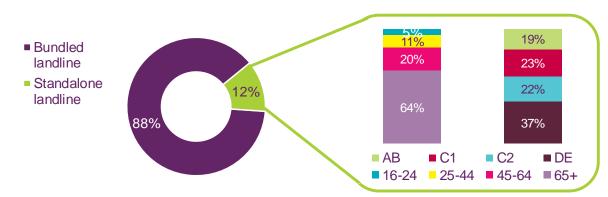


Figure 1.5 Share of standalone landline users, by age and socio-economic group³⁹

Source: Ofcom Technology Tracker carried out by Saville Rossiter-Base in January-February 2016 Base: All adults aged 16+ with a landline at home (3248). Demographic analysis among standalone landline customers (493)

Note: Among 12% standalone landline customers, 11% do not buy any broadband while 1% buy broadband from another provider. The incidence figures exclude from the base those who said they didn't know who their provider was, for one or more of the services they used (i.e. 5% of landline users).

A recently improved *BT Basic* tariff offers lower prices to some low-income households

As designated universal service providers, BT and KCOM are required to provide a basic telephony service at an affordable price to all consumers.⁴⁰ In December 2016, BT's social tariff, *BT Basic*, was significantly improved, and while the price of line rental (including a small amount of inclusive calls) was unchanged at £5.10 a month, a price cap on calls to standard UK landline and mobile numbers of £10 a month was introduced. Eligible consumers are also able to add a basic broadband service for an additional £4.85 a month.

Many low-income households would be able to reduce their bills by switching to *BT Basic*, but only a small proportion⁴¹ of over 4 million eligible claimants⁴² take the service. A likely reason for this is low awareness; Ofcom research conducted in 2014 found that 70% of people eligible for *BT Basic* were not aware of it,⁴³ and we are working with BT, the DWP and consumer organisations, including Citizens Advice and Age UK, to increase awareness and take-up.

³⁹ Note: This differs from standalone fixed voice (SFV) customers in the *Review of the market for standalone landline telephone services*, which defines SFV customers as those who buy a fixed voice service from a CP but do not also buy a fixed broadband service from the same CP as part of a bundle. Therefore, these reports are not directly comparable. In this report, we consider customers who purchase landline and broadband from the same provider as dual-play customers as we are unable to identify or analyse respondents who purchase these services from the same provider but not as a bundle.

⁴⁰ KCOM's *Social Access Package* offers a low-cost standalone landline service to eligible consumers in the Hull area: www.kcomhome.com/products/phone/social-access-package/

⁴¹ Ofcom *Access and Inclusion report*. At the end of March 2016, over 320,000 households were taking BT Basic. https://www.ofcom.org.uk/ data/assets/pdf file/0030/98508/access-inclusion-report-2016.pdf

⁴² https://www.ofcom.org.uk/__data/assets/pdf_file/0030/98508/access-inclusion-report-2016.pdf.

Note that the number of eligible claimants will be higher than the number of eligible households.

43 https://www.ofcom.org.uk/ data/assets/pdf_file/0010/40231/affordability_report.pdf

Ofcom is consulting on reducing prices for standalone landline customers

Our consultation on the *Review of the market for standalone landline telephone services*⁴⁴ (published on 28 February 2017) identifies concerns that BT's market power in the standalone fixed voice market has allowed it to price these services above a competitive level. We are consulting on a suite of remedies, including a price control on the price BT charges for line rental to standalone landline customers, and measures to improve the information available to consumers to help them engage in the market. The consultation will close on 9 May 2017.⁴⁵

⁴⁴ <u>https://www.ofcom.org.uk/consultations-and-statements/category-1/review-of-landline-telephone-services</u>

⁴⁵ For more details on the consultation and how to respond, see https://www.ofcom.org.uk/consultations-and-statements/category-1/review-of-landline-telephone-services

Pricing of mobile voice and data services

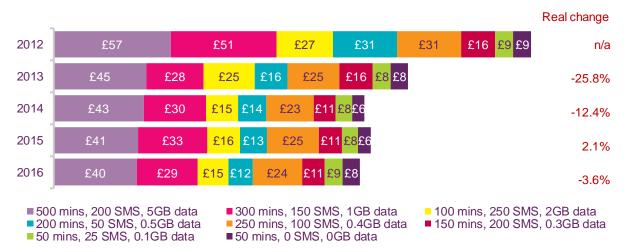
The price of mobile services has declined across most usage profiles

There has been a fundamental shift in the pricing of mobile services, away from voice and towards data, in the last five years. Most post-pay tariffs include large allowances of calls and texts, with tariffs tiered according to the inclusive data allowance.

Analysis of the average cheapest prices required to fulfil the usage requirements of eight baskets of mobile services (excluding the cost of handsets) shows that prices have fallen significantly in real terms since 2012, largely due to falling price per unit for data. While the largest decreases have been in the average prices of those baskets which use a large amount of data, prices for baskets with low usage have remained relatively flat, and the average prices of the two baskets with the lowest usage have increased since 2015. Nevertheless, even for low voice users, mobile services are less expensive than fixed services: Our analysis finds that for 50 minutes of use a month, the average price available from mobile operators was £8 in July 2016 (the lowest use basket in Figure 1.7 below), compared to £23 on a commercial fixed-line tariff⁴⁷ and £10 on the BT Basic social tariff.

It is important to note that this analysis assumes that consumers are on the optimal plan for their usage, which will rarely be the case, given the thousands of mobile tariffs that are available. We discuss complexity of tariffs and the importance of being on a suitable tariff in the Tariff complexity and discounting section of this report.

Figure 1.6 'Weighted average' monthly prices of standalone mobile service baskets (excluding handsets): 2012 to 2016



Source: Ofcom, using data provided by Teligen.

Note: Based on prices excluding handset costs. Further details on the Teligen model are available in the <u>Methodology</u> section of the report; connection 5, 7 and 8 include 4G data; 2012 and 2013 represent weighted average of cheapest offers by three largest providers; includes promotional discounts; adjusted for CPI (July 2016); figures have been rounded to the nearest whole number.

⁴⁶ Mobile price represents 'weighted average' of cheapest tariffs available from leading providers. The number of primary providers covered has increased over time to six (EE, O2, Vodafone, Three, Virgin Media, Tesco Mobile) in 2016. The data for 2012 and 2013 represent a weighted average of the cheapest offers from the three largest providers.

⁴⁷ Commercial tariff from BT: BT Home Phone Saver 2019 (£21.99 a month, includes unlimited calls to UK geographic numbers, with additional costs for calls to mobile numbers)

Mobile customers are getting more for their money

The chart below shows the average price of a basket of mobile services based on average use in that year, adjusted for inflation. This is calculated from the largest providers' cheapest tariffs to fulfil the requirements of the basket, weighted by market share, and excludes the cost of the handset. Overall it shows that the price of mobile services has remained stable despite very large increases in data use. In 2012, a basket based on average mobile use (125 voice minutes, 152 SMS and 0.2GB of data) cost an average of £23.43 per month, while by 2016 average use was 142 voice minutes, 96 SMS and 1.3GB of data, and the weighted average price of fulfilling this usage was £16.16, £7.27 a month (or 31%) less than in 2012.



Figure 1.7 'Weighted average' monthly prices for average mobile usage baskets (excluding handsets): 2012 to 2016

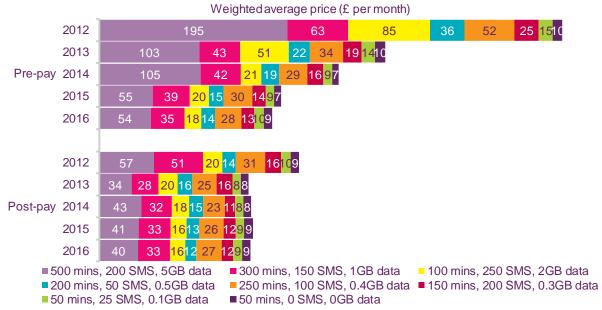
Source: Ofcom, using data provided by Teligen. Based on prices excluding handset costs. Note: 2012 and 2013 represent weighted average of cheapest offers by three largest providers; based on prices excluding handset costs; includes promotional discounts; adjusted for CPI (July 2016).

Post-pay plans offer better value for most consumers, but the gap between pre-pay and post-pay prices has decreased

The increasing adoption of smartphones has made post-pay plans attractive for consumers, and these continue to offer better value for many mobile users, especially those with medium-to-high usage. Analysis of the 'weighted average' prices for the eight baskets of mobile services considered previously shows that the difference between post-pay and prepay prices (excluding the cost of handsets) has declined significantly in real terms since 2012.

This is partly due to pre-pay 'add-on' packs, which mirror post-pay contracts by offering a set number of inclusive calls, texts and/or data for a monthly top-up and typically expire after a month, after which the user needs to top-up to continue using the service. The advantages of pre-pay packs over post-pay mobile services include that they do not require the user to pass a credit check when purchasing them and there is no ongoing spend commitment (unless the pack is set to automatically renew).

Figure 1.8 'Weighted average' monthly pre-pay and post-pay mobile pricing (excluding handsets): 2012 to 2016



Source: Ofcom, using data supplied by Teligen

Notes: Connections 5, 7 and 8 include 4G data; weighted average tariff from primary providers in 2016, 2015, 2014; weighted average of top three providers in 2013 and 2012; includes promotional discounts; adjusted for CPI (July 2016); figures have been rounded to the nearest whole number.

Most pre-pay customers spend £5 or less per month whereas most post-pay customers spend more than £10

Analysis of the distribution of mobile customers based on average monthly spend, collected from leading providers,⁴⁸ shows that 60% of pre-pay users spent less than £5 per month on mobile services in Q2 2016, indicating that the majority of customers buying pre-pay services are low/infrequent users of mobile services. However, it is also notable that there is a long tail of high-spending customers, and 12% of pre-pay users spent £15 or more per month on their mobile service. It is likely that many of these customers would be able to reduce their spend by switching to a post-pay service.

Among SIM-only post-pay customers, 64% spent between £5 and £25 per month on mobile services, while 61% of those with a handset included in their post-pay contract, including a bundled handset, spent between £10 and £35 per month. The range of spend is greater for post-pay customers whose service includes a handset, as their monthly spend includes a contribution towards the cost of their phone (which is spread across the duration of the contract), and this can vary significantly based on their choice of device.

