Assembly

A report for Virgin Media O2

The value of telecoms services in the UK

December 2022

About Assembly

Assembly provides independent custom and subscription-based information, analysis and opinion on regulatory, policy and legislative developments that affect communications markets and the wider digital economy.

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About this study

Virgin Media O2 commissioned Assembly to produce an independent analysis of the value of telecoms services in the UK compared to other markets, including an overview of additional measures operators have put in place to support financially vulnerable customers. We have chosen to compare the UK to the largest EU comparator countries France, Germany, Italy, Spain plus Japan and the US. We have exclusively relied on prices and datasets from the trusted and independent third parties: the European Commission, Ofcom and ONS.

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Key messages

1. **With soaring inflation and rising household energy bills, consumers are being squeezed by the cost of living crisis.** The spotlight is therefore on all sectors of the economy to help households manage their expenditure over the coming months. Given the importance of fast and reliable connectivity, we consider the efforts being made by the UK telecoms sector, and how prices and value compare with key EU and international markets.

2. **The fiercely competitive UK telecoms market has created choice and quality for consumers**. Operators have been investing ~£2.5bn a year in mobile networks and around £3.8bn in fixed. Average monthly mobile data usage has trebled in the last five years, while fixed data consumption per capita has increased almost three-fold. At the same time, average fixed broadband download speeds have increased 72% since 2017, while the price per Mbps has fallen 39% over the same period.

3. **UK telcos offer some of the best overall value when compared internationally.** Average monthly household spend on telecoms services has fallen by nearly a fifth since 2017, making the UK the second cheapest country in our study. When considering broadband prices relative to usage per capita, the UK consistently performs best among our comparator countries. In short, UK consumers pay lower prices for the data they consume compared with their international peers.

4. **Average spend on telecoms services represents a small and declining share of total household outgoings sitting at just 3.8%**. Even after recent contractual price rises are factored in, telecoms makes up just 0.7% of the UK's inflation rate and only 0.04 percentage points of the recent rise. Were telecoms prices rising as fast they have been in energy, the average monthly bill would soon hit £400. Even after the Government's £2,500 Energy Price Guarantee, monthly household spend on telecoms services would have gone above £150 from October 2022, compared to £77.40 at the end of 2021.

5. **Operators have become more understanding and supportive towards those that cannot afford their bills.** After making available more than £940m of support during the coronavirus pandemic, once the cost of living crisis started to bite several proactively launched (or improved) discounted social tariffs for broadband (typically costing just £15-20 per month). Most mobile operators are also contributing to a data bank initiative to protect against digital exclusion. Meanwhile, long-running reward schemes continue to provide extra value for consumers at no incremental cost.

