

Measuring digital development

ICT Price Trends

2019



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I am pleased to present the new edition of *ICT Price Trends*, the second report in ITU's new *Measuring Digital Development* series of statistical and analytical publications, which replaces the annual *Measuring the Information Society Report*.

ICT Price Trends 2019 monitors the affordability of ICT services by analysing and comparing price data for mobile-voice services, mobile data and fixed broadband. Following a revision of the ICT price benchmark methodology in 2017, this is the first time we are reporting on ITU's revised price baskets and, in particular, the first time we are sharing results for the combined data-and-voice baskets introduced after the 2017 revision. These new results shed important light on the effect of the bundling of services on consumer prices.

This publication also reports on the affordability gap between developed and developing countries – that is, the difference in prices when these are held up against countries' gross national income (GNI) levels. It also provides information on countries' progress towards achieving the United Nations Broadband Commission for Sustainable Development target for 2025, according to which entry-level broadband services should be made affordable in developing countries at a level corresponding to less than 2 per cent of monthly GNI per capita.

Overall, while this report reveals that average prices are broadly continuing to fall, it confirms that broadband services can still be too expensive for the poorest consumers, especially in countries with a low GNI per capita.

The COVID-19 global health emergency has made us all acutely aware of the vital importance of broadband networks to social and economic prosperity and global development. I hope this authoritative report serves as a crucial pillar of renewed efforts to urgently make digital services more available, and more affordable, to all people of the world.



Doreen Bogdan-Martin
Director, Telecommunication Development Bureau (BDT)
International Telecommunication Union

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Executive summary

- To accurately track and compare prices in statistical terms internationally and over time is no straightforward exercise. Price comparisons can be difficult, depending on whether they are conducted within a country, over time, or internationally (when exchange rates and purchasing power parity (PPP) can complicate matters). Market trends can also complicate the exercise – for example network convergence, the growing number of operators, intensifying competition (especially in mobile) and bundling.
- The International Telecommunication Union (ITU), its partners and stakeholders devote considerable time and effort to developing and refining price methodologies, in particular through the Expert Group on Telecommunication/ICT Indicators (EGTI). ITU maintains a set of different price baskets to reflect different usage patterns and behaviour. In 2017, ITU updated and adjusted its price baskets to reflect current developments in the fixed and mobile broadband markets. The price baskets cover three different technologies: mobile-voice, mobile-data and fixed-broadband. In addition, the 2017 revision introduced combined data-and-voice baskets, as a first attempt to monitor the prices of bundled services, which is now a very common commercial practice.
- The good news is that, on average, mobile-voice, mobile-data and fixed-broadband prices are falling steadily around the world, and in some countries even dramatically. The reduction in price relative to income is even more dramatic, suggesting that, globally, telecommunication/ICT services are becoming more affordable. However, this trend in annual average prices is not necessarily true of all countries or of the entire population in each country. Furthermore, falling prices are not translated into rapidly increasing Internet penetration rates, especially in least developed countries (LDCs), pointing to the fact that affordability may not be the only barrier to Internet uptake.

Mobile-voice, mobile-data and fixed-broadband baskets

- Table 1 provides an overview of average prices for the five price baskets: mobile-data-and-voice (low usage), mobile-data-and-voice (high usage), mobile-voice, mobile-data and fixed-broadband. It shows the impact of bundling on prices, as a combined data-and-voice basket is less expensive than the sum of the two separate baskets. Fixed-broadband packages were generally more expensive on average than mobile-data packages (although data allowances were not directly equivalent). In all cases, adjusting for PPP gave a higher relative price than the nominal dollar equivalent.

Mobile-data-and-voice baskets

- The ITU mobile-data-and-voice baskets include voice, text messages and data for two different consumption levels. The low-consumption mobile-data-and-voice basket includes 70 voice minutes, 20 SMSs and 500 MB of broadband data while the high-consumption mobile-data-and-voice basket includes 140 voice minutes, 70 SMSs and 1.5 GB of broadband data. For the low-consumption mobile-data-and-voice basket, large differences in absolute price levels between developed, developing and least developed countries were apparent. For the high-consumption mobile-data-and-voice basket on the other hand, little difference was evident in absolute prices by level of development.
- Expressing prices relative to GNI per capita (GNI p.c.), as a measure of affordability, reveals huge gaps between prices for different levels of development. In developed countries, the price of a low-consumption mobile-data-and-voice basket was equivalent to 1 per cent of GNI p.c. in 2019. In developing countries, this basket cost 7.5 per cent of GNI p.c., while in the LDCs this rose sharply to 17 per cent. For high-consumption mobile-data-and-voice baskets, the differences were even larger.