⁴⁸ The providers who supplied the mobile spend distribution data for Q2 2016 are EE, O2, Vodafone, Three, BT, Tesco, Virgin Media and TalkTalk

Proportion of connections (%) 60% 50% Pre-pay 40% Post-pay inc. 30% handset 20% SIM-only postpay 10% 0% £2-9.99 £10-14.99 £15-19.99 £20-24.99 25-29.99 30-34.99 35-39.99 £100+ 8 340-44.99 345-49.99 50-59.99 360-69.99 270-79.99 380-89.99 30-99.99 £0-4.

Figure 1.9 Distribution of average monthly mobile spend, by tariff type

Source: Ofcom / operators

Pre-pay mobile services

Pre-pay customers are more likely to be older or in lower income brackets

Ofcom research shows that consumers who use pre-pay mobile services are more likely to be older and/or in lower income brackets; 61% of over-65 mobile users are on pre-pay tariffs, as are 45% of mobile users in the DE socio-economic group. Consumers in lower income brackets may prefer using pre-pay services in order to control costs and avoid 'bill shock'. Ofcom research suggests that those in older age groups tend not to be heavy users of mobile services, which may be why they are more likely to opt for pre-pay.⁴⁹

18% 19% 23% 22% 28% 26% 30% Other/don't 45% know 61% Pre-pay 82% 81% 76% 77% 72% 71% 68% 54% 38% ■ Post-pay

AB

C1

C2

DE

Figure 1.10 Proportion of mobile customers, by age and socio-economic group

Source: Ofcom Technology Tracker, H2 2016 data

25-44

16-24

Q. Which of these best describes the mobile package you personally use most often?

65+

Base: Adults 16+ who personally use a mobile phone (H2 2016, 2617)

45-64

Pre-pay users tend to be less engaged than post-pay users

Ofcom's research shows that mobile customers buying pre-pay services are significantly more likely to be classified as 'inactive' (33%) than post-pay customers (19%). The research

Total

⁴⁹ The Ofcom Technology Tracker, H1 2016, shows that 20% of those aged 65+ consider a mobile phone to be the main method they use for making and receiving telephone calls, compared to 94% of those aged 16-24.

also shows that older mobile pre-pay customers (aged 65+) are the most 'inactive' age group (57%)⁵⁰ and account for a quarter of pre-pay customers.⁵¹

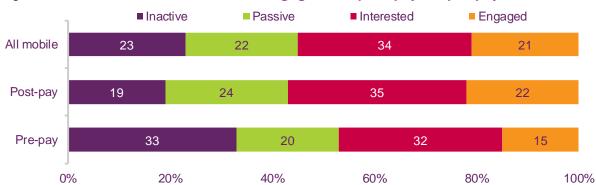


Figure 1.11 Mobile market – levels of engagement, post-pay vs. pre-pay

Source: Ofcom Switching Tracker carried out by Saville Rossiter-Base in July to August 2016 Base: All adults aged 16+ who are the decision-maker for mobile with a monthly contract as a standalone service (1420), using pre-pay (615)

Pre-pay 'add-on' packs have contributed to a decline in overall pre-pay prices

Pre-pay 'add-on' packs which offer inclusive voice, SMS and/or data have become a prominent feature in the pre-pay portfolio of most mobile service providers.

The effect of these packs has largely been positive for pre-pay customers, and analysis undertaken using Teligen's pricing model shows that the weighted average prices of pre-pay plans with 'add-on' packs were lower than those of basic pre-pay plans for all of the of the eight baskets of mobile services used previously in this section, except the lowest usage basket. This analysis shows that pre-pay users with medium-to-high usage, and especially those using mobile data services, can pay significantly less if they purchase an add-on pack.

Separate analysis of the pre-pay tariffs available in March 2017 shows that pre-pay mobile users who do not use any SMS or mobile data would, depending on their provider, need to make between 17 and 200 minutes of outgoing calls per month⁵² to make buying an add-on pack advantageous to them. This suggests that for some voice-only pre-pay mobile users, in particular those with infrequent usage, basic pre-pay plans may offer cheaper prices (partly because add-ons offer bundled text and data allowances that they do not need).

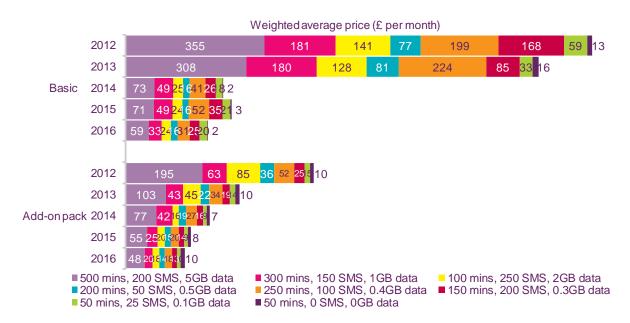
Once again, this highlights the importance of consumers being aware of their usage and able to engage effectively with the market, and choose the most suitable tariff/service; there are a number of price comparison sites to help them do this. Ofcom's accreditation scheme certifies those where the information provided to consumers is accessible, accurate, transparent, comprehensive and up to date.⁵³

⁵⁰ https://www.ofcom.org.uk/ data/assets/pdf_file/0029/98615/access-inclusion-research-annex.pdf

⁵¹ 26% of pre-pay customers are aged 65+, compared to 6% among post-pay customers (Technology Tracker H2 2016).

⁵² Based on the core and add-on pre-pay tariffs offered by the largest UK mobile providers who offered both tariff types on 9 March 2017 (Vodafone, EE, O2, Three, Virgin Media and Tesco Mobile). ⁵³ https://www.ofcom.org.uk/phones-telecoms-and-internet/advice-for-consumers/costs-and-billing/price-comparison

Figure 1.12 'Weighted average' standalone monthly pre-pay mobile pricing (excluding handsets): 2012 to 2016



Source: Ofcom using data supplied by Teligen; data in July of each year; Connections 5, 7 and 8 include 4G data; weighted average tariff for primary providers in 2016, 2015, 2014; weighted average of top three providers in 2013 and 2012; includes promotional discounts; adjusted for CPI (July 2016); figures have been rounded to the nearest whole number.

Post-pay mobile services

Consumers purchasing handsets bundled with post-pay plans may end up paying more for the device

The growing popularity of post-pay has, in part, been driven by the device options offered with these plans, and data from leading mobile providers show that around two-thirds (66%) of consumers with a post-pay contract had a mobile phone included with their service.⁵⁴ However, while bundling handsets with post-pay plans is convenient, and enables consumers to spread the cost of their device over a period of time, they may end up paying more for their device than if they purchased the handset outright.

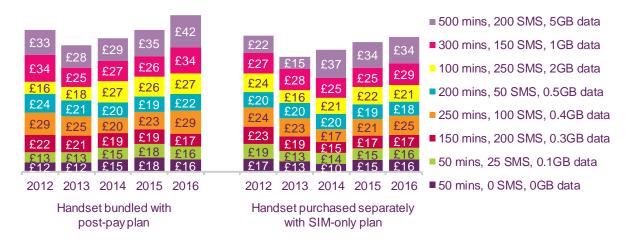
Comparisons of the average overall price of services that include a handset, and of buying the handset outright and using a SIM-only mobile service, suggest that consumers who use a mobile service that includes a handset may be paying more. Analysis using Teligen's pricing model and our eight mobile usage profiles shows that, in 2016, 'weighted average' prices⁵⁵ when purchasing a mid-range handset outright and using it with a SIM-only plan were consistently cheaper than the average when buying the handset bundled with a post-pay plan, the latter being up to 26% more expensive.

⁵⁴ Data as of Q2 2016, represents 'All contract plus handset post-pay connections' from Vodafone, EE, Three, O2, TalkTalk, BT Mobile, Virgin Media and Tesco Mobile.

⁵⁵ Represents weighted average price of handset and monthly rental, excluding any charges for outof-bundle use.

Further analysis of the tariffs available in December 2016 shows that, while a 32GB Apple iPhone 7 costs £599 to buy outright,⁵⁶ those subscribing to a 24-month post-pay plan including the same device could end up paying up to 18% more for the handset over the duration of their minimum contractual term.⁵⁷ This is equivalent to taking a loan for the handset with an APR⁵⁸ of over 16%. It is therefore important that consumers consider the cost of the service and the device, and shop around for the deal that best suits them.

Figure 1.13 'Weighted average' monthly price of a post-pay plan with handset and SIM-only plan with handset purchased separately: 2012 to 2016



Source: Ofcom, using data supplied by Teligen;

Notes: Price for a mid-range handset across years purchased, bundled with a post-pay plan or purchased separately with a SIM-only plan; connections 5, 7 and 8 include 4G data; weighted average tariff for primary providers in 2016, 2015, 2014; weighted average of top three providers in 2013 and 2012; includes promotional discounts; adjusted for CPI (July 2016); figures have been rounded to the nearest whole number.

We estimate over a million mobile users pay their full monthly charge after the end of their contract

A further issue in post-pay tariffing is that unengaged consumers may continue to pay their full monthly charge after the end of their initial contractual term, rather than switching to a SIM-only service. In effect, this means that they are continuing to pay for their device unnecessarily.⁵⁹

Ofcom research suggests that nearly a fifth of post-pay mobile users are not aware that they can drop down to a cheaper tariff with their existing supplier once their contract ends; a

⁵⁶ Price of Apple iPhone 7, 32GB, Black, from Apple online store; http://www.apple.com/uk/shop/buy-iphone/iphone-7/4.7-inch-display-32gb-black#00,11,20

⁵⁷ The price of the device was calculated by comparing the price of a post-pay plan including an Apple iPhone 7 32GB (contract term of 24 months) with an equivalent SIM-only plan (same voice, SMS and data allowance, with contract term of 12 months) from the same provider. The difference between these two plans was considered as the monthly price of the device. The monthly cost was then converted to the total price of the device over the minimum contract period by multiplying by 24 and adding upfront cost.

