

Pricing trends for communications services in the UK

Research Document

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About this document

This report looks at pricing trends for residential phone, broadband and TV services in the UK. It examines the prices of standalone and bundled services currently available, and what consumers actually pay for these services.

It also looks at how consumers engage with the market, including their understanding of usage levels, contract lengths, and promotional prices. It illustrates how the prices paid by engaged consumers (those who shop around and are aware of their contractual status), who are currently within a minimum contract period, differ from prices paid by consumers outside a minimum contractual period.

The report also includes the results of our consumer engagement research, which looked at the reasons why consumers may not engage with the market.

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1. Key metrics

Broadband services

The average price difference between a superfast dual-play bundle versus one with standard broadband:

2012

2017

+f8

+£4

Increase in average list price from 2012 to 2017:

23% 7%

Dual-play bundles

Standard Superfast



Standard Superfast Triple-play bundles

6%

Mobile services

Average mobile use 217% since 2014: Data use Prices Minutes SMS declined increased decreased ncreased ## £ -31% -4%



Around 1.5 million mobile customers whose contract includes a handset, are still paying the same price after the end of their minimum contract period

Customers who buy their handset and service together could pay a premium of up to...

Bundled services

80% of UK households buy bundled communication services





The average price of bundled services used by a typical family household was 24% less than the average price for the same services on their own

Proportion of customers outside their minimum contractual period

Landline-only

Pay-TV-only





Landline and broadband

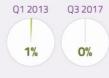


Landline, broadband and pay-TV

Promotional discounting

Average value of promotional discount:

Landline-only (





Landline,

broadband

and pay-TV







14%

Lower average monthly spend for customers in

minimum contractual period:

Landline and broadband



Landline, broadband and pay-TV



Pay-TV-only



2. Executive summary

Most communications customers benefit from choice and value

Most consumers are getting value from their phone and broadband services. Data use over fixed connections increased by 44% in the year to June 2017, and over mobile connections by 46%. But despite the take-up of superfast broadband and 3G and 4G mobile services, average monthly household spending on phone and broadband services has fallen in the last decade.

Many people could upgrade their broadband at no extra cost. The gap has narrowed between the prices of superfast broadband and the price of standard broadband. (Superfast broadband is a connection that can deliver speeds of 30 Mbit/s.) Some providers now offer up to 25% off bundled services over the minimum contractual period.

New products that give consumers more flexibility and choice have emerged. TV viewers who pay for channels can watch content in more ways than ever before. These include streaming video services such as Amazon Prime and Netflix, and more tailored pay-TV bundles. Mobile users can choose from 'zero-rated' tariffs, where data used to access certain applications (such as Facebook, WhatsApp or Spotify) does not count against their monthly usage allowance.

Prices have fallen for many customers with standalone landline services. From 1 April 2018, BT reduced its monthly line rental price by £7 per month (from £18.99 to £11.99) for customers who only have a landline, without any broadband, after our review found they were getting poor value for money.

But not everyone is benefiting from the choices available

Consumers who shop around are generally benefiting from competition and the choices available to them. However, those who do not effectively engage with the market typically pay higher prices. There have also been increases in the prices of some services. The following trends all have the potential to leave some consumers paying more.

More choice can mean more complexity for consumers. While more choice and product personalisation can benefit consumers, they can also be confusing. Complexity may lead consumers to disengage from the market, and they can end up paying higher prices by sticking with their current provider. Most people choose bundled services for convenience and value. But the quantity of promotional discounts, call packages, broadband speeds and contract lengths available make it more difficult for consumers to compare bundles.

Customers outside their minimum contract term can end up paying more. Virtually all new contracts for bundles that include a fixed broadband service feature a promotional discount. On average, this is around 20%. Data shows that around four in ten bundle users were outside the minimum contract period with their existing provider in July-September 2017. These consumers are likely to be paying more than they would if they shopped around for a new contract or renegotiated with their current provider.

The prices for standard broadband have increased – particularly for BT customers outside their minimum contract period. Data collected by Ofcom shows almost half (46%) of customers buying a standard broadband service and 32% of people buying a superfast broadband service are outside their minimum contract term. These customers typically pay a non-discounted price.

Customers of all the large providers who are paying a non-discounted price for standard broadband could take out a new, equivalent superfast broadband contract for the same price, or less. The non-discounted price for BT's standard (ADSL) broadband service in May 2018 is £42.99. BT's superfast (fibre-to-the-cabinet) services start at £24.99 on an 18-month contract, or £35.99 for an unlimited service.

Around 1.5 million mobile customers whose contract includes a handset, are still paying the same price after the end of their minimum contract period. Receiving a handset as part of a pay-monthly service is popular, as it allows consumers to pay for an expensive handset in instalments. But most tariffs that provide a handset continue to charge the same monthly fee after the minimum contract period has expired. Around 1.5 million people¹ may be spending more than necessary by continuing to pay a monthly fee that includes the cost of a mobile handset after their initial minimum contractual period has ended. People need to be aware of their mobile contract status, and the options available to them, when the minimum contract ends.

Even if consumers do exit their contract at the end of the minimum period they will typically pay more for the device than if they bought it separately and used a SIM-only (SIMO) contract. We looked at some of the major providers' tariffs including the iPhone 8, and found consumers could end up paying over £200 more for the handset through a mobile contract. That is equivalent to an interest rate higher than that of many credit cards.

Out-of-bundle call prices are rising. The price of calls made outside an inclusive allowance has continued to increase. For example, a one-hour daytime call from a landline to a UK geographic number would now, on average, cost 36% more than in 2012. Out-of-bundle mobile calls are even more expensive, averaging more than 40p per minute for calls to UK landlines and mobiles. As information about these charges is typically not prominent in tariff information, consumers may not consider it when entering a contract. It is important that people understand their usage patterns, so they can choose a service that suits their needs.

Consumers can benefit from lower prices by shopping around. The best way for consumers to take advantage of the wide range of services on offer is to engage with the market. This can mean: being aware of usage needs and buying a suitable package; monitoring the market for the latest offers; tracking the end-dates of promotional periods; and reviewing bills regularly to ensure charges are as expected. Customers can also shop around at (or just before) the end of their minimum contract, or can negotiate with their current provider to get a better deal.

¹ Taking account of the error margin in this research (+/-2%), we estimate that the number of consumers affected is somewhere between just over 1 million to just over 2 million.

Ofcom's work to increase value for customers

Of com is taking action to help ensure all communications customers benefit from choice and value in the market.

Making sure customers are informed. First, people need the right information to make informed decisions about their phone and broadband services. Price comparison websites can help them to find the best tariffs for them. Ofcom accredits comparison sites that provide accessible, accurate, and up-to-date information to consumers.

We also publish maps and information about broadband availability and mobile coverage, as well as regular reports that compare the quality of different providers' services.

Developing new rules to protect customers. In July 2017, we started work to help better understand why some consumers may face difficulties engaging in communications markets, and to help us identify and implement solutions that help consumers to engage.

We recently published an <u>update</u> on our work in this area. We are focusing initially on end-of-contract notifications – where providers would proactively inform customers when they are approaching, or at, the end of their minimum contract period. We expect to publish proposals in July 2018, supported by detailed analysis and research.

We are also examining the issue of mobile customers continuing to pay the same price after the end of their minimum contract period, where this price reflects the cost of their mobile handset. We are considering appropriate next steps and engaging with industry.

We will then consider whether some consumers may:

- have difficulties understanding their own needs and usage requirements; or
- struggle to understand the range and complexity of deals and packages on offer.

Alongside this work, we will keep monitoring the market to identify any pricing trends or approaches that might harm customers.

3. 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

One of Ofcom's key priorities is to "promote competition and ensure that markets work effectively for consumers". In our 2016/17 Annual Plan,² we first outlined 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 and follows the first *Pricing Trends for Communications Services*, published in March 2017.³

Pricing data sources used in this report

We use several datasets to analyse residential pricing trends. Below, 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 use retail tariff information taken from Pure Pricing's *Monthly Broadband Pricing Tracker* reports to analyse residential line rental and bundled service prices.
- **Simplify Digital:** We use a residential retail pricing dashboard provided by Simplify Digital to understand fixed voice and bundle pricing trends, including the number of tariffs offered; to understand the depth and frequency of promotional discounting, and to analyse 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 tariffs that offer the lowest prices for meeting

² https://www.ofcom.org.uk/ data/assets/pdf file/0021/104358/annual-report-2016-accessible.pdf.

³ https://www.ofcom.org.uk/__data/assets/pdf_file/0028/98605/Pricing-report-2017.pdf.

the requirements of each usage profile. Further details can be found in the <u>Methodology</u> section of this report.

Operator data

For this report, we collected information from large providers of residential fixed and mobile services in the UK,⁴ 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, tripleplay and quad-play bundles) but does not account for usage levels. Data were collected for Q3 2016 and Q3 2017; figures included in the report are weighted averages.
- **Customer base data:** Customer base data, as at the end of September 2016 and September 2017, were collected from service providers, by service/ combination of services taken, and have also been used to calculate weighted average spends.

Consumer research

We also include outputs from three primary consumer research studies:

- In July 2017, Ofcom commissioned primary qualitative research⁵ to better understand what, if any, barriers exist and what might encourage less-engaged consumers to engage more. The research focused on the key drivers and barriers to engagement, the methods used to shop around (and any barriers to using such methods), and participants' responses to questions about a range of potential options that may encourage greater engagement. The research included a task that asked participants to shop around to find the best deal for them personally (mobile) or for them and their household in the dual-play (landline and broadband), triple-play (landline, broadband, and pay TV), mobile, and standalone pay-TV markets.
- We undertook primary quantitative research in early 2018 to broaden our understanding of
 consumer engagement issues in communications markets. The research focused on consumer
 awareness and understanding of contract end dates, and on identifying the extent of any
 difficulties consumers have when seeking to engage. This survey consisted of 2,141 online
 interviews and 1,851 face-to-face interviews among UK adults aged 16+, covering the four
 markets of interest (dual-play, triple-play, mobile, and standalone pay TV).
- Ofcom also commissioned primary quantitative consumer research in January 2018 to better
 understand SIM-only (SIMO) consumers, including what type of SIMO service they used, the
 decision-making process relating to their SIMO deal, and consumers' awareness and experience
 of mobile handset 'unlocking'. The survey consisted of a UK representative sample of 1,073 inhome face-to-face interviews among adults aged over 16.

⁴ Fixed telecoms providers: BT (including Plusnet), Sky, Virgin Media, KCOM, TalkTalk, Post Office; mobile providers: EE, O2, Vodafone, Three, Virgin Media, Tesco Mobile, BT Mobile and TalkTalk Mobile.

⁵ https://www.ofcom.org.uk/ data/assets/pdf_file/0022/113458/Engagement-Qualitative-Research-Report,-2017.pdf.

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

- The Technology Tracker: c.3,700 interviews, conducted face-to-face in-home 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.
- The Switching Tracker: An annual face-to-face survey (c.2,600 interviews) 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.

4. The market context

Overview

Communications services are integral to the daily lives of consumers, as voice and data services are used to conduct business, to stay in touch with friends and family, and for entertainment. In this section we summarise recent trends in the use of communications services, to provide background and context for the pricing trends observed later in this report.

Average household spend on communications services increased in 2016, although it fell as a proportion of total spend

Trends in the average household spend on telecoms and TV services⁶ suggest that, overall, consumer outcomes have been positive over the last decade. Between 2006 and 2016, average household spend on telecoms and TV services fell 8% overall in real terms (i.e. adjusted for inflation) to £117 per month. However, since 2013, average monthly household expenditure on communications has increased by £5 per month, mainly caused by an increase in the average monthly spend on fixed internet access due mainly to the continued migration to superfast broadband.

Superfast products (i.e. connections with an advertised speed of 30Mbit/s or higher) are generally more expensive than their standard broadband equivalents: at the end of 2017 the average monthly price premium for superfast broadband over standard broadband, when purchased with a voice service, was around £4 per month, while the premium was around £3 for superfast broadband purchased as part of a triple-play bundle (i.e also including a pay-TV service).

