

1. Overview

This will be the first year that Cable.co.uk has cast an eye on global mobile data pricing, having previously produced internationally cited reports on [global broadband speeds](#) and [global broadband 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 plans and providers contributed to the data set.

1.1 Rules applied to our data gathering

1. All prices gathered were for SIM-only mobile plans that often also include a quantity of calls and texts. 'Pure data' plans such as those designed for tablets or laptops have also been included to provide the broadest balance of mobile data costing
2. Researchers first established the mobile data providers in each country before selecting one SIM plan from each data amount they offer. A country with eight providers, for example, each offering three different SIM data sizes, will have 24 plans recorded
3. If a provider offers otherwise identical plans, but with different add-ons or incentives offered at different prices, or there is price differentiation across different regions of the country, the cheapest SIM was recorded
4. Only consumer SIM packages were included. Business/enterprise SIM deals were excluded, as were tourist SIMs and SIMs that offered multi-buy discounts or discounts to customers who were already signed up to other services from the provider
5. 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
6. Qualifying countries must offer at least three qualifying plans. Countries that offer fewer qualifying plans (usually zero) have been listed in section 4.4: Excluded countries
7. Packages were recorded up to a maximum of 60 per country – records beyond this number have negligible impact on the average
8. Package prices were recorded in their advertised currency, then

- converted to US Dollars (USD) in order to form a basis for comparison
9. In the handful of cases where only unlimited data deals are available in a certain country, the average data usage, per user, in that country was used to calculate the cost of 1GB
 10. There were many instances during data gathering where outlying packages, usually those with very small amounts of data, would create cost-of-gigabyte numbers many times those of the average due to their nature (one-day data packages, for example). Once data gathering was completed, these extreme outliers were removed as they grossly skewed the average and were unrepresentative of the means by which 1GB of data is consumed by end users
 11. International exchange rates were frozen prior to the release. Any changes in exchange rate between USD and local currencies occurring after 20/02/2019 are not factored into the presented data
 12. The 'Sample date' column 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 three ways to sort the data, each answering a specific question: By average cost of a gigabyte of data per month (this is the default), by the cost of the cheapest gigabyte of data in each country per month, and by the most expensive gigabyte of data available
2. The average monthly cost of each plan is calculated based upon one gigabyte of data. For example, a 10GB SIM with a cost of \$30 would be calculated at \$3 per gigabyte (10/3)
3. The average monthly cost of 1GB of data for each country as a whole is calculated by totalling the price of a gigabyte in each plan recorded (as described above) and dividing that number by the total number of packages recorded – it is a simple, mean average
4. The cost of the cheapest package in each country is exactly that. A small but important point to consider, however, is that it still represents the cheapest means of obtaining 1GB of data. It is not simply the price of the cheapest package
5. Same as above for the most expensive package – it is the most expensive means of obtaining 1GB, not the cost of the most expensive

package itself

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 230. Note that should you choose to sort the data by something other than **Column I** (Average price of 1GB in USD), the rank order will not change
- B. **Country code:** The internationally recognised two-letter ISO 3166 abbreviation for the country
- 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
- E. **Plans measured:** This number will always be between 3 and 60. It reflects how many qualifying plans our researchers were able to find. Countries with fewer than three qualifying plans were omitted from the results. You can view this short list in section **4.4: Excluded countries**
- F. **Average price of 1GB (local currency):** This is a simple average of all qualifying plans 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 the next column
- G. **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
- H. **Conversion rate (USD):** The current conversion rate between the local currency and USD, sampled on 20/02/2019
- I. **Average price of 1GB (USD):** This is calculated as a simple average of the cost per gigabyte of data across all SIM plans sampled
- J. **Cheapest 1GB (local currency):** The cheapest 1GB value from all qualifying plans discovered by our researchers in that country,

represented in the local or advertised currency. Note this is not the price of the cheapest plan, but the price of 1GB of that plan. If the plan the cheapest 1GB price is drawn from is a 10GB package, for example, the plan will have been divided by 10 to reach this number

- K. **Cheapest 1GB (USD):** The cheapest 1GB value from all qualifying plans discovered by our researchers in that country, represented in US dollars. Note this is not the price of the cheapest plan, but the price of 1GB of that plan. If the plan the cheapest 1GB price is drawn from is a 10GB package, for example, the plan will have been divided by 10 to reach this number
- L. **Most expensive 1GB (local currency):** The most expensive 1GB value from all qualifying plans discovered by our researchers in that country, represented in the local or advertised currency. Note this is not the price of the most expensive plan, but the price of 1GB of that plan. If the plan the most expensive 1GB price is drawn from is a 0.5GB package, for example, the plan price will have been multiplied by two to reach this number
- M. **Most expensive broadband package measured (USD):** The most expensive 1GB value from all qualifying plans discovered by our researchers in that country, represented in US dollars. Note this is not the price of the most expensive plan, but the price of 1GB of that plan. If the plan the most expensive 1GB price is drawn from is a 0.5GB package, for example, the plan price will have been multiplied by two to reach this number
- N. **Sample date:** The date on which the prices were recorded in each country. This can be important as prices change frequently

3. Three ways to sort the data

3.1 Average price of 1GB of data in each country

When downloading the data, this is the order the table will arrive sorted by (**Column I**), and could best be described as the average price paid for 1GB of data in each country.

3.2 Cheapest 1GB of mobile data

You will need to change the sort order using the filter at the top of **Column J**. The amount recorded in this column reflects the cheapest 1GB of mobile data (calculated as described in 1.2: How the data was calculated) we found in that country, converted to US dollars.

3.3 Most expensive 1GB of mobile data

You will need to change the sort order using the filter at the top of **Column K**. The amount recorded in this column reflects the most expensive 1GB of mobile data (calculated as described in 1.2: How the data was calculated) we found in that country, converted to US dollars.

4. Limitations of the study

4.1 Mobile SIMs only

In order to in so much as is possible build a fair framework for comparison, only mobile SIMs have been included in this study. On the one hand, this does mean that many of these SIMs include calling packages as well as the data, which could be construed as a confounding variable.

However, mobile SIMs are the same the world over. They include some data, and a certain amount of free texts or calls, or in some cases, especially in locations where network infrastructure runs a very real risk of being over-utilised, minutes and texts comprise additional costs.

One could argue, therefore, that there may be some locations where the 'cost of 1GB' could be less than the averages recorded, if data-only SIMs were swapped in place of regular mobile SIMs.

4.2 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 its problems. Exchange rates can and do fluctuate, which can affect how prices move up and down throughout the year compared to the dollar. This is the first year we have taken these measurements, but next year 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.

4.3 Focus on global picture

When we release data of this kind, we tend to receive requests for deep 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 set is to demonstrate the state of mobile data pricing across as much of the globe as is possible. It is designed to offer a big-picture view. For example, last year, our broadband speed data was 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 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.

4.4 Excluded countries

The following countries and/or regions were excluded due to offering fewer than three qualifying packages:

- Cocos (Keeling) Islands
- Christmas Island
- Eritrea
- North Korea
- Marshall Islands
- St. Pierre and Miquelon
- South Sudan
- Tuvalu
- Vatican City (Holy See)
- Venezuela

4.5 Related research

Some links to our other ongoing global telecoms research projects:

- [Global comparison of fixed-line internet speeds](#)
- [Global comparison of internet package pricing](#)

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

If you have any further queries regarding any of our research, please email dan@cable.co.uk.