⁵⁸ An annual percentage rate (APR) is the annual rate charged for a loan

⁵⁹ Some providers such as O2 and Tesco Mobile offer 'split-tariff' contracts which separate the handset and airtime charges so that consumers are aware of how much they are paying for the device.

quarter said that they 'did nothing' the last time their mobile contract ended. ⁶⁰ Perhaps linked to this behaviour/ lack of awareness, Ofcom research suggests that a minority (6%) of post-pay customers with handsets continue to pay their full monthly charge after the end of their contract, rather than switching to a cheaper SIM-only service. This equates to more than a million post-pay mobile customers ⁶¹, suggesting that, collectively, UK mobile users could be overpaying by around £130m each year (assuming an average monthly handset charge of £11). ⁶²

Consumers' awareness of post-pay allowances and usage levels is limited

The increase in bundled allowance with post-pay plans has had a positive impact on the overall post-pay prices, according to our basket-based pricing analysis. However, Ofcom research⁶³ shows that many post-pay mobile users do not know what is included in their contract and/or how much they use.

The chart below shows that for post-pay customers with fixed allowances, awareness is highest for data; three-fifths (60%) of those with a fixed data allowance are aware of both their allowance and usage. In comparison, just over half (53%) with a call allowance said they were aware of what it was and how much they used, while the proportion was 43% for texts. Those who are aware of their package *and* usage rarely exceed their allowances, and the vast majority of them tend to use less than their voice/text allowances, compared to nearly two-thirds (63%) who use all of their data allowance.⁶⁴

Ofcom research also suggests that 21% of post-pay mobile users regularly pay more than their monthly contract price. Analysis of information collected from the leading mobile providers, which suggests that, on average, 22% of post-pay mobile users' monthly bills relates to spend on services outside the monthly allowance. It is notable that some of this out-of-bundle spend could be for services that are typically not offered as part of inclusive allowances, or are due to infrequent use, such as international calls. For further details on this, see the Tariff complexity and discounting section.

It is important that consumers understand their allowances and usage, so that they are better-placed to select the optimal tariff. However, not being on an optimal plan does not necessarily mean that consumers have been unable to identify a more suitable tariff. They may buy a plan with a higher allowance than they need in order to have certainty over what their monthly bill will be, to be able to obtain a particular device with their service or to pay a lower upfront device payment.

EE, Vodafone, O2, Tesco Mobile, TalkTalk Mobile, Virgin Media and BT Mobile and does not account

for variations in usage.

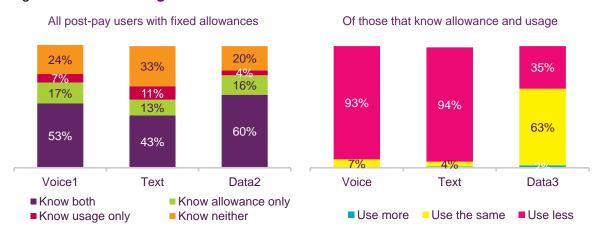
⁶⁰ Ofcom *End of Contract Notification Research:* 81% of post-pay customers said they were aware that they could drop down to a cheaper tariff with their existing provider when their minimum contract period ended https://www.ofcom.org.uk/research-and-data/multi-sector-research/end-of-contract-notification

⁶¹ Ofcom Switching Tracker: 6% of standalone post-pay customers whose contract included a handset said they were out of contract, but their monthly cost had remained broadly unchanged. https://www.ofcom.org.uk/_data/assets/pdf_file/0025/95524/Switching-Tracker-2016-Data-tables.pdf
62 This assumes that the number of consumers in this situation remains constant over the course of the year. Data provided by leading mobile operators show that post-pay customers with a handset pay £11, on average, more than those with a SIM-only post-pay plan. The data is as of Q2 2016 from

⁶³ Ofcom online consumer research. December 2016

⁶⁴ Post-play plans do not typically allow users to carry over any unused allowance to the next month and allowances are usually reset at the start of a billing cycle, although some providers (such as Sky and Virgin Media) have started offering roll-over options.

Figure 1.14 Knowledge and use of fixed allowances included in mobile contracts



Source: Ofcom online consumer research, December 2016

Q5/16: How much data/ how many voice minutes/texts are included in your contract payment plan? Q6/17: And how much data/ how many minutes/texts do you actually use?

Base: All with a mobile contract and a fixed amount of voice minutes (675), fixed amount of texts (330), fixed amount of data (883). All who know both their allowance and use: voice minutes (368), texts (148), data (519)

Notes: 1 Knowledge of voice allowance significantly higher than knowledge of text allowance; 2 Knowledge of data allowance significantly higher than knowledge of voice or text allowance; 3 Exact use of data allowance significantly higher than exact use of voice or text allowances

Pricing of pay-TV services

The price of standalone basic pay-TV services has declined

Using Teligen's pricing model, we have calculated the weighted average price of a standalone basic pay-TV service between 2012 and 2016. We define a basic pay-TV service as the lowest price pay-TV service that includes channels which are not available free to air. This includes tariffs offered by Sky and Virgin Media as the only providers which offer pay-TV services on a standalone basis, and it excludes promotional discounts and the cost of the TV licence (currently £145.50 per year, or £12.13 per month). Our analysis indicates that average standalone basic pay-TV prices have declined in real terms, even though service quality has increased, with these services offering more HD content and on-demand/catch-up services.

Figure 1.15 'Weighted average' monthly price of standalone basic pay-TV: 2012 to 2016



Source: Ofcom, using data supplied by Teligen

Notes: Excludes the TV licence fee; excludes promotional discounts and DVR costs; adjusted for CPI (July 2016); the Teligen model defines basic pay-TV as the cheapest service which includes channels that are not available on free-to-air (FTA) services.

The majority of pay-TV customers buy the service as part of a bundle

While analysis of standalone pay-TV prices is important, the price of bundled pay-TV services is relevant for more consumers, as approximately two-thirds (64%) of pay-TV customers purchase their service as part of a bundle.⁶⁵

We have estimated the marginal cost of a bundled basic pay-TV service using SimplifyDigital data that compares the price of a triple-play package including basic pay-TV with that of the same provider's equivalent dual-play package, and assumes that the difference between the two is the marginal cost of the pay-TV component of the bundle.⁶⁶ Again, this analysis

⁶⁵ Ofcom's Technology Tracker shows that of those with pay TV, and excluding those who don't know the supplier used for one or more services (3% of all with pay TV), 36% have pay TV as a standalone service while 64% have a bundled service for pay TV (in that they also use the pay-TV supplier for one or more other services). This is broadly comparable with subscription data provided to Ofcom by leading providers of pay-TV services, which report that 70% of pay-TV customers purchased the service as part of a bundle in Q2 2016.

⁶⁶ Using data provided by SimplifyDigital to analyse the trends in prices of pay-TV services sold as part of a triple-play bundle. The pay-TV element represents the simple average of all pay-TV plans

excludes promotional discounts and the TV licence. The nature of this calculation, and the assumptions made, mean that the results are only indicative. However, they suggest that while there was little change in the price of bundled basic pay-TV services in real terms between Q1 2013 and Q3 2016, prices have been increasing since 2015.

It is notable that new customers buying triple-play bundles rarely pay the standard price, due to discounting, and many of those buying pay-TV as part of a bundle will have been able to offset the increased marginal cost of bundled basic pay-TV in this way.

Figure 1.16 Average monthly price of pay-TV as part of a triple-play bundle



Source: SimplifyDigital

Notes: Average pay-TV component of triple-play bundle; adjusted for CPI (September 2016); excludes promotional discounts and off-net packages; represents data for BT, Sky, TalkTalk and Virgin Media

The average prices of most premium content add-ons have increased

The standard prices of premium channel add-ons,⁶⁷ (Sky Sports, Sky Cinema, Sky Movies & Sports and BT Sports) increased between Q1 2013 and Q3 2016. It should be noted that in some cases, these prices do not capture of the full cost of access to this content, as customers may have to buy additional packages before they can purchase the specified content.

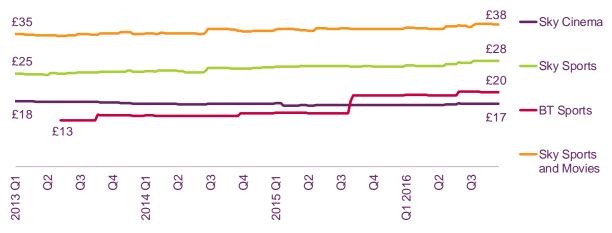
The prices consumers pay for premium content typically vary according to the package they buy and the pay-TV provider they buy it from. For example, while the average quarterly price of a Sky Sports add-on was £28 in Q3 2016 (an increase of 14% in real terms compared to Q1 2013), the average prices ranged from £22 to £32. Similarly, while the average price for Sky Sports and Movies was £38 in Q3 2016, the average quarterly price ranged from £36 to £42.

Some of the price variations between providers can be explained by differences in the content and additional services provided. For example, BT's Sky Sports option (which costs £22 per month in Q3 2016) includes only two channels (Sky Sports 1 and 2), compared to TalkTalk's, which offers six Sky Sports channels (Sky Sport 1 to 5 and Sky Sports F1) for £10 per month more.

offered by the top four providers, BT, Sky, TalkTalk and Virgin Media. The plans exclude Sky Sports and Sky Movies premium pay-TV channels as well as any off-net packages.

⁶⁷ Using data provided by SimplifyDigital to look at the average prices for these add-ons from Sky, BT, TalkTalk and Virgin Media.

Figure 1.17 Average monthly price of pay-TV premium add-ons: Q1 2013 to Q3 2016



Source: SimplifyDigital

Note: Calculated as simple average of add-on prices across four providers: Sky, BT, Virgin Media and TalkTalk; adjusted for CPI (September 2016); during this period, BT Sports was not available to TalkTalk customers and was available free of charge to BT customers; figures have been rounded to the nearest whole number.

Over-the-top services provide a low-cost alternative to traditional pay-TV services

Widespread take-up of fixed and mobile broadband services has contributed to the growing popularity of over-the-top (OTT) services, i.e. services delivered over the internet such as Netflix, Amazon Prime TV and Now TV. These were in use in more than eight million UK homes at the end of 2016. While the prices of most OTT services increased in real terms between Q1 2012 and Q3 2016, most of these services are still significantly cheaper than traditional basic pay-TV. For example, *Amazon's* standalone OTT was the cheapest offer in Q3 2016, at £6 per month, while *Netflix's* Basic offering, NOW TV's Entertainment pass and Amazon Video with Prime were priced at £7 per month.