5.2% 5.1% 5.0% 5.1% Proportion of total 5.0% 5.0% 5.0% 4.9% 4 9% 4.9% 4.8% household spend 126.66 125.83 122.59 117.40 117.22 117.13 115.82 115.85 113.32 112.02 113.30 29.47 30.31 29.88 29.76 30.62 31.58 31.24 30.79 31.45 Television 31.29 30.99 12.52 12.02 11.52 10.91 11.05 11.46 15.09 11.94 13.52 12.34 Fixed 53.98 54.10 53.22 50.65 internet 49.99 49.27 47.47 46.02 46.18 46.57 45.74 Mobile voice & data 30.69 29.40 27.97 26.08 25.56 23.87 23.11 22.67 22.31 22.71 22.83 Fixed voice 2006 2007 2008 2009 2010 2011 2012 2013 2016 2014 2015

Figure 1: Average household spend on communications services: 2006-2016

Source: Ofcom / operators/ ONS

Notes: Adjusted for CPI. Historic telecoms figures have been re-stated, so are not comparable to those published in previous reports. Television excludes spend on subscriptions, download-to-own and pay-per-view online TV services.

⁶ Calculated by dividing total residential revenues by the average number of UK households.

Consumer take-up and use of communications services continues to increase

These small increases in average spending come in the context of increasing take-up and use of high speed fixed and mobile data services. In November 2017, 58% of residential fixed broadband connections were superfast products, up from 49% a year previously, while the increasing availability of ultrafast products, which Ofcom defines as those offering 300Mbit/s or higher, helped drive an increase in the proportion of lines with an advertised speed of 100Mbit/s or higher from 1% in 2013 to 14% in 2017.8

Correspondingly, mobile services are also seeing an increase in consumer demand and use of data, driven by the greater availability of high-speed networks and take-up of smartphones. By January 2018, indoor 4G mobile coverage from all four UK mobile networks was available to 68% of premises, up from 58% in June 2017,9 and data provided to Ofcom by the UK mobile operators shows that 63% of mobile subscriptions were 4G-enabled by the end of 2017, up from 57% in 2016.

Consumption of data over both fixed and mobile networks is increasing rapidly

The greater take-up of faster broadband services, and faster connection speeds, have delivered a better user experience for data services, even when multiple devices are using the same connection, and this, combined with the increasing popularity of video-on-demand services, has boosted average broadband data use. Average monthly residential fixed broadband data use increased by 44% to 190GB in 2017, while the average monthly data used per SIM increased by a similar proportion, from 1.3GB to 1.9GB. Although there has been a considerable increase in the amount of data consumed by users over residential fixed broadband lines, the average price per GB fell from £0.74 in 2012 to £0.11 in 2017 in real terms, according to data provided by communications providers.

⁷ UK Home Broadband Performance, November 2017 (https://www.ofcom.org.uk/research-and-data/telecoms-research/broadband-research/home-broadband-performance-2017

⁸ UK Home Broadband Performance, November 2017 (https://www.ofcom.org.uk/research-and-data/telecoms-research/broadband-research/home-broadband-performance-2017).

https://www.ofcom.org.uk/ data/assets/pdf_file/0017/113543/Connected-Nations-update-Spring-2018.pdf.
 2017 Communications Market Report (https://www.ofcom.org.uk/research-and-data/multi-sector-research/cmr/cmr-2017) page 146.

¹¹ Connected Nations 2017 (https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017) page 8.

¹² Connected Nations 2017 (https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017) page 9.

5. Pricing of landline voice services

Line rental price increases have slowed

In the 2017 *Pricing Trends* report we highlighted that residential landline prices had increased significantly in real terms over the previous decade, driven by line rental prices that had steadily increased despite a decline in underlying wholesale line rental (WLR) charges. Ofcom reviewed the market for standalone fixed voice services in early 2017 and identified BT as the dominant provider. As a result of our analysis, we proposed that BT cut its prices for these consumers, assuming that other, smaller, providers would ultimately follow suit.

BT responded by offering to reduce the monthly line rental price for its voice-only customers, i.e. those who do not also take broadband services from any provider, by £7 per month, to £11.99, from April 2018. This represents a saving of £84 per year, or 37%, for up to a million BT customers. Additionally, BT offered to cap any increases at inflation for the next three years, and to work with Ofcom to encourage greater engagement by these customers and those who buy their broadband and voice services separately. In May 2018, Post Office Limited, the second-largest provider of standalone fixed voice services, cut its monthly line rental price for these services to customers signing up for a new 12-month contract from £16.99 to £11.50.

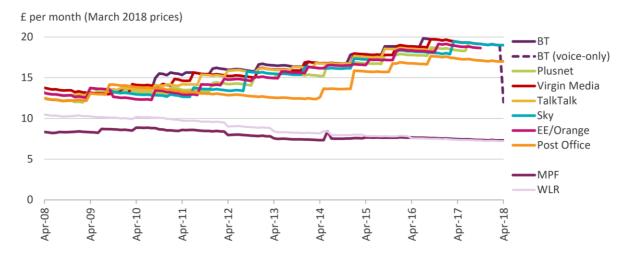


Figure 2: Residential line rental tariffs: April 2008 to April 2018

Source: Ofcom / Pure Pricing UK Broadband Updates

Note: Excludes line rental saver pre-payment tariffs; BT line rental is for a voice-only connection (i.e. without the line being used to provide any broadband service); adjusted for CPI

Calls made outside inclusive allowances can be expensive

In addition to increasing line rental prices, landline call bundle and call prices have gone up considerably over the last five years. For example, a one-hour daytime call from a landline to a UK geographic number would on average have cost £7.56 in 2017, a 36% increase in real terms since 2012.

For consumers to take advantage of call bundles and navigate the market effectively, it is essential that they understand their use (i.e. the amount and type of outgoing calls that they make) and select a suitable tariff, otherwise they may end up paying significant out-of-bundle call charges. The importance of selecting the right tariff is covered in the *Tariff complexity and discounting* section of this report.

There has been a similar upward trend in out-of-bundle call prices in the mobile market, which is discussed in the *Pricing of mobile voice and data services* section of this report.

Figure 3: Summary of landline out-of-bundle and call bundle charges: 2012 to 2017

	2012	2016	2017	YoY % change	5-year % change
Call connection fee (pence/call)	14.27	18.46	19.38	5%	36%
UK geographic call (pence/minute)	9.21	11.81	12.1	6%	36%
Non-Three UK mobile call (pence/minute)	14.98	14.72	17.05	16%	14%
Three UK mobile call (pence/minute)	18.28	14.72	17.05	16%	-7%
Evening & weekend call bundle (£/month)	2.83	4.28	4.27	0%	51%
Anytime call bundle (£/month)	6.23	8.21	8.12	-1%	30%

Source: Simplify Digital

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.

6. Pricing of mobile voice and data services

Consumers are using their mobiles more, but paying less

The chart below shows the weighted average price of a basket of mobile services, adjusted for inflation, based on average use by all consumers in each year (e.g. in 2017 the average monthly use per mobile phone was 1.9GB of data, 158 voice minutes and 59 SMS). We used a pricing model provided by Teligen to identify each of the largest providers' cheapest tariffs to fulfil the SMS, minutes, and data requirements in each year, and weighted these results by provider market shares. The analysis excludes the cost of a handset, a; including a handset (which can cost more than £500) can skew the results.

Average monthly data use per mobile handset increased from 1.4GB in 2016 to 1.9GB in 2017, a 36% increase. Consumers used roughly the same number of outgoing minutes per month, while average SMS use declined by 22% to 79 messages per month. Despite the significant increase in data use, the weighted average price was relatively flat, at £18.36 per month. Over time, the difference is even more marked; since 2013 the average amount of mobile data consumption has increased five-fold, while the weighted average cost of the average basket has fallen by 11.5%.

Figure 4: Weighted average monthly prices for average mobile use baskets (excluding handsets): 2013 to 2017 (£ per month)



¹³ This is based on data provided to Ofcom as part of its programme of regular market monitoring. Separate data provided for use in our *Connected Nations* reports shows that the average monthly volume of data consumed per mobile subscriber increased from 1.3GB to 1.9GB in the year to June 2017.

Source: Ofcom, using data provided by Teligen; based on prices excluding handset costs; adjusted for CPI

Mobile services prices continue to decline for most types of mobile user

To better understand how prices are changing for different types of mobile user, we created six baskets of mobile services that are designed to represent a wide spectrum of consumer mobile usage. Using the Teligen pricing model, we then calculated the average price to fulfil the usage requirements of each basket (again, excluding the cost of a handset).

Our analysis shows that, in real terms, prices decreased by 14.2% in 2017 across all baskets. Of the six baskets included in the analysis, the basket with the largest data requirement (15GB of data, with 500 minutes of voice and 250 SMS) had the largest fall in price both since 2014 and in 2017, more than halving from £45 to £22 since 2014, and falling by £12 year-on-year.

Consumers purchasing voice-focused baskets are also benefiting from lower prices, particularly for smaller baskets that may appeal to customers with basic or low-use needs. Between 2016 and 2017, the price of the two lowest-use baskets, each of which requires 50 minutes of voice calls, fell by at least 30%, and the average prices of these baskets were lower in 2017 than in 2014.

■ 500 mins, 250 SMS, 15GB data 200 mins, 150 SMS. 5GB data 45.46 35.32 ■ 100 mins, 100 SMS, 33.67 21.92 1GB data ■ 100 mins, 50 SMS, 35.82 0.5GB data 32.19 50 mins, 25 SMS, 14.00 11.19 13.53 9.67 0.1GB data 13.33 15.25 14 99 14.33 ■ 50 mins, 0 SMS, 0GB 8.19 data 2014 2015 2016 2017 n/a -10.1% -7.8% -14.2% Real change

Figure 5: Weighted average monthly prices of standalone mobile services: 2014 to 2017

Source: Ofcom, using data provided by Teligen Notes: Excludes handset cost; adjusted for CPI

More mobile tariffs offer large or unlimited data packages

As consumers use more online services and consume more data on their mobile phones, mobile providers are offering a greater number of packages with large, or unlimited, data allowances.

To better understand the distribution of mobile tariffs in the market, we have analysed the mobile tariff data provided by Simplify Digital, using the amounts of inclusive data provided with paymonthly mobile tariffs. This shows that between 2016 and 2018, the proportion of tariffs in the market with 11GB or more of data per month almost doubled; from 17% to 33%, Conversely, the

proportion of tariffs that included less than 2GB of data per month fell from 33% to 24% over the same period.

21% 20% Proportion of post-pay tariffs 19% 17% -2016 15% 13% 15% 15% 14% 13% 13% 2018 9% 3% <1GB 1 to <2GB 2 to <4GB 4 to <6GB 6 to <11GB 11 to 25GB >25GB

Figure 6: Distribution of pay-monthly tariffs based on data allowance (%): 2016 and 2018

Source: Source: Simplify Digital PCI model Note: Data as at January of each year

Handset and inclusive data allowances are the most important factors in determining pay-monthly prices

Simplify Digital's Price Competitiveness Index (PCI) model can also be used to ascertain the relative importance of various service factors in determining the monthly price of pay-monthly mobile services. To calculate these figures, Simplify Digital runs a regression analysis of pay-monthly mobile tariffs which includes the details of various aspects of each service, and their monthly prices.

Between 2015 and 2017 the most important aspect in determining the price of pay-monthly mobile services was the type of handset (including the model and the amount of on-board memory) provided with the service. Simplify Digital's analysis shows that the weighting of the handset in determining the monthly cost has increased over time, from 55% in 2015 to 62% in 2017. This is likely to reflect increasing handset functionality and a shift towards devices with more internal memory, as well as a decline in service prices.

A key trend in pay-monthly mobile tariffs over recent years has been the shift towards pay-monthly services with very high or 'unlimited' inclusive UK call and SMS allowances, and pricing which is based on inclusive data allowances. This is reflected below; the importance of call and SMS allowances in determining pay-monthly prices is negligible compared to the amount of inclusive data provided.