Table 1: Global average prices for the five baskets, 2019

	Mobile-data-and-voice - low usage	Mobile-data-and-voice - high usage	Mobile-voice	Mobile-data	Fixed-broadband
Nominal price (converted into USD)	USD 17	USD 25	USD 12	USD 14	USD 28
PPP\$-adjusted price	PPP\$ 25	PPP\$ 38	PPP\$ 18	PPP\$ 20	PPP\$ 43
Affordability (percentage of GNI per capita)	5.9%	10.3%	4.3%	4.3%	10.3%
Compound annual growth rate - price in USD			-5.3% (2008-2019)	-7% (2013-2019)	-4.4% (2008-2019)
Compound annual growth rate - price in PPP\$			-4.4% (2008-2019)	-6% (2013-2019)	-2.5% (2008-2019)
Compound annual growth rate - affordability			-9.3% (2008-2019)	-15% (2013-2019)	-9% (2008-2019)

- At the regional level, Europe had the most affordable prices, ahead of the CIS region. A second group of regions was formed by the Americas, the Arab States and Asia and the Pacific, all with reasonably affordable prices. In Africa, however, a low-consumption mobile-data-and-voice basket already accounted for 16 per cent of GNI p.c., and a high-consumption mobile-data-and-voice basket amounted to no less than 31.2 per cent of GNI p.c., nearly one-third of the average GNI p.c. in the region.

Mobile-voice basket

- Between 2008 and 2019, the global average price of a mobile-voice basket decreased from USD 21.4 to USD 11.8, equivalent to a compound annual growth rate (CAGR) of -5.3 per cent. PPP\$-adjusted mobile prices fell by -4.4 per cent CAGR, although correcting for PPP effectively eliminates price differences between developed countries, developing countries and LDCs.
- Expressing mobile-voice prices as a share of GNI p.c. introduces large variations in price, with Africa and LDCs experiencing relatively high mobile prices.
- The affordability gap between developed and developing countries was reduced from 9 to 2.9 percentage points between 2008 and 2019.
- In most countries, an entry-level mobile-voice basket remains fairly affordable. In 70 countries, a low-usage mobile-voice plan was available for less than 1 per cent of GNI p.c., and in a further 37 countries it stood below 2 per cent.

- Although causality is difficult to prove, price reductions have undoubtedly helped contribute to the rapid rise in the mobile-voice penetration rate, alongside growing competition and better price monitoring and evaluation by regulators.

Mobile-data basket

- The global average price of a mobile-data basket of at least 1.5 GB dropped by 7 per cent on average annually between 2013 and 2019.
- In terms of GNI p.c., there has been a significant reduction in prices from 2013 to 2019. The global average price of a mobile-data basket of 1.5 GB shrank from 8.4 per cent of GNI p.c. in 2013 to 3.2 per cent in 2019, a CAGR of almost -15 per cent.
- A key benchmark is the 2 per cent target set by the UN Broadband Commission for Sustainable Development. For mobile data, in 2019 in 95 countries, the cost of a mobile-data basket of 1.5 GB was less than 2 per cent of GNI p.c. These 95 countries consisted of 44 developed countries, 47 developing countries (non-LDCs), and four LDCs. In 48 countries, of which one developed country, 40 developing countries and seven LDCs, prices were only just above the Broadband Commission Target, at 2-5 per cent of GNI p.c. In the remaining nine developing countries and 31 LDCs, much progress still needs to be made in order to reach the 2 per cent target by 2025. In nine LDCs in particular, prices were more than 20 per cent of GNI p.c.

- While average prices for the mobile-voice basket and the mobile-data basket are very similar across levels of development and regions, the gap in the penetration rate for mobile-broadband and Internet uptake between developed and developing countries is much larger than the gap in mobile-cellular uptake, in particular in LDCs. One conclusion that could be drawn is that if people in low-income countries have the choice between a mobile-cellular or a mobile-broadband subscription, preference is given to the mobile-cellular subscription. It also indicates that affordability is not the only barrier to Internet use, but that other barriers are important too, such as low level of education, lack of relevant content, lack of skills, in addition to a potentially low-quality Internet connection, preventing effective use.