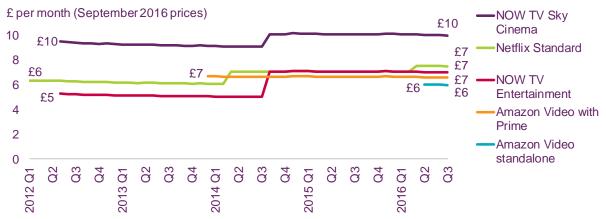
These services provide a low-cost alternative or complement to traditional pay-TV services. Ofcom's consumer research suggests that OTT subscribers are more likely than the general population to subscribe to traditional pay-TV.⁷⁰

⁶⁸ BARB Establishment Survey

⁶⁹ Using data provided by SimplifyDigital to analyse the price of three OTT providers: Netflix, Amazon and Now TV.

⁷⁰ Ofcom Technology Tracker, H2 2016 data shows that 31% of adults in the UK subscribe to OTT services and this percentage increases to 37% for consumers who have a pay-TV and OTT subscription.

Figure 1.18 OTT service pricing: Q1 2012 to Q3 2016



Source: SimplifyDigital

Notes: Adjusted for CPI; Netflix also offers Basic and Premium services (£5.99 and £8.99 per month respectively in September 2016); NOW TV also offers Kids and Sky Sports services (£2.99 and £33.99 per month respectively in September 2016); Amazon Video is also available with Amazon Prime unlimited next-day delivery (£7.99 per month or £79 per year in September 2016); figures have been rounded to the nearest whole number.

Pricing of bundled services

Bundled services have become more relevant compared to standalone fixed broadband

Analysis of the data collected from leading service providers shows that only a small proportion (5%) of fixed broadband customers buy the service on a standalone basis, with majority (over 85%%) purchasing the service as part of a dual-play bundle with fixed voice or triple-play with fixed voice and a pay-TV bundle⁷¹. Therefore, we believe that analysing the prices of dual-play or a triple-play bundles is more relevant to assessing the tariffs that are available to consumers who purchase broadband service compared to price of standalone fixed broadband.

Three-quarters of UK households buy bundled communications services

The majority of UK homes purchase one or more communications service from the same provider as part of a bundle, benefiting from convenience and typically lower prices than when buying services separately. Ofcom research shows that three-quarters (75%) of UK households purchased multiple services from the same provider in 2016, in part because most fixed broadband services require a landline to be purchased from the same provider. Around a third of households buy a triple-play service which includes fixed voice, broadband and pay-TV.⁷²

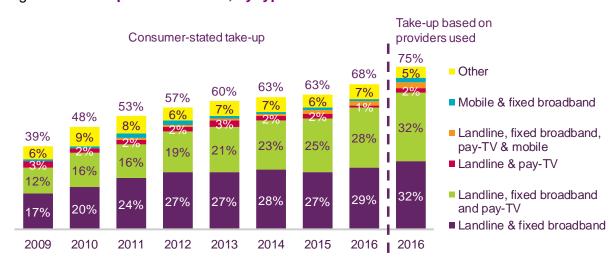


Figure 1.19 Proportion of users, by type of bundled services: 2006 to 2016⁷³

Source: Ofcom Technology Tracker. Data from Quarter 1 of each year 2005-2014, then Half 1 2015-2016

Base: All adults aged 16+ (2016 n=3737)

⁷¹ Broadly consistent with data from Ofcom's Technology Tracker – c. 90% of fixed broadband customers purchase this with other services from the same provider

⁷² Analysis of data provided by the leading service providers show that more than 20 million customers in the UK buy service bundles, of which triple play (45%) are the most popular, followed by dual play (41%).

⁷³ The methodology was revised in 2016 to report the proportion of UK adults purchasing multiple services from a single provider, based on the stated main provider used for each service. Previously, the data related to the proportion of customers self-reporting a bundle of services. Analysis for 2016 now also includes those who pay line rental in addition to their broadband service as a bundle.

Notes: Consumer-stated take-up includes those respondents who claimed to purchase bundled services, while 'Take-up based on providers used' includes those who do not claim to purchase bundled services but who purchase more than one service from the same provider.

Bundled tariff plans are cheaper than buying separate standalone services

The chart below shows analysis of the standalone and bundled prices of four baskets of services, which are designed to reflect the usage of 'typical' households, over the past five years.⁷⁴ The analysis, which was conducted using Teligen's pricing model, indicates that consumers can typically make savings by buying services within bundles rather than buying them separately.

The average bundled price of a basket of services typical of the usage of a family household comprising two adults and two teenage children was £102 in 2016, 27% less than the average standalone price for the same services (£140), the largest proportional difference among our households. Comparatively, the saving was lowest for the basket which is designed to represent a low-use couple with basic needs, at just 14%, and averaged 21% across the four baskets used in the analysis.

Broadband £73 household with £52 £71 basic needs £72 £67 £67 £52 ■ Low use couple £56 £47 £50 £183 with basic needs £53 £56 £47 £48 £161 £46 £129 £137 £140 £105 £99 £100 Family £100 £102 household with £214 £166 £156 £160 multiple needs £149 £148 £131 £126 £128 ■ Affluent two person 2012 2013 2014 2015 2016 2013 2012 2014 2015 2016 household Standalone Bundled

Figure 1.20 'Weighted average' monthly pricing for standalone and bundled services: 2012 to 2016

Source: Teligen

Notes: Weighted average tariff for primary providers in 2016, 2015, 2014; weighted average of top three providers in 2013 and 2012; includes promotional discounts; prices are adjusted for CPI (July 2016); figures have been rounded to the nearest whole number.

Bundled customers spend less than those purchasing the same services on a standalone basis

Evidence of the savings that are available when purchasing bundled services can be seen when looking at average consumer spend data, which was provided to Ofcom by the UK's largest providers of residential communications services for use in this report.

The analysis shows that consumers purchasing a quad-play bundle of landline, fixed broadband, pay TV and mobile phone services spent, on average, £58 per month on these services in Q2 2016, about half of the total average monthly spend for the same services when purchased on a standalone basis. Similarly, the total of the average spend for those buying a triple-play bundle with a standalone post-pay mobile service was 30% less than the total average standalone spend for the same services, and the total average spend for dual-

⁷⁴ Details of the usage profile of the households are included in the Methodology section

play bundle customers and standalone pay TV and mobile was 11% less than for the standalone total.

It is important to note that the average spend is calculated across all customers buying a particular service or bundle of services, and the figures will therefore partly reflect variations in usage among those who purchase different services/ combinations of services. Additionally, those who bundle are likely to be more engaged with the market and may be better able to identify tariffs that match their usage requirements.

However, despite these limitations, the analysis does suggest that there are significant savings available to those who purchase bundled communications services.

Quad-play bundle 26 Triple-play bundle 58 35 ■ Dual-play bundle 23 58 Landline 57 43 43 ■ Fixed broadband Pay-TV 25 25 25 ■ Mobile Quad-play Triple-play bundle Dual-play bundle Aggregate of and standalone and standalone pay- standalone services mobile TV & mobile

Figure 1.21 Average monthly consumer spend, by level of service bundling

Source: Ofcom / operators

Note: Data as of Q2 2016; line rental is included in landline; standalone mobile spend is for post-pay mobile connections; weighted average spend calculated using number of customer and average spend from providers for different services/bundles of services; subscription base for standalone fixed broadband is low and should be treated with caution; figures have been rounded to the nearest whole number.

Superfast broadband costs an average of £4 per month more than standard services

The price of superfast broadband (a connection of at least 30Mbit/s) has fallen significantly since it first became widely available in 2008, and the gap between the price of a superfast and a standard connection has narrowed.

The average price⁷⁵ of the cheapest dual-play bundles with superfast broadband offered by the leading UK providers declined by 25% in real terms to £34 per month between Q4 2009 and Q4 2016, while the average price of the cheapest triple-play bundles with superfast broadband fell by 16% to £43 over the same period. In the last decade, the average lowest price of dual-play bundle with standard broadband has declined by 5% to £29, while the average of the lowest prices for triple-play bundles with standard broadband has increased by 14% to £40.

Consequently, the price premium for superfast broadband declined between Q4 2009 and Q4 2016, falling from £21 to £4 for dual-play bundles and from £15 to £3 for triple-play bundles. Part of the reason for the decline in the price of cheapest superfast broadband

⁷⁵ Using data provided by Pure Pricing to calculate the average monthly price of the entry-level dualplay and triple-play bundled services offered by BT, TalkTalk, Sky, Virgin Media, Plusnet and EE. Represents the straight average of the cheapest tariffs from these providers.

plans is the introduction of entry-level 'fibre' plans with a limited data allowance at a price equivalent to standard broadband plans that offer 'unlimited' data allowance.⁷⁶

£53 £51

£43 — Triple-play (superfast bb)

£36 — Triple-play (superfast bb)

£34 — Triple-play (standard bb)

£35 — Dual-play (superfast bb)

Figure 1.22 Cheapest available dual and triple-play monthly tariffs: 2006 to 2016

Source: Ofcom using data supplied by Pure Pricing
Note: Represents straight average of cheapest dual- and triple-play tariffs from BT, TalkTalk, Sky,
Virgin Media, Plusnet and EE, and are not weighted by market share; data as in December of each
year; adjusted for CPI (December 2016); includes VAT; where a provider did not offer its own line
rental services, the cost of BT line rental has been included (as this was required by the service); the
prices used in the analysis are list prices and exclude any promotional discounts; figures have been

rounded to the nearest whole number.

Dual-play (standard bb)

⁷⁶ Pure Pricing Broadband pricing tracker, December 2016. Sky's Fibre dual-play plan with a 25GB inclusive data allowance (advertised speed of 'up to' 38Mbit/s) had the same price as its 'unlimited' standard broadband service (advertised speed of 'up to' 17Mbit/s) while BT's Infinity 1 fibre plan with a 25GB inclusive data allowance (advertised speed of 'up to' 52Mbit/s) had the same price as its 'unlimited' standard broadband service (advertised speed of 17Mbit/s).

Tariff complexity and discounting

Complicated tariffs may make it difficult for consumers to compare prices

As discussed in the <u>Pricing</u> sections above, selecting the correct tariff plan is important and consumers may end up paying significantly more than is necessary if they are on a plan that does not suit their usage.

Most telecoms service packages comprise a number of pricing elements which determine the overall cost of the service. Some of these charges are fixed monthly fees, which are independent of service consumption, while others are based on usage, and many services often have upfront installation and equipment costs. To add another layer of complexity, the number of packages available to consumers has increased significantly over recent years, in part due to the availability of service 'add-ons' that can be purchased in addition to core services; for example, call packs or additional TV channels. While this means that consumers have increased choice and flexibility, these tariff permutations can make it more difficult for people to compare prices and identify the service that best suits them.

