
Pricing trends for communications services in the UK

[Pricing trends for communications services in the UK](#) – Welsh overview

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Overview

This report looks at pricing trends for residential phone, mobile, broadband and TV services in the UK. It examines the prices of standalone and bundled services and what customers actually pay for these services. Overall, while there is variation in pricing trends across communications services with some services becoming cheaper and others more expensive, we find that customers are generally able to benefit from a wide range of good value deals.

The prices people pay and the value that they get from communications services are key indicators of whether markets are working well for customers. Helping customers get the best deal for them is a priority for Ofcom. Our Fairness for Customers programme includes a number of actions to help make it easier for people to find the right deal, and ensure they are treated fairly by their provider.

What we have found

The price of mobile services is falling. Pay-monthly tariffs are generally tiered by the amount of inclusive data, with 65% of tariffs including unlimited calls and texts. Prices of tariffs with a large amount of inclusive data have been falling steeply, while customers who use less data can often secure lower prices on pre-pay tariffs.

Mobile customers typically pay a lower overall price if they take a SIM-only deal. Our research finds that using a SIM-only mobile service with a separately acquired handset is cheaper than buying a smartphone bundled with an airtime contract. Bundled contracts were equivalent to the customer being charged an APR (annual percentage rate) of 13-24% for their handset. The additional cost can be much higher if customers do not move onto a SIM-only deal at the end of their contract.

Mobile prices in the UK compare well to those in other countries. Our analysis compares UK prices with five comparator countries and finds that overall prices are lower than in France, Germany, Italy, Spain and the US.

List prices for dual-play landline and fixed broadband services have been broadly stable since the end of 2018. This is despite significant increases in average data use, indicating that people are getting more for their money. Basic superfast dual-play list prices are around £7.50 per month higher than for those of the equivalent standard broadband services, while promoted prices are on average £5 per month higher for superfast services.

Prices for landline calls and call bundles continue to increase, although the rate has slowed slightly. At the same time, average line rental charges have declined in real terms, and reduced price line rental services are available to people that do not use fixed broadband.

Engaged customers tend to get better deals, but some customers lack confidence with finding the best deal for them, such as understanding the language and terminology or comparing costs. Despite the benefits of engaging, our research finds 28% of fixed broadband customers, and 35% of mobile customers, are "apprehensive" about doing so.

Forty-one per cent of broadband customers are out-of-contract, based on customer-level data collected in November 2018 and reported in our review of pricing practices in fixed broadband.¹ Prices usually increase for those who do nothing at the end of their contract: they pay an average of £9-10 per month more than new customers and £8-9 more than those who re-contract.

Ofcom has a broad programme of work aimed at helping people get better deals and ensuring that customers are treated fairly, including paying a fair price for their services. We have published an [update on this work](#) alongside this report.

¹ Ofcom: [Helping consumers get better deals: initial conclusions from our review of pricing practices in fixed broadband and statement on end-of-contract notifications and annual best tariff information](#)

Key metrics

Broadband services

The average difference in list prices between superfast and standard broadband bundles:



Change in average list price from 2014 to 2019 (inflation adjusted):



Mobile services

Average mobile use since 2016:



More than **2 million** mobile customers whose contract includes a handset, are still paying the same price after the end of their minimum contract period.

70% of mobile tariffs include over 5GB data. Only **10%** of mobile data consumers use more than 5GB per month.



Bundled services



80% of UK households buy bundled communication services

38% of people with a landline included in their broadband service did not make an outgoing call in Q1 2019

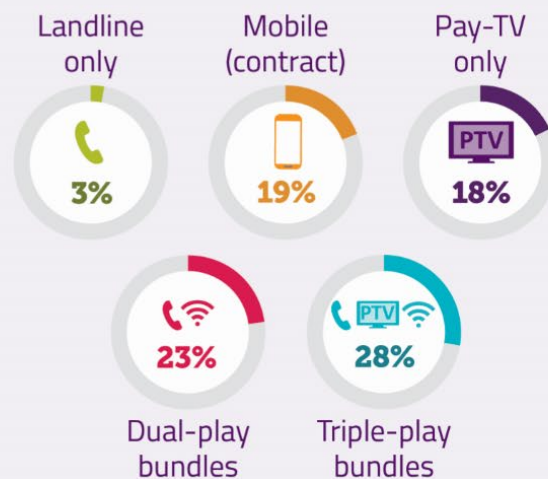


Price differentials

The gap between average promoted and list prices has narrowed



Customers switching supplier, negotiating a discount or changing their service



Summary of findings

The price of mobile services has continued to fall

- **The competitive focus in mobile is on data.** Sixty-five per cent of pay-monthly tariffs have unlimited calls and texts, and tariffs are tiered according to the inclusive data allowance.
- **Take-up of higher inclusive data and call bundles has contributed to a fall in average out-of-bundle mobile spend,** down from £5 per month in Q3 2017 to £2 in Q1 2019.
- **Analysis of mobile tariffs shows that prices are falling overall.** The greatest declines have been in the prices of tariffs with high data allowances (>3GB/month) – there were only small falls in the price for low data allowances(<1GB/month). In 2019, the price of a mobile service (based on the mean average mobile use of 168 minutes and 3.2GB a month)² was £13 a month, nearly £2 lower than in 2018 (based on 2018 average mobile use of 169 minutes and 2.5GB per month).
- **Pre-pay prices tend to be lower than the equivalent pay-monthly tariffs for low users.** Our analysis shows that ‘hybrid’ pre-pay³ is cheaper than pay-monthly for low-use (<1GB/month) data profiles but more expensive for those with higher data use. Two in ten consumers use pre-pay, although this varies by demographic: 61% of those aged 75+ and 88% of respondents in the DE socio-economic group use some form of pre-pay.
- **SIM-only plans continue to grow in popularity and account for 38% of subscriptions** (up from 34% in 2018). For the first time, bundled (handset and airtime) contracts made up less than half of pay-monthly contracts (46%) in 2019, while split contracts (i.e. where there are separate contracts for the device and airtime) account for 15% of the total.
- **It is typically cheaper to buy a handset and airtime separately** than to buy a bundled contract.⁴ Analysis of tariffs offered by four major mobile providers shows that it is cheaper to purchase a handset separately and use it with a SIM-only plan than to acquire the handset and airtime together. The difference in cost is equivalent to the customer being charged an APR (annual percentage rate) of between 13% and 24% for their handset, although bundled contracts enable people to spread the cost of their mobile phone over the length of their mobile contract.

² Based on average monthly data volume per mobile handset connections (excluding dedicated mobile data connections and machine to machine connections) in H1 2019. Due to different methodology this is not comparable with the data used in Figure 7, which is based on a panel of Android users. 0

³ Hybrid tariffs enable users to buy a pack of inclusive calls, SMS and data for a set monthly fee, which expires after a month, with any use outside these allowances being taken from a more traditional pre-pay credit balance.

⁴ Our analysis compared the cost of a bundled handset and airtime, with an equivalent SIM-only plan and the purchase of a handset from an alternative supplier (e.g. Apple Store for the iPhone) with an interest-free loan; the analysis does not take account of any additional value-added services that customers may receive alongside their mobile service.

- **More than two million bundled handset and airtime pay-monthly mobile customers continue to pay the same price** after the end of their contractual term. Data collected for our work on ensuring customers are treated fairly in the mobile market⁵ found that around 1.4 million customers could save money by switching to SIM-only, the total annual saving being £182m, but also that 27% of out-of-contract pay-monthly customers would be financially better off staying on their current deals rather than switching to SIM-only.

Bundled services remain popular, providing consumers with savings compared to buying the same services on a standalone basis

- **Four in five households buy more than one communications service from the same provider** e.g. a dual-play landline and fixed broadband bundle or a triple-play service that also includes traditional pay TV.
- **People buying bundles continue to benefit from significant discounts.** Bundling (rather than buying services separately) resulted in lower prices for all of the household profiles we looked at that include fixed broadband.
- **The larger the bundle, the bigger the saving.** Analysis of the price of communications services designed to reflect the use of a ‘networked family’ using combinations of bundled and standalone services shows that, in general, the more services in a bundle the greater the saving.
- **List prices for dual-play bundles with standard and superfast broadband have stabilised** since 2018. Superfast dual-play bundles tend to be priced at a premium of around £7.50 per month more than the equivalent standard broadband dual-play service.
- **The prices of bundled dual-play and triple-play services in the UK are broadly in line with European comparators.** Our analysis finds that overall prices are more expensive than those available in France, cheaper than those in Spain and comparable to those in Germany and Italy.
- **BT reduced the list price of its standard broadband dual-play bundles by £12.50 per month** to £32.99 in November 2018.

Our analysis highlights the availability of a wide range of good value deals, but that some people lack confidence to engage in the market

- **People can pay less for their communications services by switching provider or re-contracting at the end of their minimum contractual period,** instead of moving onto a higher list price. Dual-play landline and broadband services are on average £8 per

⁵ Ofcom: [Helping customers to get better deals in communications markets: mobile handsets.](#)

month cheaper than the list price during the promotional period, and triple-play landline, broadband and TV services are an average of £10 per month cheaper.

- **More than one in ten dual- and triple-play customers had switched at least one service** in their bundle in the year to September 2019. Standalone landline customers were the least likely to have switched (2%), while switching mobile contract provider increased significantly to 12% during the year (from 7-10% over the four previous years).⁶
- **Despite the savings that are available, our research suggests that around a third of consumers are ‘apprehensive’ about engaging** – they are not confident in at least one aspect of engagement⁷ and have not made any changes to their service in at least the last two years, nor are they planning to. The proportion varied by communications service, ranging from 28% for fixed broadband to 35% for mobile services. It varied further according to purchasing choices within a service i.e. standalone landline (68%) and pre-pay mobile (51%) users were the most likely to be categorised as ‘apprehensive’.

Some people are on deals that may not be well matched to their needs

- **Many mobile consumers may be buying more data than they need.** Data use has increased significantly in recent years, but while 70% of pay-monthly tariffs available include over 5GB data per month, research using a panel of Android smartphone users found that only 10% of mobile data users consume more than 5GB data per month and almost half consume less than 500MB.⁸ Many consumers may prefer to buy more data than they need, either to reassure themselves in case of exceptionally high use in a particular month, or to future-proof their use in the later months of a contract. Further, by shopping around consumers can often increase their data allowance for little additional cost - plans with 500MB of data range from £4 to £14 per month, while 5GB data tariffs range from £9 to £19 per month.
- **Increasing landline call prices highlights the importance of tariff choice.** For example, BT has four main residential landline tariffs: our analysis of the cost for 100 outgoing call minutes (based on average residential landline use in 2018) showed a variation from £25 to £48 depending on which tariff was used.
- **A wide range of prices are available for superfast dual-play packages.** The most expensive package costs more than twice as much as the cheapest one, with prices determined by several factors including broadband connection speed, data allowance, call package/add-ons and the provider chosen. This highlights the importance of people understanding their requirements and choosing a suitable service.

⁶ In July Ofcom introduced mobile switching reforms which mean customers can change provider with a simple text.

⁷ The aspects of engagement referred to here are comparing costs, speaking to provider about deals and understanding language and terminology.

⁸ Based on a sample of 150,000 Android users only.

Most landlines are bought as part of a bundle and many are not used to make calls

- **Less than one in ten of the major providers' home landline customers bought a standalone landline service in Q1 2019.** Most people taking a standalone landline service do not take broadband from another provider, and they are more likely than average to be older and less affluent.
- **Discounted line rental services are available for people who do not need fixed broadband.** These services are offered by BT (£11.99 per month) and the Post Office (£11.50 per month).
- **Our analysis of the price of landline services shows that standalone landline prices increased** in real terms in 2019. Taking into account the price of line rental, call bundles and out-of-bundle calls, the price of services that can be used with broadband from another provider increased by 3%, while the increase was lower (1%) for standalone landline services that cannot be used with broadband.
- **But line rental prices are falling.** The average line rental price across the providers which offer standalone landlines fell by 1% in real terms (i.e. adjusted for inflation) in the year to June 2019. This compares to an average annual increase of 4% during the previous five-year period.
- **Many broadband users have a landline included in their service that they do not use to make calls.** Thirty-eight per cent of the major landline providers' customers who buy both landline and fixed broadband services from them did not make an outgoing landline call in Q1 2019.
- **Following a period of increase, call package prices stabilised in 2018.** 'Evening & Weekend' and 'Anytime' call bundle prices increased in real terms by an average annual rate of 5% and 8% respectively between 2013 and 2018.
- **Call connection fees and per-minute charges are increasing.** Call connection fees and per-minute charges for UK geographic calls increased by 11% and 18% respectively in 2018. This compares to average annual increases of 8-10% over the previous five-year period. However, operator data shows that only around a fifth of landline calls are outside call allowances.
- **Residential out-of-bundle landline call revenues fell by 44% in the five years to 2018,** according to data collected every quarter from the main landline operators.⁹ Outgoing call volumes fell by 49% over the same period.

⁹ [Ofcom Telecoms Data Update Q2 2019](#).

Over-the-top (OTT) pay-TV services are increasing in popularity despite price increases

- **Average standalone basic pay-TV prices increased in 2019.** This was partly because Virgin Media stopped selling its lower-tier pay-TV services on a standalone basis.
- **Around three-quarters of pay-TV services are bought as part of a bundle.** Sky introduced cheaper packages with fewer channels in late 2017, resulting in a fall in the average list price of pay TV when purchased as part of a bundle. Average prices have subsequently increased.
- **Over-the-top (OTT) pay-TV services have become more expensive in 2019.** Almost half (47%) of UK homes took an OTT subscription service in Q2 2019.¹⁰ Netflix increased the prices of its standard (up £1 to £8.99) and premium (up £2 to £11.99) services in October 2019, and NOW TV has increased the prices of its Entertainment (up £1 to £8.99) and Sky Cinema passes (up £2 to £11.99) during the year.

Terminology used in this report

Standalone: Where a customer takes a single service from a communications provider and not a bundled service. E.g. standalone mobile refers to a customer taking only a mobile service from their communications provider.

Bundle: A combination of more than one service provided by a single communications provider. This can include different types of service (e.g. broadband and landline or pay TV and broadband) and be provided under one or multiple contracts.

Dual play: Two services provided by a single communications provider, most commonly landline and broadband.

Triple play: Three services provided by a single communications provider, most commonly landline, broadband and pay TV.

Quad play: Four services provided by a single communications provider, most commonly: landline, broadband, pay TV and mobile.

¹⁰ [BARB's Establishment Survey](#).

Consumer engagement and its implications

Engaged customers can make savings

Some customers pay more than others for identical or very similar services bought from the same provider. It is often the case that new customers, or customers who re-contract with their provider, will pay lower prices than long-standing customers who have not changed their tariff.¹¹

Ofcom highlighted the prevalence and potential impact of differential pricing in the last *Pricing Trends for Communications Services* report in May 2018, and subsequently launched separate reviews looking at pricing in the mobile handsets and fixed broadband markets.¹² The mobile handsets review is now complete, and we plan to complete our broadband pricing review by March 2020.

We have also introduced new rules, which take effect from February 2020, that require broadband, phone and pay-TV firms to send important information to their customers when their contracts are coming to an end and on a regular basis after that. This is to help people to take advantage of the wide choice of services available, so that they can shop around with confidence and get the best deals for their needs

Most out-of-contract pay-monthly mobile consumers could save by switching to SIM-only

In last year's report we highlighted our concern that some pay-monthly consumers receiving a handset in a bundled airtime and handset mobile contract continue to pay the same price after the end of their minimum contractual term, when they could save money on a SIM-only deal.