The UK compared internationally

Fixed broadband data usage

Fixed broadband prices

Mobile broadband prices

Combined fixed and mobile basket

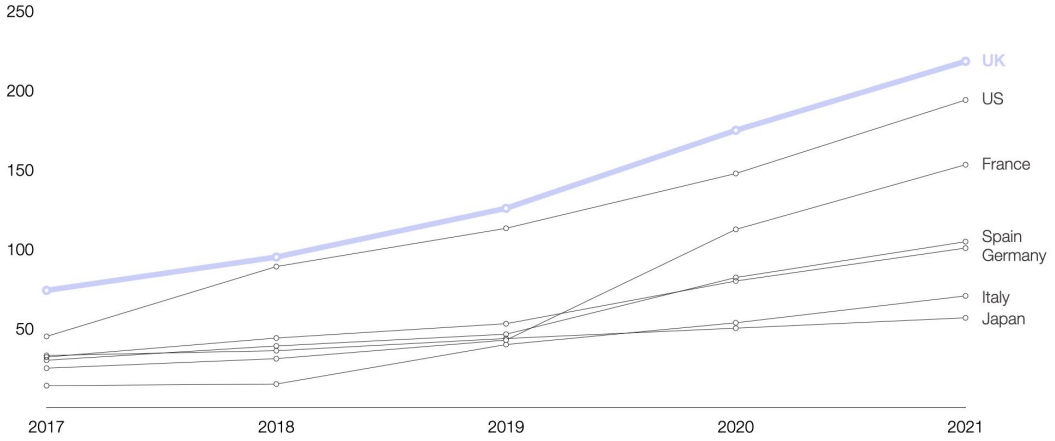
Fixed broadband value

The price and demand for connectivity over time

Data consumption, download speeds and investment in new networks all rise

Across Europe, network performance (often measured by download speed), has continued to improve over recent years. At the same time, average fixed and mobile data consumption levels have surged as consumers spend more of their lives online and businesses engage more actively in the digital economy. In the UK, average monthly data usage by mobile users has trebled in the last five years.[1] The country is also a world leader in terms of fixed data consumption per capita, with monthly usage increasing almost three-fold over the last five years (see *Figure 1*).[2]

Figure 1
Fixed data usage
GB/month per capita



Source: Assembly, Ofcom

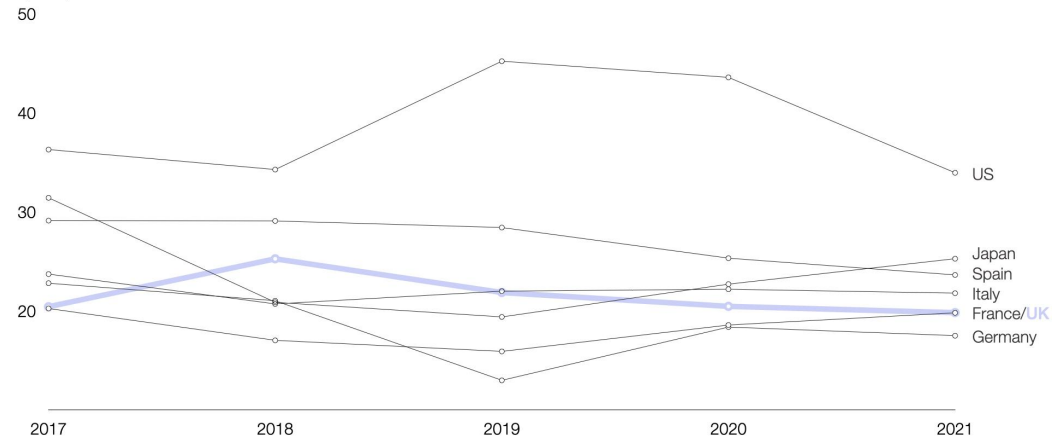
The pro-competition regulatory framework in Europe has resulted in some of the lowest retail prices in the world. Against this backdrop, operators have continued to invest heavily in upgrading and/or deploying new infrastructure – typically, full fibre and 5G. In the UK, this amounts to ~£2.5bn of capital expenditure a year into mobile networks[3] and around £3.8bn into fixed.[4] As such, consumers have benefited from faster and more reliable services, which they have used more intensively and often without a price premium.

[1] Communications Market Report 2022, Ofcom, 2022
[2] The International Broadband Scorecard 2018-2021, Ofcom, 2018-2021
[3] Ofcom's future approach to mobile markets: A discussion paper, Ofcom, 2022
[4] Connected Nations 2021, Ofcom, 2021

The average price for the UK's most popular fixed broadband speed tier has fallen by over 20%

Between 2017-2022, UK consumers have enjoyed real-terms falls in the average monthly price of both standalone fixed broadband and bundles.[5] 30-100Mbps fixed broadband services currently account for the majority of connections. For this speed tier, prices have fallen in recent years in most of our seven comparator countries (see *Figure 2*). The UK has exhibited a pronounced downward trend since 2018 (declining 22%) and is now the second cheapest of the studied countries, tied with France.