Fixed-broadband basket

- From 2008 to 2019, the average price of an entry-level fixed-broadband subscription, converted into USD using market exchange rates, decreased from USD 44 to USD 27, equalling a CAGR of -4.4 per cent, despite a certain levelling-out of prices from 2016 onwards.
- Low nominal and PPP-adjusted prices stand out in the CIS region, whereas the highest nominal and PPP-adjusted prices are to be found in Africa.
- Affordability is very dispersed according to countries' level of development. In developed countries, an entry-level fixed-broadband subscription cost 1.4 per cent of GNI p.c.; in developing countries, this stood at over 13 per cent, and nearly 36 per cent in LDCs, over a third of average GNI p.c.
- Europe is the region with the lowest fixed-broadband prices as a percentage of GNI p.c. (1.4 per cent), followed by the CIS region (3.7 per cent). Europe also enjoys the highest median entry-level speeds. In Africa, an entry-level fixed-broadband subscription cost 33.3 per cent of GNI p.c.
- Over the past four years, the affordability of fixed broadband has not changed substantially, but advertised download speeds are increasing.
- Despite the modest improvement in affordability, fixed-broadband subscriptions kept on increasing steadily around the world, highlighting the importance of fixed broadband. Wireless broadband networks still carry far less traffic than fixed networks, and they generally offer lower speeds and reliability.
- The UN Broadband Commission set a target for affordable entry-level service as 2 per cent of GNI p.c. In 2019, 64 countries had achieved this target for fixed broadband, mostly in Europe. Forty-five countries are approaching the target, whereas 34 developing countries and 30 LDCs still have a long way to go.

New benchmarks for a changing market

Efficient and reliable communication services are a foundation of socio-economic growth for many countries, and have become hugely popular with consumers, both for work and entertainment. Consumers and individuals can acquire important digital skills through access to, and experience with, telecommunication/ICT devices and services and digital technologies. Today, such digital skills are important in determining an individual's competitiveness in the job market and access to better-paid jobs.

Consumer surveys, however, have repeatedly identified affordability as a key barrier to access, across many different countries. ITU, with its partners and stakeholders, regularly develops and refines price methodologies for monitoring fixed and mobile broadband prices. To accurately track and compare prices in statistical terms across different countries or across comparisons is no straightforward exercise. Price comparisons are difficult, depending on whether they are conducted within a single country or shared-currency region, versus internationally (when exchange rates and PPP can complicate matters). They also depend on market share (i.e. whether the operator's price offering is for a large or niche customer base) and whether offers are bundled with other services. Various market trends can complicate comparisons, such as the technological capability to provide telephone, video and data communications over a single network (network convergence), the growing number of operators, and intensifying competition (especially in mobile). For example, it has become feasible to offer dual-play packages for voice and data, triple-play packages for phone, television and Internet, and even quadruple-play packages combining fixed and wireless services.

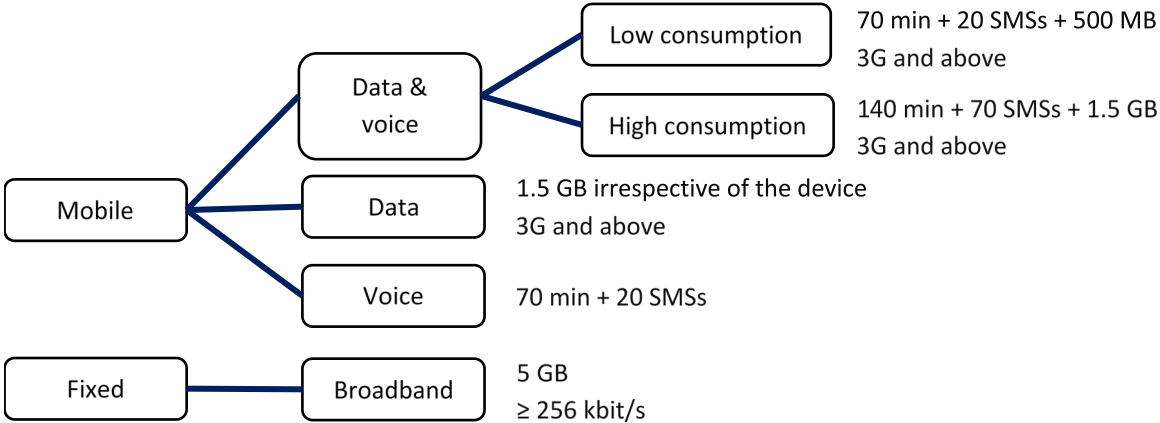
Over and above convergence, mobile networks have underwent rapid development with the introduction of mobile broadband and smartphones. Content platforms such as Facebook, Google, Skype, WeChat, Line, Kakao, LinkedIn and WhatsApp also began offering a variety of text, voice and video services that competed with traditional telecommunication and media services. These changes have helped drive the decline of fixed telephony, the stagnation of voice revenues and increased demand for data. To remain profitable in the new market environment, telecommunication operators have had to ensure that their service offerings and pricing strategies evolve.

ITU maintains a set of different price baskets to track and compare market prices. To better reflect the current realities of telecommunication markets worldwide, ITU has undertaken a major update of the ICT price benchmark methodology, as endorsed by the eighth meeting of EGTI¹ held in September 2017. This updated methodology was applied to price-data collection as from 2018, which means that the ICT price benchmarks from 2018 onward are not directly comparable with those of previous years.