¹¹ Citizens Advice initiated a super-complaint in September 2018, entitled '[Excessive prices for disengaged consumers](#)' which raised concerns that long-standing customers can pay more than new customers for their services. The super-complaint related to five markets: mobile; broadband; cash savings; home insurance and mortgages.

¹² We published the findings from our [mobile handsets review](#) in July 2019, and initial conclusions from our [broadband pricing review](#) in September 2019.

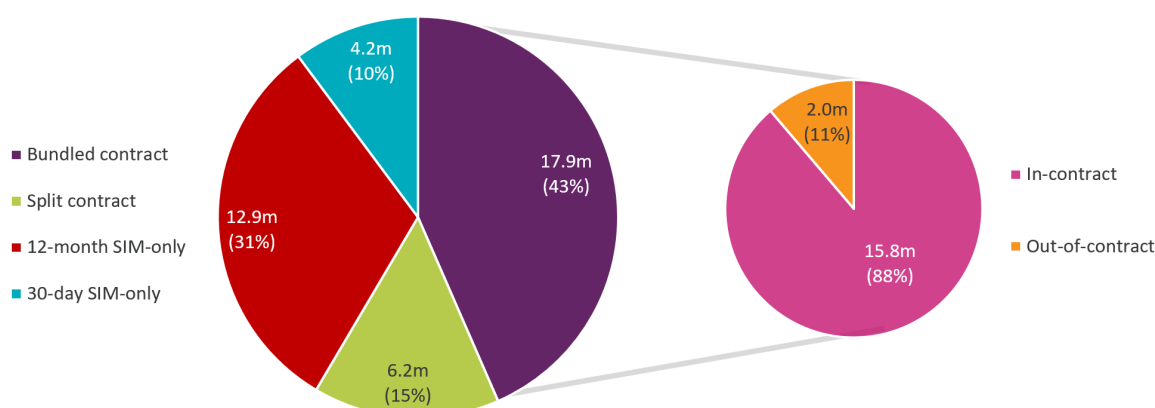
Pay-monthly mobile contract types

There are three main types of pay-monthly mobile contract:

- a **bundled contract** is one where the customer signs up to a single contract and receives a handset and airtime (calls, messages, data) for which they pay a single monthly price;
- a **split contract** is one where the customer signs up to two contracts at the same time, one for the mobile handset and one for the airtime; and
- a **SIM-only contract** is one where the customer signs up to a single contract and receives airtime. The service is then used with a handset that is acquired separately.

In September 2018 we launched a review of mobile handset contracts, which looked at the market in detail and analysed data relating to millions of mobile users in order to build an accurate picture of the actual prices paid.¹³ Our review found that 43% of pay-monthly customers (17.9 million) were on a bundled mobile contract, 88% of those were in contract and 11% (approximately two million customers) were out-of-contract.

Figure 1: Composition of pay-monthly mobile customers



Source: Ofcom: [Helping customers to get better deals in communications markets: mobile handsets.](#)

We then matched each of the out-of-contract customers with bundled mobile contracts in our dataset to a comparable 30-day SIM-only service offered by their current provider, to estimate the potential savings available to them. We found that 73% of out-of-contract pay-monthly customers with bundled contracts (nearly 1.5 million people) could save money if they switched to a SIM-only deal, saving on average around £11 per month.

However, around 27% of the total (over 500,000 people) would pay *more* if they switched to a SIM-only tariff with the same provider. These were customers whose existing contracts compared favourably with current SIM-only tariffs and tended to have been out-of-contract for longer.

¹³ Ofcom: [Helping customers to get better deals in communications markets: mobile handsets.](#)

Ofcom has secured voluntary discounts from most UK mobile providers to ensure that bundled contract customers who are out-of-contract do not overpay. We therefore expect that the number of customers who continue to pay the same price after their contract ends will fall from 2020.

Figure 2: Monthly savings available to out-of-contract pay-monthly customers

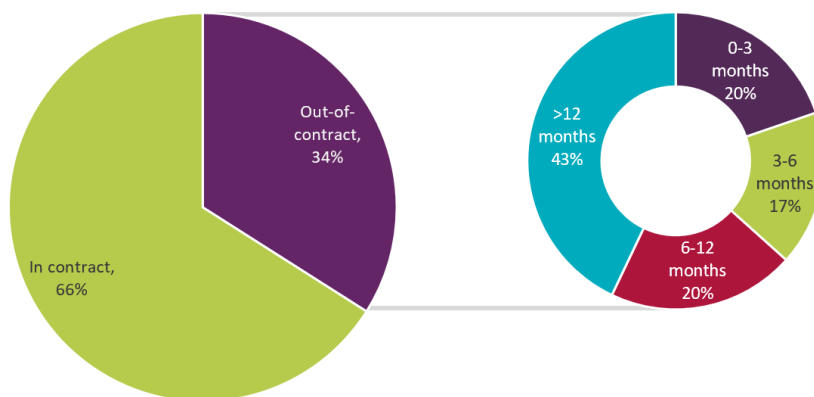


Source: Ofcom: *Helping customers to get better deals in communications markets: mobile handsets.*

Note: 3% of subscribers could not be matched to a SIM-only plan or no bundle information was available.

Across all out-of-contract pay-monthly mobile customers (i.e. not just those with a bundled airtime and handset contract as shown previously),¹⁴ 20% had been out-of-contract for less than three months and 43% had been out-of-contract for more than a year.

Figure 3: Contract status of all pay-monthly mobile customers and average length of time out-of-contract



Source: Operator data, figures as at end of Q1 2019.

Note: Includes BT Mobile, EE, iD Mobile, KCOM, O2, Plusnet, Sky, TalkTalk, Tesco Mobile, Three, Virgin Mobile and Vodafone.

¹⁴ Includes those with bundled contracts, split contracts and SIM-only contracts with a minimum term of 12 months or more.

Switching provider or re-contracting at the end of a broadband contract will typically save people money

Switching provider or re-contracting at the end of a broadband contract, instead of moving onto a higher list price,¹⁵ typically saves people money. Not all customers do this, resulting in many people paying different prices for the same service. We conducted a review of fixed broadband pricing practices¹⁶ and published our initial conclusions in September 2019.

By analysing customer-level data we found that people who switch or re-contract at the end of their contract generally pay less. On average, new customers paid £9-10 less per month than out-of-contract customers, and those who re-contracted with their existing provider paid £8-9 less per month than those who remained out-of-contract. Operator data shows that 41% of broadband users were out-of-contract in November 2018.

Consumers can secure discounts by negotiating with their provider

Consumers do not necessarily need to change provider to pay less for their services; Ofcom research shows that many people negotiate a discount from their existing provider.


While around one in ten standalone traditional pay-TV (12%) and dual-play (13%) consumers had proactively obtained a discount or adjusted their service in 2019, the proportion of triple-play consumers who had done so was significantly higher (19%). A minority (2%) of standalone landline users had contacted their provider to obtain a discount or change their service; standalone landline users were typically the least engaged and the least likely to have switched provider.

Mobile was the only service to show a significant change in the proportion of customers contacting their provider to make changes to their contract, falling from 10% to 7%. This was mainly due to a decrease from 7% to 4% in the proportion who proactively contacted their provider to negotiate a discount.

¹⁵ The list price is the price that the consumer will pay once the promotional period of their contract ends. This is usually at the end of the minimum contractual period.

¹⁶ Ofcom: [Helping consumers get better deals: A review of pricing practices in fixed broadband](#).

Figure 4: Changes to service/package when consumers stay with the same provider, year to September 2019



	Landline standalone		Mobile contract standalone		Pay TV standalone		Dual play		Triple play	
Base	288		1618		265		556		645	
Change initiated by...	Consumer	Provider	Consumer	Provider	Consumer	Provider	Consumer	Provider	Consumer	Provider
Discount	1%	1%	4%	2%	6%	2%	9%	4%	12%	2%
Added extra/ improved	0%	1%	4%	1%	3%	1%	5%	3%	8%	2%
Reduced/ downgraded	1%	0%	1%	0%	5%	0%	3%	1%	4%	0%
Any 2019	2%	1%	7% ↓	3%	12%	3%	13%	6%	19%	4%

↑ ↓ Significant differences 2019 vs 2018

Source: Ofcom Switching Tracker carried out by Critical Research in July to August 2019.

Base: Shown in table. All adults aged 16+ who are the decision-maker.

Note: Arrows indicate any significant difference between 2018 and 2019.

Q23/ Q24/Q25/Q26. In the last 12 months have you ...received a discount, reduced/ downgraded or added extra or improved services to your (SERVICE)? Did you contact your provider to receive a discount/ add extra or improved services/ reduce or downgrade services or did they contact you? *% indicates that the proportion having done this action is < 1%. At least three in ten consumers are not engaging, at least partly due to lack of confidence.

There are several ways in which consumers can engage with the communications market.

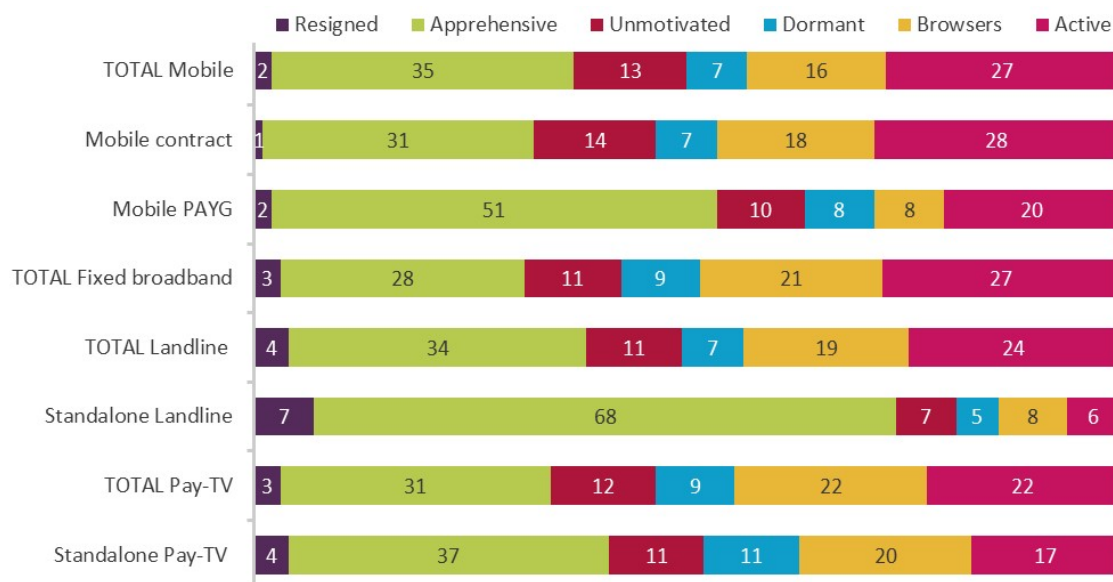
Consumers could be 'considering switching', 'keeping an eye on the market' or 'making changes to existing services'. In order to effectively engage with the market, consumers should be confident in the following three aspects of engagement a) *understanding the language and terminology* used by providers, b) *speaking to providers about new deals* and c) *comparing the costs* of various offers.

Ofcom's updated engagement index takes all these factors into account and classifies consumers as being active, browsers, dormant, unmotivated, apprehensive or resigned. A brief description of each of these segments is shown below. The detailed definitions used to create each segment can be found in the Methodology annex.

- **Active:** The most recently engaged segment. They have taken one of more of the following actions in the last year: switched supplier, negotiated with their existing supplier or assessed the market.
- **Browsers:** Have not engaged as recently as the active segment but planning to and/or are currently looking around.
- **Dormant:** Have either switched previously (13-24 months ago) or are in a new contract. They may also have reactively made a change to their existing service in the last year.
- **Unmotivated:** Are confident with aspects of engagement but have not made any changes to their service in at least the last two years, nor are they planning to.

- **Apprehensive:** Are not confident in at least one of the three aspects of engagement (as set out above) and have not made any changes to their service in at least the last two years, nor are they planning to. They say they are satisfied with their existing service.
- **Resigned:** Are unhappy with their existing service and have not sought to engage in at least the last two years, nor are they planning to.

Figure 5: Engagement levels within service



Source: Ofcom Switching Tracker carried out by Critical Research in July to August 2019.

Base: All adults aged 16+ who are the decision-maker for a mobile phone – pay-monthly or pre-pay (2388), contract mobile phone either standalone or bundled (1805), pre-pay mobile phone (583) the decision maker for the household’s fixed broadband service (1617), the decision-maker for the household’s landline service (1681), standalone landline – don’t use landline provider for another service (288), the decision-maker for the household’s traditional pay-TV service (1110), standalone pay TV – don’t use main traditional pay-TV provider for another service (265).

At an overall service level, at least half of landline, mobile and fixed broadband customers fell into one of the more engaged segments (i.e. active, browser or dormant). These proportions varied by purchasing behaviour within service and were lower among pre-pay mobile customers 36% and standalone landline customers i.e. those who had a landline without broadband or had broadband with a different supplier (19%).

Between 22%-27% of consumers across services fell into the most engaged segment and were classified as ‘active’. This proportion was highest in the mobile market where pay-monthly customers were more likely to be classified as ‘active’ than pre-pay users (28% vs. 20%). For the landline market, around a quarter (24%) of customers were classified as ‘active’ with standalone customers in this market the least ‘active’ (6%).

The new analysis highlighted a significant proportion of consumers as ‘apprehensive’. These people had not engaged in the market recently (i.e. in the last two years) and were not confident in at least one aspect of engagement (i.e. understanding language and terminology, speaking to providers about deals, comparing costs), which may partly influence their inertia.

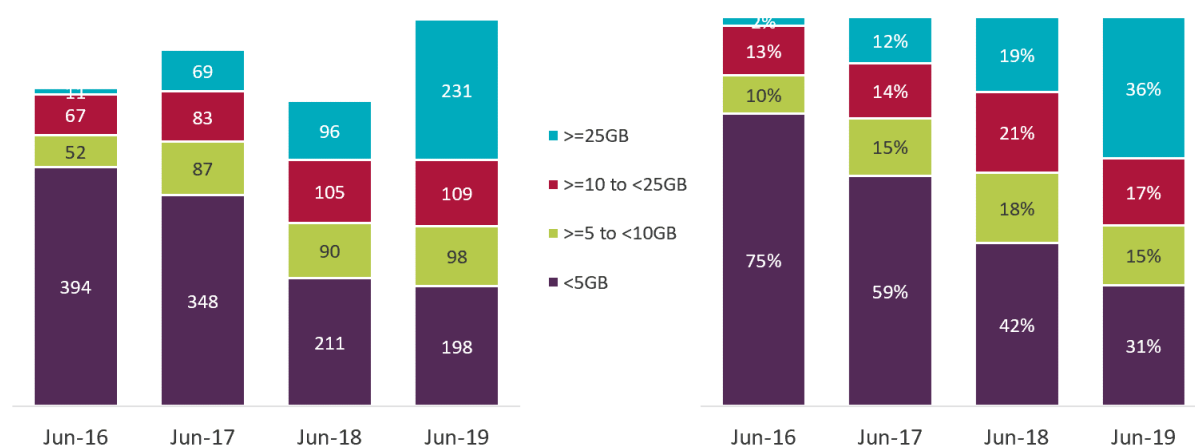
Overall, 28% of fixed broadband customers and 35% of mobile customers were classified as ‘apprehensive’. Standalone landline (68%) and pre-pay mobile (51%) customers were the most apprehensive. Both of these sub-groups tend to be older; for pre-pay these consumers tended to have had their handset for longer and were less likely than pay-monthly customers to use a smartphone.