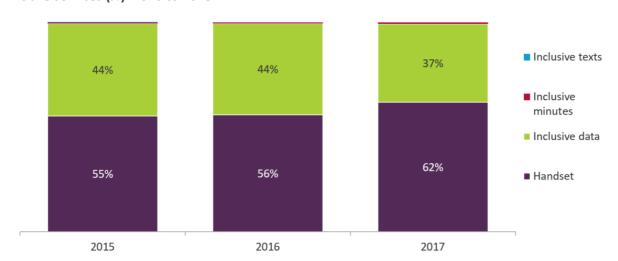


Figure 7: Relative weight of service factors in determining the monthly price of pay-monthly mobile services (%): 2016 to 2018

Source: Source: Simplify Digital PCI model.

Note: Based on 24-month pay-monthly contracts; Inclusive text amounts range from 0% to 0.5%

A recent development in mobile tariff options has been the introduction of 'zero-rated' tariffs

In addition to offering more tariffs with greater data allowances, mobile operators have introduced new zero-rated services. These tariffs enable users to access certain services, typically entertainment applications like Facebook or YouTube, without the data use of these services counting against the user's monthly data allowance. Four of the UK's larger mobile providers¹⁴ currently offer these plans, with different entertainment and social applications zero-rated, depending on the provider and the package.

These tariffs are beneficial for consumers whose internet use is mainly concentrated on the small number of services that are covered by zero-rating. While we welcome continued innovation and increased choice for consumers, there is the potential that some of these services, which may prioritise the data associated with zero-rated applications, are not compliant with the EU Open Internet Access Regulation 2015, which governs net neutrality.

In December 2017 Ofcom opened an Enforcement Programme to monitor and ensure operators' compliance with the EU Open Internet Access Regulation. After assessing information gathered under the Enforcement Programme, in March 2018 Ofcom announced its decision to open an investigation into Vodafone's zero-rated product 'passes', to assess their compliance with the EU Open Internet Access Regulation 2015. An update on this investigation and other related work will be published in June 2018.¹⁵

¹⁴ Virgin Mobile, Vodafone, Three, and EE.

¹⁵ https://www.ofcom.org.uk/about-ofcom/latest/bulletins/competition-bulletins/open-cases/cw 01210.

Figure 8: Example of major UK providers' zero-rating tariffs16

Operator	Description of current offer
Vodafone	'Vodafone Pass' monthly passes for zero-rated use of certain apps: - Video Pass (£7/month): Netflix, YouTube, Amazon Prime Video, DisneyLife, My5, TV Player, UKTV Play, & Vevo Music Pass (£5/month): Spotify, Apple Music, TIDAL, Deezer, Amazon Prime Music, Amazon Music Unlimited, SoundCloud & Napster - Social Pass (£5/month): Facebook, Twitter, Instagram & Pinterest Chat Pass (£3/month): WhatsApp, Facebook Messenger, Viber Messenger & Call+ Combo Pass (£15/month): All four passes in one.
VOXI (Vodafone)	All customers receive zero-rated data for Snapchat, Instagram, WhatsApp, Facebook, Twitter, Viber and Facebook Messenger plus there are passes for zero-rated use of other apps: - Endless Video pass (£7/month): Netflix, YouTube, Amazon Prime Video, DisneyLife, My5, TV Player, UKTV Play, Vevo - Endless Music pass (£5/month): Spotify, Apple Music, TIDAL, Deezer, Amazon Prime Music, Amazon Music Unlimited, SoundCloud & Napster
EE	6 months free, zero-rated, Apple Music for pay-monthly phone, 30-day and 12 month SIMO customers as well as shared plan customers
Three	'Go Binge', a zero-rated offer for Snapchat, Netflix, TV Player, Apple Music, Deezer & SoundCloud. 'Go Binge' is available to new and upgrading customers on handset and SIMO Advanced plans of 4GB and above and pay-monthly mobile broadband plans of 12GB and above.
Virgin Mobile	Zero-rated use of messaging on WhatsApp, Facebook Messenger and Twitter for all 4G customers.

Source: Ofcom/Enders Analysis

Pay-monthly contracts offer better value than pay-as-you-go options for many consumers

Pay-monthly plans, either SIM-only or with a handset, can represent savings over pay-as-you-go (PAYG) services for consumers with medium to high use of data, minutes and SMS.

Analysis of the 'weighted average' prices for the six baskets of mobile services considered previously shows that pay-monthly plans are consistently cheaper than PAYG for higher-use bundles. In 2017, the average price of the highest-use basket was 28% cheaper when purchased using pay-monthly tariffs than it was when using PAYG services. PAYG services can, however, represent excellent value for those with lower usage needs. In 2017, the smallest basket, with 50 mins of voice and no SMS or data capabilities, was 26% cheaper on a PAYG basis than on a pay-monthly contract.

The difference between total PAYG and pay-monthly prices for these baskets has declined to virtually nothing (in fact, the total PAYG price was slightly lower than the total pay-monthly price in 2017). This is partly due to the emergence of hybrid PAYG tariffs, which enable users to buy a pack of inclusive calls/SMS services that expires after a month for a set monthly fee, with any use outside these allowances being taken from a more traditional PAYG credit balance. Hybrid services therefore enable PAYG users to benefit from inclusive allowances, in much the same way that pay-monthly

¹⁶ Enders Analysis, *UK mobile market Q4 2017: Swings, roundabouts, and auctions*, April 2018: http://www.endersanalysis.com/content/publication/uk-mobile-market-q4-2017-swings-roundabouts-and-auctions.

users do, and provide another way for consumers to manage the cost of their communication services.

Figure 9: Weighted average monthly pay-as-you-go and pay-monthly mobile pricing (excluding handsets): 2014-2017



Source: Ofcom, using data provided by Teligen Notes: Excludes handset; adjusted for CPI

Older and less affluent consumers are more likely to be pay-as-yougo users

Ofcom research shows that PAYG mobile service consumers are more likely to be older and/or in lower income brackets: 45% of 65-74 year-old and 65% of 75+ mobile users were on PAYG tariffs in H1 2018, compared to 24% of all mobile users, while 41% of mobile users in the DE socio-economic group were on PAYG tariffs. Consumers in lower income brackets may prefer using PAYG services to control costs and avoid 'bill shock', or they may take PAYG services foif they cannot pass a credit check for r a pay-monthly contract.

Older consumers tend not to be heavy users of mobile services, which may be why they are more likely to opt for PAYG services.¹⁷ Given the importance of PAYG plans in helping vulnerable consumers stay connected, any pricing changes are likely to have a disproportionate effect on these consumers. The emergence of new products, such as the hybrid tariffs noted above, can help consumers save money. However, as with other services, it is important that PAYG mobile customers shop around and make sure they are on tariffs that best meet their needs.

¹⁷ Based on Ofcom Technology Tracker, H1 2018, 40% of those aged 65-74 and 13% of those aged 75+ consider a mobile phone to be the main method used for making and receiving telephone calls, compared to 98% of those aged 16-24.

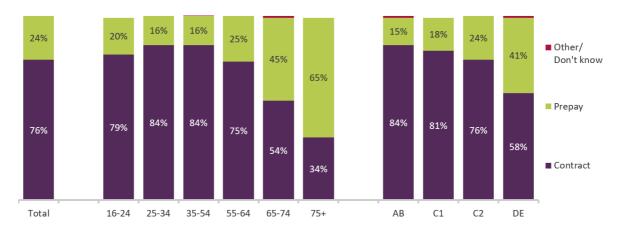


Figure 10: Proportion of mobile customers, by age and socio-economic group: 2018

Source: Ofcom Technology Tracker, data as at H1 2018

Q. Which of these best describes the mobile package you personally use most often? Base: Adults 16+ who personally use a mobile phone (H1 2018, 2528)

More consumers are using SIM-only contracts

According to data from Ofcom's Technology Tracker survey, 19% of adult UK consumers aged 16+ had a SIMO contract in H1 2018, up from 13% a year previously.

SIMO contracts can represent good value for consumers who already own a handset either bought independently of a contract or received as part of a previous pay-monthly contract. As mobile phone handset innovation has slowed, consumers have less incentive to frequently upgrade their handset and may instead use a SIMO contract with an existing handset.

SIMO contracts are cheaper than pay-monthly contracts with a handset included. Analysis of Q3 2017 data provided to Ofcom by leading operators shows that pay-monthly SIMO users within the minimum contract term spent an average of £17 per month on their mobile service, compared to £35 for customers using a pay-monthly contract with a handset plan. Similarly, for customers outside the minimum contract term, pay-monthly SIMO consumers paid £15, compared to £25 for consumers on a pay-monthly contract with handset.

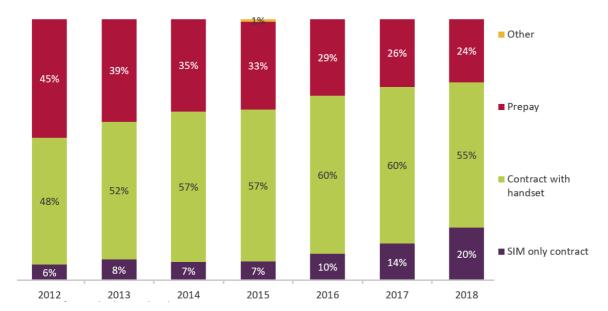


Figure 11: Take-up of mobile packages (%): 2010 to 2018

Source: Ofcom Technology Tracker, data as at W1 2012-2014; H1 2015-2018

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

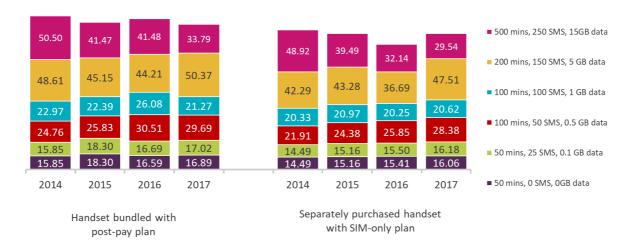
Base: Adults 16+ who personally use a mobile phone (W1 2012, 2073) (W1 2013, 2070) (W1 2014, 2366) (H1 2015, 2475) (H1 2016, 2494) (H1 2017, 2518) (H1 2018, 2528)

Most pay-monthly consumers can save money if they buy or unlock a handset to use with a SIM-only contract

Many consumers purchase contracts with a handset because it is convenient and enables them to spread the cost of the device over the minimum contract term, rather than having to pay for it upfront.

However, pay-monthly consumers taking a handset as part of their contract may end up paying more than if they were to buy a handset outright and use it with a SIMO plan. Analysis using Teligen's pricing model and our six mobile usage profiles shows that, in 2017, 'weighted average' prices when purchasing a mid-range handset outright and using it with a SIMO plan were consistently cheaper than when buying the handset bundled with a pay-monthly plan. On average, buying a mobile service with a phone included is around 7% more expensive than buying a phone separately from a SIM-only deal.

Figure 12: 'Weighted average' monthly price of a pay-monthly plan with handset and SIM-only plan with handset purchased separately: 2014 to 2017



Source: Ofcom, using data provided by Teligen

Example comparisons of post-pay with handset and separate handset with SIMO prices

Analysis of several major mobile providers' tariffs shows that, while a 64GB iPhone 8 costs £699¹⁸ to buy outright, the total cost of ownership when acquiring the same handset from a provider along with a post-pay mobile service was significantly higher. ¹⁹ Our data shows that subscribers taking a 24-month pay-monthly contract could pay a premium of up to 34% for the handset, compared to purchasing it separately and using it with a comparable SIMO service. In one instance, the total cost of ownership was equivalent to paying over £900 for the handset. This was equivalent to taking a loan for the handset with an APR²⁰ of 40%, more than the rate offered by many credit cards.

Ofcom research shows that a quarter (25%) of in-contract mobile users with a handset as part of their contract are unaware of the opportunity to switch to a SIMO deal and reduce their monthly cost at the end of their minimum contractual term.²¹ Our research also shows that of those consumers who do switch to SIMO at the end of the minimum contract period, many do not shop around, with around four in ten (42%) saying that they only considered their current provider when choosing a SIMO deal and six in ten saying they stayed with their existing provider.²²

https://www.ofcom.org.uk/ data/assets/pdf_file/0015/113901/kantar-omnibus-data-jan2018.pdf; caution – low base.