According to the tariff data provided by SimplifyDigital, there were, on average, 153 core dual-play packages on offer from providers of residential services in Q3 2016, up from 86 in Q1 2013.⁷⁷ The number of core triple-play packages increased from 208 to 398 over this period. The inclusion of just one additional paid-for service 'add-on' dramatically increases the number of package combinations that are available, resulting in averages of 320 dual-play and 3,413 triple-play services available, up from 240 and 1,850 respectively.

Dual-play core packages 208 Triple-play 153 core packages 86 21 2013 02 21 2014 83 21 2015 8 83 9 21 2016 92 93

Figure 1.23 Number of core dual and triple-play packages: Q1 2013 to Q3 2016

Source: SimplifyDigital

Note: Tariff packages included for the following providers: BT, DirectSave Telecom, EE, Fuel Broadband, John Lewis, Origin Broadband, Plusnet, Pop Telecom, Post Office, Primus, Sky, SSE, TalkTalk, TenTel, Virgin Media, Vodafone, XLN Telecom.

Consumers can pay significantly higher prices for broadly similar services

The figure below uses data provided by SimplifyDigital to illustrate the variation in the price of the cheapest dual-play plans with fibre-to-the-cabinet (FTTC) superfast broadband, offered by the leading providers of these services (BT, Sky and TalkTalk). All of these

⁷⁷ Tariff packages included for the following providers: BT, DirectSave Telecom, EE, Fuel Broadband, John Lewis, Origin Broadband, Plusnet, Pop Telecom, Post Office, Primus, Sky, SSE, TalkTalk, TenTel, Virgin Media, Vodafone, XLN Telecom

services use the same underlying technology, but our analysis shows that consumers can pay higher prices for broadly similar services based on their choice of provider.

While the average monthly price of entry-level dual-play plans with superfast FTTC broadband was £39 in Q3 2016, available prices ranged from £32 to £46 (a difference of £14). This compared to a range of £33 to £37 (adjusted for inflation) in Q1 2013, a difference of £3, indicating that the range of prices available for these services has widened over time. Similarly, the average cheapest offers for FTTC triple-play plans with superfast broadband ranged from £41 to £53 in Q3 2016 (a difference of £12 per month), again highlighting the importance of consumers being able to compare prices across providers and select a service that matches their needs.

£46 £37 £39 £35 £33 £32 2013 2014 2015 2016 22 **Q**3 9 92 03 8 92 03 8 02 23 5

Figure 1.24 Price range of cheapest dual-play offers with superfast broadband available from BT, Sky and TalkTalk: Q1 2013 to Q3 2016

Source: SimplifyDigital

Notes: Tariff covered for BT, Sky and TalkTalk; the prices used in the analysis are list prices and exclude any promotional discounts; adjusted for CPI (September 2016); figures have been rounded to the nearest whole number.

Consumers on the wrong tariff may pay significant out-of-bundle charges

As highlighted in the <u>Pricing of landline voice services</u> section, prices for out-of-bundle use have increased, making it important that consumers are able to select a tariff that suits their needs. To illustrate this, we have used Teligen's pricing model to assess the price that consumers would pay for a basket of landline calls (based on average use in 2015) using a number of BT's standalone landline plans.⁷⁸

BT's *Home Phone Saver* plan had the lowest overall price for our basket of usage in July 2016; however, this service is for voice-only customers and cannot be bundled with broadband, and is therefore not suitable for most UK homes.⁷⁹ Customers using BT's most basic standard landline plan (which includes unlimited weekend calls to UK landlines) would pay a total price of £45.09 per month for the basket, but by purchasing an unlimited anytime call package for £8.50 per month, out-of-bundle call spend was reduced, giving a total monthly price of £36.18, a 25% saving. This illustrates that consumers do not need to switch

⁷⁸The analysis excludes BT Basic, the low-cost package available only to customers who meet the eligibility criteria of claiming specified benefits.

⁷⁹ Ofcom's Technology Tracker suggests that 81% of UK homes had a fixed broadband service in H2 2016.

provider to reduce their spending; they can do so by selecting a plan that better matches their usage.

An emerging trend in fixed voice pricing over recent years has been growth in the number of residential landline packages that do not include any inclusive calls (SimplifyDigital data show that the proportion of dual-play landline and fixed broadband packages that did not offer any inclusive calls increased from 4% to 53% between Q1 2013 and Q3 2016). Further, data collected from leading landline providers show that about 15% of all landline customers were on plans that did not offer any inclusive calls at the end of Q2 2016 (24% were on plans offering inclusive weekend calls, 23% were on plans with inclusive evening and weekend landline calls and 36% were on inclusive anytime call plans).

While packages without inclusive call allowances may work well for consumers who only rarely make outgoing calls, or those who only have a landline in order to be able to access fixed broadband services, they can be expensive for users who make even a small number of outgoing calls. For example, an hour-long daytime call to a UK geographic number costs around £7.



Figure 1.25 Price of a basket of standalone BT fixed voice services: 2016

Source: Ofcom using data supplied by Teligen, July 2016 data Note: Basket includes 140 outgoing voice call minutes (81% UK geographic, 12% to UK mobiles, 7% international), 58% of calls in daytime, 25% in evening, 17% at weekend; set-up costs are amortised over five years; excludes line rental saver plans

Almost a third of average standalone landline spend is on services that are not included in the package

Data collected from leading providers of residential services shows average spend for different services/ bundles of services in Q2 2016. The proportion of total spend that was due to out-of-bundle usage ranged from 6% for triple and quad-play customers to 31% for standalone landline users, again emphasising the need for consumers to engage with the market by assessing their usage and selecting the right plan in order to avoid overspending on communications services. However, it should be noted that some out-of-bundle spend could be for services that are typically not offered as part of inclusive allowances, or are due to infrequent use, such as international calls.

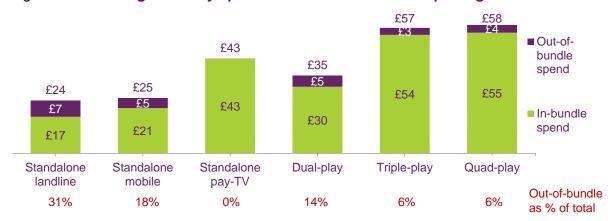


Figure 1.26 Average monthly spend on services outside the package allowance

Source: Ofcom / Operators

Notes: Data as of Q2 2016, weighted average spend calculated using number of customer and average spend collected from providers for different services/bundles of services; Standalone landline includes BT Basic; triple-play includes both variants: landline, fixed broadband, pay-TV and landline, fixed broadband and mobile; standalone mobile represents post-pay connections; figures have been rounded to the nearest whole number.

New advertising guidelines aim to make it easier to compare broadband prices

Until recently, ISPs typically advertised their fixed broadband, dual or triple-play plans by highlighting the discounted monthly price for services and included the required line rental charges as a separate charge, typically much less prominent. However, as we have discussed in the Pricing of landline voice services section of this report, line rental charges have been increasing steadily over recent years and were often a significant proportion of the total service cost (usually the majority of the price for dual-play tariffs). Similarly, highlighting discounted tariffs rather than the price after any promotional period makes it difficult for consumers to fully understand the financial commitment of taking up a service and compare service prices.

Joint research by Ofcom and the Advertising Standards Authority (ASA) in June 2015 found that around a quarter (24%) of fixed broadband decision makers were unable to identify the total cost per month, after viewing an ad twice, and being asked to focus on the deal.⁸⁰ Overall, 81% of respondents could not accurately calculate the total cost of a broadband contract.⁸¹

Following the study, the ASA introduced new guidelines on the advertising of fixed broadband tariffs to simplify pricing, with the purpose of preventing consumers from being misled. The new guidelines require that broadband advertising:

shows all-inclusive monthly charges, meaning that there will no longer be separation
of the line rental fee in broadband advertising,

 80 https://www.ofcom.org.uk/__data/assets/pdf_file/0031/98077/Ofcom-Fixed-BB-Advertising-of-prices-Report-2015.pdf

⁸¹ Ofcom collects spontaneous attitudes/perceptions towards 'ease of making cost comparisons' via its Switching Tracker. However, we consider it appropriate to conduct further exploratory research, targeted among specific groups of consumers e.g. those who have sought to make cost comparisons in each of the communications markets, in order to better understand consumers' ability to navigate comparable information (including cost) in the communications markets.

- greater prominence to contract length and any post-discount pricing,
- shows all-inclusive up-front charges and give them greater prominence.

The new guidelines came into force on 31 October 2016, and while it is too early to assess their impact on consumer behaviour, examples of broadband advertising before and after they came into effect are shown below.

Prior to the new ASA guidelines Following the new ASA guidelines 12-month contract £22.99[△]/mth Total cost £5⁴/mth Includes BT Line rental Cost breakdown 12-month contract Upfront £9.99 f18 99/mth line rental elect and personalise > No Activation fee 12-month contract elect and personalise £22.99 /mth Total cost Broadband £4/mth + Line rental £18.99/mth Cost breakdo £9.99 Hub delivery £9.99 + No activation fee 25GB monthly usage limit £27.40 a month £100 ^ for 18 months for 12 months (^ then £10 a Includes line rental & Sky month) + Sky Line Rental (£17.40 a month). Talk + £59.95 one off set-up Or get Sky Fibre free forever with Sky Sports* Add to basket Get started

Figure 1.27 Examples of changes in advertising of broadband tariff

Source: Operator websites

New bundled service customers rarely pay standard prices

Providers typically offer promotional discounts to attract new customers, as well as retention (or loyalty) discounts to keep existing customers who are at risk of leaving for another supplier.