Mobile tariffs with high data allowances are commonplace

As consumption of data services over mobile networks increases, there is a continuing trend towards pay-monthly services with unlimited voice and text allowances and large data allowances.

Teligen tariff data shows that 65% of pay-monthly price plans included unlimited voice calls and text messages in July 2019, and figures provided by Simplify Digital show that in June 2019 there were 231 pay-monthly tariffs (36% of all tariffs) with 25GB or more inclusive data each month. In October 2019, EE, O2 and Vodafone’s lowest pay-monthly mobile services offered 1GB of inclusive data, while Three’s started at 4GB.

Figure 6: Number and distribution of pay-monthly tariffs based on data allowance (%)



Source: Simplify Digital.

Note: Data as at June of each year; 24-month tariffs only.

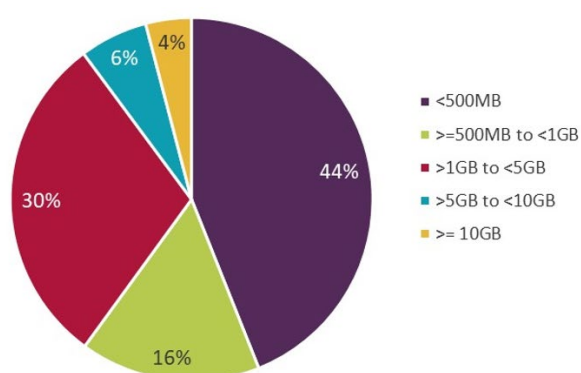
There is a mismatch between average mobile data use and the tariffs on offer

It is likely that many consumers are purchasing much more data than they need. Data collected from mobile network operators shows that average monthly data use per mobile phone user was just

under 3GB per month in 2018¹⁷; data in Ofcom's *Mobile Matters* report, captured from a panel of around 150,000 Android smartphone users, shows that only 10% of mobile data users used more than 5GB of data per month in Q1 2019 and almost half used less than 500MB.

With the previous chart showing that 69% of pay-monthly tariffs in June 2019 included over 5GB of data, many pay-monthly users may be purchasing a tariff with more data than they need. This could be because they want to have certainty over their monthly expenditure and/or future-proof their tariff against rising future use during the lifespan of their contract, the prevalence of services with large data allowances meaning that they can do so for a small additional amount each month. However, it may also be because they do not know how much data they use. By understanding their use, people will be better positioned to choose the service that best meets their needs.

Figure 7: Distribution of average monthly mobile data consumption



Source: Ofcom: [Mobile Matters report 2019](#).

Note: Data taken from a panel of Android smartphone users.

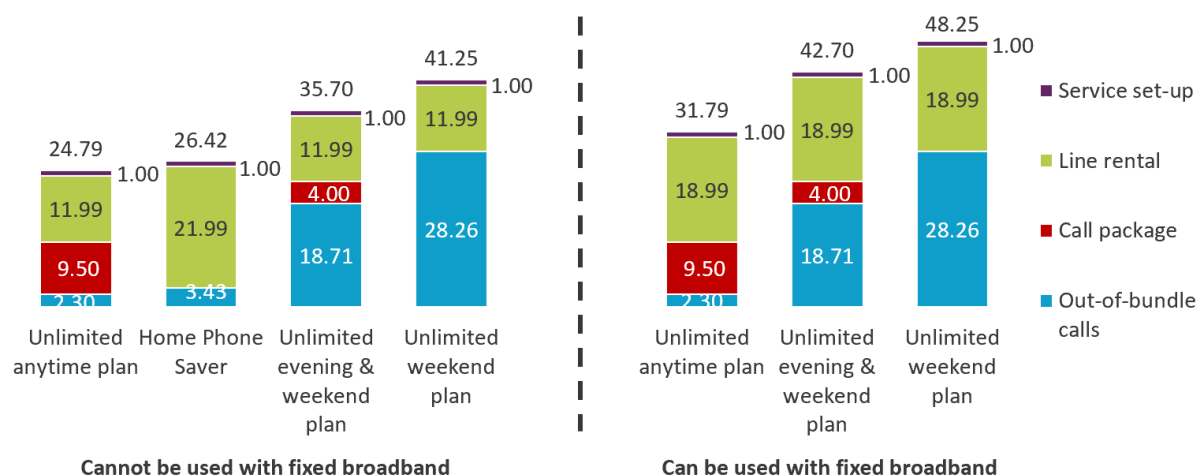
Increasing landline call prices highlight the importance of tariff choice

Rising out-of-bundle call costs make it increasingly important for landline users to understand their usage and choose a tariff that suits their needs.

Our analysis assesses the monthly cost of using a landline for 100 outgoing calls a month (broadly based on average home landline use in 2018) for each of BT's standard landline tariffs. Some of these cannot be used with a fixed broadband service (line rental is available from £11.99 for customers without a broadband service and from £18.99 for those with a broadband service). The cheapest option is to buy an 'Unlimited anytime plan' for £9.50 per month, which reduces the out-of-bundle spend by £26 per month, resulting in a net monthly saving of more than £16 compared to the 'Unlimited weekend plan'.

¹⁷ Refer to the [Communications Market Review 2019](#) for usage figures. Average monthly data volume usage excludes M2M connections; in contrast with previous years.

Figure 8: Average monthly price of standalone BT landline services



Source: Ofcom using data supplied by Teligen, July 2019 data.

Note: The usage profile used in the analysis is broadly based on average home landline use in 2018 including 100 outgoing voice call minutes (85% UK geographic, 10% to UK mobiles, 5% international), 60% of calls in daytime, 25% in evening, 15% at weekend; set-up costs are amortised over five years; excludes line rental saver plans.

Broadband speeds

Standard broadband: A data service that delivers download speeds of up to 30Mbit/s.

Superfast broadband: A data service that delivers download speeds of at least 30 Mbit/s.

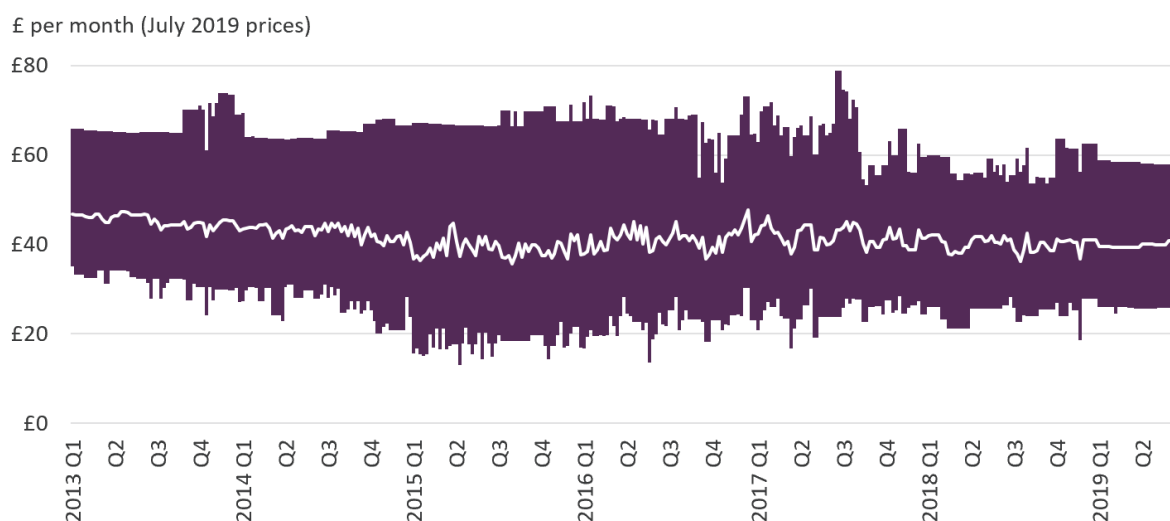
Ultrafast broadband: A data service that delivers download speeds greater than or equal to 300 Mbit/s. This definition includes Giga-fast, cable networks and full-fibre technologies.

Similar superfast dual-play services can range significantly in price

Promoted¹⁸ prices for the major residential providers' dual-play voice and superfast broadband bundles ranged from £26 to £58 per month in Q2 2019, averaging £40. Several factors determined the price paid, including the broadband connection bandwidth, inclusive call allowance, inclusive data allowance and any add-ons, such as antivirus products and wi-fi boosters.

Once again, this highlights the importance of people understanding their usage and requirements when choosing communications services.

Figure 9: Price range of dual-play superfast broadband offers from BT, Sky and TalkTalk



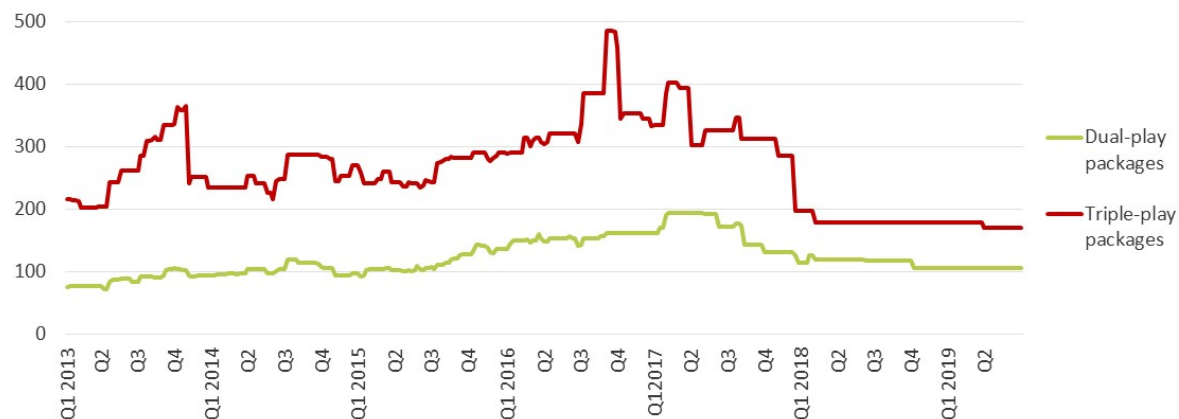
Source: Simplify Digital.

Note: Adjusted for CPI (Q2 2019 data); based on data from BT, Sky and TalkTalk; includes promotional discounts where relevant; the white line represents the average (mean) price across all tariffs.

As well as complexity within tariffs (i.e. the number of service factors that determine the price paid), the sheer number of available tariffs can make it difficult to identify the most appropriate service. The major residential providers offered a total of around 100 dual-play and 170 triple-play bundle tariffs in 2019. This was despite a notable fall in the number of triple-play tariffs at the end of 2017. Sky stopped selling Sky+ bundles to concentrate on Sky Q bundles, while at the same time simplifying tariffs for its core components (landline, call package, broadband and pay TV) and allowing bundle customisation with add-on extras like Sky Sports.

¹⁸ The promoted price is a reduced price (compared to the list price) paid by a consumer when they sign up to a broadband service. The promoted price lasts for a specified period; often, but not always, equal to the minimum contractual period. Once the promotional period has expired consumers revert to paying the list price.

Figure 10: Number of dual- and triple-play bundle offers



Source: Simplify Digital.


Note: Dual play: BT, EE, John Lewis, Plusnet, Post Office, Sky, TalkTalk, Virgin Media, Vodafone. Triple Play: BT, EE, Sky, TalkTalk, Virgin Media.

Bundled customers are more likely than those purchasing standalone services to switch

Analysis of data from Ofcom’s Switching Tracker research shows that customers who purchase bundled communications services were more likely to switch provider than those taking standalone landline.

More than one in ten (13%) dual- and triple-play customers had switched at least one service in their bundle in the year to September 2019 (most doing so while remaining at the same address). Standalone landline customers were the least likely to have switched (2%), following a significant decline in switching levels during the year. Switching mobile contract provider increased significantly to 12% during the year, having ranged from 7% to 10% over the four previous years.

Figure 11: Cross-market overview, switching in the 12 months to September 2019



% switched in 12 months to August 2019	Landline standalone			Mobile			Pay TV		Dual play ¹	Triple play ²
	Total	No broadband	Broadband with another provider	Total	Contract (standalone)	Pre-pay	Total	Standalone	Total	Total
Base	288	222	66*	2201	1618	583	1110	265	556	645
Switched total	2%	-5pp 2% ↓	2%	+2pp 12% ↑	+3pp 12% ↑	11%	10%	10%	13%	13%
Switched excl. home movers	1%	-6pp 2% ↓	1%				6%	6%	10%	9%

↑ ↓ Significant change from 2018

Source: Ofcom Switching Tracker carried out by Critical Research in July to August 2019.

Base: Shown in table. All adults aged 16+ who are the decision-maker.

Notes: *Caution: Low base size, not tested for statistical significance; arrows indicate any significant difference between 2018 and 2019. ¹ Dual-play refers to those who use the same provider for their landline and broadband services (but not pay TV or mobile) – shown as DUAL in the data tables within the SIMPLE BUNDLE TYPE cross-break; ² Triple-play refers to those who use the same provider for their landline and broadband services and pay TV (but not mobile) – shown as TRIPLE in the data tables within the SIMPLE BUNDLE TYPE cross-break.

Q28. Have you or your household ever CHANGED the company that provides your home landline service and/or line rental?/ your mobile phone service?/ your broadband service?/ your main television service?/ Q29. Did you make this recent change of (SERVICE) provider at the same time as moving home?

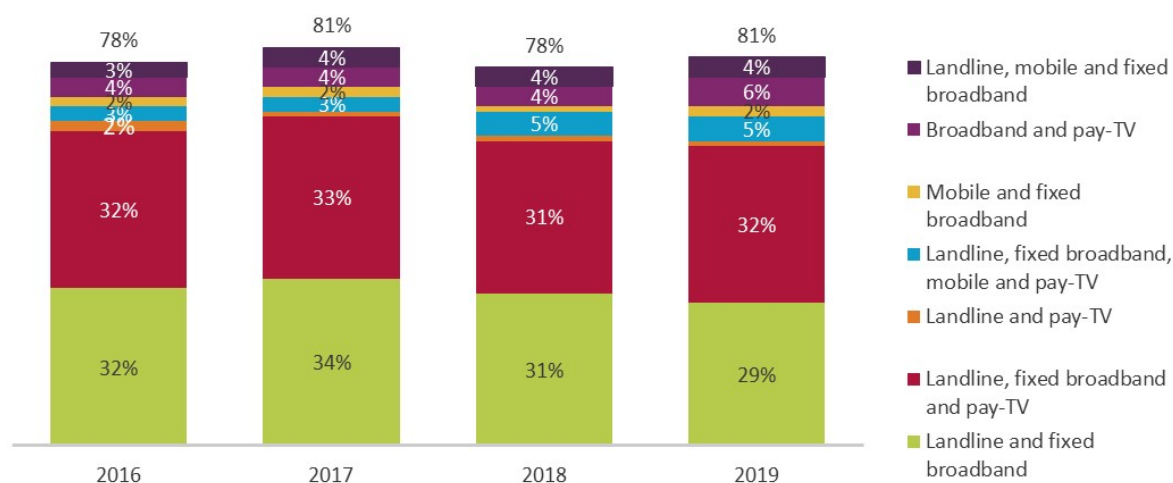
Pricing of bundled services

Four in five households purchase bundled communications services

Eighty per cent of UK households buy two or more communications services from the same provider as part of a bundle.