Figure 2
Price of a 30-100Mbps standalone fixed broadband service
£ (PPP)/month

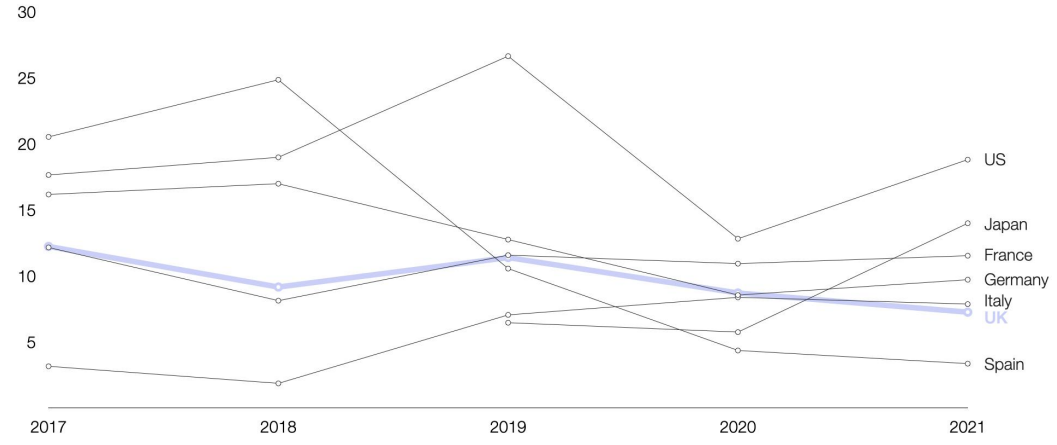


Source: Assembly, EC

The cost of mobile services is falling for most UK consumers

While demand for, and adoption of, larger data allowances have increased, prices of mobile broadband tariffs have not moved in the same direction. Average monthly prices for 5GB plans have fallen in many European countries (see *Figure 3*), with the same often holding true even for larger 20GB packages. The monthly price of a 5GB data allowance in the UK has fallen 36% since 2017, making it the second cheapest among our comparator countries.

Figure 3
Price of 5GB of mobile data
£ (PPP)/month



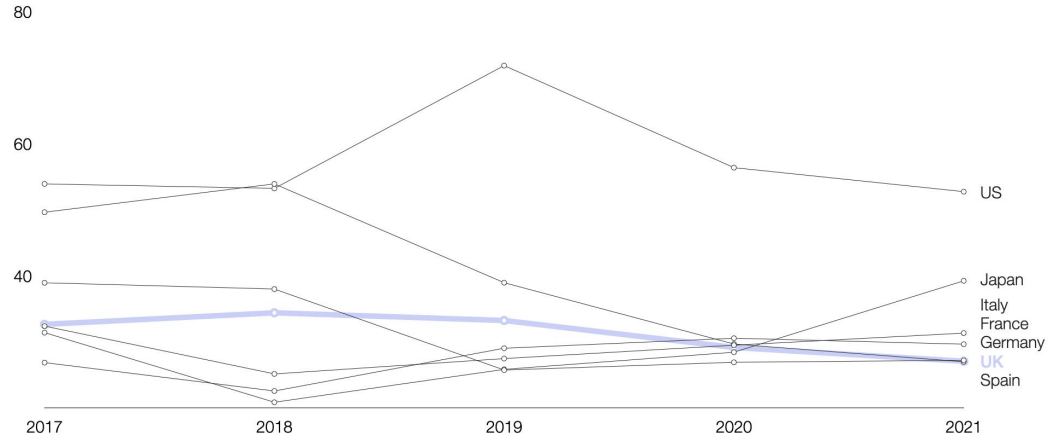
Source: Assembly, EC

[5] Pricing trends for communications services in the UK, Ofcom, 2022

A standard basket of fixed and mobile services in the UK is amongst the lowest in Europe

Taken together, 30-100Mbps fixed broadband and a 5GB mobile data allowance provides a representation of the typical telecoms consumer in the UK today. The monthly price of this basket of services has fallen by over 21% since 2018. Comparing prices with similar countries shows the UK to be the second cheapest – and only 10 pence a month more expensive than in the cheapest country, Spain (see *Figure 4*).