Figure 1 provides an overview of the new price baskets adopted at the 2017 EGTI meeting.

The prices collected for each service correspond to the cheapest plan offered by the dominant operator (in terms of market share) that fulfils the usage requirement of each basket (although occasionally, when the market data were unclear, the historical incumbent or an alternative operator was taken into account). The methodological details of the ITU price baskets are set out in Annex 1.

Figure 1: New ITU ICT price baskets (from 2018)



Source: ITU

About this publication

With the aim of contributing to international, regional and national efforts to monitor the retail prices and affordability of ICT services, this publication presents and analyses price data for five key services based on the following five baskets:

1. mobile-data-and-voice basket (i.e. voice, SMS and mobile data combined) - low consumption (70 minutes, 20 SMSs and 500 MB);
2. mobile-data-and-voice basket - high consumption (140 minutes, 70 SMSs and 1.5 GB);
3. mobile-voice (including voice and SMS);
4. mobile-data;
5. fixed-broadband.

For each basket, global and regional trends are presented, including time series insofar as they are available, followed by country tables for the year 2019. An analysis is performed to identify which countries and regions have achieved the UN Broadband Commission’s target for affordability. Affordability gaps are also analysed, defined as the difference in price between developed and developing countries.

Annex 1 describes the (revised) methodology. Annex 2 presents detailed tables with the underlying data required to calculate the baskets. Country tables for the year 2018 for each of the five baskets can be found in Annex 3.

Prices in this chapter are expressed in three complementary units:

- In United States dollars (USD), using the annual rates of exchange of the International Monetary Fund (IMF). For those economies where IMF’s average annual rate of exchange was not available, the average annual UN Operational Rate of Exchange was used, where available.
- In international dollars (PPP\$), using PPP conversion factors instead of market exchange rates. The use of PPP exchange factors helps to screen out price and exchange-rate distortions, thus

providing a measure of the cost of a given service taking into account the purchasing power equivalences between countries.²

- As a percentage of countries' monthly GNI p.c. (Atlas method).³ Prices are expressed as a percentage of GNI p.c. in order to present them relative to the size of the economy of each country, averaged by population, thus providing an indication of the affordability of each ICT service at country level.

Mobile-data-and-voice baskets

The introduction of prices for combined mobile services is a major departure from ITU's previous approach to ICT price data collection. In an increasing number of countries, operators offer several products or services as one package with a single bill. Such bundled services are becoming the norm and this trend is now reflected in ITU's new, updated ICT price benchmarks.⁴

Bundling is becoming increasingly widespread, as it enables converged telecommunication and media companies to take greater advantage of consumers' willingness-to-pay, thus increasing revenues. It is not yet clear whether, on balance, price bundling benefits consumers or helps to close gaps in access to broadband. For consumers, one main advantage of bundles is that they are often offered at a discount, whereas stand-alone services are not. It may nevertheless be detrimental to consumer welfare if price bundling limits choice and/or forces consumers to purchase services they do not value.

Price bundling could potentially harm market competition when the use of bundles by network operators deters market entry or increases the cost of switching between networks for consumers. Bundling can deter market entry when a competing operator lacks access to wholesale inputs and is unable to offer bundles at competitive rates. For consumers, bundles can complicate comparisons between different service offerings, thus potentially making it difficult for them to switch between network operators.

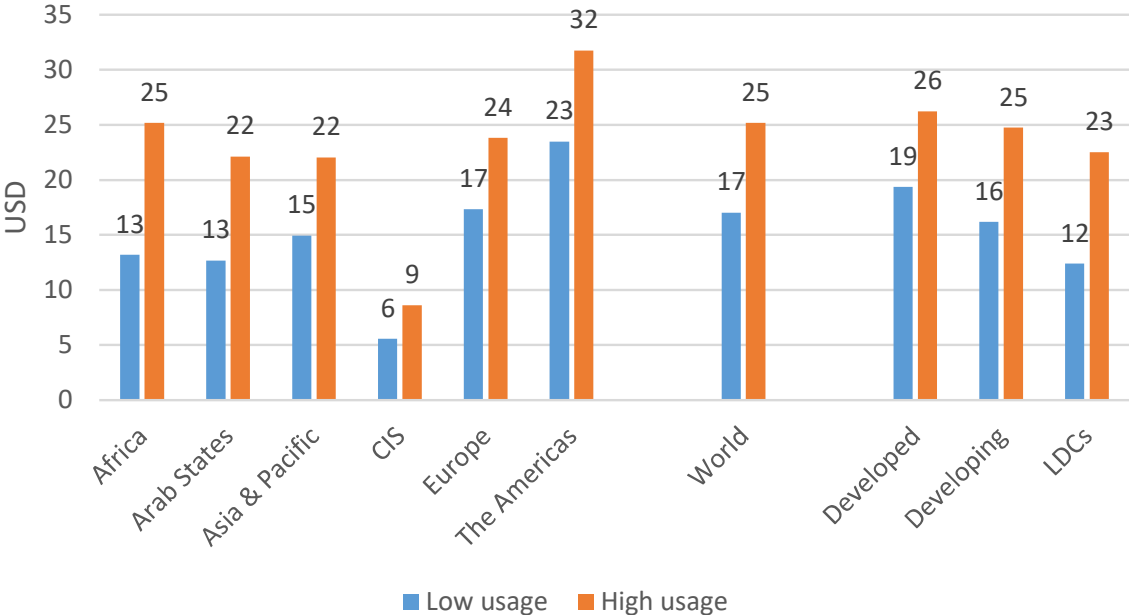
The lack of internationally comparable data makes it hard to assess the impacts of price bundling on consumer welfare, competition and universal broadband access. ITU's inclusion of mobile-data-and-voice baskets in its price benchmarks is a first step in addressing this gap.

