

# Methodology: The cost of fixed-line broadband provision in 220 countries

## 1. Overview

This will be the sixth year that Cable.co.uk has cast an eye on global fixed-line broadband pricing, having previously produced internationally cited reports on [global broadband speeds](#), [global mobile data pricing](#), and [global electricity tariff pricing](#). To understand the data, one must first understand both how they were gathered and calculated, and what specific rules were applied in deciding which packages and providers contributed to the data set.

It is vital to understand that this is a pricing study, **not an affordability study**. Over the years it has often been pointed out to us that we do not account for affordability. However, this is a mistake on the part of the observer as to exactly what the study sets out to show: Pricing, not affordability.

### 1.1 Rules applied to our data gathering

1. All prices gathered were for fixed-line broadband packages either ADSL or some form of fibre, except in a few limited cases which we will outline below
2. Researchers first established providers in each country before selecting one package at each available speed. Where multiple packages were available offering identical bandwidth, the cheapest package was selected. Where only a single provider exists and multiple packages of the same speed exist from that single provider, all packages offered are recorded
3. Business/enterprise broadband deals were excluded
4. Some providers do not show prices on their websites, instead relying on personal enquiry via phone or email, or the submission of an application. In such cases our researchers have emailed, called and/or filled in the respective forms to obtain pricing, each time informing providers they are undertaking research and are not an actual customer. However, some providers in some countries fail to respond to our requests each

year we update the data set, and these make up many of the countries and territories recorded as 'NO PACKAGES' under the 'Excluded countries' tab

5. Packages were recorded up to a maximum of 41 per country – records beyond this number have been shown to have negligible impact on the median averages that are output. Only 19 out of 219 qualifying countries hit this maximum in this 2023 iteration of the study
6. Package prices were recorded in their advertised currency, then converted to US Dollars (USD) in order to form a basis for comparison. The average package price for each country is the **MEDIAN** of all packages recorded, including any upfront or ongoing monthly costs. In cases where only two packages are available, the **MEAN** is used instead
7. Where a low number of packages were recorded to calculate the average, this, in all cases, reflects the low number of packages available in that country as a whole
8. In cases where both limited and unlimited broadband packages are available, both have been recorded in order that the average best reflects the market landscape
9. Packages that include TV subscriptions and other add-on paraphernalia have been excluded in all countries except in cases where only broadband and TV bundles are available and you cannot purchase broadband on its own. These are rare, but there are a few such countries scattered around the Caribbean, for example. In these cases the lowest-priced packages were recorded at each speed level
10. When comparing pricing data year-on-year (data from previous years has been included in the downloadable spreadsheet) keep in mind that factors such as precipitous rises and falls in exchange rate with the US dollar can affect price changes in the same way actual pricing changes within a given country can. Likewise upgrades to network infrastructure can radically alter the cost of 1Mbps bandwidth per month, as listed in column O
11. International exchange rates were frozen prior to the release. Any changes in exchange rate between USD and local currencies occurring after 06/03/2023 are not factored into the presented data
12. The 'Sample date' column (P) is very important as it represents the day the data was collected for that particular country. It is a snapshot. Prices change all the time and therefore may be different by the time you go about viewing and/or utilising our data

## 1.2 How the data is calculated

1. There are four ways to sort the data, each answering a specific question: By average cost of a broadband package per month (this is the default, outlined in red and how the list is ordered), by the cost of the cheapest package in each country per month, by the most expensive package available, and by the cost of 1Mbps of bandwidth for one month
2. The average monthly cost of each plan is calculated using a median average of all the packages recorded in each country. Median is the superior average in a study such as this as it disallows extreme outliers from skewing the final figure
3. The cost of the cheapest package in each country is exactly that: The cheapest fixed-line broadband package we could find in that country
4. Same as above for the most expensive package
5. Finally, the average cost of 1Mbps of bandwidth per month is a useful figure as it also factors the speeds offered. For example broadband in country X might seem expensive compared to country Y when looking at a pure average package price, but cheap in terms of the cost of bandwidth if country X offers 1,000Mbps packages while country Y's fastest package is 5Mbps

## 2. The data table explained

### 2.1 Table columns

Here's a brief overview, column by column, of this year's pricing data.