Figure 4
Combined basket of fixed and mobile services
£ (PPP)/month



Source: Assembly, EC

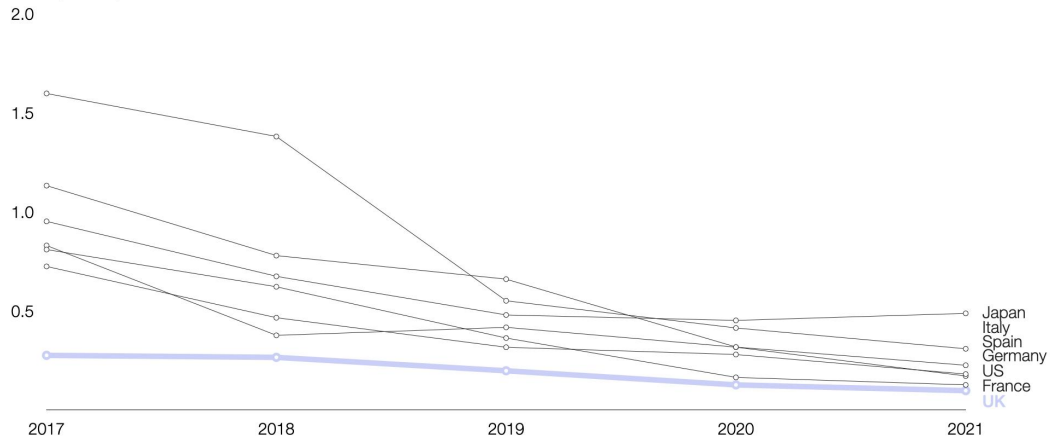
Consumers are getting greater value for money than ever before

Overall value is perhaps better demonstrated by taking into account the amount of data consumers are using. Many mobile customers in the UK are now getting more for less,[6] not only in terms of larger data allowances but also enhanced network performance, with often no premium charged for 5G services. In contrast to utilities, unit prices for telecoms services are a rare case having fallen consistently over time. More generous data allowances also mean that most telecoms spend is often not consumption-based, so consumers experience less 'usage anxiety' than they might with electricity, gas and water.

When average broadband prices are considered relative to usage per capita, the UK consistently performs best out of our comparator countries (see *Figure 5*). In short, UK consumers pay lower prices for the data they consume compared with their international peers. Similarly, when the same prices are considered relative to download speeds there is a downward trend over recent years. The UK's average fixed broadband download speed has increased 72% over the last five years from 46Mbps in 2017 to 79Mbps in 2021,[7] while the price of fixed broadband per Mbps has fallen 39% over the same period. As such, consumers have seen a relative drop in prices at the same time as benefiting from higher quality and faster services. Even after accounting for the price rises in 2021, UK consumers still enjoy some of the best overall value when compared to France, Germany, Italy, Japan, Spain and the US.

[6] Pricing trends for communications services in the UK, Ofcom, 2022
[7] Communications Market Report 2022, Ofcom, 2022

Figure 5
Fixed broadband value
£/GB per capita



Source: Assembly, Ofcom, EC

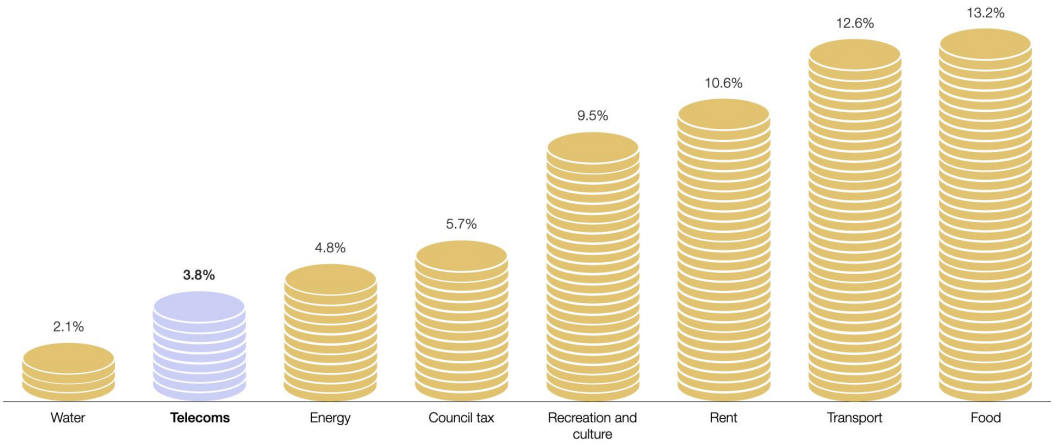
Putting telecoms spend in perspective

Households are spending less on telecoms services, which account for a falling share of outgoings

Against a backdrop of rising speeds and data usage levels, spend has fallen steadily over time. When adjusted for inflation, average telecoms spend has fallen by over £18 per month (or 19%) since 2017, down from a total of £95.70. Last year, it accounted for £77.40 of average monthly household spend, £3.79 (4.7%) less than in 2020.[8] This overall reduction is driven by mobile, where prices have gone down despite significant investment by operators, which has enabled consumers to upgrade to, and benefit from, faster 4G and 5G services.