¹⁸ https://www.apple.com/uk/shop/buy-iphone/iphone-8

¹⁹ Based on analysis of pay-monthly contract tariffs of 64GB iPhone 8, with unlimited calls, unlimited texts, and between 8 and 15GB of data

²⁰ An annual percentage rate (APR) is the annual rate charged for borrowing or earned through an investment and is expressed as a percentage that represents the actual yearly cost of funds over the term of a loan.

²¹ Ofcom consumer engagement research, 2018 study (https://www.ofcom.org.uk/research-and-data/multi-sector-research/general-communications/consumer-engagement-with-communication-services).

²² Ofcom Kantar Media face-to-face omnibus, January 2018

Our research shows that two-thirds of consumers who are on SIMO contracts purchased their handset separately, while just over a quarter used a handset acquired with a previous contract.²³ Unlocking a handset, whereby the phone is no longer limited to being used on a single network and can be used with any SIM card, enables consumers to switch provider and benefit from the savings associated with SIMO.²⁴ However, while 83% of consumers are aware that handsets can be unlocked, more than nine in ten (93%) say they have never done this.

Figure 13: Example comparisons of post-pay with handset and separate handset with SIMO prices

		Operator 1	Operator 2	Operator 3	Operator 4
	Upfront cost	£60	£50	£79	£45
24 month	Monthly price	£53	£53	£48	£53
pay-monthly tariff with handset	Inclusive allowances	Unlimited mins and SMS, 4GB data	Unlimited mins and SMS, 8GB data	Unlimited mins and SMS, 12GB data	Unlimited mins and SMS, 8GB data
	Total cost (1)	£1,332	£1,322	£1,231	£1,317
	Monthly price	£16.50 (average)	£20	£15	£18
Equivalent SIMO tariff	Inclusive allowances	Unlimited mins and SMS, 6GB data	Unlimited mins and SMS, 10GB data	Unlimited mins and SMS, 12GB data	Unlimited mins and SMS, 8GB data
	Total cost (2)	£396	£480	£360	£432
	Apple store	£699	£699	£699	£699
iPhone 8 64GB handset cost	Acquired with pay-monthly tariff = (1)-(2)	£936	£842	£871	£885
Premium when acquired with pay- monthly tariff Amount of 'loan' (£699-upfront cost)		£237	£143 £172		£186
		£639	£649	£620	£654
APR equivalent	over 24 months	40%	22%	28%	28%

Source: Ofcom / operator websites Note: Tariffs as at May 2018

Some consumers receiving a handset with a mobile contract continue to pay for it after their minimum contractual term ends

²³ Ofcom Kantar Media face-to-face omnibus, January 2018

https://www.ofcom.org.uk/ data/assets/pdf file/0015/113901/kantar-omnibus-data-jan2018.pdf

²⁴ Handset unlocking options include through existing mobile provider or by a third-party such as a dedicated mobile phone shop. Of those who have unlocked their handset, just under two in three (64%) did so through their provider (Ofcom Kantar Media face-to-face omnibus, January 2018

https://www.ofcom.org.uk/ data/assets/pdf_file/0015/113901/kantar-omnibus-data-jan2018.pdf caution – low base.

Acquiring a handset with a pay-monthly contract is a popular way for consumers to get a new handset with their service; approximately two-thirds of pay-monthly consumers are on one of these tariffs, representing more than 20 million customers.25

Depending on the provider, consumers can either receive a mobile handset as part of an airtime contract, or they can have separate contracts for the handset and airtime elements. In the latter situation, once the handset element has been paid off (and that contract ends), the bill will automatically reduce to the cost of the airtime plan only.

Tariffs that include a handset can be a convenient way to pay for an expensive device in instalments over the life of the contract. They can also provide a means for consumers on low incomes to obtain a handset and mobile services, critical to engaging in society. Additionally, some consumers who receive a handset as part of an airtime contract (and where the price reflects the cost of the mobile handset) may continue to pay the same price after the end of their minimum contract period.

Ofcom's annual Switching Tracker research highlighted that, similar to last year, 6% of UK paymonthly mobile users with a mobile handset as part of their contract said that they continued to pay their full monthly charge at the end of the minimum contract period, rather than taking a new contract with a new mobile phone or switching to a cheaper SIM-only service.²⁶ This suggests that approximately 1.5 million people may be paying more than necessary; collectively, UK mobile consumers could be overpaying by approximately £330m each year (assuming an average monthly handset charge of £18.52).27

For consumers to avoid doing this, they need to be aware of their mobile contract status and the options available to them when the minimum contract period ends. They also need to be willing to engage with their current and alternative providers to identify alternative options.

Ofcom is looking at this issue as part of our work helping consumers to engage in communications markets. As noted in our April 2018 update, we are considering appropriate next steps and are engaging with mobile providers.

Average out-of-bundle call charges for mobile packages have continued to increase

Earlier in this report we highlighted the increasing out-of-bundle call prices for outgoing calls from landlines, and our analysis shows a similar trend in the cost of out-of-bundle pay-as-you-go and paymonthly calls to UK landlines and mobiles. Tariff data provided by Teligen show that the average out-of-bundle pence-per-minute charges for these calls, across those PAYG and pay-monthly tariffs which charge for them, increased between 13% and 20% in real terms between 2013 and 2017.

²⁵ Ofcom analysis of operator data, Q3 2017. Represents pay-monthly contracts with handset connections provided by leading mobile operators.

²⁶ Ofcom Switching Tracker

²⁷ This is considerably higher than the figure included in last year's report, primarily due it being calculated using a higher estimate of the average cost of a handset when acquired with a pay monthly mobile service. Our estimate of the average handset cost has been revised due to us having access to a much more comprehensive operator-provided dataset than was available last year.

However, it is worth noting that the increase in the number of tariffs which include unlimited calls means that out-of-bundle call prices for these calls are applicable to fewer services. Teligen's tariff data show that in July 2017, 61% of pay-monthly mobile tariffs included unlimited voice minutes (up from 10% in July 2013) and 83% included unlimited SMS (up from 37% in 2013).

41.8 40.5 Average price (pence per minute) 35.7 40.2 Calls to fixed 35.2 lines 33.5 On-net mobile calls Off-net mobile calls 2013 2014 2015 2016 2017

Figure 14: Average out-of-bundle mobile call charges: 2013 to 2017 (pence per minute)

Source: Ofcom, using tariff data provided by Teligen

Notes: Excludes tariffs for which out-of-bundle call charges are not relevant for these call types; includes payas-you-go re and pay-monthly tariffs; based on tariffs offered by EE, Orange, T-Mobile, O2, GiffGaff, Vodafone, Three, Tesco Mobile, Virgin Mobile, Lebara and Lycamobile; includes VAT; adjusted for CPI.

7. Pricing of pay-TV services

The price of basic standalone pay-TV increased in 2017

Using Teligen's pricing model, we have calculated the weighted average price of a standalone basic pay-TV service between 2012 and 2017. We define a basic pay-TV service as the lowest priced service that includes access to channels that are not available over free-to-air platforms, such as Freeview and Freesat.

Our analysis is limited to the tariffs offered by Sky and Virgin Media, as these are the only providers offering traditional pay-TV services on a standalone basis, and the figures below include set-up and hardware costs but exclude the cost of the TV licence (which was £147 per year, or £12.25 per month in 2017).

We find that that average standalone basic pay-TV prices increased in real terms in 2017; up by 12% to £20.44 per month, following several years of decline. This increase may be partly because both Sky and Virgin Media's cheapest basic pay-TV services came with higher-spec set-top boxes in 2017 than in 2016. In the case of Sky, this was its Sky Q hardware (rather than a Sky+ HD box) while Virgin Media provided its V6 box rather than the older TiVo 500GB box. As such, the additional cost comes with the benefit of added functionality and an improved user experience.

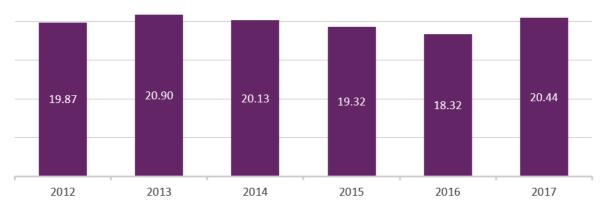


Figure 15: Weighted average monthly price of standalone basic pay-TV: 2012 to 2017

Source: Source: Ofcom, using data supplied by Teligen Includes Virgin and Sky

Notes: Excludes the TV licence fee and DVR costs; includes promotional discounts; adjusted for CPI (December 2017); 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 price of pay-TV, purchased as part of a bundle of services, has decreased

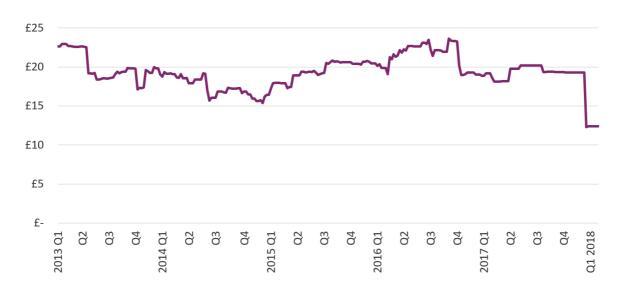
The price of pay-TV as part of a bundle is more relevant to most consumers, as most pay-TV subscribers buy it as part of a bundle of services rather than as a standalone service. Based on our analysis of operator subscriber data, 67% of UK adults subscribed to a pay-TV service as part of a

triple-play bundle in Q3 2017, compared to 29% who bought it on a standalone basis.²⁸ Using data provided by Simplify Digital, we have analysed trends in the price of pay TV when purchased as part of a triple-play bundle with a landline and fixed broadband services, using non-discounted prices (i.e. excluding any promotional discounts).

This data shows that the average price a consumer would pay for pay-TV as part of a bundle fell by 14% (£3.19 per month) in real terms between Q1 2013 and Q3 2017, and by 13% in the year to Q3 2017.²⁹ There was a significant fall in the average package price in December 2017, which was due to Sky introducing new packages. These gave its customers greater opportunity to personalise the content that they receive and resulted in lower-priced Sky TV tariffs.

It is notable that new customers purchasing triple-play bundles rarely pay the standard price due to promotional discounting, and data from Simplify Digital shows that 97% of triple-play plans offered by the UK's largest residential fixed telecoms providers had some element of discount in Q3 2017. This means that many consumers purchasing pay TV as part of a bundle will pay less than the non-discounted prices shown below for as long as they are within their minimum contract period.

Figure 16: Average monthly pay-TV subscription fee as part of a triple-play bundle: Q1 2013 to Q1 2018



Source: Simplify Digital

Notes: Average pay-TV subscription fee component of triple-play bundle; adjusted for CPI (December 2017); excludes promotional discounts and off-net packages; represents data for BT, Sky, TalkTalk and Virgin Media

²⁹ The pay-TV element represents the simple average of all pay-TV plans offered by the top four providers, BT, Sky, TalkTalk and Virgin Media as part of a triple-play bundle. The plans exclude Sky Sports and Sky Movies premium pay-TV channels as well as any off-net packages.

²⁸ Ofcom, based on analysis of operator data from Q3 2017.

Over-the-top services provide an additional, low-cost option

Widespread take-up of broadband, including superfast services, has contributed to the growing popularity of subscription over-the-top (OTT) streaming services, i.e. entertainment services delivered over the internet such as Netflix, Amazon Prime TV and NOW TV, and these types of services are used in more than 10 million UK homes.³⁰

Many consumers complement their traditional pay-TV viewing with these services; three-quarters of Netflix, Amazon Prime, and NOW TV users also have a traditional pay-TV subscription,³¹ and four in ten consumers have access to more than one of these services.³² OTT streaming services can offer a cheaper alternative to traditional pay-TV subscription bundles, and they are mostly priced between £5.99 and £9.99 for entertainment and film content.³³ NOW TV also offers a range of Sky Sports passes priced from £7.99 for a day pass to £33.99 for a month.