The ITU mobile-data-and-voice baskets include voice, text messages and data for two different consumption levels. When EGTI analysed the mean and median values for voice (minutes of use per month), SMSs per month and data (MB/GB per month) for two groups of consumption, a clear disparity emerged in consumption patterns among countries in the low-income group and those in the lower-middle, upper-middle and high-income groups.⁵ The evidence suggested that two consumption patterns ought to be considered, and this approach was adopted. The low-consumption data-and-voice basket includes 70 voice minutes, 20 SMSs and 500 MB of broadband data; the high-consumption data-and-voice basket includes 140 voice minutes, 70 SMSs and 1.5 GB of broadband data.

Global trends

Chart 1 shows the price of the low-consumption and high-consumption data-and-voice baskets in 2019 in USD, by level of development and by region. The average price globally for a low-consumption data-and-voice basket stood at USD 17 in 2019, whereas on average a high-consumption data-and-voice basket cost USD 25.

Chart 1: Mobile-data-and-voice baskets in USD, 2019



Note: Simple averages. Based on 192 economies for which data on prices of mobile-data-and-voice baskets in USD are available for the year 2019. Source: ITU. USD exchange rates are from the IMF or UN.

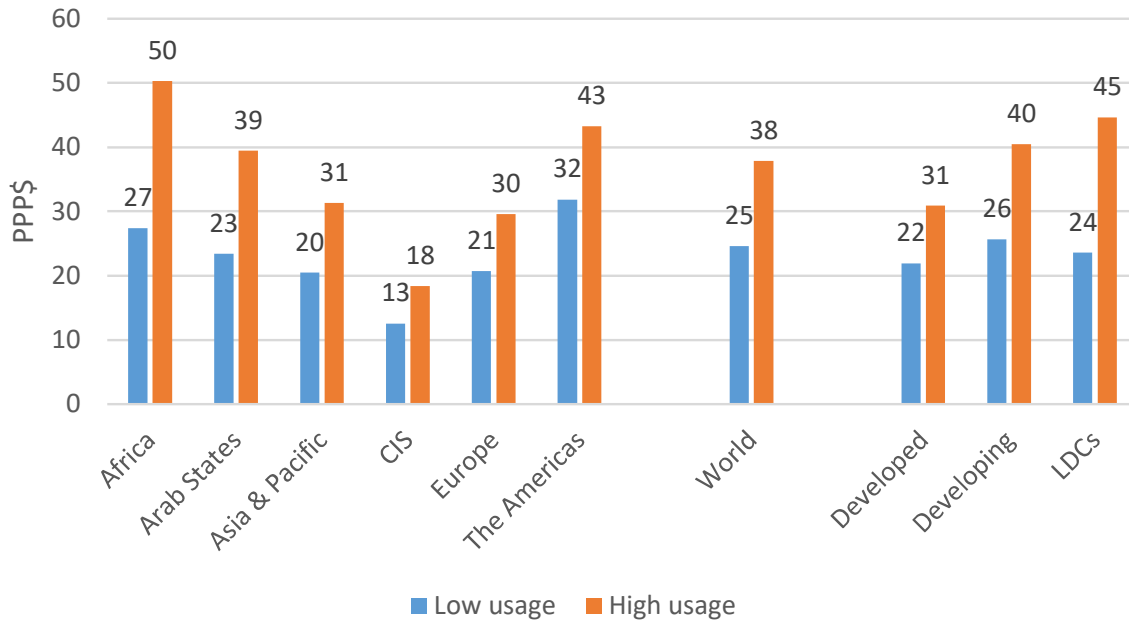
For the low-consumption data-and-voice basket, there is a significant difference in price level, according to level of development, when converting nominal prices in national currency into USD. In developed countries, this data-and-voice basket cost USD 19, decreasing to USD 16 in developing countries and USD 12 in the LDCs.⁶ For the high-consumption data-and-voice basket, there was little difference in prices by level of development.