High take-up of bundles means that bundled service prices are more relevant than standalone service prices to UK households. Dual-play landline and fixed broadband, and triple-play landline, fixed broadband and pay TV are the most popular types of bundles, together accounting for around three-quarters of UK bundles.

Figure 12: Proportion of users, by type of bundled services



Source: Ofcom Technology Tracker.

Note: 'Other' includes all other bundle types not specified in the chart; arrows indicate significant differences at the 95% confidence level between 2018 and 2019.

QG1. Do you receive more than one of these services as part of an overall deal or package from the same supplier? / Q. Do you receive a discount or special deal for subscribing to this package of services? (latter question used for consumer-stated bundling figures).

Base: All adults 16+ (2016, 3737) (2017, 3743) (2018, 3730) (2019, 3909). Base excludes those who do not know the provider of one or more of their services.

Households can make savings when purchasing bundles from a single provider

A key consideration for many people when purchasing a bundle is that it is usually cheaper than buying the same services on a standalone basis from multiple providers, while bundles also enable customers to benefit from the convenience of receiving one bill for multiple services and having a single point of contact for them.

Price monitoring using household user profiles

We track the prices that are available to consumers by analysing the cost of different usage profiles for communications services designed to reflect 'typical' households' usage.

This analysis uses a model provided by pricing specialists Teligen. It calculates the lowest prices available to fulfil the requirements of each usage profile using the published tariffs available from major operators. We then calculate an average price for each household from all of these lowest prices, weighting the results by provider retail market shares.

See the Methodology for full details.

Our analysis shows that in July 2019 it was cheaper for all of the households that required a fixed broadband connection to purchase bundled services, with the average savings ranging from 20% to 28%. However, there are instances where bundling may not result in customers paying lower prices; for example, the low-use couple with basic needs user profile, which only needs landline and mobile phone services. Our analysis suggests that buying these services in a bundle would, on average, cost them an extra £11 per month in 2019.

This is for two reasons: bundling often means that they would have to buy a service they did not need (fixed broadband is a core component of most bundles); and because low-cost line rental landline services are available to people who do not take fixed broadband.

Our new rules requiring providers to send their customers end-of-contract notifications and annual best-tariff advice from February 2020 will ensure that people are equipped with better information on which to make purchasing decisions. These rules include a requirement for providers to inform people that they may get a better deal if they purchase their services as a bundle.

Figure 13: Weighted average monthly price for standalone and bundled services



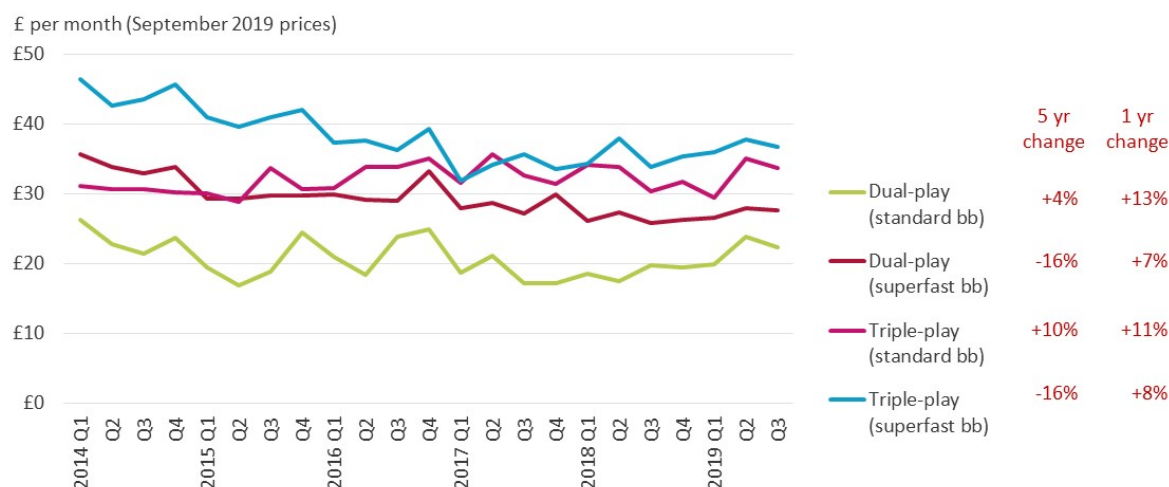
Source: Ofcom, using data provided by Teligen.

Note: The households are designed to reflect four different usage patterns, each requiring set amounts of landline, mobile phone, fixed broadband and TV services. Weighted average tariff for primary providers; includes promotional discounts; CPI adjusted; figures have been rounded to the nearest whole number; standalone services are considered for landline, broadband, mobile and pay TV.

Prices for new contracts have increased for dual- and triple-play bundles

In the past year the prices that major Internet Service Providers (ISPs) have offered new customers (i.e. the promoted prices, which typically include a discount on the list price for some or all of the contract period) have increased for both dual- and triple-play bundles, whether these include standard or superfast broadband. However, in some cases this is due to providers including more features in their basic 'unlimited' bundles, for example by including call packs or family internet access controls. The fluctuations in the prices shown are due to providers making frequent changes to the offers that are available.

Figure 14: Average available monthly promoted prices for dual- and triple-play, standard and superfast broadband



Source: Ofcom / Pure Pricing UK Broadband Updates.

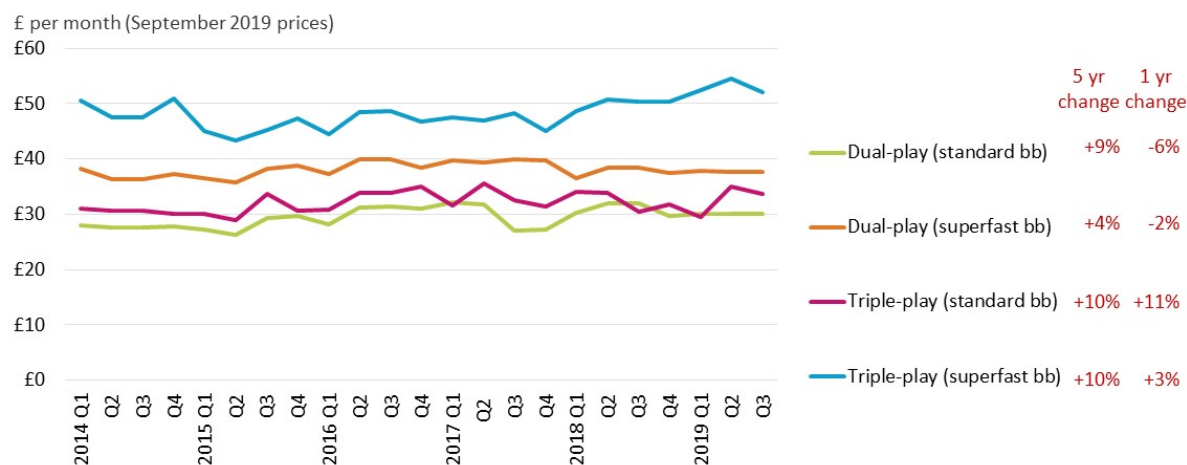
Notes: Represents average of the cheapest available tariff from BT, Plusnet, Virgin Media, TalkTalk, Sky and EE at the end of each quarter; promotions include the promoted price and any ‘gifts’ offered; adjusted for CPI (September 2019); standard broadband products are those with an advertised speed <30Mbit/s; superfast broadband products are those with an advertised speed ≥30Mbit/s.

There have been notable increases in the list prices of triple-play services in 2019

List prices are typically paid by customers who are not in a contract. The list prices for standard and superfast dual-play services have been stable since Q4 2018, when they fell, following BT’s £12.50 price cut to its standard dual-play bundle. Superfast dual-play bundles tend to cost around £7.50 per month more than standard dual-play services.

Triple-play prices for both standard and superfast broadband have increased in the past year. The providers of standard triple-play have slightly increased their list prices (by up to £7 per month, with some greater fluctuations each quarter). Superfast triple-play list prices have increased by up to £9 over the four quarters to Q3 2019, again with some greater variances in price from quarter to quarter.

Figure 15: Average available monthly list prices for dual- and triple-play, standard and superfast broadband



Source: Ofcom / Pure Pricing UK Broadband Updates.

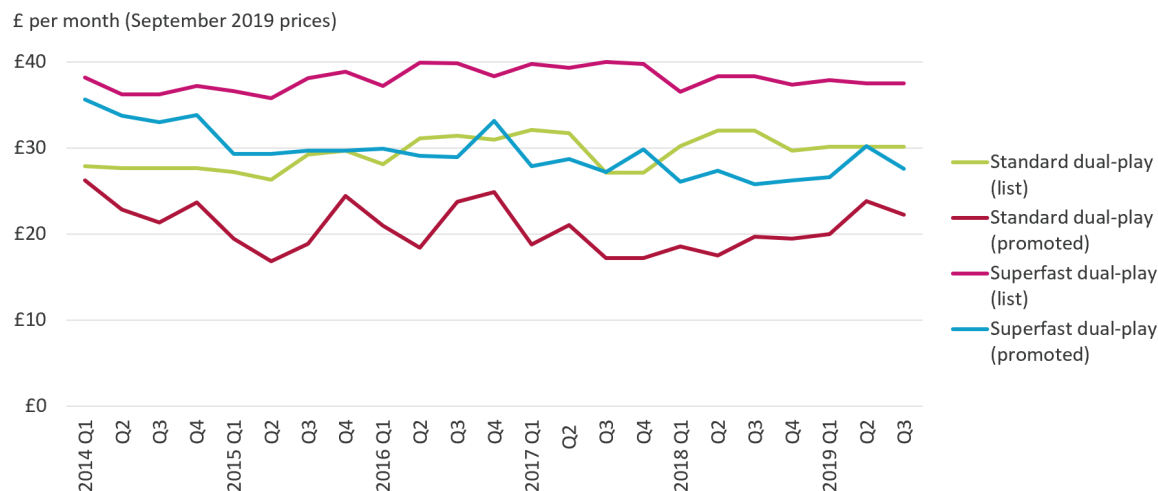
Note: Since Q1 2016 standard triple-play services are only offered by three of the major ISPs. Represents average of the cheapest available tariff from BT, Plusnet, Virgin Media, TalkTalk, Sky and EE at the end of each quarter; adjusted for CPI (September 2019); standard broadband products are those with an advertised speed <30Mbit/s; superfast broadband products are those with an advertised speed ≥30Mbit/s.

We observe a widening of the differential between list and promoted prices for comparable services in the period from 2014 to 2018. Figure 16 shows that there was a relatively small difference in the list and promoted prices for both standard and superfast broadband in Q1 2014, but this gap grew as list prices slowly increased and promoted prices fell. This observation was one of the factors that prompted our review of pricing practices in fixed broadband, initial conclusions from which were published in September 2019.¹⁹

In the period from Q2 2018 to Q3 2019 we observe that the differential has narrowed. Promoted prices for dual-play bundles were around £8 per month lower than list prices in Q3 2019, compared to £12 in Q3 2018; promoted prices for superfast dual-play bundles were around £10 per month lower than list prices in Q3 2019, compared to £13 lower in Q3 2018.

¹⁹ Ofcom: [Helping consumers get better deals: A review of pricing practices in fixed broadband.](#)

Figure 16: Average available monthly list and promoted prices for dual-play standard and superfast broadband



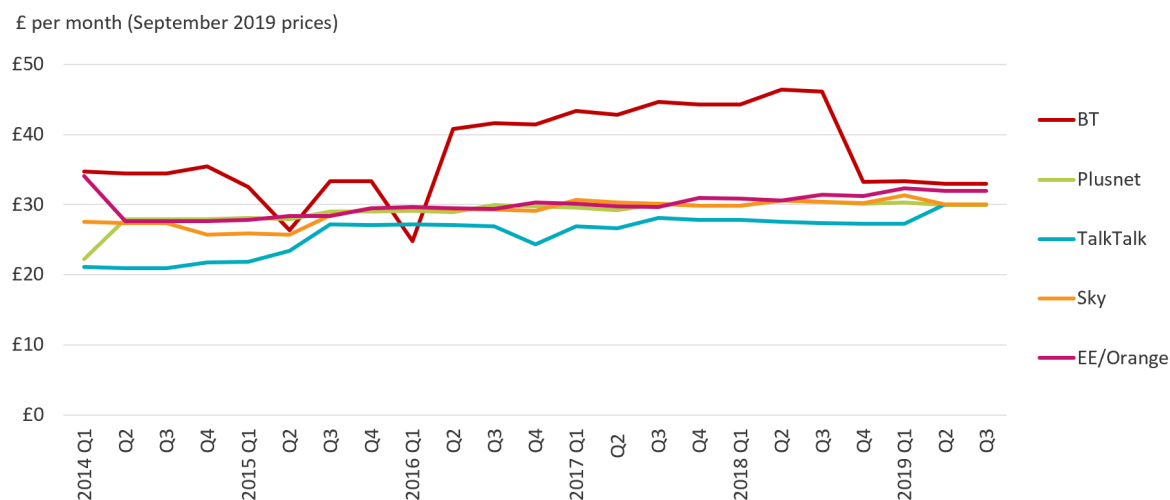
Source: Ofcom / Pure Pricing UK Broadband Updates.

Notes: Represents average of the cheapest available tariff from BT, Plusnet, Virgin Media, TalkTalk, Sky and EE at the end of each quarter; promotions include the promoted price and any 'gifts' offered; adjusted for CPI (September 2019); standard broadband products are those with an advertised speed <30Mbit/s; superfast broadband products are those with an advertised speed ≥30Mbit/s.

List prices for standard broadband stabilise as the focus moves to superfast

As shown in Figure 19, the list prices of standard dual-play bundles have stabilised at around £30 per month over the past few years. We noted that list prices for BT's ADSL-based standard dual-play broadband bundles were relatively high compared to other providers in the last *Pricing trends for communications services* report, and that these were significantly higher than the price many people paid for the superfast fibre broadband equivalent. BT reduced the list price of these services by £12.50 per month (27%) to £32.99 in Q4 2018; nevertheless, in Q4 2018, BT remained marginally the most expensive provider of standard broadband services. The list prices offered by other major ISPs – such as Plusnet, TalkTalk, Sky and EE/Orange – have remained roughly stable in recent years. There is now a greater degree of convergence in list prices for standard broadband among the major ISPs than at any time over the last five years.

Figure 17: List 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; adjusted for CPI; standard broadband products are those with an advertised speed <30Mbit/s.

Many people can upgrade to superfast broadband and save money

In our last report, we highlighted that many people who were buying a standard broadband service and were outside their minimum contractual period could upgrade to an equivalent superfast service and pay a similar or lower price. This was still true in September 2019, when all the major providers which offered both standard and superfast services, except Sky, had promotional superfast broadband prices that were lower than the list price of their standard broadband services. In the examples below, the percentage difference between list and promoted prices for entry-level superfast services among the major providers ranged from 16% for Sky to 36% for Virgin Media.

Operator data collected for this report shows that half of standard broadband customers were out-of-contract for their broadband and other services bundled with it in Q1 2019.²⁰ In addition, there are likely to be many standard broadband users who are out-of-contract for their broadband service but in contract for other services that are purchased in the bundle. It may be more difficult for these customers to switch provider, but most should be able to re-contract with their existing provider and upgrade to superfast broadband, thereby getting better value for money in many cases.

²⁰ This is consistent with our findings from our review of broadband pricing where we found that 51% of broadband customers with a speed of <30Mbit/s were out-of-contract. See our annex to that report: [A4. Analysis of Provider Data](#), in Table 2.