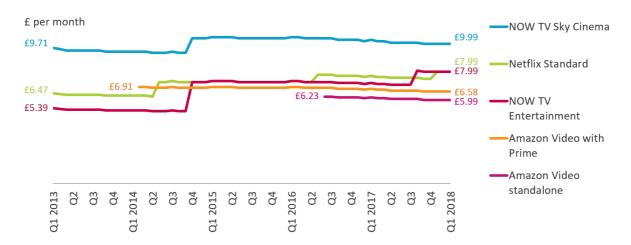


Figure 17: OTT service pricing: Q1 2012 to Q1 2018

Source: Simplify Digital

Note: Adjusted for CPI (December 2017); Netflix also offers basic and premium services (£5.99 and £9.99 per month respectively in December 2017); NOW TV also offers Kids and Sky Sports services (£2.99 and £33.99 per month respectively in December 2017); Figures have been rounded to the nearest whole number

³⁰ BARB Establishment Survey: Q4 2017.

³¹ 2017 Communications Market Report (https://www.ofcom.org.uk/research-and-data/multi-sector-research/cmr/cmr-2017) page 43

³² 2017 Communications Market Report (https://www.ofcom.org.uk/research-and-data/multi-sector-research/cmr/cmr-2017) page 41

³³ Simplify Digital analysis.

New delivery options and unbundling of premium services are providing greater flexibility and choice for consumers

Providers are identifying new ways to deliver content to consumers via their platforms, even if the content is from a competitor. Sky and Netflix signed a partnership agreement in March 2018 that will integrate Netflix on the Sky Q platform and on the NOW TV streaming service.

This will mean that some Sky TV customers will be able to access Netflix content side-by-side with Sky content, without having to go through a separate app. BT and Sky have also signed a content-sharing deal, whereby BT will supply its sports channels to Sky, and Sky will make NOW TV services available to BT subscribers via the BT set-top box.³⁴

In December 2017, Sky also changed its approach to packaging its TV content, replacing its three main bundles with a single Entertainment pack (£20 as of April 2018). This can then be supplemented with 'extras', such as Kids and Sports content, priced at between £3.99 and £28 per month, allowing consumers greater flexibility in accessing and paying for what they want to view.

³⁴ http://sport.bt.com/sport/bt-and-sky-agree-channel-sharing-deal-S11364237151259; note not available until 2019.

8. Pricing of bundled services

Eight in ten UK households purchase multiple services from a single provider

Most UK homes purchase a bundle of communications services from the same provider, benefiting from the convenience, and typically paying lower prices than if they were buying the same services separately.

Ofcom research shows that 80% of UK households purchased bundled services in 2018, partly because most fixed broadband services require a landline voice service to be purchased from the same provider. Just under a third (31%) of households purchased a dual-play landline and fixed broadband bundle, while the same proportion purchased a triple-play service consisting of landline, fixed broadband, and pay TV.35 High take-up of bundles means that bundled service prices are more relevant than standalone prices (particularly those of fixed telecoms services) to many UK homes.

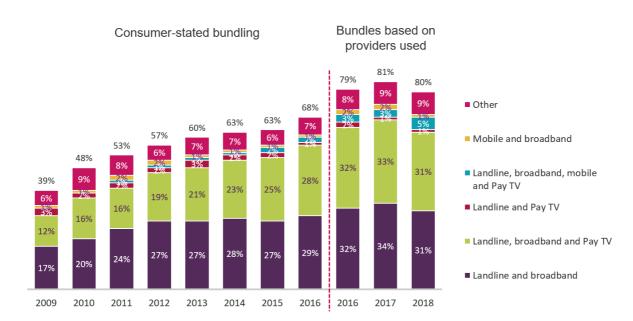


Figure 18: Proportion of users, by type of bundled services: 2006 to 2018³⁶

Source: Ofcom Technology Tracker, data as at Q1 2009-2014; H1 2015-2018

Notes: Analysis based on those using the same provider for two or more services. Base: All adults 16+ (Q1 2009, 6090) (Q1 2010, 9013) (Q1 2011, 3474) (Q1 2012, 3772) (Q1 2013, 3750) (Q1 2014, 3740) (H1 2015, 3756) (H1

³⁵ Analysis of the provider data from Q3 2017 shows that of all fixed communication services customers, 36% take a triple-play bundle and 69% take a bundle of any type (i.e. dual, triple, or quad-play).

³⁶ 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 from 2016 onward now also includes those who pay line rental in addition to their broadband service as a bundle

2016, 3737), (H1 2017, 3743), (H1 2018, 3730), base excludes those who do not know the provider for one or more services

Bundled tariff plans represent good value compared to separate standalone services

The chart below shows analysis of the standalone and bundled prices of four baskets of communications services.³⁷ The baskets are constructed assuming a set amount of use (e.g. fixed voice minutes, mobile voice/data/SMS, fixed broadband speed and data, and television access) and are designed to represent four 'typical' households.

For example, a low-use couple with basic needs had high fixed voice minutes but a limited mobile contract, no fixed broadband access, and free-to-air television only. An affluent two-person household was assumed to want more premium services such as 30Mbit/s or higher fixed broadband service with high data use, a premium pay-TV package, and significant mobile data and voice use.

Analysis, undertaken using Teligen's pricing model, indicates that consumers can typically save by buying services within bundles rather than separately. The average bundled price of a basket of services, typical of use by a household comprising two adults and two children, was £141 in 2017, 24% less than a similar basket of standalone services. A high-use household, such as an affluent household of two adults taking premium TV and superfast broadband, could save almost £40 per month (30%) by taking bundled services.

Conversely, a low-use couple with basic communications needs may not necessarily be better off bundling services, but should shop around to find the best deal for their needs.

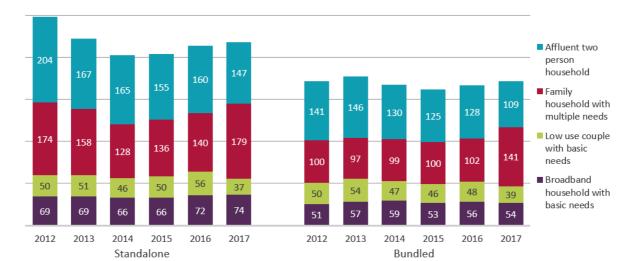


Figure 19: Weighted average monthly pricing for standalone and bundled services: 2014-2017

 $^{^{37}}$ An overview of the household usage profiles can be found underneath the chart and in the Methodology section.

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

Source: Ofcom, using data provided by Teligen

Notes: Weighted average tariff for primary providers; includes promotional discounts; prices adjusted for CPI; figures have been rounded to the nearest whole number.

Average spend figures also suggest that bundling can lead to significant cost savings

Comparing the average revenues per customer generated by UK operators from bundled and standalone services provides further insights on the savings available to consumers who bundle services together.

Our analysis of the data provided by UK operators shows that customers purchasing a quad-play bundle of services, including a landline, fixed broadband, mobile and pay-TV, on average spent £54 per month in Q3 2017. This was more than 40% less per month than the average when purchasing all four services separately on a standalone basis. Triple-play bundle customers could also save money; the total average spend for customers buying a triple-play bundle was 34% less than the total of the average spend for similar standalone services.

Savings can still be gained even if consumers only take one bundle as part of their overall service package. For example, a consumer purchasing a dual-play service of fixed broadband and landline phone service, and subscribing to pay TV on a standalone basis, can still save £12 per month (13%) compared to purchasing all three services individually.

It is important to note that average spend is calculated across all customers buying a particular service, or bundle of services, and the figures will therefore partly reflect usage variations between 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.

97 ■ Quad-play bundle 85 24 Triple-play bundle 33 43 64 ■ Dual-play bundle 23 54 Landline 57 Fixed broadband 43 43 Pay-TV ■ Mobile Quad-play Triple-play bundle Dual-play bundle Aggregate of and standalone and standalone standalone pay-TV & mobile mobile services

Figure 20: Average monthly consumer spend, by level of service bundling

Source: Ofcom/operators

Notes: Data as of Q3 2017; line rental is included in landline; standalone mobile spend is for both pre- and paymonthly connections for customers who do not take another service from the provider; 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

The non-discounted prices of standard and superfast broadband bundles continue to converge

The gap between the price of a superfast and standard fixed broadband connection has narrowed to the point at which there is little or no difference for some packages. The average monthly price premium for superfast broadband over standard broadband, when purchased as part of a dual-play bundle, fell from £8 in 2012 per to £4 in 2017,38 while it fell from £6 to £3 for superfast broadband purchased as part of a triple-play bundle.

However, the decline in the superfast price premium is primarily due increase in the price of standard broadband packages.

Between 2012 and 2017, the average non-discounted price of the dual-and triple-play superfast bundles offered by leading UK ISPs increased by 7% and 6%, in real terms, respectively. Over the same period, however, the average non-discounted price of bundled packages with standard broadband increased more; the average price of a dual-play bundle with standard broadband increased by 23%, while triple-play bundles with standard broadband increased by 16%.³⁹ The trend

³⁸ Based on average weekly prices during these years.

³⁹ Again, based on average weekly prices during these years.

of increasing prices for standard broadband relative to superfast broadband was highlighted in our 2018 Wholesale Local Access Market Review Statement.⁴⁰

£ per month (December 2017 prices) 5 yr change £50 Dual-play +23% £40 (standard bb) £30 Dual-play +7% (superfast bb) £20 +16% Triple-play (standard bb) £10 Triple-play +6% fΩ (superfast bb)

Figure 21: Average available dual-and triple-play monthly tariffs: 2012 to 2017

Source: Ofcom / Pure Pricing UK Broadband Updates

Notes: Represents average of the cheapest available tariff of BT, Plusnet, Virgin Media, TalkTalk, Sky and EE in December each year; excludes promotional discounts and rewards/vouchers/bill credits; adjusted for CPI (December 2017)

There has been a notable increase in the non-discounted price of BT's cheapest dual-play standard broadband bundle

Analysis of the average non-discounted price of the cheapest dual-play standard broadband bundles offered by the UK's largest residential fixed-line operators shows a 16% price increase in real terms between Q4 2015 and Q1 2018.

Non-discounted prices (sometimes called "list" prices) are typically paid by consumers who are outside their minimum contractual period. Data provided to Ofcom by the UK's largest ISPs suggests that just under half (46%) of all homes purchasing ADSL broadband with a landline as part of a dualplay bundle were outside their minimum contractual period in Q3 2017. Assuming the proportion is similar across all ADSL users, we would expect there to be around four million ADSL homes who are paying the non-discounted price for their service, as being outside a minimum contractual period suggests that they have not recently switched provider or recontracted with their existing supplier, which means it is unlikely they are receiving a discounted rate. The proportion of ADSL dual-play users who were outside their minimum contractual period was higher than the 32% among consumers buying dual-play bundles with fibre or cable broadband.

(https://www.ofcom.org.uk/ data/assets/pdf_file/0021/112476/wla-statement-annexes-1-9.pdf) Annex 5, page 86.

⁴⁰ Wholesale Local Access Market Review: Statement

There was a notable increase in the price of BT's cheapest non-discounted dual-play ADSL bundle between Q4 2015 and Q1 2018, up by £19 per month (79%) in real terms to £42.99 per month.⁴¹ There were also increases for the other ISPs included in our analysis during this period, but these were much smaller, ranging from 1% for Sky to 5% for EE.

From Q2 2017 onwards, BT's cheapest dual-play standard broadband bundle had 'unlimited' data whereas, before this, data use was capped, so the price increases outlined above are not for like-for-like services. Comparing the price of BT's cheapest non-discounted 'unlimited' dual-play standard bundle shows there was a smaller, but still significant, £11 per month (33%) real-term price rise between 2015 and Q1 2018.⁴²

£ per month (Q1 2018 prices)

£40

—BT
—Plusnet

TalkTalk
—Sky

£20

—EE/Orange

Figure 22: Non-discounted prices for major ISPs' cheapest dual-play bundles with standard broadband

Source: Ofcom / Pure Pricing UK Broadband Updates

Note: A non-discounted broadband price is the standard price paid when a discount ends or a tariff which does not have an automatic price increase either during or at the end of the minimum contractual term; represents the cheapest available non-discounted tariffs offered in the last month of each quarter; excludes rewards/vouchers/bill credits; adjusted for CPI

Frequently changing promotions mean that standard broadband dual-play bundle prices fluctuate, but the trend in downwards

Including promotional discounts in this analysis has a marked effect on the results, although these results should be treated with caution, as promotions change frequently, and any findings will be partly determined by when the tariff information was gathered.