Telecoms services represents a small and declining share of total outgoings – accounting for just 3.8% in 2020/21.[9] Today, household expenditure on telecoms is considerably less than other essential goods or services, including food and transport (see *Figure 6*) – and has tended to account for a lower proportion of spend than electricity and gas even before recent energy price hikes.

Figure 6
Share of UK households' weekly expenditure
%, 2020/21



Source: Assembly, ONS

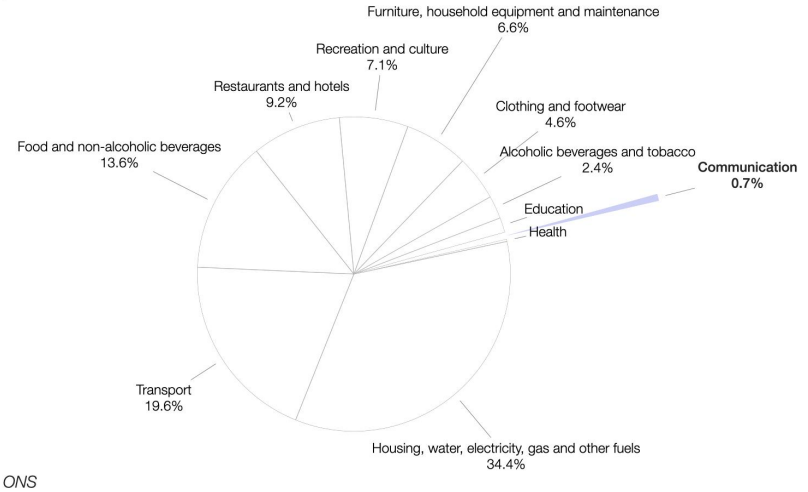
[8] Communications Market Report 2022, Ofcom, 2022
[9] Family spending in the UK: April 2020 to March 2021, ONS, 2022

Even in times of high inflation, telecoms services have a negligible impact on rising prices

The fiercely competitive UK telecoms market has created choice for consumers, which, in turn, is playing a role in helping to reduce their outgoings. In mobile, they are well served by four national mobile network operators and more than 100 mobile virtual network operators.[10] On the fixed side, broadband upgrades and new rollouts by Virgin Media O2, BT and a proliferation of altnets has seen full fibre broadband coverage expand rapidly to 37% of households.[11] As a result, consumers are able to shop around, discover cheaper alternatives and switch suppliers of services with ease, something that has significantly limited the telecoms sector's role in driving inflation.

While rising prices in the sector can contribute to headline inflation, the effect has so far been minimal, with telecoms making up a fraction (0.7%) of the total inflation figure (see *Figure 7*). Even when April 2022's inflation data is considered (when most UK operators implemented price changes), 'communication' inflation was still only responsible for 0.04 percentage points of the 1.6% rise in the annual CPI(H) figure.[12] Price rises in telecoms are therefore not stoking inflation and any changes are dwarfed by those of 'housing and household services', which predominantly includes electricity, gas and other fuels (equivalent to 1.21 percentage points).