Figure 18: Difference between advertised list and promoted prices for standard and superfast broadband, by operator

	BT		Sky		Virgin Media		TalkTalk		Plusnet		EE	
	List price	Promoted price	List price	Promoted price	List price	Promoted price	List price	Promoted price	List price	Promoted price	List price	Promoted price
Unlimited standard	Broadband Unlimited (10Mbit/s)		Broadband Unlimited (11Mbit/s)		n/a		Fast broadband (11Mbit/s)		Unlimited Broadband (18mth) (10Mbit/s)		Standard Broadband (18) (10Mbit/s)	
	32.99	29.99	25.00	20.00			30.00	19.95	29.98	19.99	32.00	20.00
Unlimited superfast	Superfast Fibre Unlimited (36Mbit/s)		Sky Broadband Superfast (59Mbit/s)		M50 (54Mbit/s)		Faster Fibre (18mth) (38Mbit/s)		Unlimited Fibre Broadband (18mth) (36Mbit/s)		Fibre Broadband (18mth) (36Mbit/s)	
	39.99	29.99	32.00	27.00	44.00	28.00	36.00	23.50	34.98	23.99	37.00	26.00

Source: Operator websites (tariff data collected 1 September 2019).

Superfast / ultrafast broadband technologies

Fibre to the cabinet (FTTC): Broadband delivered via optical fibre extending from the access node to the street cabinet, usually located only a few hundred metres from the subscriber premises. To reach the customer's premises a copper pair is usually used but another technology such as wireless could be used;

Full-fibre / fibre to the premises (FTTP): Broadband delivered via optical fibre all the way from the local exchange to the end user's premises.

Cable: Broadband delivered via hybrid fibre coaxial (HFC) cable networks using optical fibre and coaxial cables.

Several providers offer ultrafast broadband over full-fibre networks

Although coverage is geographically limited,²¹ most of the major internet service providers (ISPs) and some smaller local operators now offer ultrafast broadband products (those with an advertised download speed of 300Mbit/s or higher) delivered over full-fibre networks. The chart below shows some of the tariffs offered by the larger full-fibre providers; on average, based on promoted prices, ultrafast services cost around £18 per month more than the equivalent superfast services with advertised speeds below 100Mbit/s.

²¹ Ofcom's [Connected Nations 2019](#) report shows that by September 2019 just over half of UK premises (53%) could receive ultrafast broadband and 10% of premises (over 3 million) could receive full-fibre broadband.

Figure 19: Selected full-fibre broadband service pricing: October 2019

		BT	Gigaclear	Hyperoptic	Sky	TalkTalk	Virgin Media	Vodafone
Fastest <100Mbit/s service								
		Superfast Fibre	GO 30	Fast	Superfast	Unlimited Superfast Fibre	M50	Superfast 2
Download speed (upload speed)	Mbit/s	50 (10)	30 (30)	50 (5)	59 (18)	67 (19)	54 (3)	63 (55)
Promoted price (list price)	£	35.99 (43.99)	(35)	20 (22)	(27)	(24.95)	30 (37)	21 (23)
Contract length	Months	24	18	12	18	24	12	18
Voice service included?	Y/N	Y	Y	Y	Y	Y	N	Y
≥100Mbit/s services								
		Ultrafast Fibre	GO 300	Superfast	Ultrafast	Faster 150 Fibre	M100	Gigafast Broadband 100
Download speed (upload speed)	Mbit/s	150 (30)	300 (300)	150 (150)	145 (27)	145 (25)	108 (6)	100 (100)
Promoted price (list price)	£	39.99 (47.99)	(45)	26 (35)	(39)	28 (40)	35 (42)	(28)
Contract length	Months	24	18	12	18	18	12	18
Voice service included?	Y/N	Y	Y	Y	Y	Y	N	Y
Fastest available services								
		Ultrafast Fibre 2	GO 900	Hyperfast		Ultra Fast Optic (UFO)	Gig1 Fibre	Gigafast Broadband 900
Download speed (upload speed)	Mbit/s	300 (49)	900 (900)	1GB (1GB)	-	900+ (???)	1,104 (52)	900 (900)
Promoted price (list price)	£	49.99 (52.99)	(75)	45 (60)	-	(25)	(62)	(48)
Contract length	Months	24	18	12	-	18	18	18
Voice service included?	Y/N	Y	Y	Y	-	Y	Y	Y

Source: Ofcom/operator websites

Pricing of standalone mobile voice and data services

Mobile users are getting more for less

To compare the prices of mobile services over time we use Teligen’s pricing model to find the lowest-cost tariff from each of the mobile operators that meets the requirements of an average mobile user – i.e. the average calls, texts and data used by a mobile connection in the UK in that year (excluding handset cost). We then calculate an average price from all these lowest prices, weighting it by retail market share. See the Methodology for full details.

The average cost of a mobile service based on average use in 2019 was £12.57 per month, a £1.54 (11%) decline in real terms compared to 2018. This was despite an estimated 22% increase in data use during the year (which was accompanied by falling estimated average voice and text use).

Figure 20: Weighted average monthly prices for average mobile use (excluding handset cost)



Source: Ofcom, using data provided by Teligen.

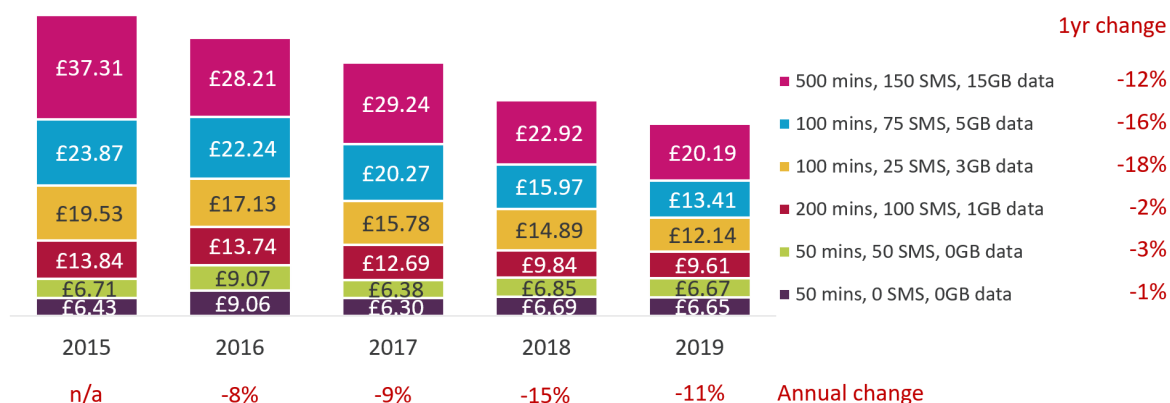
Note: Based on prices excluding handset costs; includes promotional discounts; average monthly data volume usage excludes M2M connections; pre 2017 usage figures include dedicated data mobile connections and related data volumes; 2019 figures are estimated based on average usage in H1 2019; adjusted for CPI.

Prices are falling most steeply for high data tariffs

To better understand how prices are changing for different types of mobile user, we created six mobile user profiles to represent a wide range of consumer mobile usage types, and used the

Teligen model to calculate the average price.²² Our analysis shows that average prices fell for all mobile user profiles in 2019, the total price of the six profiles falling by 11% during the year. The greatest declines were in the average prices of those profiles with the highest data requirements.

Figure 21: Weighted average monthly prices of standalone mobile services (excluding handset cost)



Source: Ofcom / Teligen.

Note: CPI Adjusted.

Out-of-bundle mobile-originated call charges fell slightly in 2019

Average pence-per-minute charges for those pre-pay and pay-monthly mobile tariffs which charge for out-of-bundle calls to UK landlines and mobiles fell slightly in real terms in 2019. The average per-minute price across these call types declined by 1% in real terms in the year to July 2019, following a 17% increase over the previous three-year period.

The increasing availability and take-up of mobile services with unlimited voice/text bundles and high inclusive data allowances has meant that out-of-bundle use is becoming less common. The data that Ofcom collects from mobile network operators shows a steep decline in out-of-bundle spend (i.e. calls, messaging and data that are not included in the monthly fee). In Q1 2019 average out-of-bundle spend was £1.89 a month – down from £5.29 per month in Q3 2017.

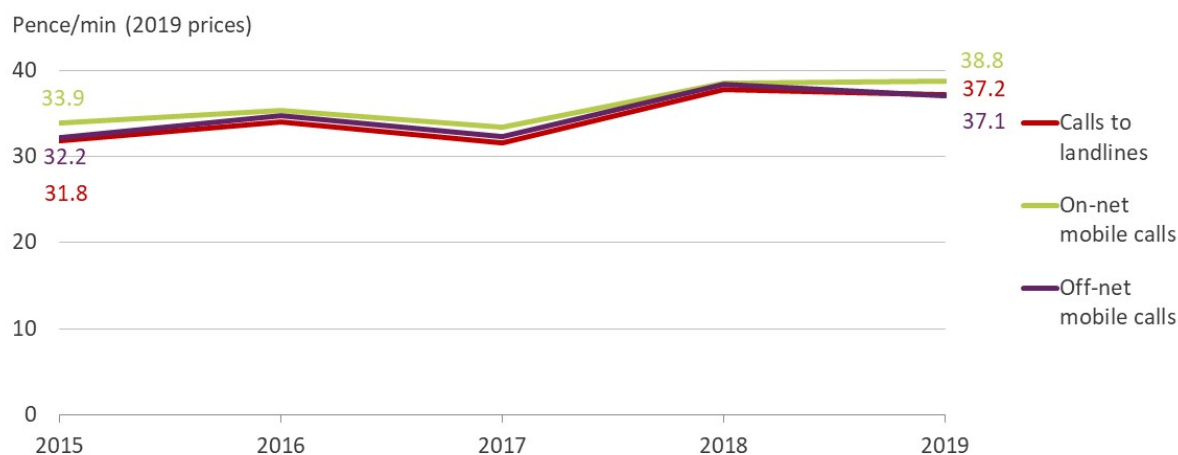
Nevertheless, high per-minute out-of-bundle charges (see Figure 25 below) mean that customers making calls outside their allowance can quickly rack up a hefty bill. But there are ways in which consumers can protect themselves: all consumers committing to a mobile contract after 1 October 2019 must be given the opportunity by their mobile provider to specify a billing limit in their

²² Using the Teligen pricing model, we calculated the average price to fulfil the usage requirements of each user profile (again, excluding the cost of a handset). The profiles in this year's report have been redefined due to changing use by different customer types.

contract.²³ This allows consumers to manage their expenditure and helps avoid bill shock when their use exceeds the allowance.

There are also new protections for calls and texts made between EU countries (these calls are typically not included in inclusive call allowances). Price caps were introduced on 15 May 2019²⁴ meaning that calls made between EU countries are capped at around 16p per minute (excluding VAT) and texts at around 5p per message (excluding VAT). After Brexit, customers may see changes to how calls and texts from the UK to the EU are charged.

Figure 22: Average out-of-bundle call charges for calls from mobile phones



Source: Ofcom, using data provided by Teligen.

Note: Excludes tariffs for which out-of-bundle call charges are not relevant for these call types; includes pre-pay and pay-monthly tariffs; based on tariffs offered by EE, Orange, T-Mobile, O2, GiffGaff, Vodafone, Three, Tesco Mobile, Virgin Mobile, Lebara, iD Mobile, Sky and Lycamobile; includes VAT; adjusted for CPI. On-net calls are made between customers on the same mobile network, while off-net calls are made between different mobile networks.

Older and less affluent consumers are more likely to use pre-pay services

While just over one in five consumers use pre-pay mobile services, 61% of those aged 75+ and 40% of those in the DE socio-economic group are pre-pay users. This might be through choice, as pre-pay potentially offers greater control over mobile spend, but it might also be through necessity, as those with a poor credit rating may not pass the credit checks required for pay-monthly).

²³ Digital Economy Act 2017 - [Billing limits for mobile phones.](#)

²⁴ [Calls and texts to other EU countries.](#)

Figure 23: Proportion of mobile customer, by age and socio-economic group: 2019



Source: Ofcom Technology Tracker.

Note: QD11. Which of these best describes the mobile package you personally use most often?

Base: Adults 16+ who personally use a mobile phone (2019, 3598).

Pre-pay tends be cheaper for low data users

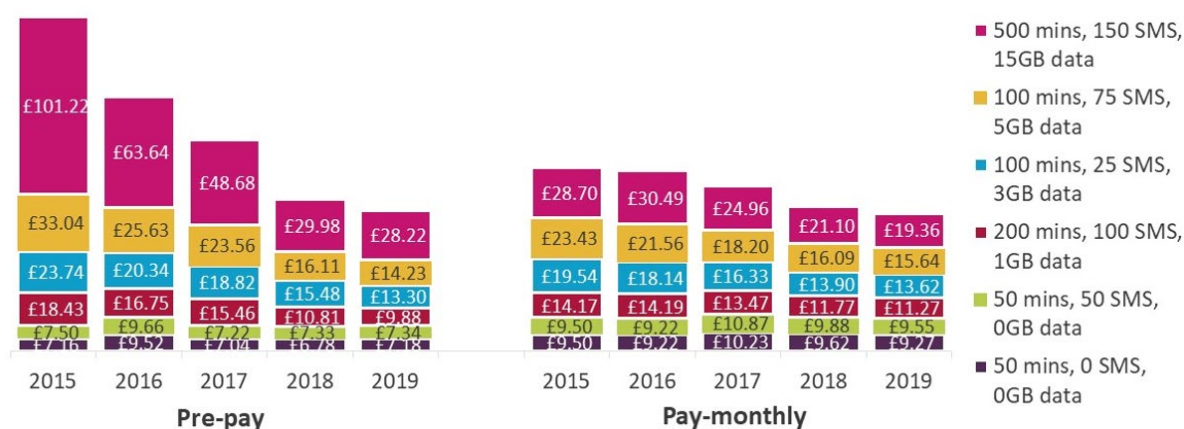
Our analysis of prices for the six different mobile usage profiles finds that weighted average pre-pay prices were lower than weighted average pay-monthly prices for all but the highest usage consumers. For the highest mobile usage profile, the average pay-monthly price was 31% less than the weighted average pre-pay price. Pre-pay was around 30% cheaper than pay-monthly for the usage profiles without any data use.

Most pre-pay tariffs are 'hybrid' tariffs, which enable users to buy a pack of inclusive calls/texts/data for a set monthly fee that expires after a month, with any use outside these allowances being taken from a more traditional pre-pay credit balance. Hybrid services therefore enable pre-pay users to benefit from inclusive allowances, in much the same way that pay-monthly users do. Traditional pre-pay tariffs, where the cost of any usage is deducted from a credit balance are few and far between.

Reassuringly, this finding suggests that consumers whose circumstances make it difficult for them to subscribe to a pay-monthly tariff can use pre-pay mobile services at a similar or slightly lower price to pay-monthly users, unless they are particularly heavy data users, in which case pay-monthly is significantly cheaper. However, as with pay-monthly services, it is important that pre-pay users shop around to get the tariffs that best meet their needs; they can also benefit from inclusive allowances, in much the same way that pay-monthly users do, by taking a hybrid pre-pay tariff.²⁵

²⁵ Hybrid tariffs 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 pre-pay credit balance.