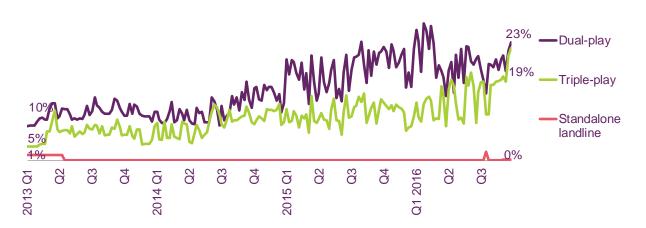
While discounting can provide savings for engaged customers who switch provider (or threaten to do so), unengaged consumers are unlikely to benefit from them. Furthermore, discounting adds an additional layer of complexity to service pricing, making it more difficult to compare the overall cost of different plans. Promotional discounts tend to be targeted at customers buying bundled services, and discounting has become an integral part of bundled

tariff plans. New customers buying bundles rarely pay the standard tariff, while standalone landline customers tend not to benefit from promotional activity, and pay standard prices.⁸²

Figures provided by SimplifyDigital show the proportion of standalone landline and dual- and triple-play bundles that were offered with some type of promotional discount. On average, 94% of all dual-play plans and 97% of triple-play plans offered by the UK's largest residential fixed telecoms providers had some element of discount in Q3 2016, compared to 81% and 70% respectively in Q1 2013. It is notable that there were periods from Q4 2014 onwards where all of the triple-play plans offered by these providers had a discount of some description. For standalone fixed lines, however, there were few discounts during the period in question.

SimplifyDigital's data also show that providers have started offering more generous promotional discounts on bundled services. The average promotional depth (the value of the discount as a proportion of the total standard or list price of the service over its minimum contractual term) for dual-play plans increased from 10% to 23% between in Q1 2013 and Q3 2016 while it increased from 5% to 19% for triple-play bundles. In comparison, the average promotional depth for landline-only plans was just 0.2% in Q3 2016.

Figure 1.28 Average promotional depth, by type of service: Q1 2013 to Q3 2016



Source: SimplifyDigital

Note: Shows the depth of offer as a percentage minimum term cost of the contract; dual-play and triple-play plans from the top four providers: BT, TalkTalk, Sky and Virgin Media.

Standard bundle prices have increased, while those including discounts have remained flat or fallen

SimplifyDigital data also show that while list prices for dual-play and triple-play bundles have increased (partly due to changes in service specification, such as higher access speeds and a greater proportion of services with 'unlimited' data allowances), they have remained stable, or fallen, once promotional discounts are taken into account.⁸⁴

The average list price of dual-play plans increased in real terms from £41.73 to £46.89 between Q1 2013 and Q3 2016, while the price including promotions fell from £37.47 to £36.13. Similarly, the average standard price of triple-play plan ranged from £78.69 to

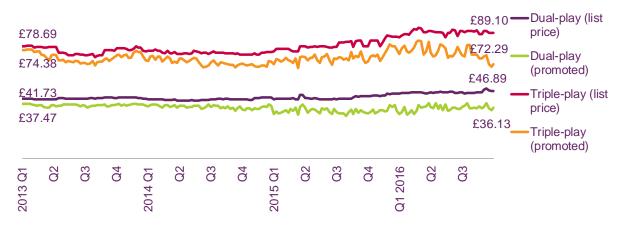
⁸² Line rental saver plans do offer discounted line rental for those who pay for 12 months upfront.

⁸³ Dual-play and triple-play tariffs from top four providers: BT. Sky. TalkTalk and Virgin Media.

⁸⁴ Analysis does not cover changes in tariffs after the implementation of ASA guidelines for fixed broadband advertising

£89.10 over the same period, while the promoted price fell from £74.38 to £72.29. As such, while engaged consumers have been able to offset price increases by taking advantage of operator discounts, those who are unengaged may not.

Figure 1.29 Comparison of standard and promoted dual-play and triple-play bundle prices: Q1 2013 to Q3 2016



Source: SimplifyDigital

Notes: Dual-play and triple-play plans from the top four providers: BT, TalkTalk, Sky and Virgin Media; adjusted for CPI (September 2016).

Consumers can achieve discounts by negotiating with their existing provider

Ofcom research shows that some consumers have negotiated a discount on their existing service/s, in the past 12 months. This behaviour was least common in the standalone landline market (<1%) and highest for bundles (8% for dual-play and 7% for triple-play).

Figure 1.30 Frequency of consumer negotiating a discount with existing supplier

		£		
Stand-alone landline	Stand-alone post- pay mobile	Stand-alone pay- TV	Dual-play bundle	Triple-play bundle
-	5%	5%	8%	7%

Source: Ofcom Switching Tracker carried out by Saville Rossiter-Base in July to August 2016 Base: All adults aged 16+ who are the decision-maker for landline as a standalone service (316) mobile contract as a standalone service (1420), pay TV as a standalone service (258), bundle of services (dual 479, triple 691)

Consumer engagement

Those buying bundles are the most likely to engage with the communications market

There are a number of ways in which consumers can engage with the communications market, such as switching provider, 'considering switching', 'keeping an eye on the market', and 'making changes to existing service'. Ofcom's engagement index takes all of these into account, and classifies consumers as being: engaged, interested, passive or inactive.⁸⁵

The engagement index shows that customers purchasing bundled services are more likely to be engaged than are those purchasing standalone services.⁸⁶

The proportion of consumers classified as 'engaged' in 2016 was highest for those with triple- (39%) and dual-play bundles (30%). Standalone landline customers were the least likely to be engaged, (7%) and 29% being categorised as 'inactive', the largest proportion among the services/service combinations included in the analysis. Across all services/service combinations, engagement levels were generally lower among the oldest age group (65+), and in the mobile market nearly half as many consumers aged 65+ were engaged, compared to the UK average (11% vs. 21%), engagement being lower still among older consumers with pre-pay mobile (6%). Differences in levels of engagement by demographic are detailed in Ofcom's *Access and Inclusion* report.⁸⁷

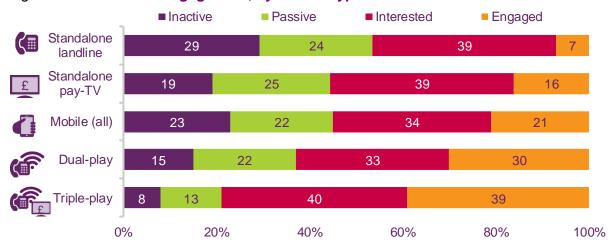


Figure 1.31 Levels of engagement, by service type/combination

Source: Ofcom Switching Tracker, carried out by Saville Rossiter-Base in July to August 2016. Base: All adults aged 16+ who are the decision-maker for landline as a standalone service (328), pay TV as a standalone service (310), mobile (2265), bundle of services (dual 479, triple 691).

Standalone landline users have been with their provider for an average of 22 years

We have analysed operator data to reveal the average length of tenure of different types of customer. Again, this can be broadly used as a proxy for levels of customer engagement, as

⁸⁵ Further details of Ofcom's engagement index can be found in the Access and Inclusion slide pack https://www.ofcom.org.uk/_data/assets/pdf_file/0029/98615/access-inclusion-research-annex.pdf

⁸⁶ Engagement among bundlers takes account of engagement with each relevant market/service.

⁸⁷ https://www.ofcom.org.uk/__data/assets/pdf_file/0030/98508/access-inclusion-report-2016.pdf

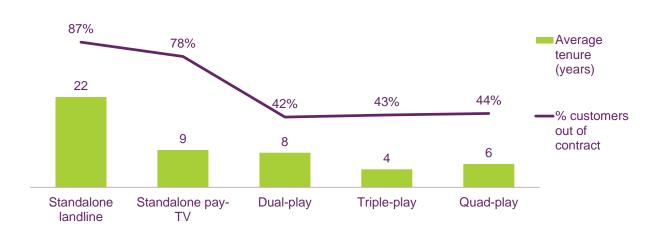
unengaged customers are less likely to have switched, and are therefore more likely to have been with their provider for longer.⁸⁸

On average, customers subscribing to standalone landline services had been with their provider for 22 years in Q2 2016.⁸⁹ In comparison, standalone pay-TV users had been with the same provider for an average of nine years, while those purchasing dual-, triple- or quadplay bundles had been with their provider for averages of eight, four and six years respectively.

The shorter average tenure for bundled services, in part, is likely due to the rapid growth in bundle take-up over the last decade, while the longer average tenure for standalone landline services is likely to reflect lower engagement among users and a lack of choice in the market. Standalone landline services also had the largest share of customers who were outside their minimum contract term in Q2 2016 (87%), suggesting that users have not changed plans or renegotiated tariffs for several years.

While similar tenure data for standalone mobile customers is not available, Ofcom research shows that standalone mobile post-pay customers are more likely to be aware of the details of their current contract term than are standalone pay-TV users or those with dual-play and triple-play bundled services. This may be because most post-pay mobile contracts include a mobile handset, and at the end of a mobile contract consumers can upgrade their handset or move to a lower-priced SIM-only contract.

Figure 1.32 Average customer tenure and proportion of out-of-contract customers, by service



Source: Ofcom / operators

⁸⁸ A limitation of this analysis is that engaged customers may stay with the same provider and switch tariff to get the best value for their usage needs and/or negotiate discounts to remain with their provider. Subscriber tenure will also be a reflection of the length of time that a service/combination of services has been available.

⁸⁹ Ofcom's consumer research suggests that 63% of standalone landline customers have been with the same provider for more than ten years, this proportion stands at 17% for standalone mobile contract, 36% for standalone pay TV standalone, 17% and 15% for dual and triple bundles respectively. Source: Ofcom's Switching Tracker 2016.

Notes: Data as of Q2 2016; Weighted average tenure calculated using number of customer and average tenure from providers for different services/bundles of services; figures have been rounded to the nearest whole number.

Engaged and informed consumers are likely to pay less than those who are unengaged

Customers who engage effectively with the market, and who understand their usage and know when their contract ends, are better placed to select the services that best meet their needs and maximise the value that they receive from their communications services. These engaged customers can pay significantly less than those who do not look around for the best deals and who do not benefit from service discounting, instead paying standard prices for services.

We have used Q2 2016 average spend data, provided by the leading providers, to analyse how consumer spend can vary based on level of engagement. To do this, we have compared average spend for in-contract and out-of-contract customers, with the assumption that in-contract customers are more engaged than out-of-contract customers, as they have recently subscribed to a package (either by switching to a new provider or by renewing their contract with an existing provider). In contrast, out-of-contract customers are more likely to be unengaged as they have stayed on the same service after the end of their minimum contractual term.⁹⁰

Our analysis shows that bundled services customers who are within their contract period pay less than those out of contract. This is unsurprising, because they are likely to be benefiting from discounts. In-contract triple-play customers spent an average of 16% less than those who were out of contract in Q2 2016, while in-contract dual- and quad-play customers paid an average of 13% less than those who were out of contract.