Figure 7
Contributions to inflation in the UK
CPIH, as of July 2022



Source: Assembly, ONS

[10] Ofcom's future approach to mobile markets: A discussion paper, Ofcom, 2022
[11] Connected Nations update: Autumn 2022, Ofcom, 2022
[12] Consumer price inflation, UK: April 2022, ONS, 2022

If telecoms prices were rising as fast as they have been in energy, the average monthly bill would soon be over £400

As wholesale energy prices have surged, there have been predictions that the costs of goods and services across the UK economy could increase further, particularly as businesses face significantly higher bills. We have considered the possible knock-on effects for consumers' monthly telecoms bills if they were to hypothetically rise at the same rate as the price cap in the energy sector as was forecasted ahead of the 'Energy Price Guarantee' and freezing of the price cap (see *Table 1*). Continued rises in average fixed and mobile spend at the same level and frequency of the energy price cap would translate into households paying just over £400 per month for telecoms services at the start of the next financial year. Mobile voice and data spend alone would've topped £100 from 1 October 2022.

Table 1
If telecoms spend was rising in line with energy prices

Date	Annual energy price cap	Change in cap	Fixed telecoms spend (monthly)	Mobile telecoms spend (monthly)	Combined fixed and mobile spend (monthly)	Change in spend since 2021 (%)
October/year-end 2021	£1,277	–	£41.08	£36.32	**£77.40**	–
April 2022	£1,971	54.35%	*£63.41*	*£56.06*	***£119.47***	*£42.07 (54.35%)*
October 2022 (Energy Price Guarantee)	£2,500	26.84%	*£80.42*	*£71.10*	***£151.52***	*£74.12 (95.76%)*
October 2022 (intended price cap)	£3,549	80.06%	*£114.18*	*£100.94*	***£215.12***	*£137.72 (177.93%)*
January 2023 (predicted price cap)	*£5,387*	*51.79%*	*£173.31*	*£153.22*	***£326.53***	*£249.13 (321.87%)*
April 2023 (predicted price cap)	*£6,616*	*22.81%*	*£212.84*	*£188.17*	***£401.01***	*£323.61 (418.10%)*

Prices in italics are estimates

Source: Assembly, Cornwall Insights

Even with the introduction of the Energy Price Guarantee (which limits annual energy bills for a typical household to £2,500 and replaced the energy price cap), consumers could have seen a 96% rise in monthly spend on fixed and mobile services since 2021. A hypothetical rise in current average telecoms spend (£77.40) in line with the difference between the October 2021 price cap and the Government's new limit would still mean consumers faced a bill of over £150 a month for telecoms services from 1 October 2022. Our example therefore further contextualises price rises in telecoms, which are small relative to other sectors given the inflationary environment.

Supporting consumers with the cost of living

Operators first introduced a range of additional measures to support vulnerable customers during the pandemic

The coronavirus pandemic changed overnight the way people interact with each other. Telecoms operators saw an increased demand for connectivity as more people worked, studied and entertained themselves from home. Recognising the need to be connected, and the financial hardship some customers faced, many operators took steps to ensure access to vital services. As the course of the pandemic continued, so too did the support offered to consumers and businesses.

Initially operators began by zero-rating access to NHS websites to ensure access to important health information for all customers. Support was then extended in the form of additional allowances of texts, calls, and data. Help for the elderly and most vulnerable came in the form of unlimited calls from landlines, additional mobile data, and offers tailored to those who were facing unemployment. Key workers in healthcare were offered additional (often unlimited) mobile data, and discounted mobile bundles. With the pivot to homeschooling and online learning, operators supported students and their families with free data, and by zero-rating popular educational websites, and in some instances even providing devices. Having considered 50 of the initiatives UK telecoms operators put in place during the early course of the pandemic, we estimated £940m of support had been made available – £340m of which was to help the most vulnerable.

Support has continued as the cost of living crisis has started to bite

As the fallout from the pandemic continues, and the cost of living crisis starts to bite, operators have become more understanding and supportive towards consumers and businesses who cannot afford their bills. While 32% of UK households are said to have affordability issues with at least one communications service, the importance of fixed broadband means that fewer than 1% have cancelled their service or missed a payment, with more opting to make changes to their package.[13]

Several operators have launched, or improved, social tariffs aimed at helping ensure households have affordable broadband access (see *Table 2*). These discounted plans typically cost on average £15-20 per month and are available to households receiving various benefits. To drive adoption, operators such as

[13] Affordability of Communications Services: September 2022 update, Ofcom, 2022

Virgin Media O2 are also committed to making use of an API that makes it faster and easier to identify and sign-up eligible consumers. In some countries, e.g. Belgium, France and Portugal, policymakers have introduced mandated social tariffs for connectivity. However, providers in the UK have introduced social tariffs voluntarily and, in some cases, proactively.