Figure 24: Weighted average monthly pre-pay and pay-monthly mobile pricing (excluding handset cost)



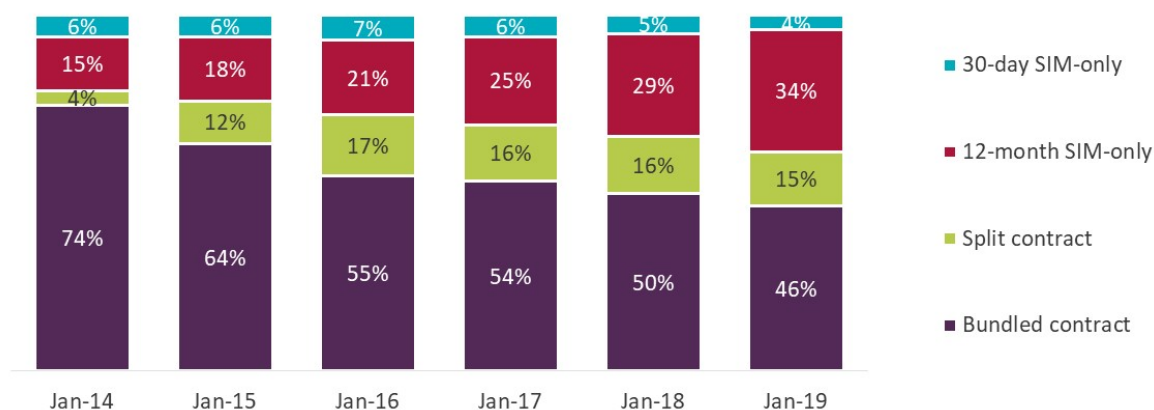
Source: Ofcom / Teligen.

Note: CPI adjusted (July 2019 prices).

SIM-only plans continue to grow in popularity

Bundled (handset and airtime) contracts accounted for less than half of pay-monthly contracts for the first time in 2019. SIM-only contracts with a 12-month minimum term have seen the greatest growth, accounting for more than a third of pay-monthly subscriptions in 2019. Growth in the use of SIM-only has been fuelled by people keeping their handsets for longer. This is driven by high handset prices (some models cost over £1,000) and incremental handset innovation, which have also resulted in a thriving market for refurbished handsets.

Figure 25: Composition of pay-monthly contracts from January 2014 to January 2019



Source: Ofcom: [Helping customers to get better deals in communications markets: mobile handsets](#).

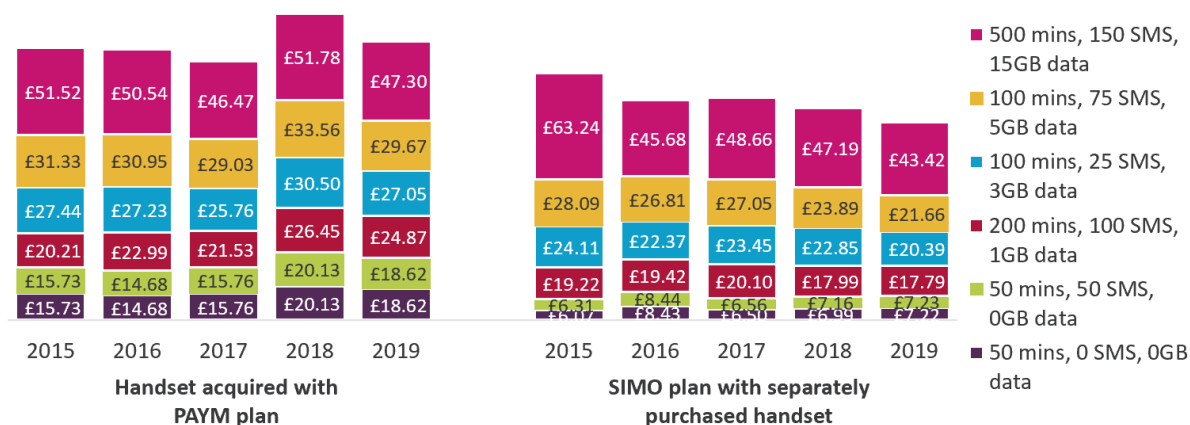
It is often cheaper to buy a handset separately from the airtime

Many consumers continue to purchase their handset and airtime from the same provider (either in a bundled contract or as split contracts)²⁶ 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 all at once.

However, pay-monthly users acquiring a handset with their airtime contract may end up paying more than if they bought the handset outright and used it with a SIM-only plan. Our analysis shows that in 2019 the average price of buying a mid-range handset outright and using it with a SIM-only plan was consistently cheaper than when buying the handset bundled with a pay-monthly plan. On average, buying a phone with a mobile service was around 24% more expensive than buying a SIM-free phone and using it with a SIM-only deal.

We also compared the total cost of acquiring an iPhone XR 128GB with an airtime contract to that of buying the phone outright and using it with a comparable SIM-only plan, using tariffs offered by the UK's mobile network providers.²⁷ We found that it was cheaper to purchase the handset and use it with a SIM-only service in all four of the examples we looked at, and that the difference between the two prices was equivalent to customers being charged an APR (annual percentage rate) of between 13% and 24% - on their handset.

Figure 26: Weighted average monthly price of a handset with pay-monthly or when purchased separately to use with a SIM-only plan



Source: Ofcom using data supplied by Teligen.

Note: Calculated prices for mid-range handset across years; weighted average tariff for primary providers; adjusted for CPI; prices excluding additional usage charges.

²⁶ See page 9 for definitions of bundled and split pay-monthly mobile contracts.

²⁷ The estimated price of the phone over the contract period is calculated and compared with the actual price of the same bought phone. Differences in data package sizes offered makes it hard to precisely compare providers. The general trend shows it is cheaper to buy a handset and a SIM-only contract separately instead of buying a pay-monthly contract.

There is a growing market for refurbished handsets in the UK

There has been growth in the second-hand/refurbished handset market as handset prices have risen. One in ten mobile phone users say that their principal mobile is a second-hand model.²⁸ Refurbished handsets are estimated to account for a further 4% of the handset market and can be bought directly from mobile operators, from specialists in replacement phones or other third-party sources.

We carried out analysis of the different prices of refurbished handsets for two models: Apple's iPhone X and Samsung's Galaxy S9. Depending on condition, a refurbished iPhone X (RRP: £799.99) costs between £470 and £580, while a Samsung Galaxy S9 (with the same RRP) costs between £339 and £619.²⁹

Handsets are frequently handed down to family members or passed to friends. This may require a handset to be unlocked. Customers will also need to unlock their handset if they are switching their SIM card to move to a new mobile provider. Details of the major mobile providers' handset locking/unlocking policies and costs (where applicable) are shown below.

Figure 27: Overview of handset locking conditions by mobile operator

Mobile operator	In contract	Out-of-contract	Time taken to unlock
BT	<ul style="list-style-type: none"> £8.99 for unlocking devices between 6 and 24 months Free after 24 month contractual period 	No charge	Up to 10 days
EE	<ul style="list-style-type: none"> Not allowed during first six months of contract £8.99 for pay-monthly devices after 6 months Free after end of fixed contract period Pre-pay devices can be unlocked free of charge 	No charge	Up to 10 days
O2	No charge		No limit
Tesco Mobile	<ul style="list-style-type: none"> £10 for locked pre-pay phones within first 12 months, otherwise free 	No charge	Up to 20 days
Three	All handsets are unlocked		n/a
Virgin Mobile	All handsets are unlocked		n/a
Vodafone	No charge	No charge	Up to 10 days

Source: Company websites. September 2019 and operator data.

²⁸ [Research by CCS Insight. July 2018.](#)

²⁹ Prices correct at time of writing. Research is not exhaustive. In some cases, the handset model and memory size may vary.

Unlimited data tariffs have emerged that are tiered by connection speed

While tariffs that include unlimited mobile data are becoming more commonplace, some mobile providers have started to offer services based on download speed. Vodafone offers three unlimited services, two of which have their speeds capped (either at 2Mbit/s, which is suitable for web browsing, or 10Mbit/s, which should be enough for most video streaming). The third is not subject to any speed restrictions. EE caps the speeds of its services that do not offer unlimited data at 60Mbit/s, a level which is unlikely to limit the user experience.

Figure 28: Details of capped speed plans by major mobile operators

Operator	Plan	Data allowance	Download speed cap
EE	All unlimited plans	Unlimited	Fastest available
	250MB, 1GB, 20GB, 50GB and 100GB data	As plan name	60Mbit/s
O2	Does not offer capped speed plans		
Three	Does not offer capped speed plans		
Vodafone	Unlimited Lite	Unlimited	2Mbit/s
	Unlimited	Unlimited	10Mbit/s
	Unlimited Max	Unlimited	Maximum available

Source: Operator websites. September 2019.

Zero-rating is becoming more prevalent as tariffs offer ‘free’ data for social media and entertainment services

Some mobile operators offer tariffs that include services with ‘zero-rated’ data. These enable users to access certain services, typically social media applications like Facebook or WhatsApp, or entertainment applications (like Amazon Prime Video, Apple Music, Netflix, NOW TV or Spotify) without the associated data use being deducted from their monthly data allowance. Consumers may have to pay an additional monthly fee to receive these services with zero-rated data, or these may be included as part of the base tariff for some or all of the minimum contract period, whether a bundled contract, split contract or SIM-only service.

Figure 29: Examples of major mobile providers' social media and entertainments services and zero-rated data

Operator	Social media / entertainment service
EE	<ul style="list-style-type: none"> Customers on selected pay monthly plans can choose inclusive benefit(s). Number of benefits depends upon plan chosen (up to three benefits available on highest plans). Options are: <ul style="list-style-type: none"> Amazon Prime Video (free subscription and zero-rated data); BT Sport (zero-rated data); Video Data Pass (zero-rated data); Music Data Pass (zero-rated data); Gamers Data Pass (zero-rated data). Promotional offers such as Free Apple Music for 6 months, and Free MTV Play for 6 months for new users of the service.
Three	<ul style="list-style-type: none"> Customers on 12GB + pay monthly plans get "Go Binge" which gives Zero-rated data for popular apps such as Netflix, Deezer, SoundCloud, SnapChat, TV Player (subscriptions not included).
Sky Mobile	<ul style="list-style-type: none"> Mobile customers with a Sky TV subscription can watch Sky TV and use all Sky Apps (zero-rated data).
Virgin Mobile	<ul style="list-style-type: none"> All pay-monthly customers get zero-rated messaging via selected popular apps (WhatsApp, Twitter and Facebook Messenger). Excludes video streaming, voice and video calls.
Vodafone	<ul style="list-style-type: none"> Customers on pay-monthly Entertainment plans can choose one Entertainment service for duration of contract. Choices incl: Amazon Prime Video, Sky Sports, NOW TV and Spotify. Subscription is included without charge for duration of contract. Data is not included, and hence decrements data allowance (where the basic tariff does not already include unlimited data).
Voxi	<ul style="list-style-type: none"> "Endless Social Media" (i.e. zero-rated data) for all users. Includes: e.g. Facebook, Facebook Messenger, Instagram, Pinterest, Snapchat, Twitter, Viber. Excludes video streaming, voice and video calls.

Source: *Pure Pricing – September 2019*.

Tariffs with zero-rating can be beneficial for consumers, particularly those with low general-purpose use whose internet use is focused on the applications and services that are covered by zero-rating. These tariffs are examples of tariff innovation extending consumer choice, although there is a risk that some services of this kind can threaten net neutrality.³⁰ Ofcom conducts reviews of each zero-rating offer that comes to market to determine compliance with the Open Internet Regulation³¹ and in May 2019 published a framework document which sets out how it conducts reviews of zero-rating offers, as well as summaries of those it has already concluded.³²

³⁰ Net neutrality (short for network neutrality) is the principle that Internet service providers (ISPs) must treat all Internet traffic equally, and not discriminate or charge differently for it.

³¹ Ofcom: [Monitoring compliance with the net neutrality rules](#).

³² [Ofcom's approach to net neutrality](#).

Operators have different approaches to 5G pricing

All the major mobile operators in the UK have launched 5G services³³. Although coverage is initially limited to specific geographical areas, the first 5G handsets are available and 5G services are being promoted. The initial pricing for 5G services shows that mobile operators are adopting different strategies. EE was the first to launch 5G services in the UK and offered them as premium tariffs with prices higher than comparable 4G tariffs, while Three and Vodafone offer 5G services at no extra cost, and O2 has a launch offer which prices 5G lower than equivalent 4G tariffs. Three has launch a fixed wireless access offer providing 5G broadband access in the home and is launching 5G mobile phone services in 2020.

Figure 30: 5G pricing plans by major mobile operators

Operator	Official 5G launch	5G pricing
EE	May 2019	<ul style="list-style-type: none"> £44/month SIM-only for unlimited data or £59-£84 for bundled contracts (Handset and airtime) An equivalent 4G plan with unlimited data costs between £34 and £39/month 5G Smart plans or SIM with two or three swappable benefits included (inc. BT Sport in HDR)
O2	October 2019	<ul style="list-style-type: none"> £25/month SIM-only for 50GB 5G data (100GB for £25/month for initial promotional period) Equivalent 4G: £47/month SIM-only for 50GB data or £26/month during promotional period
Three	Q1 2020	<ul style="list-style-type: none"> Plans are 5G ready at no extra cost
Vodafone	July 2019	<ul style="list-style-type: none"> All unlimited plans are 5G ready at no extra cost

Source: Operator websites.

³³ 5G is the term used to describe the next generation of wireless networks beyond 4G LTE mobile networks. 5G is expected to deliver faster data speeds, much higher capacity and better user experience.

Pricing of landline services

Most landlines are bought as part of a bundle

In this section of the report we look at the price of landline services. This includes line rental prices, (which are only applicable to standalone landline users, i.e. people buying voice services without broadband) and call package and out-of-bundle call prices (which apply to all landline users).

Most people buying landline services do so as part of a bundle with other communications services, typically one that includes home broadband. Provider data collected for this report shows that less than one in ten of the major providers' home landline customers bought a standalone landline service in Q1 2019.

However, standalone landline remains an important part of the market. Although some of those buying standalone landline services purchase broadband from another provider, most are not fixed broadband users and Ofcom research shows that landline users who do not take fixed broadband are more likely than average to be older and less affluent.³⁴

Many broadband users are making fewer calls from their landline

Price changes in the landline market have a backdrop of falling use; outgoing call minutes from landlines almost halved in the five years to 2018.³⁵ Operator data collected for this report shows that 38% of customers who took a landline and fixed broadband services from one of the UK's major providers did not make an outgoing call from their landline in Q1 2019.³⁶ This is probably because many people who take a landline service do so primarily or only because they need one to be able to receive fixed broadband.

Average line rental prices have fallen slightly

Ofcom launched a review into the market for standalone landline voice services in 2017. This was due to concerns that rapidly increasing line rental prices meant that landline users who did not take broadband were not being well-served by the market.

We set out proposals to cut monthly bills for BT's landline-only customers and BT agreed to reduce its monthly line rental price for customers who take only a landline, from £18.99 to £11.99, from April 2018. Post Office reduced its line rental price for new customers who only take landline services to £11.50 in May 2018.

³⁴ Analysis of Ofcom's [2019 Switching Tracker data](#).