Looking at the regions⁷, prices are comparatively low in the CIS region for both the low-consumption and the high-consumption data-and-voice baskets, whereas higher prices are observed in the Americas. Prices in the other four regions are close to the global average.

When converting prices from national currencies to international PPP\$, a different picture emerges (see Chart 2). In this case, there is little price difference between developed countries, developing countries and LDCs for the low-consumption basket. For the high-consumption basket, however, prices in developed countries are below the global average. In developing countries, prices are just above the global average, whereas in LDCs they are significantly above it.

From a regional perspective, the CIS region still has the lowest prices, and in the Americas prices are high; What stands out most, however, is the high price for the high-consumption data-and-voice basket in Africa, at a monthly average of PPP\$ 50.

Chart 2: Mobile-data-and-voice basket in PPP\$, 2019



Note: Simple averages. Based on 165 economies for high-usage data-and-voice baskets and 162 economies for low-usage data-and-voice baskets for which data on prices of mobile-data-and-voice baskets in PPP\$ are available for the year 2019.

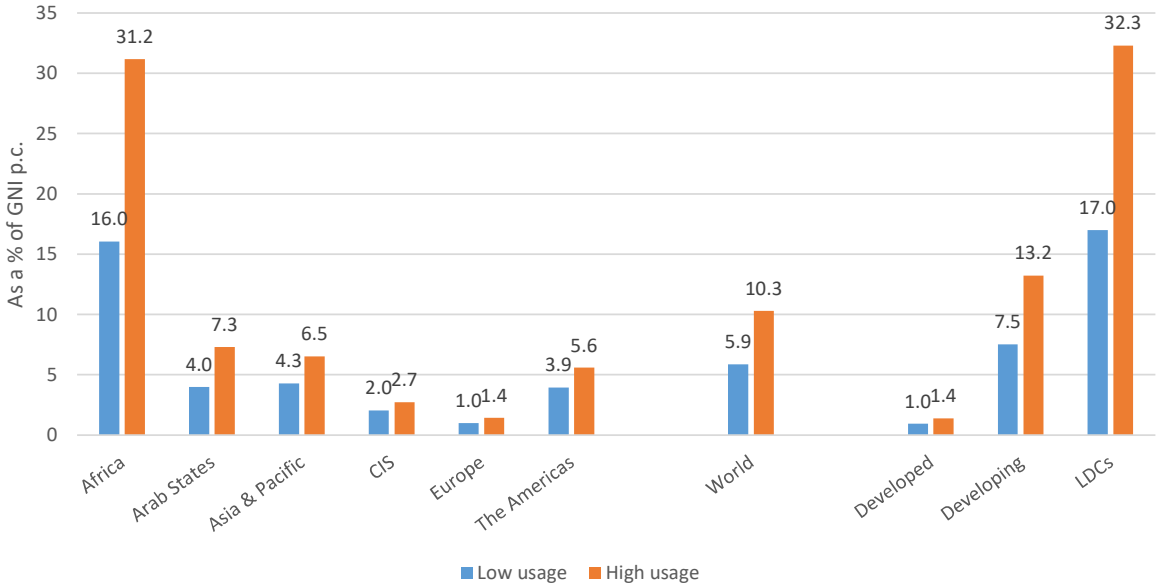
Source: ITU. PPP\$ conversion factors are from the World Bank.

When prices are expressed relative to GNI p.c., income levels are also taken into account. This has a significant impact on price comparisons across the world (see Chart 3). Globally, the average price of a low-consumption data-and-voice basket stood at 5.9 per cent of GNI p.c. in 2019, whereas the price of a high-consumption data-and-voice basket stood at 10.3 per cent. There is a considerable gap between prices at different levels of development.

In developed countries, a low-consumption data-and-voice basket cost 1 per cent of GNI p.c. in 2019. In developing countries, the same basket cost 7.5 per cent of GNI p.c., while in LDCs this rose sharply to 17 per cent. For the high-consumption data-and-voice baskets, the differences are even starker, with 1.4 per cent in developed countries, 13.2 per cent in developing countries and 32.3 per cent in LDCs. It is interesting to note that in developed countries, there is only a very small difference between the average price for a low-consumption and a high-consumption data-and-voice basket, whereas in developing countries, and especially in LDCs, the difference is considerable. This highlights the particular importance of the low-consumption data-and-voice basket for low-income countries, as a more affordable means of access to a mobile-data-and-voice basket. At the same time, these observations validate EGTI's decision to establish these two data-and-voice baskets for price comparison purposes.