There was only a small difference between in- and out-of-contract standalone landline customers, as was expected, as these services are rarely discounted, while in-contract standalone post-pay mobile customers spent an average of 82% (£13 per month) more than those who were out of contract. This is likely to be due to many in-contract customers paying for their bundled handset.

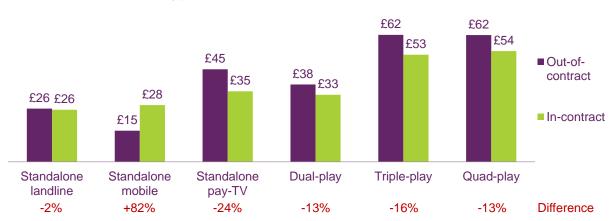


Figure 1.33 Average monthly spend for in-contract and out-of-contract customers, by service type/ combination

⁹⁰ A notable exception to this are post-pay SIM-only customers who are on rolling 30-day contracts, i.e., who have a minimum contract term of 30 days or less with their provider and are therefore more likely to be out-of-contract. Compared to other services, these customers, who are a small proportion (6%) of the total post-pay customer base, can change their plan to suit their usage every month.

Source: Ofcom / operators

Note: Data as of Q2 2016; weighted average spend calculated using number of customer and average spend from providers for different services/bundles of services. Standalone landline excludes BT Basic, dual-play represents fixed broadband and landline bundles, triple-play includes landline, fixed broadband and pay TV and quad-play represents landline, fixed broadband, pay TV and mobile bundles; standalone mobile

represents post-pay connections from Vodafone, O2, EE, BT Mobile, Virgin Media and Tesco Mobile; figures have been rounded to the nearest whole number.

Switching is least common among standalone landline customers

Ofcom research shows that the incidence of switching is highest among dual-play customers, with more than one in ten (14%) switching at least one service in their bundle (12% did so while remaining at the same address), in the 12-month period. Compared to the other services, those with a standalone landline service were the least likely to have switched (3%). This might be because these customers have less choice of suppliers than those who purchase services in a bundle.⁹¹

Further detail on switching is available in the slide pack, and is covered in Ofcom's *Access and Inclusion Report*, which also explores ownership of communications services among three segments of consumers, derived from analysis of household income, household size and working status. These segments are: most financially vulnerable (the least affluent group), potentially financially vulnerable and least financially vulnerable (the most affluent group).⁹².

Figure 1.34 Cross-market overview, switching in the past 12 months (to September 2016)

	C			(£	F	
0/ - 1/-1 - 1/-	Standalone landline			Mobile		Pay-TV		Dual- play	Triple- play
% switched in year to September 2016	Total	No b'band	Bb with another ISP*	S'alone post- pay	Pre- pay	Total	S'alone	Total	Total
Switched total	3%	3%	3%	8%	9%	9%	6%	14%	8%
Switched ex. movers	3%	2%	3%	n/a	n/a	7%	4%	12%	7%

Source: Ofcom Switching Tracker carried out by Saville Rossiter-Base in July to August 2016 Base: All adults aged 16+ who are the decision-maker for landline as a standalone service (316,) no fixed broadband service (246)*, fixed broadband from another provider (70), mobile contract as a standalone service (1420), mobile pre-pay (615), pay TV as a standalone service (258, 2016), bundle of services (2016, dual 479, triple 691). Data are not applicable for mobile switchers, excluding movers as home moving is not relevant to the service.

*Caution: Low base (under 100) for landline standalone with broadband from another provider, treat as indicative only.

⁹¹ Ofcom Review of the market for standalone landline telephone services.

https://www.ofcom.org.uk/ data/assets/pdf file/0027/97812/Annexes-Review-of-the-market-for-standalone-landline-telephone-services.pdf

⁹² https://www.ofcom.org.uk/ data/assets/pdf file/0030/98508/access-inclusion-report-2016.pdf

Most consumers check their communications bills every month, although most are likely to just give them a cursory glance

Checking bills helps consumers become better informed about spend and usage patterns, which in turn can help with engagement activities such as comparing options or negotiating with an existing provider. Our research showed that most customers check their communications bills every month, although almost four in ten standalone pay-TV customers said that they did not check their bills regularly, including 7% who never checked them. Most consumers just did a quick check to make sure the amount was what they were expecting. Dual- or triple-play bills were more likely to be checked in detail than those for standalone mobile or pay-TV services.

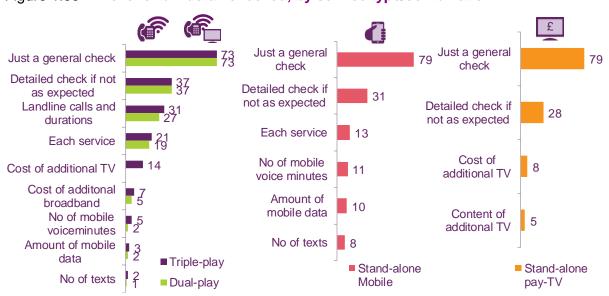


Figure 1.35 Level of bill detail checked, by service type/combination

Source: Ofcom online consumer research December 2016 Q13/25/37 When you look at your bill, which of the following do you do? Base: All with each contract type who ever check their bill: pay-tv (456), standalone mobile: (924), dual-play or triple-play (1,329).

International comparisons

Internationally, the UK compares well in terms of mobile prices, but less well for dualplay bundles, particularly those with superfast broadband

We benchmark UK prices with those in France, Germany, Italy, Spain and the US in our *International Communications Market Reports*, using a pricing model provided by Teligen.⁹³ In this part of the report we summarise our most recent findings regarding prices for standalone landline, mobile and pay-TV services, dual-play bundles and prices of five baskets of services designed to reflect the usage of five typical households.⁹⁴

The UK had the second-lowest total 'weighted average' standalone landline prices among our six comparator countries in 2016. However, BT was the only provider included in the analysis that offered standalone landline services in 2016, and its Home Phone Saver⁹⁵ tariff was the cheapest UK tariff for all the usage types included in the analysis. This service cannot be used with an ADSL or fibre broadband connection, so it is not suitable for most UK households, and when it is excluded from the analysis, more expensive BT tariffs become the cheapest options, and the UK's rank drops from second place to fifth.

Weighted average' standalone mobile prices in the UK were the lowest among our comparator countries in 2016, following a decline in the total price of the eight mobile usage profiles used in our analysis. ⁹⁶ Our analysis of standalone pay-TV prices ⁹⁷ indicates that the UK had the third lowest 'weighted average' standalone price for the four pay-TV services included in the analysis in 2016.

To compare fixed broadband prices, we consider the price of dual-play fixed voice and broadband bundles, as standalone fixed broadband services have become relatively uncommon in most countries. Our analysis shows that the UK had the third most expensive total 'weighted average' price for the three dual-play services included in the analysis in 2016. While the UK was cheapest in terms of the 'weighted average' price of a low-use dual-play bundle including standard broadband, it compared less well for bundles that include superfast broadband.

⁹³ https://www.ofcom.org.uk/__data/assets/pdf_file/0026/95642/ICMR-Full.pdf

 ⁹⁴ Comparing prices for standalone fixed broadband was difficult, as fixed broadband is typically bought alongside a fixed voice service in all our comparator countries. We have therefore compared the prices available for a bundle of broadband and voice services using a basket that includes a minimal number of outgoing voice calls (one outgoing one-minute weekend call to a local destination). The usage baskets have been defined based on average use in 2015. For details of the different usage types and methodology, please refer to the Appendix A of the *International Communications Market Report*, 2016. https://www.ofcom.org.uk/research-and-data/cmr/cmr16/international
 ⁹⁵ BT Home Phone Saver 2019 is only available to consumers buying a standalone service, and offers line rental and inclusive UK geographic calls for £21.99 a month, with the price held until 2019.
 ⁹⁶ Our analysis excludes the cost of mobile handsets.

⁹⁷ This analysis excludes the TV licence fee.

Figure 1.36 International comparison of 'weighted average' prices, by service: 2016

'Weighted average' standalone landline		'Weighted average' standalone mobile		'Weighted average' standalone pay-TV			'Weighted average' dual-play bundle				
1	-	USA	1	•	UK	1		France	1	-	USA
2	-	UK	2	•	France	2	•	Italy	2	•	France
3	-	Spain	3	-	Germany	3	-	UK	3	•	Italy
4	-	Germany	4	-	Italy	4	-	Germany	4	•	UK
5	-	France	5	•	Spain	5	-	Spain	5	-	Germany
6	-	Italy	6	-	USA	6	-	USA	6	-	Spain

Source: Ofcom using data supplied by Teligen.

Note: July 2015 and July 2016 prices; analysis of pay-TV prices exclude the TV licence fee.

Overall, UK prices are higher than in France but lower than in Germany, Italy, Spain and the US

Our price benchmarking work also includes analysis of the cost of fulfilling the requirements of five baskets of services. 98 Overall, the UK ranked second among our six comparator countries in 2016, unchanged since 2015, with only France performing better when looking at a combination of 'weighted average' standalone, 'weighted average' bundled and 'lowest-available' prices. While the UK's overall position was unchanged compared to 2015, there was evidence of weakening performance compared to other comparator countries, and the UK's average rank across all households and pricing metrics fell from 1.8 in 2015 to 2.3 in 2016.

Figure 1.37 International comparison of overall, lowest available and 'weighted average' standalone and bundled household usage prices: 2016

Overall pricing 'Weighted average' standalone services			'Weighted average' bundled services			'Lowestavailable', including bundles					
1	-	France	1	•	France	1	-	France	1	-	France
2	•	UK	2	•	UK	2	-	UK	2	-	UK
3	•	Germany	3	-	Germany	3	-	Italy	3	-	Germany
4	-	Italy	4	-	Italy	4	-	Germany	4	-	Italy
5	-	Spain	5	-	Spain	5	-	Spain	5	-	Spain
6	-	USA	6	-	USA	6	-	USA	6	-	USA

Source: Ofcom using data supplied by Teligen.

Note: July 2015 and July 2016 prices.

https://www.ofcom.org.uk/__data/assets/pdf_file/0026/95642/ICMR-Full.pdf

⁹⁸ Refer to the 'Comparative international pricing' chapter in the *International Communications Market Report*, 2016 for detailed results and methodology.