⁴¹ In Q4 2015, BT only highlighted one price for its cheapest dual-play package with standard broadband - the price that was available for the full minimum contractual period. No information was given regarding any price changes at the end of the minimum contractual period.

⁴² BT only highlighted one price for its cheapest dual-play package with 'unlimited' standard broadband in Q4 2015, and no information was given regarding any price changes at the end of the minimum contractual period.

When promotional discounts are considered, average dual-play standard broadband bundle prices fell by 18% in real terms between Q4 2015 and Q1 2018. The lowest available promoted standard dual-play bundle prices fell for all of the providers included in the analysis during this period, with real-term percentage falls ranging from 1% to 52% (for BT and Sky respectively).

Making a like-for-like comparison of the price of BT's cheapest 'unlimited' standard broadband dualplay bundle (its cheapest such service in Q1 2018) shows that its promoted price fell by £9 per month (31%) between Q4 2015 and Q1 2018. During the period analysed, the discounts offered by the five providers included accounted for up to 70% of the total value of the contract, averaging 20%, with promotional activity increasing over time.

Differences between non-discounted and promoted prices are covered later in this report, where we highlight the importance of consumers being able to engage with the market to ensure that they get good value from their communications services. The analysis shows that unengaged BT dual-play ADSL customers who do nothing at the end of their minimum period may face significant price increases.

£ per month (Q1 2018 prices)

£30

—BT
—Plusnet
—TalkTalk
—Sky
—EE/Orange

£10

—MPF

Figure 23: Promoted prices for major ISPs' cheapest dual-play bundles with standard broadband

Source: Ofcom / Pure Pricing UK Broadband Updates

Note: Represents the cheapest available tariffs offered in the last month of each quarter; includes promotional discounts and rewards/vouchers/bill credits; adjusted for CPI

Consumers need to consider their usage levels when upgrading to capped superfast broadband services

In the previous section we compared the price difference between providers' cheapest standard and superfast broadband bundles. However, these are not always like-for-like comparisons, as most ADSL standard broadband services have an 'unlimited' data allowance, while some ISPs' basic fibre-to-the-cabinet (FTTC) superfast services have a limited data allowance, e.g. 25GB for Sky or 30GB for BT per month.

Consumers upgrading to superfast broadband service can therefore choose between a low-priced entry-level superfast plan with a capped monthly data allowance (at a comparable price to an 'unlimited' standard broadband service) and a superfast 'fibre' product with no monthly data cap.

Using Pure Pricing monthly tariff data of key providers, we analysed the potential price increases that a dual-play consumer with standard (i.e. ADSL) broadband could face if they were considering upgrading to a superfast FTTC broadband package. Assuming that, as a new customer, the consumer would be likely to get a new service under promotional terms, a capped fibre package would be £11 cheaper with BT than an equivalent unlimited fibre package. Even when the minimum contractual period ends, and the consumer reverts to the non-discounted price, a capped superfast fibre package is £7 per month cheaper than the equivalent unlimited superfast option.

This may appear to be a good deal, but capped fibre packages typically have a monthly data cap of 25GB to 30GB.⁴³ The average monthly data use of a superfast broadband user in June 2017 was 231GB;⁴⁴ and consumers who exceed their allowance will either be charged an 'overage' on a per-GB basis, or will be automatically upgraded to an unlimited tariff, potentially with a new minimum contractual term.⁴⁵

Buying a promoted unlimited superfast package, although more expensive than buying a capped service, is likely to be the more cost-effective upgrade path for most consumers who intend to regularly use their broadband for high-bandwidth services such as video-on-demand offered by the likes of BBC iPlayer and Netflix

Figure 24: Price steps between ADSL, capped and unlimited superfast broadband, April 2018

	ВТ		Sky		Virgin Media		TalkTalk	
	List price	Promoted price	List price	Promoted price	List price	Promoted price	List price	Promoted price
Capped standard	n/a		n/a		n/a		n/a	
Unlimited standard	£42.99	£24.99	£30.00	£20.00	n,	/a	£27.00	£21.50
Capped superfast	£34.99	£24.99	£30.00	£25.00	n/a		n/a	
Unlimited superfast	£41.99	£35.99	£38.99	£33.99	£40.00	£29.00	£33.50	£25.50

Source: PurePricing

Note: Represents average monthly price over the minimum contractual period; promoted prices include promotional discounts; prices exclude connection fees and any rewards (e.g. vouchers/prepaid debit cards)

⁴³ Pure Pricing; based on UK residential broadband offers from March 2018. BT Infinity 1 package offers 52Mb broadband speed with 30GB monthly data allowance, Sky Fibre package offers 38Mb download speeds and 25GB monthly data allowance.

⁴⁴ Connected Nations 2017 (https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2017) page 8

⁴⁵ BT subscribers receive two warning emails as they are approaching their limit. If a user exceeds the data allowance they will be charged £1.80 per GB or part GB. Consumers who consistently go over their data allowance may be offered an unlimited tariff, potentially on a new minimum contractual term. Sky subscribers are not charged for data use over their allowance, although if they exceed their data allowance twice in any six months, Sky will alert the consumer that they will be automatically upgraded to an unlimited fibre service.

9. Tariff complexity

Choice benefits consumers, but brings greater complexity and may make it difficult to effectively compare prices

As discussed above, selecting the correct tariff is important as consumers may end up paying significantly more than necessary if they are on a plan that does not suit their usage levels.

Most telecoms service packages comprise several pricing elements which together determine the overall cost of the service. Some of these charges are fixed monthly fees that are independent of service consumption, while others are based on use. Many services also have upfront installation and equipment costs.

According to tariff data provided by Simplify Digital, there were, on average, 156 core dual-play packages on offer from providers of residential services in Q3 2017, similar to the 158 packages available in Q3 2016, but almost twice the number in Q1 2013. The number of core triple-play packages fell during the same period from 412 to 321. Including just one additional paid-for service 'add-on' dramatically increases the number of package combinations available. In Q3 2017, adding one service resulted in an average of 352 dual-play packages and 2,296 triple-play packages.

While the number of packages available in the market means that consumers have increased choice and flexibility, this complexity can make it difficult for them to select the right product. Engaged consumers are more likely to be able to choose a service that suits their needs, but it may be difficult for less-engaged consumers to navigate the market. This complexity can also make consumers more likely to disengage with the market.

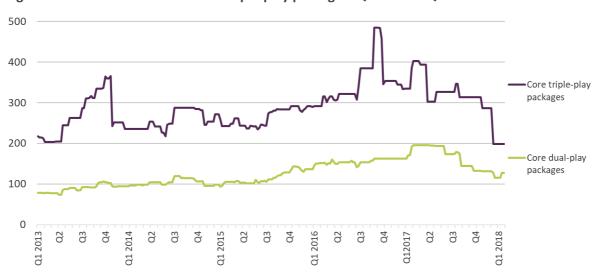


Figure 25: Number of core dual-and triple-play packages: Q1 2013 to Q1 2018

Source: Simplify Digital

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

There is a wide range of prices for broadly similar services

The chart below shows the range of monthly prices for dual-play landline and fibre-to-the-cabinet (FTTC) superfast fixed broadband bundles offered by the three leading providers of these services (BT, Sky and TalkTalk).

While these services use the same underlying technology and are all based on wholesale services provided by Openreach, the prices consumers can pay vary significantly based on service aspects (such as advertised connection speed, whether the service includes 'unlimited' data, and the calls included in any inclusive call allowances) and the choice of provider. In Q4 2017, the highest price for a dual-play bundle with superfast broadband was £66 per month, more than twice the lowest price (£32). In real terms, the difference between the lowest and highest prices has increased slightly over time, up from £23 in Q1 2013 (based on prices of £34 and £57 respectively) to £34 in Q4 2017.46

The wide range of available prices highlights the importance of consumers understanding their usage when purchasing services: in this case, what type of fixed calls they make, how many people within the home use their broadband connection, what they use the internet for. With this information, consumers will be better able to tailor their service to their requirements and so minimise any unnecessary spend. The range of available services also highlights the importance of consumers being able to compare prices across providers.

In our engagement research, consumers who know they are out of their minimum contract indicated that savings of £9-£15 per month would encourage them to consider switching provider.⁴⁷ However, the average monthly savings that respondents thought could be made by signing up to a new deal (with their own or an alternative provider) only ranged from £7 to £11.⁴⁸ This suggests that while consumers are aware that they could save money, they believe the potential savings are not enough to justify switching. As the analysis below shows, there is a wide range of prices in the market, suggesting that the savings available to many consumers are likely to fall within the amounts consumers said would encourage them to switch.

 $^{^{\}rm 46}$ Ofcom, using data provided by Simplify Digital.

⁴⁷ Consumer engagement research (https://www.ofcom.org.uk/research-and-data/multi-sector-research/general-communications/consumer-engagement-with-communication-services): range covers the values provided for each individual market i.e. £9 for dual-play and £15 for triple-play. Analysis based on respondents who said they were out of contract, or were unsure about their contract status, and who provided an actual amount (47% of respondents did not know how much they could save and so have been excluded from this analysis)). Those respondents who said "cost didn't matter, they would remain with their provider" have been excluded from the analysis.

⁴⁸ Consumer engagement research (https://www.ofcom.org.uk/research-and-data/multi-sector-research/general-communications/consumer-engagement-with-communication-services): range covers the values provided for each individual market i.e. £7 for dual-play and £11 for triple-play. Analysis based on respondents who said they were out of contract, or were unsure about their contract status, and who provided an actual amount (57% of respondents, did not know what level of savings would encourage them to switch). Those respondents who said they could not save anything have been included as a £0 value.

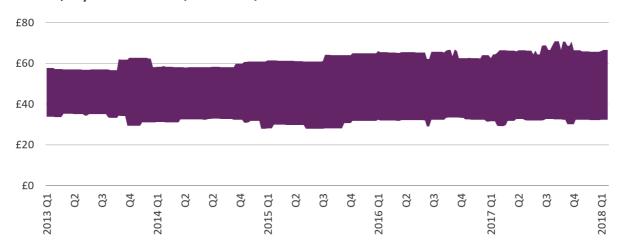


Figure 26: Price range of dual-play offers with superfast fibre-to-the-cabinet broadband available from BT, Sky and TalkTalk: Q1 2013 to Q1 2018

Source: Ofcom, using data provided by Simplify Digital

Out-of-bundle charges may be significant for consumers on the wrong tariff

We noted earlier in this report, in the *Pricing of landline voice services* section, the continued increase of out-of-bundle call prices, particularly highlighting the five-year increase of 30% or more in the prices of fixed landline calls made outside a call bundle.

An increasing number of UK homes have a landline package that does not offer any inclusive calls, and analysis of operator data provided to Ofcom shows that the proportion of UK residential landlines used without any inclusive calls increased from 13% to 25% between 2016 and 2017, a reflection that an increasing proportion of homes have a landline only in order to access ADSL and FTTC fixed broadband services.⁴⁹

Nevertheless, data collected for Q3 2017 from the leading providers of residential services shows a significant proportion of total spend due was on out-of-bundle services use, which accounted for 27% of standalone landline users' bills, 11% of dual-play (voice and broadband) bills and 20% of paymonthly mobile bills.

This further illustrates the need for consumers to be aware of their usage patterns and to engage with the market to select the right plan, to avoid overspending on communications services. It should be noted, however, that some out-of-bundle spend could be for services that are typically not offered as part of inclusive allowances, or are not used frequently enough by many consumers to make purchasing an add-on worthwhile (such as international calling).