At regional level, there are significant differences too. The most affordable prices are found in Europe, ahead of the CIS region. A second group of regions is formed by the Americas, the Arab States and Asia and the Pacific, all with reasonably affordable prices. In Africa, on the other hand, a low-consumption data-and-voice basket already accounts for 16 per cent of GNI p.c., and a high-consumption data-and-voice basket amounts to no less than 31.2 per cent of GNI p.c., nearly one-third of GNI p.c. in the region.

Chart 3: Mobile-data-and-voice basket as a % of GNI p.c., 2019



Note: Simple averages. Based on 182 economies for high-usage data and voice baskets and 179 economies for low-usage data-and-voice baskets for which data on prices of mobile-data-and-voice baskets in PPP\$ are available for the year 2019.
 Source: ITU. GNI p.c. data are from the World Bank.

Benchmarking countries

Table 2 presents the country-level details for high-consumption mobile-data-and-voice baskets, i.e. those data-and-voice baskets offering at least 140 minutes of voice communication, 70 SMSs and 1.5 GB of data, for the year 2019.⁸ Not surprisingly, the most affordable plans in terms of GNI p.c. are to be found in high-income countries. Nevertheless, the 33 countries in which high-consumption mobile-data-and-voice baskets can be purchased for less than 1 per cent of GNI p.c. include four middle-income countries: the Russian Federation, India, Turkey and Sri Lanka. At the other end of the scale, the 46 countries in which a high-consumption mobile-data-and-voice basket accounts for over 10 per cent of GNI p.c. are almost all low or lower-middle income countries.

Table 2: High-consumption mobile-data-and-voice basket, 2019

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
1	Macao, China	0.2	14.31	17.82	480	70	2.0	0.0	78,320
2	Singapore	0.3	14.83	17.64	150	500	5.0	7.0	58,770
3	Qatar	0.3	16.48	21.62	140	70	2.0	0.0	61,190
4	Israel	0.3	11.11	9.42	1,500	2,500	30.0	17.0	40,850
5	Luxembourg	0.3	21.25	18.48	500	500	3.0		77,820
6	Hong Kong, China	0.4	16.53	20.23	140	70	2.0	0.0	50,310
7	Austria	0.4	16.63	16.76	1,000	1,000	4.0	20.0	49,250
8	New Zealand	0.4	14.53	13.08	200	500	1.8	15.0	40,820
9	Sweden	0.5	22.89	21.28	Unlimited	Unlimited	2.0	25.0	55,070
10	Switzerland	0.5	35.79	25.45	Unlimited	Unlimited	1.5	7.7	83,580
11	Denmark	0.5	26.76	21.15	Unlimited	Unlimited	10.0	25.0	60,140
12	Iceland*	0.5	27.61	19.31	Unlimited	Unlimited	5.0	24.0	60,740
13	Norway	0.5	36.77	27.73	Unlimited	Unlimited	3.0	25.0	80,790
14	Netherlands	0.6	24.80	24.22	Unlimited	Unlimited	2.0	21.0	51,280
15	Finland	0.7	26.44	23.65	140	70	Unlimited	24.0	47,820
16	Belgium	0.7	25.97	25.66	120	Unlimited	1.5	21.0	45,430
17	United Kingdom	0.7	25.35	24.08	Unlimited	Unlimited	3.0	20.0	41,330
18	Russian Federation	0.7	6.38	15.28	200	200	4.0	20.0	10,230
19	Italy	0.8	21.26	23.06	Unlimited	500	20.0	22.0	33,560
20	Estonia	0.8	14.17	19.86	Unlimited	Unlimited	5.0	20.0	20,990
21	Kuwait	0.8	23.18	35.58	Unlimited	Unlimited	5.0	0.0	33,690
22	Australia	0.8	36.61	31.86	Unlimited	Unlimited	15.0	10.0	53,190
23	United States	0.8	43.55	43.55	Unlimited	Unlimited	1.5	8.9	62,850
24	Ireland	0.8	41.33	35.58	Unlimited	Unlimited	20.0	23.0	59,360
25	India	0.9	1.43	4.75	Unlimited	300	2.0	18.0	2,020
26	Slovenia	0.9	17.70	23.14	Unlimited	Unlimited	2.0	22.0	24,670
27	Germany	0.9	34.59	36.39	Unlimited	70	1.5	19.0	47,450
28	Lithuania	0.9	12.87	21.83	Unlimited	Unlimited	2.0	21.0	17,360
29	Spain	0.9	22.12	26.19	Unlimited	70	3.0	21.0	29,450
30	France	0.9	31.87	31.88	Unlimited	Unlimited	10.0	20.0	41,070
31	Turkey	0.9	8.08	23.20	750	100	2.5	25.5	10,380
32	United Arab Emirates	1.0	33.74	43.95	140	70	1.5	5.0	41,010
33	Sri Lanka	1.0	3.34	10.21	140	70	1.5	37.7	4,060
34	Latvia	1.0	14.16	21.30	Unlimited	Unlimited	2.0	21.0	16,880
35	Portugal	1.0	18.90	24.06	250	250	3.0	23.0	21,680
36	Poland	1.1	12.46	24.12	Unlimited	Unlimited	7.0	23.0	14,150
37	Kazakhstan	1.1	6.93	19.96	Unlimited	100	12.0	12.0	7,830
38	Korea (Rep. of)	1.1	27.96	31.99	Unlimited	Unlimited	1.5	10.0	30,600
39	Romania	1.1	10.63	22.53	Unlimited	Unlimited	30.0	19.0	11,290
40	Mauritius	1.2	12.20	20.81	140	1,000	1.7	15.0	12,050
41	Saudi Arabia	1.2	22.00	45.14	500	70	2.0	5.0	21,540
42	China	1.2	9.82	17.05	150	70	3.0	0.0	9,470
43	Bahrain	1.2	22.71	37.49	500	70	6.0	5.0	21,890
44	Brunei Darussalam	1.3	32.99	58.77	140	70	3.0	0.0	31,020
45	Ukraine	1.3	2.83	10.73	Unlimited	100	1.9	20.0	2,660
46	Mexico	1.4	10.39	19.66	Unlimited	Unlimited	1.5	16.0	9,180
47	Azerbaijan	1.4	4.59	18.71	140	200	2.0	18.0	4,050
48	Egypt	1.4	3.22	16.46	330	70	1.5	43.0	2,800