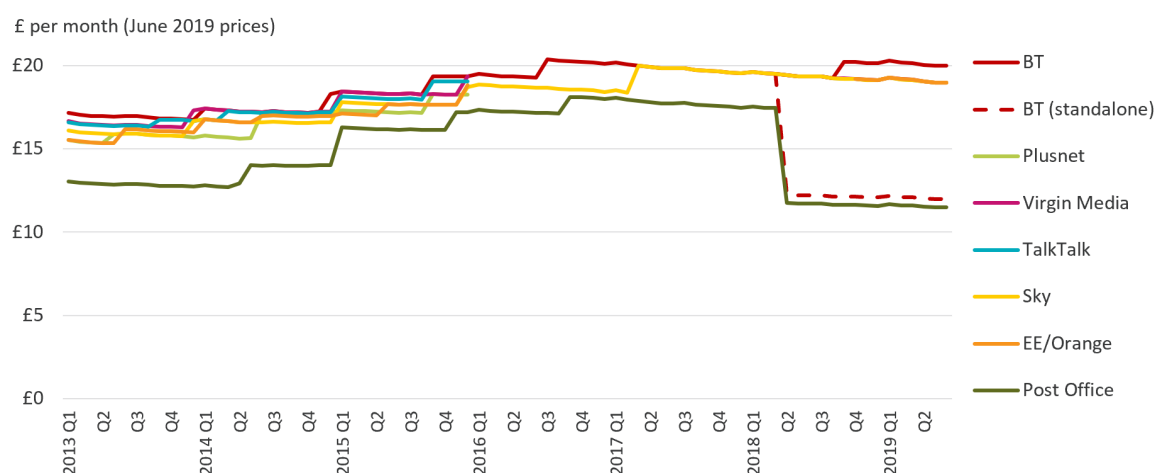
³⁵ [Ofcom: Communications Market Report 2019](#).

³⁶ Average of data provided by BT, EE, KCOM, Plusnet, Post Office, Sky, TalkTalk, Virgin Media and Vodafone. Additionally, data from a small subset of these providers shows that a similar proportion of users neither made or received a landline call in Q1 2019.

The Advertising Standards Authority (ASA) rules that were introduced in October 2016 require that broadband advertising shows all-inclusive, up-front and monthly costs, and does not separate out line rental, as was often the case previously. This means that line rental prices are relevant only to people buying standalone landline services, and some providers which only offer voice services bundled with broadband have stopped publishing separate line rental prices.

Increases in line rental prices have slowed since the BT and Post Office price reductions in 2018. Excluding BT and Post Office’s reduced rate line rental services for voice-only customers, the average price fell by 1% in real terms (i.e. adjusted for inflation) in the year to June 2019. This compares to an average annual real-term increase of 4% in the five years before this.

Figure 31: Residential line rental prices: January 2013 to June 2019



Source: Ofcom / Pure Pricing UK Broadband Updates.

Note: Adjusted for CPI; excludes line rental saver pre-payment tariffs.

Call and call package prices have increased significantly

While line rental prices have fallen, the price of call bundles and out-of-bundle calls have been increasing. Most UK residential landline services include a call allowance of some description, and customers can purchase additional call bundles (e.g. ‘anytime’ calls) for a monthly fee.

Simplify Digital tariff information shows that there were real-term increases in the average price of call bundles in the five years to 2018. Out-of-bundle calls have also become more expensive, with call connection fees and per-minute call charges increasing significantly in the five years to 2019.

Figure 32: Summary of landline out-of-bundle and call bundle charges: 2013 to 2018

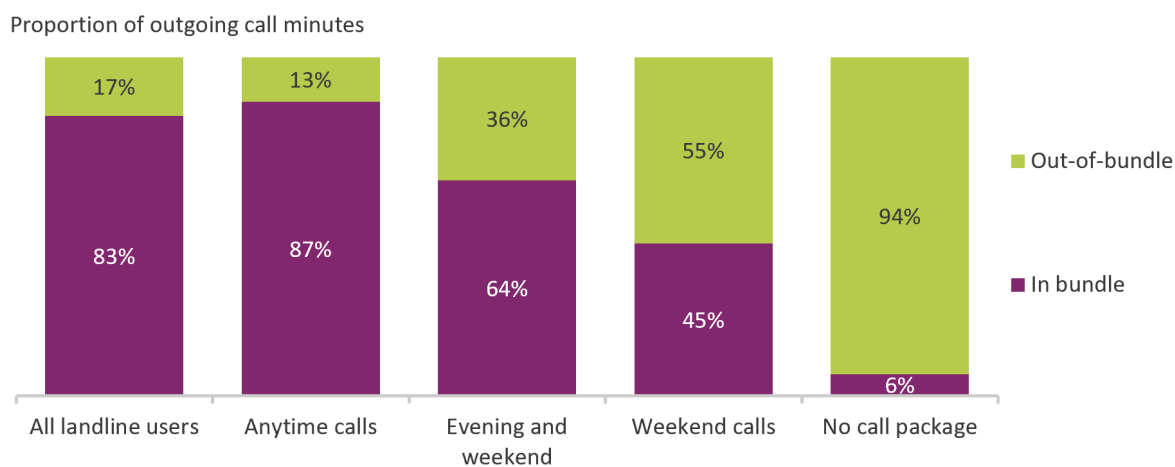
	2013	2014	2015	2016	2017	2018	YoY % change	5-year CAGR
Evening & weekend call bundle (£/month)	3.38	3.28	3.79	4.38	4.37	4.33	-1%	5%
Anytime call bundle (£/month)	6.04	6.76	7.75	8.41	8.41	8.70	3%	8%
Call connection fee (pence/call)	14.9	16.1	17.1	18.9	19.8	22.0	11%	8%
UK geographic call (pence/minute)	9.1	9.8	11.2	12.1	12.4	14.7	18%	10%
UK mobile call (pence/minute)	13.9	13.7	14.1	15.1	17.5	17.1	-2%	4%

Source: Simplify Digital.

Note: Data are for the end of each year; figures are the average of the prices offered by BT, Sky, Virgin Media and TalkTalk; adjusted for CPI.

While out-of-bundle call prices are increasing, operator data collected for this report shows that, overall, less than a fifth of outgoing call minutes from home landlines are outside a call bundle, with this proportion varying according to the type of call package purchased.

Figure 33: Proportion of outgoing calls that are out-of-bundle by call package type



Source: Ofcom / operator data.

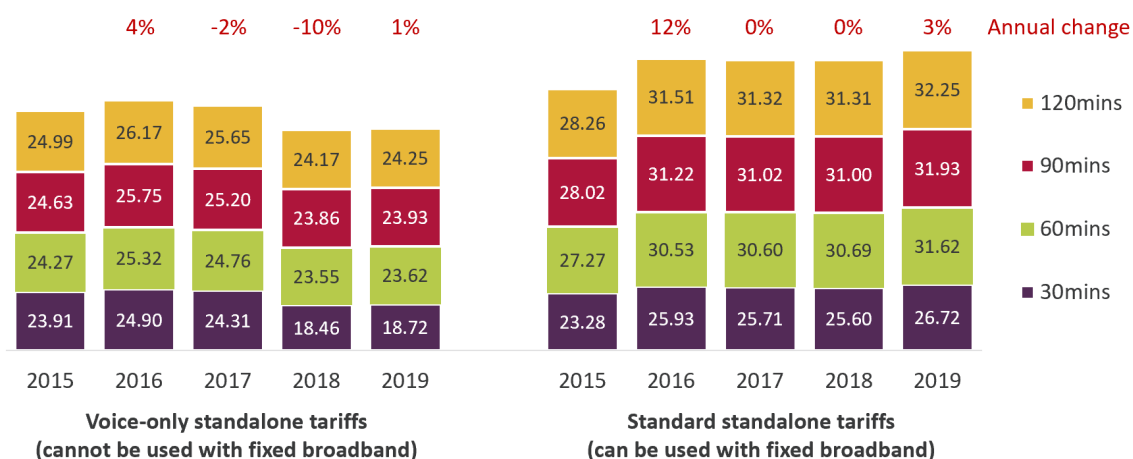
Lower prices for customers buying landline without broadband

In addition to its standard standalone landline tariffs, which can be used in conjunction with broadband provided over the same line by another internet service provider, BT has a reduced line rental of £11.99 per month (as discussed above) and a *Home Phone Saver* product for those standalone landline customers who do not take a broadband service.

The analysis below uses BT’s landline tariffs to calculate the price of fulfilling the requirements of four landline usage profiles with varying outgoing call minutes. The analysis on the left uses voice-only tariffs that cannot be used with a broadband service (*Home Phone Saver* and the reduced line-rental service), while the bars on the right use its standard tariffs, which can be used with a broadband service. The price changes below are measured across these four usage profiles only, not all standalone landline connections.

While the total price of the four landline usage profiles with tariffs that can be used with broadband increased by 3% in real terms in 2019 (largely due to a £1 per increase in the line rental fee), the increase was lower (1%) for BT’s voice-only standalone tariffs. There was a 10% fall in the total price of the four usage profiles using voice-only tariffs in 2018, largely because the price of the lowest-use profile fell as a result of the reduced £11.99 line rental fee for voice-only customers.³⁷

Figure 34: Monthly price of standalone landline services for different usage profiles: 2015 to 2019



Source: Ofcom / Teligen.

Note: Tariff data collected in July each year; includes promotional discounts where available; outgoing call splits are 90% to landlines and 10% to UK mobiles, 60% during daytime, 25% in the evening and 15% at weekends; adjusted for CPI (July 2019 prices).

³⁷ *Home Phone Saver* continued to be cheapest tariff for the usage profiles requiring 60, 90 and 120 minutes of outgoing calls in 2018, so there was no such fall in price for these baskets.

Pricing of pay-TV services

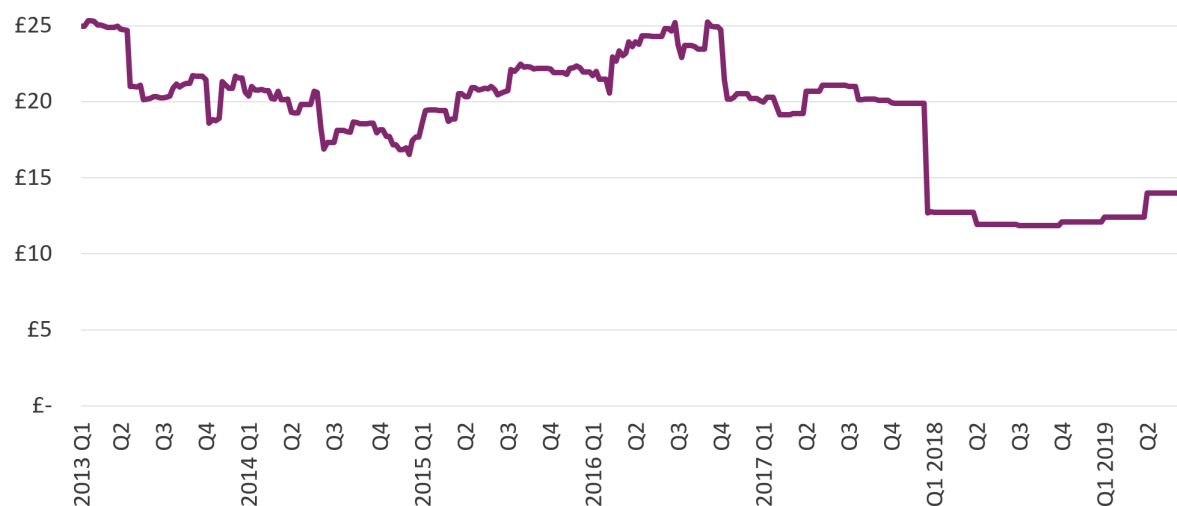
Sky has increased flexibility in its pay-TV pricing

Operator data provided to Ofcom shows that around three-quarters of pay-TV services are bought as part of a bundle, so bundled pay-TV prices are relevant to more consumers than standalone pay-TV services.

Analysis of the average list price of a basic pay-TV service when purchased as part of a bundle shows a large drop in Q4 2017. This was due to Sky offering greater flexibility in its content offering by allowing customers to buy a basic package to which they could add 'bolt-ons' in line with their preferences. Before this, Sky had offered three main packages on less flexible terms. Average prices have subsequently increased, with a step change in Q2 2019 when Sky increased its prices.

While the analysis below excludes promotions, most new customers buying pay TV as part of a bundle will receive a discount of some description and pay lower prices than those shown.

Figure 35: Average monthly list price of pay TV as part of a triple-play bundle: Q1 2014 to Q2 2019



Source: Simplify Digital.

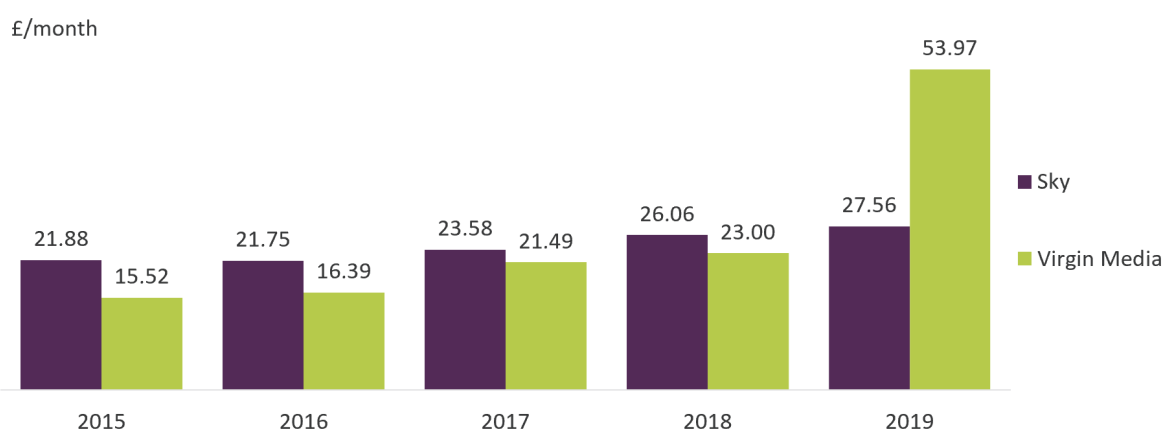
Note: Average pay-TV subscription fee component of triple-play bundle; calculated as the difference between average triple-play and dual-play tariffs; data for top four providers – BT, TalkTalk, Sky and Virgin Media; adjusted for CPI (June 2019 prices).

Standalone basic pay-TV prices increased in 2019

Our analysis shows that the list prices of both Sky and Virgin Media’s basic standalone pay-TV services increased in 2019. These are the only providers which offer standalone pay-TV services.³⁸

The price of Virgin Media’s entry-level standalone pay-TV service more than doubled in the year to July 2019. This was because the company stopped selling lower-tier standalone traditional pay-TV packages; the cheapest Virgin Media standalone service in 2019 includes premium sport and film content.

Figure 36: Weighted average monthly price of standalone basic pay TV: 2015 to 2019



Source: Ofcom, using data supplied by Teligen (data as at July of each year).

Note: Basic pay TV is defined as the cheapest service which includes channels that are not available on free-to-air (FTA) platforms; excludes promotional and retention discounts, DVR costs and the TV licence fee; averages are weighted by standalone pay-TV shares; adjusted for CPI (July 2019 prices).

The price of some premium pay-TV add-ons is falling

The premium pay-TV add-on prices shown below have been calculated by taking the tariffs offered by the four major TV providers (BT, Sky, TalkTalk and Virgin Media) and finding the average cost of adding the required premium content to a basic pay-TV service.³⁹ The averages are calculated from the list pricing of the services in question, and exclude set-up/installation fees.