⁴⁹ Operator data, Q3 2016 and Q3 2017.

£57 £54 £3 £4 ■ Out-of-£43 bundle spend £35 £4 £27 £24 £54 £50 £5 ■ In-bundle £43 spend £31 £21 £17 Standalone Standalone Standalone pay-Quad-play Dual-play Triple-play landline mobile TV Out-of-bundle 28% 20% 0% 5% 7% 11% as % of total

Figure 27: Average monthly spend on services outside the package allowance

Source: Operator, data as of Q3 2017

Notes: Triple-play includes both variants – landline, fixed broadband and pay-TV and landline, fixed broadband and mobile; stand-alone mobile represents pay-monthly mobile customers.

10. The impact of discounting

New bundled-services customers rarely pay non-discounted prices

Providers typically offer promotional discounts to attract new customers and retention/loyalty discounts to existing ones who might otherwise leave for another provider, both of which can provide savings for engaged consumers.

However, while discounting can benefit consumers, it can also add pricing complexity, making it more difficult for consumers to compare the overall cost of different plans. Promotional discounts tend to be targeted mostly at customers buying bundled services and have become an integral part of bundled tariff plans. As a result, new customers buying bundles rarely pay the standard tariff, while standalone customers tend not to benefit from promotional activity and pay non-discounted prices.⁵⁰

Based on figures provided by Simplify Digital, almost all dual-and triple-play bundles were offered with some type of promotional discount in Q3 2017. 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 2017, compared to 81% and 70% respectively in Q1 2013. It is notable that there have been periods since Q4 2014 in which all triple-play plans offered by these providers had some form of discount applied. For standalone fixed lines, however, there were few discounts during this period.

Simplify Digital's data also show that while the average promotional depth has declined slightly in recent quarters, providers continue to offer generous promotional discounts on bundled services. The average promotional depth (the value of the discount as a proportion of the total standard or non-discounted price of the service over its minimum contractual term) for dual-play plans increased from 10% to 20% between Q1 2013 and Q3 2017, and from 5% to 14% for triple-play bundles. However, between Q3 2016 and Q3 2017, the average promotional depth was 3pp lower for dual-play bundles, and 5pp lower for triple-play bundles, compared to the previous year.

In comparison, the average promotional depth for landline-only plans was 0% in Q3 2017, highlighting the lack of promotional options for landline-only customers. There may occasionally be promotions, as indicated below in Q4 2016, but these are few and far between.

40

 $^{^{50}}$ Line rental saver plans do offer discounted line rental for those who pay 12 months upfront.

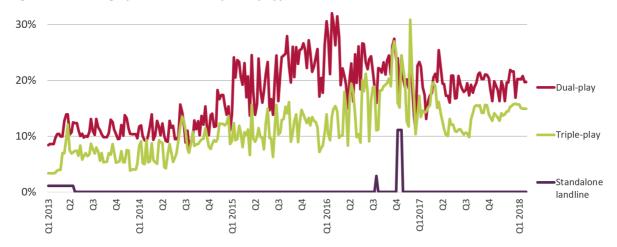


Figure 28: Average promotional depth, by type of service, Q1 2013 to Q1 2018

Source: Simplify Digital

Notes: Shows the depth of offer as a percentage minimum term cost of the contract; Dual-play and triple-play tariffs for top four providers – BT, TalkTalk, Sky and Virgin Media.

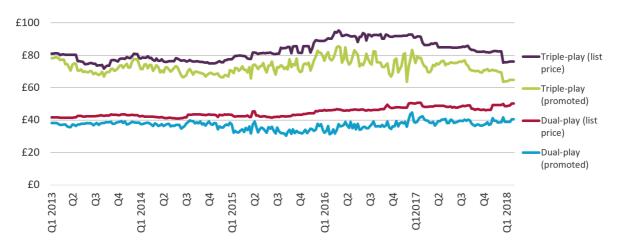
Non-discounted prices for bundles have increased, while those including discounts have remained flat or fallen

Simplify Digital data also shows that while non-discounted 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), prices including promotional discounts have remained stable, or fallen.⁵¹

The average non-discounted price of dual-play plans increased from £42 to £48 in real terms between Q1 2013 and Q3 2017, while the price including promotions only increasing from £37 to £38. Similarly, the average standard price of a triple-play plan ranged from £81 to £84 over the same period, while the promoted price fell from £76 to £72. As such, it is important that consumers remain engaged with the market in order to benefit from the savings to be made by taking advantage of operator discounts.

⁵¹ Analysis does not cover changes in tariffs after the implementation of ASA guidelines for fixed broadband advertising.

Figure 29: Comparison of standard and promoted dual-play and triple-play bundle prices: Q1 2013 to Q1 2018



Source: Simplify Digital

Note: Dual-play and triple-play tariffs for top four providers – BT, TalkTalk, Sky and Virgin Media; adjusted for CPI

11. Consumer engagement

Consumers outside their minimum contract period can end up paying more

Engaged consumers are better placed to select the services that best meet their needs, and maximize the value received from their communications services. These consumers can pay significantly less than those who are less informed or who do not look around for the best deals and so benefit from service discounting.

We used Q3 2017 average spend data, provided by the leading providers, to analyse how consumer spend varies based on whether consumers are in their minimum contract period or are outside a minimum contract period. Consumers who are within the minimum contract period are more likely to be engaged, as they have recently subscribed to a new package (either by switching to a new provider or renewing their contract with an existing provider). In contrast, customers outside the minimum contract period are more likely to be unengaged as they have stayed on the same service after the end of their minimum contractual period.⁵²

Our analysis shows that bundled service customers within their minimum contract period pay less than those outside the minimum contract period. This is unsurprising, as they are likely to be benefiting from promotional discounts, whereas those outside their minimum term are more likely to be paying a non-discounted price. Triple-play customers within the minimum contract period spent an average of 18% less than those who were outside this period in Q3 2017, while dual-play customers within the minimum contract period paid an average of 17% less than those who were outside the minimum contractual period.

There was only a small difference between the prices paid by standalone landline customers inside and outside their minimum contract period, as these services are rarely discounted. Pay-monthly mobile customers in their minimum contract period spent an average of 91% (£8 per month) more than those who were outside this period. This is because many customers within their minimum contract period are paying for a handset that is bundled with their mobile service.

⁵² A notable exception to this are pay-monthly 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 (10%) of the total pay-monthly customer base, can change their plan every month.

£63 £60 £51 ■ Outside £45 minimum £39 contract £36 £32 period £24 £26 £17 Inside £9 minimum contract period Standalone Standalone Standalone pay-Dual-play Triple-play Quad-play landline mobile TV -6% +91% -20% -12% Difference -17% -18%

Figure 30: Average monthly spend for customers within the minimum contract period and outside the minimum contract period, by service type/combination: Q3 2017

Source: Operators, data as of Q3 2017

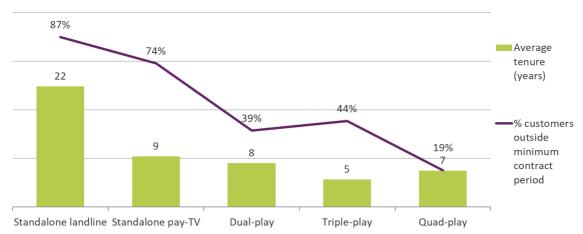
Notes: Triple-play includes landline, fixed broadband, pay-TV and landline, fixed broadband and mobile; standalone mobile represents both pay-as-you-go and pay-monthly (including SIM-only) mobile customers.

Bundled consumers are more likely to be within the minimum contract period than those with standalone services...

On average, consumers subscribing to bundled services have a shorter tenure, and are more likely to be within their minimum contract period, than those subscribing to standalone services. This shorter average tenure of bundled services is, in part, likely to be due to the rapid growth in bundle take-up over the last decade, as well as availability of choice in the market.

In comparison, the longer tenure of standalone customers, particularly standalone landline customers, suggests relatively lower levels of engagement and may also be related to there being a narrower choice of providers and services in these markets.





Source: Ofcom / operators

Notes: Data as of Q3 2017; 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.

...and they are also more likely than standalone services customers to switch

Ofcom research shows that the incidence of switching is highest among dual-play customers, with almost one in five (17%) having switched at least one service in their bundle in the 12 months to September 2017 (14% doing so while remaining at the same address). Those with a standalone landline service were the least likely to have switched (5%).

Figure 32: Cross-market overview, switching in the 12 months to September 2017

					£				
% switched in 12	Landline standalone		Mobile		Pay TV		Dual play	Triple play	
months to September 2017	Total	No broadband	Broadband with another provider*	Contract (standalone)	Prepay	Total	Standalone	Total	Total
Switched total	5%	2%	11%*	9%		10%	7%	17%	12%
Switched excl. home movers	4%	1%	11%*		9%	8%	6%	14%	10%

Source: Ofcom Switching Tracker carried out by Saville Rossiter-Base in July to August 2017

Base: All adults aged 16+ who are the decision-maker for landline as a standalone service (288 All 2017, 223 No fixed broadband service, 65* broadband from another provider) mobile contract as a standalone service (1393, 2017), mobile prepay (618, 2017), pay TV as a standalone service (265, 2017), bundle of services (2017, dual 476, triple 661)

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

Shopping around at the end of a minimum contract period can yield savings, but many consumers are unaware of the potential benefits

We have noted the savings that can be made by customers who take advantage of the discounted offers available by taking a new contract. But recent Ofcom research suggests that not all consumers are aware of the savings that can be made by shopping around.

When we asked consumers how much they thought they could save per month by signing up to a new contract, either with their current provider or an alternative provider, more than half of consumers (57%) who were outside their minimum contractual period, or did not know their contract status, did not know what potential savings could be made by switching providers or by signing up to a new contract with their existing provider. Another 26% believed that they would not save any money at all. This belief was more common among mobile customers, 43% of whom did

not think they could save any money, while around a fifth of standalone pay-TV, and dual- and tripleplay customers, did not think they could save anything by switching or changing deals. 53

Consumers can secure discounts by negotiating with their provider

Engaged consumers do not necessarily need to change provider to access discounts on their current service, especially if they are happy with their current provider and package.

Ofcom research shows that some consumers have negotiated a discount on their existing service/s in the past 12 months. While 13% dual-play and 13% of triple-play consumers have proactively obtained a discount or adjusted their service to fit their needs, many more standalone pay-TV consumers have chosen to contact their provider, up by 9pp in 2017 to 21%. Approximately 4% of landline standalone consumers, typically consumers who are the least engaged, contacted their provider in 2017, compared to 1% in 2016.

Figure 33: Consumer changes to service/package, other than switching, year to August 2017

					£				F	
	Landline s	tandalone		contract alone	Pay TV standalone		Dual play		Triple	play
			Type of	package/	service ch	nange				
Change initiated by	Consumer	Provider	Consumer	Provider	Consumer	Provider	Consumer	Provider	Consumer	Provider
Discount	2%	2%	6%	4%	9%	1%	8%	2%	8%	3%
Added extra/ improved	2%	2%	6%	7%	7%	6%	5%	5%	5%	6%
Reduced/ downgraded	1%	-	1%	1%	6%	1%	2%	1%	2%	1%
Any 2017	4%↑	4%	12%	11%	21%	8% 🛧	13%	7%	13%	8%
Any 2016	1%	4%	10%	7%	12%	3%	11%	7%	10%	7%

Source: Ofcom Switching Tracker carried out by Saville Rossiter-Base in July to August 2017

Base: All adults aged 16+ who are the decision-maker for landline as a standalone service (288) mobile contract as a standalone service (1393), pay TV as a standalone service (265), bundle of services (dual 476, triple 691); Arrows indicate any significant difference between 2016 and 2017

Many consumers do not engage proactively in the market

As noted in previous sections of this report, consumers can make savings if they are aware of their usage needs and shop around, either with their current provider or another provider, at the end of their minimum contract period.