- A. **Rank:** This a simple count order from 1 to 220. Note that should you choose to sort the data by something other than **Column N** (Average price of a fixed-line broadband package), the rank order will not change
- B. **Country code:** The internationally recognised two-letter ISO 3166 abbreviation for the country. Obviously, some are not 'countries' by the definition, but in this document we will use the word 'country' to describe

territories, principalities and other types of land area that have their own ISO 3166 abbreviation

- C. **Name:** The name of the country in English
- D. **Continental region:** The region the country occupies. You can use the filters in this column to produce regionalised league tables, or switch to the 'Regions' tab where regions have been separated for you
- E. **Packages measured:** This number will always be between 1 and 41. It reflects how many qualifying plans our researchers were able to find. Countries with no qualifying plans were omitted from the results. You can view this list of omission in section **4.4: Excluded countries**, or tab across in the downloadable spreadsheet to the tab marked 'Excluded countries'
- F. **Currency:** This is the currency in which qualifying package prices were originally recorded. Note that this may not always match the native currency for that country as some providers choose to sell in more stable currencies than their own, such as US dollars or Euros
- G. **Conversion rate (USD) (Rates Frozen: 06/03/2023):** The current conversion rate between the local or advertised currency and USD, sampled on 06/03/2023
- H. **Average package cost per month (local currency):** This is the median average of all qualifying packages sampled in that country, either in its own currency or in the currency in which providers advertise their prices (sometimes these differ). It is represented as a number with no currency symbol. The currency of this number is represented in column F
- I. **Average package cost per month (USD):** This is the median average of all qualifying packages sampled in that country, converted to USD. The list is sorted by this column, low to high (cheapest first)
- J. **Cheapest broadband package measured (local currency):** The cheapest broadband package discovered by our researchers in that country, represented in the local or advertised currency
- K. **Cheapest broadband package measured (USD):** The cheapest broadband package discovered by our researchers in that country, represented in USD
- L. **Most expensive broadband package measured (local currency):** The most expensive broadband package discovered by our researchers in that country, represented in the local or advertised currency
- M. **Most expensive broadband package measured (USD):** The most expensive broadband package discovered by our researchers in that country, represented in USD

- N. **Cost per megabit, per month (local currency):** Each package has its cost per megabit calculated by dividing the cost by the speed offered in megabits per second. Once this is calculated for each package the median is found in this range, here presented in the local or advertised currency
- O. **Cost per megabit, per month (USD):** Each package has its cost per megabit calculated by dividing the cost by the speed offered in megabits per second. Once this is calculated for each package the median is found in this range, here presented in USD
- P. **Sample date:** The date on which the prices were recorded in each country. This can be important as prices change frequently

## 3. Limitations of the study

### 3.1 Fixed-line packages only

In order to in so much as is possible build a fair framework for comparison, only fixed-line broadband packages have been included in this study, except in some rare cases where no such delivery method exists. On the one hand, this does mean that in some countries the pricing only reflects this single means of getting online, which may not be the predominant means used by the population of that country.

For example, in many parts of Africa, mobile data is the primary means the population uses to get online, and in many instances, said means is cheap and convenient compared to fixed-line broadband which is scarce and often extremely expensive.

It is not, therefore, the remit of this study to show 'the cost of getting online', but instead to show the cost of fixed-line broadband, comparatively, and in as reasonable terms of comparison as possible, around the world. It is a pricing study, **not an affordability study**. Though our study does not necessarily reflect the cost of getting online in some countries, countries where pricing for fixed-line broadband is extreme or non-existent do tend to demonstrate underdeveloped infrastructure, fragile economies and/or geographical or geopolitical limitations.

## **3.2 Affordability not factored into the data**

Our data shows absolute pricing of fixed-line broadband, converted to USD as a means for reasonable, albeit limited, comparison. It does not weight the pricing by GDP, average income or any other common measure of affordability.

Such adjustments are beyond the scope of our data set, though should anyone wishing to investigate in this regard, we welcome you to use our absolute numbers as a starting point. To reiterate: This is a pricing study, not an affordability study.

## **3.3 Conversion to single currency**

In order to generate comparable numbers, a single currency had to be chosen for purposes of conversion and with the US dollar considered the go-to safe-haven currency and the United States the world's largest economy, the choice is an obvious one.