Table 2
Selection of social tariffs in the UK
As of December 2022

Operator and tariff	Price (per month, inc. VAT)	Average download speed	Eligibility
Hyperoptic Fair Fibre 150	£20	150Mbps	Various benefits
NOW Broadband Basics	£20	36Mbps	Universal Credit or Pension Credit
Sky Broadband Basics	£20	36Mbps	Universal Credit or Pension Credit
BT Home Essentials 2	£20	Around 67Mbps	Various benefits
Virgin Media Essential Broadband Plus	£20	50Mbps	Universal Credit
Hyperoptic Fair Fibre 50	£15	50Mbps	Various benefits
BT Home Essentials	£15	Around 36Mbps	Various benefits
G.Network Essential Fibre Broadband	£15	50Mbps	Various benefits
KCOM Full Fibre Flex	£14.99	30Mbps	Various benefits
Virgin Media Essential Broadband	£12.50	15Mbps	Universal Credit
Vodafone Essentials Broadband	£12	Up to 38Mbps	Various benefits
EE Basics	£12	Up to 25Mbps	Various benefits
VOXI For Now	£10	5G where available	Various benefits

Source: Ofcom, Assembly

In addition to low-cost social tariffs, the telecoms sector has introduced further support to help consumers (see *Table 3*). Measures include free connectivity for those using food banks or facilitating food bank donations (Vodafone, Virgin Media O2), smartphone donation and redistribution programmes (Three, Virgin Media O2), and zero-rated access to certain websites (Three, Virgin Media O2). The creation of ‘data banks’ is another form of support to reduce digital exclusion, to which Three, Vodafone and Virgin Media O2 have all contributed.

Table 3
Selection of other support measures
As of December 2022

Measure	#	Operators offering this support	Details
Price freezes	5	Airband, Giffgaff, Hyperoptic, Tesco Mobile, Zen	Operators have committed to not raise prices, either during the contract term, until a specific date or while a customer remains on the same package
Contribution to the National Databank	3	Three, Vodafone, Virgin Media O2	Operators have contributed data to the Good Things Foundation initiative to tackle data poverty
Refurbished smartphones	2	Three, Virgin Media O2	Operators are encouraging the donation and/or rehoming of thousands of devices to the unconnected
Specifically for vulnerable customers	2	Vodafone, Virgin Media O2	Operators have introduced measures to facilitate food bank donations or provided free connectivity to users of them
Zero-rating of content	2	Three, Virgin Media O2	Operators are enabling customers to access support websites without using any of their data allowance

Source: Assembly’s ESG Tracker

Of the operator initiatives we've tracked, five relate to commitments not to raise prices, three focus on encouraging digital inclusion through the provision of free data, two involve the circulation of refurbished devices, two aim to help vulnerable users of food banks, and a further two involve free access to essential services without eating into data allowances. At the same time, long-running rewards schemes (such as O2 Priority and Three+) provide extra value for consumers at no incremental cost to their monthly bill, including access to discounts, offers and prize draws.

Methodology

Calculations

- Where fixed data usage information was unavailable, we have made an estimate based on the average growth rates of previous years.
- To calculate the cost of a typical telecoms basket per month, we combined the price of 30-100Mbps standalone fixed broadband services and a 5GB mobile data allowance.
- To compare fixed broadband value we first calculated an average monthly price for standalone fixed broadband services from three speed tiers: 12-30Mbps; 30-100Mbps; and >100Mbps. Average prices were then divided by data usage per capita to create a ‘value for money’ figure for each country.
- To present UK households’ weekly expenditure on telecoms services, we have stripped out postal services, telephone and telefax equipment, and internet subscription fees (i.e. streaming services) from the overall figure for ‘communication’.
- In presenting contributions of different categories of goods and services to the UK inflation rate, we have removed ‘rounding effects’ from our calculations.
- In forecasting hypothetical future telecoms bills, we have increased current average monthly spend on telecoms services by actual and projected rises in the energy price cap.

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