We recently commissioned both qualitative and quantitative consumer research, to broaden our understanding of consumer engagement issues in communications markets. Our qualitative research

⁵³ Consumer engagement research (https://www.ofcom.org.uk/research-and-data/multi-sector-research/general-communications/consumer-engagement-with-communication-services).

suggests that engagement in communications markets tends to be reactive for all but the most engaged consumers. This apparent reluctance to engage proactively is, for some, linked to a lack of confidence, knowledge and understanding of the market. Some are deterred by perceptions of complicated deals and a lack of comparability, while there is the attitude among others that there is little reward for the amount of effort required.

This lack of confidence and understanding was noted in our quantitative research: a quarter (24%) of consumers were not confident they had the best deal for their needs, and 30% did not agree with the statement "it is easy to understand the different options in the market", rising to 40% among those aged 55+.⁵⁴

This survey also noted confusion around the status of contractual arrangements with providers.⁵⁵ Around one in seven consumers (14%) were unaware of whether they were within or outside their minimum contract period, and a similar proportion (12%) said they were 'in contract' but did not know when their contract ended.⁵⁶ This confusion is most evident in relation to standalone pay-TV services and least evident for mobile.⁵⁷

Participants in our qualitative research said that they needed to be "awakened" by a significant event to increase their level of engagement, citing events such as a significant and unexpected price increase, poor service for an extended period, or a home move. Some spontaneously suggested that a notification of changes to their existing service would prompt engagement. This is consistent with the quantitative data which suggest that most consumers (89% of those within contract and 82% of those who don't know when their contract ends) would find it useful to receive prior notification of the date on which their contract ends.

We published this research in April 2018, alongside an update on our programme of work to help us better understand why some consumers may face difficulties engaging in communications markets.⁵⁸ Initially, we are focusing on 'end of contract notifications' – whereby providers would proactively inform customers when they are approaching or are at the end of their minimum contract period. We will then, as part of a second phase of work, consider whether some consumers may:

- have difficulties understanding their own needs and usage requirements; and/or
- struggle to understand or navigate the range and complexity of deals and packages on offer.

⁵⁴ Proportions citing "not confident" range from 16% in the mobile market to 28% for triple-play, and proportions disagreeing that it is "easy to understand the options" range from 27% for mobile to 33% dual-play.

⁵⁵ In the consumer research we used the term 'end of contract' as this is how consumers tend to talk about the end of their minimum contract period, or 'minimum term'. Where we refer to 'end of contract' or being 'in or out of contract', this refers to the respondents' minimum contract period. Respondents' contractual status is based on their stated responses.

⁵⁶ These respondents stated they have "little or no idea about when their contract ends", but say they are 'in contract'.

⁵⁷ The combined percentage of these two aspects for mobile is 15% compared to 30% for standalone pay TV and 27%/28% for dual-and triple-play bundles respectively.

⁵⁸ Available at: https://www.ofcom.org.uk/consultations-and-statements/category-2/helping-consumers-engage-communications-markets.

12. International comparisons

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

We benchmarked the price of communications services in the UK against those in France, Germany, Italy, Spain and the US in the 2017 *International Communications Market Report.*⁵⁹

In this section of the report we summarise our findings regarding the price of standalone landline, standalone mobile phone, and fixed broadband services, along with dual-play (landline and fixed broadband) and triple-play (landline, fixed broadband and pay TV) bundle prices.⁶⁰

Data used in the analysis

We used data provided by Teligen to benchmark UK prices internationally. For landline, mobile phone and fixed broadband services, this used a methodology similar to that which Teligen uses in its ongoing price benchmarking work for the Organisation of Economic Co-operation and Development (OECD), and we used data taken from Teligen's Bundle Benchmarking service when comparing the prices of bundled services.

The tariff data used in the analysis was taken from operator websites in Q3 2017. The bundled tariff data were collected in July and August 2017, and the standalone service tariffs in either August or September 2017 (depending on the service). The purchasing power parity-adjusted (PPP) exchange rates used to convert prices into GBP were for July 2017 and were taken from the OANDA web service (using exchange rates as at 1 August 2017) and the OECD database of comparative price levels (CPL).⁶¹

Further details of the methodology used can be found in the 2017 *International Communications Market Report.*⁶²

Summary of key findings

- Overall, across all the services/bundles and pricing metrics included in our analysis, the UK ranked third among our six comparator countries, after France and Germany.
- The UK ranked third in terms of both weighted average and lowest available basket prices across the services/bundles that are included in our analysis.
- France had the lowest prices overall in terms of both average and lowest available prices across all services, while the US was the most expensive on both metrics.

⁵⁹ https://www.ofcom.org.uk/ data/assets/pdf file/0032/108896/icmr-2017.pdf.

⁶⁰ For further information on methodology, please refer to the executive summary of the 2017 International Communications Market Report: https://www.ofcom.org.uk/ data/assets/pdf file/0032/108896/icmr-2017.pdf.

⁶¹ https://www.oanda.com.

⁶² https://www.ofcom.org.uk/ data/assets/pdf file/0032/108896/icmr-2017.pdf.

Fixed voice services

- The UK's lowest ranking was for the price required to receive standalone landline services, where it came fifth out of the six countries.
- On average, the UK ranked fourth for average weighted average landline prices across the three baskets used in our analysis, and fifth in terms of the lowest available prices for these baskets, with prices comparing more favourably for the higher-use baskets.⁶³

Fixed broadband services

- Our analysis of fixed broadband prices looks at the price required to be able to receive fixed broadband, whether purchased on a standalone on bundled basis.
- On average, the UK ranked fourth across our three fixed broadband baskets in terms of both average and lowest available prices, with UK superfast and ultrafast broadband prices tending to compare less favourably than those of basic services.

Standalone mobile phone services

- The UK's highest rank was for standalone mobile phone service prices, where it ranked joint first overall (along with France) across the three mobile connections used in our analysis.
- The UK performed particularly well in terms of the lowest available mobile prices, where it ranked top among the six countries.

Service bundle pricing

- The UK ranked third in terms of average prices, and fourth for lowest available prices, for each of the three dual-play service bundles included in the analysis.
- The UK also ranked third for the price of a triple-play bundle with basic broadband and basic pay TV, in terms of both average and lowest available prices.
- The UK performed better for a bundle including superfast broadband and premium pay TV, ranking top for both average and lowest available prices.

⁶³ The analysis in this report does not include the reduction in line rental from £18.99 to £11.99 for BT customers who buy only a landline telephone service, which was introduced in April 2018 as the result of an Ofcom review.

Figure 34: International comparison of overall, lowest available and 'weighted average' standalone and bundled household usage prices: 2017

	Land	lline	Fix broad		Mobile	Mobile phone		Dual-play bundles		e-play dles	Overall rank
	Average	Lowest	Average	Lowest	Average	Lowest	Average	Lowest	Average	Lowest	across all metrics & services
UK	4	5	4	4	2	1	3	4	2	1	3
FRA	2	1	2	1	1	2	2	3	1	1	1
GER	1	4	3	3	4	3	1	2	3	1	2
ITA	6	6	1	1	3	3	4	1	4	4	4
ESP	5	2	5	5	4	5	5	5	5	5	5
USA	2	3	6	6	6	6	6	6	6	6	6

Source: Ofcom, using data provided by Teligen

Note: Circles denote the top-ranking country for each metric

A1. 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; and
- 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, 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 use in 2016. These household types are designed to be collectively broadly representative of the overall population.

Figure 35: Household types

	'Typical' household type	Summary	Fixed voice	Mobile voice	Mobile messaging	Mobile handset data	Fixed broadband	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	Low use	Low use	Low use	Low use	None	Free-to-air
3	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	Sophisticate d couple	An affluent two person household	Low use	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 36: Fixed voice baskets

	An affluent two person household with sophisticated used	A 'networked' family household	Low use couple with basic needs	A late adopter couple
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	59% daytime, 25% evening and 16% weekend	58% daytime, 25% evening and 17% weekend	58% daytime, 25% evening and 17% weekend

Source: Ofcom

Mobile voice and data baskets

To analyse the prices of standalone mobile services, we used six connection types to represent 'typical' use across diverse types of consumer. Of these, two connections, 5 and 6, require 4G mobile

data. The number of providers covered in the pricing models have increased over time. We exclude the cost of a handset from our analysis.

Figure 37: Mobile connection types

	Outgoing call minutes per month	Outgoing SMS messages per month	Data use per month (GB)
Connection 1	50	0	0
Connection 2	50	25	0.1
Connection 3	100	50	0.5
Connection 4	100	100	1
Connection 5	200	150	5
Connection 6	500	250	15

Source: Ofcom

Bundled service baskets

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

Figure 38: Typical bundled service household types

	Summary	Fixed voice minutes	Mobile voice minutes	Mobile SMS messages	Mobile handset data (GB)	Fixed broadband speed (Mbit/s)	Fixed broadband data (GB)	Television
	A low use couple		50	None	None			
1	with basic needs	300	50	None	None	None	None	Free-to-air
	Broadband household		50	25	0.1	Up to'		Basic pay-
2	with basic needs	400	50	25	0.1	4Mbit/s or higher	25	TV with HD & DVR
	Family		250	100	0.4		50	Premium
4	household with	200	150	200	0.3	Up to'		pay-TV with
4	multiple	200	100	250	2	10Mbit/s or higher		sports, films, HD &
	needs		100	250	2			DVR
	Affluent		300	150	1 (4G)	Up to'	75	Premium pay-TV
5	5 two person household	100	200	50	0.5 (4G)	30Mbit/s or higher		with 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, KCOM, Post Office, 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, and the proportion of spend that is out-of-bundle for the quarter ended September 2016 (Q3 2016) and September 2017 (Q3 2017). 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 were 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 levels.

Data were collected for the following services:

Figure 39: Customer and spend data collected for communications services: Q3 2016, 2017

Standalone services	Bundled services
Standalone landline	Dual-play with landline and fixed broadband
Standalone fixed broadband	Triple-play with landline, fixed broadband & pay-TV
Standalone pay-TV	Triple-play with landline, fixed broadband & mobile
Standalone mobile	Quad-play with landline, fixed broadband, pay-TV & mobile

Consumer research

In July 2017, Ofcom commissioned Futuresight to conduct qualitative research to better understand why consumers do not engage fully, or at all, with communications markets. The research sought to understand what, if any, barriers exist and what might encourage those who are less engaged to participate more.

In total, 165 consumers participated in the study, which consisted of a three-stage approach. Stage 1 involved 16 (75-minute) focus groups and 16 (45-minute) individual interviews. This allowed Futuresight to capture some general background on each consumer, and to brief participants on the task (stage 2). Stage 2 involved participants engaging with the market to "have a go at shopping around for the best deal for them/their household"; this was captured in real-time via an online diary. The final stage involved reconvening the groups for a two-hour session (one hour for

individual interviews) to review participants' experiences and outcomes from the task, and then have an in-depth discussion of their shopping-around experiences as a 'journey'.⁶⁴

In January 2018, Ofcom commissioned Kantar Media to conduct 1,073 interviews looking at SIMO consumers, and consumer awareness and experiences of mobile handset unlocking. The interviews were conducted in-home, face-to-face, via Kantar Media's omnibus.⁶⁵

We undertook primary quantitative research in early 2018 to broaden our understanding of consumer engagement issues in communications markets. The research focused on consumer awareness and understanding of contract end-dates and sought to identify the extent of any difficulties consumers have when seeking to engage.

In total, 3,992 UK adults aged 16+ were interviewed, 2,141 online and 1,851 face-to-face. The sample was designed to ensure that sufficient consumers in each of the four markets of interest: dual-play (landline and broadband), triple-play (landline, broadband and pay TV), standalone mobile, and standalone pay TV, were included, to allow for analysis by market. The questionnaires using online and face-to face interviewing were identical. The research was conducted by Critical Research on Ofcom's behalf. Fieldwork took place between late January and early April 2018.

⁶⁴ More detailed information on the methodology can be found in the report:

https://www.ofcom.org.uk/ data/assets/pdf file/0022/113458/Engagement-Qualitative-Research-Report,-2017.pdf file/0015/113901/kantar-omnibus-data-jan2018.pdf data/assets/pdf file/0015/113901/kantar-omnibus-data-jan2018.pdf