However, conversion to a single currency does not come without problems. Exchange rates can and do fluctuate, which can affect how prices move up and down throughout the year compared to the dollar. Each year we gather this data, it may be that in some cases significant movement in exchange rate between the local currency and US dollar explains, in part or in full, apparent price changes.

Changes such as these – reflecting conversion rate changes rather than (or in addition to) pricing changes – mean that future year-on-year data should be viewed as how prices have changed from a foreign perspective, rather from the perspective of a resident of the country in question, for whom the prices may not have changed subjectively.

### 3.4 Excluded countries

The following countries and/or regions were excluded due to no qualifying packages, unavailability of pricing information, or whose currency has hyper-inflated:

Country code	Name	Continental region	Currency	Exclusion Reason
CC	Cocos (Keeling) Islands	OCEANIA	AUD	NO PACKAGES
CF	Central African Republic	SUB-SAHARAN AFRICA	XOF	NO PACKAGES
EH	Western Sahara	NORTHERN AFRICA	MAD	NO PACKAGES
GM	Gambia	SUB-SAHARAN AFRICA	GMD	NO PACKAGES
GW	Guinea-Bissau	SUB-SAHARAN AFRICA	XOF	NO PACKAGES
IO	British Indian Ocean Territory	ASIA (EX. NEAR EAST)	USD	NO PACKAGES
KH	Kiribati	OCEANIA	AUD	NO PACKAGES
KP	North Korea	ASIA (EX. NEAR EAST)	KPW	NO PACKAGES
MP	Northern Mariana Islands	OCEANIA	USD	NO PACKAGES
MW	Malawi	SUB-SAHARAN AFRICA	MWK	NO PACKAGES
NE	Niger	SUB-SAHARAN AFRICA	XOF	NO PACKAGES
NR	Nauru	OCEANIA	AUD	NO PACKAGES

PG	Papua New Guinea	OCEANIA	PGK	NO PACKAGES
RU	Russian Federation	CIS (FORMER USSR)	RUB	NO PACKAGES
SS	South Sudan	SUB-SAHARAN AFRICA	SSP	NO PACKAGES
TD	Chad	SUB-SAHARAN AFRICA	XAF	NO PACKAGES
TO	Tonga	OCEANIA	TOP	NO PACKAGES
TV	Tuvalu	OCEANIA	AUD	NO PACKAGES
VA	Vatican	EUROPE	EUR	NO PACKAGES

### 3.5 Related research

Some links to our other ongoing global telecoms research projects:

- [Global comparison of internet speeds](#)
- [Global comparison of mobile data pricing](#)
- [How internet speeds were affected by COVID-19 lockdowns globally](#)
- [Global comparison of electricity pricing](#)

For use of our data, we require a link to Cable.co.uk, either [to our homepage](#), or to the source page for the research itself.

If you have any further queries regarding any of our research, please email [dan@cable.co.uk](mailto:dan@cable.co.uk). However, we ask that you carefully read section 4 of this document before sending your enquiry.



## 4. Should you require further information

### 4.1 What we will and will not respond to

When we release data of this kind, we tend to receive requests for deeper insight into the pricing of a wide gamut of telecoms products available in both specific countries and across groups of countries, either occupying the same region or related economically.

Our aim in producing this data and other such studies is to demonstrate the state of fixed-line broadband pricing across as much of the globe as possible. It is designed to offer a big-picture view. For example, our [broadband speed data](#) has been used:

- As news of the day – many countries and their news agencies were interested to see and report how and where they ranked
- By educational resources – across the year various universities and other educational bodies included the data either for reference or as the main focus of published work
- By government bodies and lobbyists – there were instances where our data was used to demonstrate the need for change
- By NGOs and other international stakeholder bodies – NGOs such as the World Economic Forum wrote both coverage and critique of the research, the latter providing us useful insights as to how we can add greater value to our data moving forward

We invite any organisation or person interested in our data to use it as they please upon release, provided they properly cite, and link to Cable.co.uk. However, if you require detailed, qualitative insight into a specific country or countries, that is not a service we are able to provide, and ask that you undertake such work yourselves using our data as a foundation or launching point.

To be clear, we are not able to provide more detailed data per country.