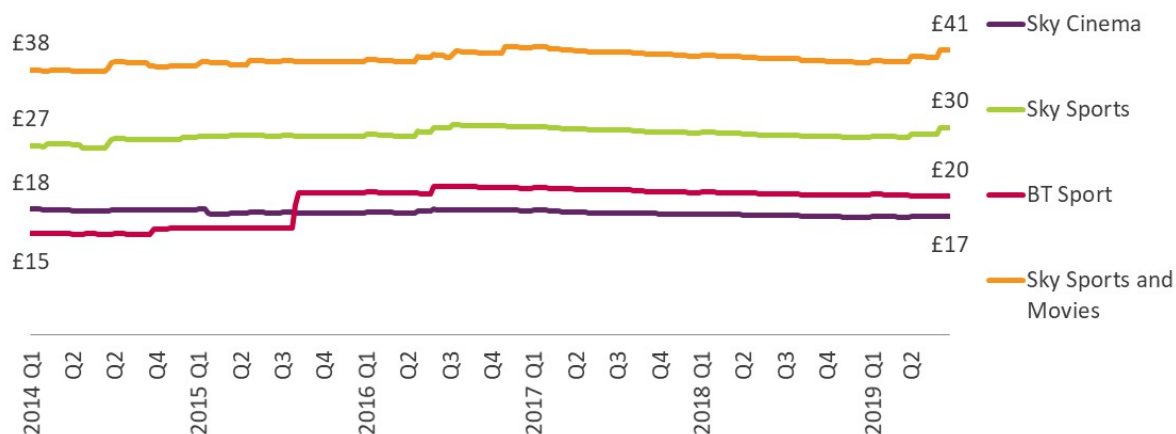
For those that do not have premium sport and movie content included with their subscription, an additional fee is paid to access this content. Our analysis shows a mixed picture regarding the average price of these premium sports and movie pay-TV add-ons in the year to June 2019. The average cost of Sky Cinema was unchanged in real terms during this period, while that of Sky Sports

³⁸ NOW TV is excluded from the analysis as it is only suitable for homes with a broadband connection, and while there are other pay-TV providers (for example BT and TalkTalk), they only sell TV services as part of a bundle.

³⁹ This analysis excludes the cost of adding premium content to core services with a one month minimum contractual period.

increased by 4% and the cost of buying Sky Cinema and Sky Sport together increased by 3%. Conversely, the average BT Sport price fell by 2% during the year.

Figure 37: Average monthly price of pay-TV premium add-ons: Q1 2014 to Q2 2019



Source: Simplify Digital.

Note: Adjusted for CPI (June 2019 prices); figures have been rounded to the nearest whole number; figures are derived by calculating the average price of adding the required content to the basic pay-TV services from those providers which offer relevant add-ons.

Prices for OTT TV services have increased in 2019

Over-the-top (OTT)⁴⁰ TV services are delivered over a broadband connection; popular services include Netflix, Amazon Prime Video and NOW TV. These have become increasingly popular over recent years; BARB’s Establishment Survey⁴¹ shows that 47% of UK homes took at least one OTT service in Q2 2019.

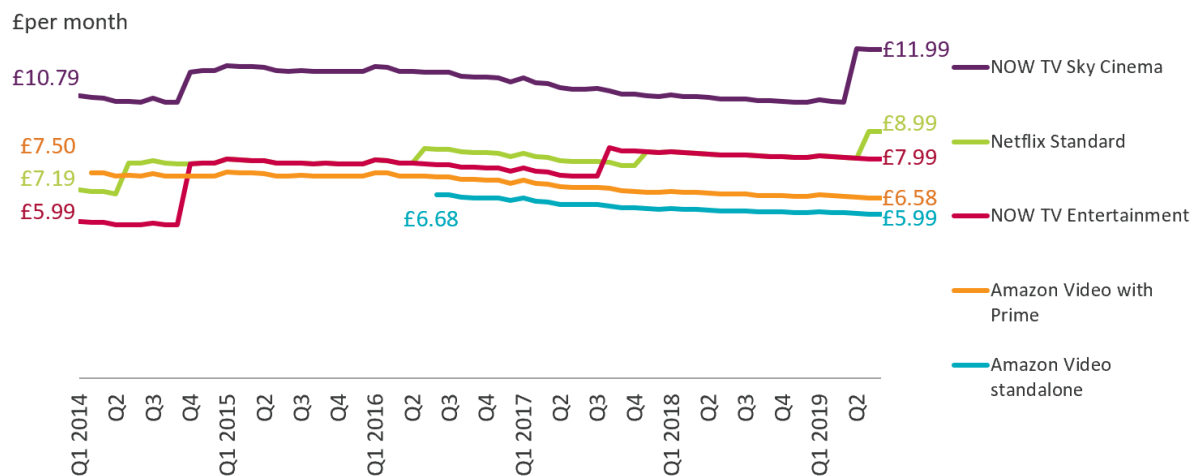
The three main OTT services have diverse offerings. Amazon Video provides a mixture of live and on-demand content through its main video service and ‘Amazon Channels’. NOW TV offers a range of on-demand and live Sky and other third-party content, and Netflix offers a broad range of on-demand content.

At the beginning of November 2019 Apple TV+ launched in over 100 countries, including the UK, for £4.99 per month, while in the UK BritBox, a joint venture between ITV and the BBC with content from Channel 4 and Channel 5, launched at £5.99 per month. Disney+ includes family-friendly (PG to 13) content and is expected to launch in the UK in the first quarter of 2020 priced at £6-7 per month.

⁴⁰ Over the top: a service that provides a product over the internet and bypasses traditional distribution.

⁴¹ [BARB Establishment Survey](#)

Figure 38: Price of over-the-top pay-TV services: Q1 2014 to Q2 2019



Source: Simplify Digital.

Note: Netflix also offers basic and premium services (£5.99 and £11.99 per month respectively); NOW TV also offers day (£9.99), week (£14.99) and monthly (£33.99) Sky Sport passes, along with monthly Kids and Hayu passes (£3.99 each); all prices as at October 2019.

International comparisons

Mobile prices in the UK are lower than in comparator countries, but fixed-line prices are higher than in France, Germany and Italy

We have benchmarked the price of UK communications services against those in France, Germany, Italy, Spain and the US. In this section of the report we summarise our findings for 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.

Across all the services/bundles and pricing metrics included in our analysis, the UK ranked fourth among our six comparator countries in 2019, after France, Germany and Italy. The UK had ranked third in 2018, with Germany overtaking it during the year. The UK had the lowest price for mobile phone services, but was the most expensive for standalone landline voice services and fourth most expensive for fixed broadband. France had the lowest prices overall, while the US and Spain had the highest.

Figure 39: International comparison of overall, lowest available and weighted average standalone and bundled household usage prices: 2019

	Landline		Fixed broadband		Mobile phone		Dual-play bundles		Triple-play bundles		Overall rank across all metrics & services
	Average	Lowest	Average	Lowest	Average	Lowest	Average	Lowest	Average	Lowest	
UK	5	6	4	4	1	1	3	3	2	2	4
FRA	1	4	1	1	1	3	1	1	1	1	1
GER	3	5	3	2	3	4	2	2	2	4	3
ITA	4	3	2	3	4	2	3	3	2	3	2
ESP	6	2	5	5	5	5	5	5	5	5	5
USA	2	1	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; the overall rank is calculated from the mean of the individual service and metric ranks.

Landline services

- The UK was the most expensive of the six countries for standalone landline services.
- On average, the UK ranked fifth for average weighted average landline prices across the three usage profiles used in our analysis, and last in terms of the lowest available prices for these usage profiles, with prices of higher-use profiles comparing more favourably in the UK.

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 or bundled basis.
- The UK was fourth overall for fixed broadband services, with UK superfast and ultrafast broadband prices tending to compare less favourably than standard broadband services.
- The UK ranked fourth across our three fixed broadband usage profiles for both weighted average prices and lowest available prices.

Standalone mobile services

- Overall, the UK had the lowest standalone mobile prices, ranking first across the three mobile connections used in our analysis.
- The UK had the cheapest lowest available standalone mobile prices across the mobile connections and was joint cheapest with France for weighted average prices.

Bundled services

- Across the three dual-play bundled services included in the analysis, the UK ranked third in terms of both weighted average and lowest available prices.
- The UK ranked second across the weighted average and lowest available prices for the two triple-play bundles included in the analysis.
- The UK performed better for the bundle including superfast broadband and premium pay TV, ranking top for both average and lowest available prices.

A1. Methodology

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:

- operator data;
- tariff information from Pure Pricing and Simplify Digital;
- basket-based pricing analysis: Teligen price benchmarking model;
- international price benchmarking; and
- customer research including the Technology Tracker, the Switching Tracker and the Engagement Index

Operator 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 the 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, the Post Office and TalkTalk.
- Mobile service providers: EE, O2, Vodafone, Three, Virgin Media, Tesco Mobile, BT Mobile, iD Mobile and TalkTalk Mobile.

To understand how many customers buy a service, and how much they spend each month, we collected average revenues, numbers of customers (including those within and outside their minimum contractual period), and the proportion of spend that was out-of-bundle for the quarter ended 31 March 2019.

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 40: Customer and spend data collected for communications services: Q1 2019

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

Source: Ofcom

Tariff information

Simplify Digital

We use a residential retail pricing dashboard provided by Simplify Digital to understand landline and bundle pricing trends (including the number of tariffs offered), the depth and frequency of promotional discounting, and to analyse list and promoted prices.

Pure Pricing

We use retail tariff information taken from Pure Pricing's *Monthly Broadband Pricing* reports to analyse residential line rental and bundled service prices.

Basket-based pricing analysis: 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 household types and defined a usage profile 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:

- landline minutes were distributed by whether they were to fixed or mobile lines, by call distance (local, regional and national), 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;
- the fixed broadband component was defined both by minimum headline speed and by minimum data allowance requirements; and
- 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, 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 model has 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 usage profile, 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 households, and have defined their requirements for communications services based on average use in 2018. These household types are designed to be collectively broadly representative of the overall population.

Figure 41: Household types

'Typical' household type	Summary	Fixed voice	Mobile voice	Mobile messaging	Mobile handset data	Fixed broadband	Television
Basic needs	A low use couple with basic needs	Medium use	Low use	None	None	None	Free-to-air
Late adopters	A broadband household with basic needs	Medium use	Low use	Low use	None	Low use	Free-to-air
Mobile 'power user'	A mobile-only household	None	High use	High use	High use 4G	None	Basic pay-TV with HD & DVR
Connected family	A family household with multiple needs	Medium use	Medium use	Medium use	Medium use	Medium use	Basic pay-TV with HD
Sophisticated couple	Two person household with sophisticated usage	Low use	Medium use	Medium use	Medium use	High use superfast	Premium pay-TV with HD & DVR

Source: Ofcom

Landline usage profiles

The landline usage profiles define the use per month for the household and calculates the monthly cost of using the landline service. The elements of the usage profiles are listed below, with values for each of the four households that use this service. The cost of customers' equipment is amortised over a five-year period.

Figure 42: Landline usage profiles

	An affluent two person household with sophisticated use	A 'networked' family household	Low use couple with basic needs	A late adopter couple
Outbound call minutes	30	60	120	90
Type of calls	90% UK geographic and 10% UK mobiles			
Time of day	60% daytime, 25% evening and 15% weekend			

Source: Ofcom

Mobile voice and data usage profiles

To analyse the prices of standalone mobile services, we used six connection types to represent use across diverse types of consumer. We exclude the cost of a handset from our analysis.

Figure 43: Mobile usage profiles

	Outgoing call minutes per month	Outgoing SMS messages per month	Data use per month (GB)
Mobile User Profile 1	50	0	0
Mobile User Profile 2	50	50	0
Mobile User Profile 3	200	100	1
Mobile User Profile 4	100	25	3
Mobile User Profile 5	100	75	5
Mobile User Profile 6	500	150	15

Source: Ofcom

Bundled service profiles

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

Figure 44: Household profiles for bundled services

Summary	Fixed voice minutes	Mobile voice minutes	Mobile SMS messages	Mobile handset data (GB)	Fixed broadband speed (Mbit/s)	Fixed broadband data (GB)	Television
Basic needs	120	50	None	None	None	None	Free-to-air
		50	None	None			
Late adopters	90	50	50	None	≥10Mbit/s	25	Free-to-air
		50	50	None			
Connected family	60	200	100	1	≥30Mbit/s	1000	Basic pay-TV with HD
		200	100	1			
		100	25	3			
		100	25	3			
Sophisticated couple	30	100	75	5	≥100Mbit/s	500	Premium pay-TV with HD & DVR
		100	75	5			

Source: Ofcom

International price benchmarking

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

The tariff data used in the analysis was taken from operator websites in Q3 2019. The bundled tariff data were collected in July and August 2019, and the standalone service tariffs in either August or September 2019 (depending on the service). The purchasing power parity-adjusted (PPP) exchange rates used to convert prices into GBP were for July 2019 and were taken from the OANDA web service (using exchange rates as at 1 August 2019) and the OECD database of comparative price levels (CPL).

The methodology used was the same as that outlined in the [2017 International Communications Market Report](#).

Consumer research

The report also draws upon data from established Ofcom tracker surveys.

The Technology Tracker

Annually 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.

The Engagement Index

Ofcom's engagement index takes a selection of behavioural and attitudinal factors into account and classifies consumers as being: active, browsers, dormant, unmotivated, apprehensive or resigned.

Figure 45: Segment definitions in the Engagement Index

Active	A. Switched supplier in the last year, unless this was when moving home* OR at least two of B-D: B. Are currently/ planning to look for a new deal C. Have initiated some supplier contact D. Have conducted some competitor evaluation
Browsers	Not Active. One of B-D: B. Are currently/ planning to look for a new deal C. Have initiated some supplier contact D. Have conducted some competitor evaluation
Dormant	Not Browsers, but are/ may be still in contract. One or more of E-G: E. Switched supplier in the last 13-24 months (but not necessarily without moving home at the same time) F. Have never switched supplier, but have been with their current supplier for up to 24 months G. Have upgraded or downgraded services in the last year, but this was provider-led and not initiated by the consumer
Unmotivated	None of A-G above AND confident comparing costs and speaking with current provider about new deals and understanding the language and terminology used by providers
Apprehensive	None of A-G above AND not confident in one or more of: comparing costs, speaking with current provider about new deals or understanding the language and terminology used by providers.
Resigned	None of A-G above and not satisfied with overall service provided

Source: Ofcom Switching Tracker carried out by Critical Research in July to August 2019.

Those who switched when moving are defined in the Engagement Index based on any other activity that would qualify them. Those who undertook activities shown under B-D above would be defined as Active or Browsers, while those did not undertake these activities and simply took over the existing service in their new home would not be defined as Active or Browsers.

The first three groups (actives, browsers and dormant) are, to a greater or lesser extent, engaged in the market and are aware of alternative deals and/or suppliers. The resigned group are dissatisfied with the overall service provided by their supplier but have not made any effort to look into other deals or negotiate a better deal. There could be a number of reasons for their non-engagement, including being in a location where choice of supplier (e.g. in a remote rural area where coverage from some mobile operators is poor) or choice of service (e.g. in an area where fibre broadband is not available) is limited.

The unmotivated group have not had any recent engagement with the market but are confident in their ability to compare costs, speak to their current provider and understand the language and terminology used by providers. Some of this group, although they do not lack confidence in their ability to engage with the market, claim that they would like to save money on their service, but lack the time to do so. In short, these people claim to have the skills they need engage, but for one reason or another have chosen not to.

The final group, which we have termed 'apprehensive', have not had any recent engagement with the market, are not confident in their ability to compare costs, speak to their current provider or understand the language and terminology used by providers and this lack of confidence may be discouraging them from engaging.