Methodology

Teligen price benchmarking model

To analyse the tariffs available in the UK, we use a bespoke pricing model commissioned from pricing consultancy Teligen. The model is populated with tariff data for landline voice, mobile phone, fixed broadband, mobile broadband, television and 'bundled' services (i.e. incorporating more than one service, such as 'triple-play' tariffs). The key objectives of the work are as follows:

- to identify and compare the pricing that is available for consumers buying landline voice services, mobile services, broadband internet and TV services;
- to identify and compare the pricing that is available by purchasing communications services within 'bundled' tariffs (for example, 'triple-play' services, which typically offer a single bill for the delivery of fixed-line voice, broadband and television services);
- to compare pricing across a wide range of service usage scenarios, from the requirements of those with basic needs to those of consumers with more sophisticated consumption; and
- to incorporate the cost of hardware such as set-top boxes or broadband modems/routers in order to reflect the real prices that consumers pay, and to compare like-with-like by allowing for equipment subsidies when they are included within propositions from service providers.

Basic methodology

Further detail is provided below, but the basic principles are as follows. We constructed five 'typical' household types, and defined a basket of communications services comprising fixed-line voice, mobile, broadband and TV appropriate for each one. A wide range of components were included within the household usage profiles to ensure as accurate as possible a representation of the real prices consumers pay. For example:

- Fixed voice minutes were distributed by whether they were to fixed or mobile lines, by call distance (local, regional, national and international, including a range of international destinations), and time of day (day, evening, weekend). Non-geographic calls were excluded from the analysis.
- Mobile calls (and messaging) were split between on-net and off-net, and voicemail was included.
- Call set-up and per-minute charging were incorporated, and a range of call lengths were used.
- Incoming calls were included.
- The fixed broadband component was defined both by minimum headline speed and by minimum data allowance requirements.
- The mobile broadband component was defined in the same way as the fixed broadband component, although there were no minimum connection speed criteria (as services are seldom marketed in this way).

The television element included a digital receiver and, for some household usage profiles, a digital video recorder (DVR). Two tiers of pay-TV were considered:

- the most basic service available above the channels available on free-to-air TV;
- a basic pay-TV service with premium sports content (top-tier football matches).

Broadband routers, mobile broadband modems, digital set-top boxes and DVRs are included within the household usage profiles (and amortised over an appropriate period in order to attribute a monthly cost). This is necessary because this equipment is often inseparable from the service price, as operators frequently include subsidised or 'free' equipment (for example a mobile handset or a Wi-Fi router) within the monthly subscription. For similar reasons, connection and/or installation costs are included.

In July each year, details of every tariff and every tariff combination (including bundled services) were collected from the largest three operators by retail market share (and from more than three operators, if this was required to ensure that a minimum of 80% of the overall market was represented). Bundled tariffs (i.e. those that incorporate more than one service) were also collected. Only those tariffs available on the websites of the operators were included (i.e. the analysis excludes bespoke tariffs that are offered only to certain customers). The number of providers covered in the pricing models have increased over time.

Our model identifies the tariffs that offer the lowest price for meeting the requirements of each household. All sales taxes and surcharges have also been included, in order to reflect the prices that consumers actually pay.

To provide an illustration of representative prices for the individual services in each country, and to illustrate the best value that consumers can get for their full 'basket' of services, we have provided the 'weighted average standalone' pricing, illustrating the price of each individual service, as defined by the average of the lowest price tariff from each of the operators for each service, weighted by the market share of the service provider, in order to ensure fair representation.

Household types

For this study, we have considered five hypothetical 'typical' households, and have defined their requirements for communications services based on average usage in 2015. These household types are designed to be collectively broadly representative of the overall population.

Figure 1.1 Typical household types

	'Typical' household type	Summary	Fixed voice		Mobile messaging	Mobile handset data		Mobile broadband	Television
1	Basic needs	A low use household with basic needs	Medium use	Low use	None	None	None	None	Free-to- air
2	Late adopters	A broadband household with basic needs	High use	Lowuse	Lowuse	Lowuse	Lowuse	None	Free-to- air
3	A mobile 'power user'	A mobile- only household	None	High use	High use	High use 4G	None	High use	Basic pay-TV with DVR
4	Connected family	A family household with multiple needs	Medium use	Medium use	High use	Medium use	Medium use	None	Basic pay-TV with HD & DVR
5	Sophisticat ed couple	An affluent two person household	Lowuse	Medium use	Medium use	Medium use	High use superfast	None	Premium pay-TV with HD & DVR

Source: Ofcom

Fixed voice baskets

The fixed voice basket defines the use per month for the household, and calculates the monthly cost of using the fixed voice service. The basket elements are listed below, with values for each of the four households. The cost of customers' equipment is amortised over a five-year period.

Figure 1.2 Fixed voice baskets

	Affluent couple with sophisticated use			· ·
Outbound call minutes	100	200	300	400
Type of calls	93% UK geographic and 7% UK mobiles	91% UK geographic, 7% UK mobiles and 2% international	93% UK geographic, and 7% UK mobiles	91% UK geographic, 7% UK mobiles and 2% international
Time of day	59% daytime, 25% evening and 16% weekend		25% evening	and 170/ was alread

Source: Ofcom

Mobile voice and data baskets

To analyse the prices of standalone mobile services, we have used eight connection types to represent 'typical' usage across different types of consumers. Of these, three connections, 5,

7 and 8, require 4G mobile data. The number of providers covered in the pricing models have increased over time.

In the report, we compare the prices of a mid-range smartphone⁹⁹ when purchased with a post-pay contract and when bought on a standalone basis to use with a SIM-only post-pay plan, excluding the prices paid for out-of-bundle usage. In the early years of our analysis, when smartphones were less common, the device could have been an advanced feature-phone.¹⁰⁰

The upfront prices that consumers pay for devices bundled with post-pay plans are amortised over two years in our analysis. 101 The price of the device when purchased separately represents the open market, unlocked price, typically sourced from a third-party retailer.

Figure 1.3 Mobile connection types

	Handset type	Outbound voice minutes per month	Outbound SMS per month	Data use per month
Connection 1	Basic	50	None	None
Connection 2	Basic	50	25	100MB
Connection 3	Intermediate	150	200	300MB
Connection 4	Intermediate	250	100	400MB
Connection 5	Premium	200	50	500MB
Connection 6	Intermediate	100	250	2GB
Connection 7	Premium	300	150	1GB
Connection 8	Premium	500	200	5GB

Source: Ofcom

Bundled service baskets

To analyse the prices of service when purchased as bundles, we have used four 'typical' household profiles with different usage across services.

⁹⁹ Some features may include single or dual core processor, maximum 4-4.5" display, not HD, below 13 megapixel camera, less than 16GB memory. For example, Microsoft Lumia 550, Sony Xperia E3 D2203, Samsung Galaxy Express 2, HTC Desire 510 4GB, Motorola MOTO G LTE and Huawei Ascend P7 mini or Ascend Y300.

¹⁰⁰ Some features may include some data capability (e.g. GPRS, EDGE, WLAN, Bluetooth among others), reasonable internal memory and camera quality and browser. For example, Nokia C3, Nokia 6303i and Blackberry Curve 8520.

¹⁰¹ The discount rate used for amortisation period was 4.16%.

Figure 1.4 Typical bundled service household types

		Fixed voice (mins)	Mobile voice (mins)	Mobile SMS	Mobile handset data (GB)	Fixed line broadband speed	Fixed line broadband data (GB)	Television
1	Low use couple with	300	50	None	None	None	None	Free-to-air
	basic needs		50	None	None			with HD
2	Broadband household with basic	400	50	25	0.1	'Up to' 4Mbit/s or	25	Basic pay- TV with HD
2	needs	400	50	25	0.1	more	20	& DVR
		nousehold 200	250	100	0.4	'Up to' 10Mbit/s or more	50	Premium
4	Family household		150	200	0.3			pay-TV with sports, films HD & DVR
4	with multiple needs	200	100	250	2			
			100	250	2			TID & DVIX
	Affluent two person household		300	150	1 (4G)	'Up to'		Basic pay- TV with
5		100	200	50	0.5 (4G)	30Mbit/s or more	75	films, HD & DVR

Source: Ofcom

Note: Household 3 is a mobile-only household and is therefore excluded from the bundled service

pricing analysis

Operator spend data

While the pricing data provides a view of the tariffs that are available to consumers, we used our formal powers to collect information from leading providers of residential fixed and mobile services in the UK to analyse what consumers actually pay for these services.

The data were collected from the following leading providers of fixed and mobile services:

- Fixed telecoms providers: BT (including Plusnet), Sky, Virgin Media and TalkTalk
- Mobile service providers: EE, O2, Vodafone, Three, Virgin Media, Tesco Mobile, BT Mobile and TalkTalk Mobile.

To understand how many customers buy a service and how much they spend each month, we collected average revenues, number of customers, distribution of consumer spend and the proportion of spend that is out-of-bundle for the quarter ended June 2016 (Q2 2016). The average revenues represent monthly average spend per customer for the quarter, while the customer numbers are as at the end of the quarter. The spend and customer data provided by operators was used to calculate averages of ARPU, weighted by providers' market shares, and therefore represent overall average spend for a service and do not account for usage.

Data were collected for the following services:

Figure 1.5 Customer and spend data collected for communications services: Q2 2016

Standalone services	Bundledservices
Standalone landline	Dual-play with landline and fixed broadband
Standalone fixed broadband	Triple-play with landline, fixed broadband and pay-TV
Standalone pay-TV	Triple-play with landline, fixed broadband and mobile
tand-alone mobile	 Quad-play with landline, fixed broadband, pay- TV and mobile

Consumer research

Using consumer research, we set out to examine how consumers engage with their bills; i.e. how often they look at their bills, what details they check and how easy they find it to understand how much they spend and the services they spend it on.

Initially, we piloted a piece of quantitative consumer research, using a face-to-face in-home methodology that involved the interviewer looking at the actual bills in order to collect accurate billing information. But this research proved to be challenging; consumers were reluctant to share their bills or billing information with interviewers, so it was not possible to obtain a representative sample of bills. And as most respondents were not comfortable with showing their bills to the interviewers, we amended the methodology to allow them to read out the details of the bill themselves.

But this brought quality issues with the bill information collected, either because some respondents did not want to share part of the information, or because they made mistakes while reading the bill. Consequently, this face-to-face research could not achieve the representative and robust evidence that Ofcom sought, so we stopped the pilot and used an online panel instead.