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
49	Armenia	1.5	5.18	12.84	2,500	250	3.9	20.0	4,230
50	Chile	1.5	18.54	25.78	350	70	5.0		14,670
51	Greece	1.5	24.84	31.82	300	100	1.5	24.0	19,540
52	Malaysia	1.5	13.38	32.50	Unlimited	70	6.0	0.0	10,460
53	Bahamas*	1.6	39.96	35.27	3,000	3,000	2.0	12.0	30,210
54	Japan	1.6	55.85	56.80	140	70	2.0	8.0	41,340
55	Malta	1.6	35.43	47.48	140	70	1.5	18.0	26,220
56	Cyprus	1.6	36.02	44.06	Unlimited	Unlimited	1.5	19.0	26,300
57	Oman	1.7	21.07	41.48	140	100	1.5	0.0	15,110
58	Peru	1.7	9.13	17.37	Unlimited	Unlimited	2.9		6,530
59	Aruba*	1.7	33.52	40.02	1,000	100	4.0		23,630
60	Uruguay	1.8	22.95	27.54	433	Unlimited	1.5		15,650
61	Palau	1.8	25.00	26.86	190	2,000	2.0	0.0	16,910
62	Costa Rica	1.8	17.09	26.60	140	70	2.0	13.0	11,510
63	Brazil	1.8	13.68	22.23	Unlimited	Unlimited	3.0	40.2	9,140
64	Belarus	1.8	8.55	33.80	250	70	1.5	25.0	5,670
65	Slovakia	1.9	28.34	44.46	Unlimited	Unlimited	1.5	20.0	18,330
66	Tunisia	1.9	5.44	16.37	140	70	1.5	25.0	3,500
67	Panama	2.0	24.00	41.84	140	70	Unlimited		14,370
68	Croatia	2.1	23.73	38.28	Unlimited	Unlimited	5.0	25.0	13,830
69	Viet Nam	2.2	4.34	10.56	200	70	3.0	10.0	2,400
70	Czech Republic	2.2	36.77	57.52	Unlimited	Unlimited	4.0	21.0	20,250
71	Bangladesh	2.2	3.19	7.83	150	200	1.5	21.0	1,750
72	Namibia	2.2	9.67	19.20	400	2,800	4.0	15.0	5,250
73	Canada	2.2	83.42	80.67	Unlimited	Unlimited	2.0	13.0	44,860
74	Georgia	2.3	7.89		Unlimited	Unlimited	3.9	18.0	4,130
75	Philippines	2.4	7.52	19.39	400	Unlimited	4.0	12.0	3,830
76	Saint Kitts and Nevis	2.4	37.04	49.15	1,000	1,000	10.0		18,640
77	Morocco	2.5	6.39	14.54	160	100	2.0	20.0	3,090
78	Algeria	2.5	8.58	24.74	Unlimited	Unlimited	13.0	19.0	4,060
79	Puerto Rico	2.5	44.60		Unlimited	Unlimited	8.0	11.5	21,100
80	Uzbekistan	2.6	4.34		2,000	200	1.5	20.0	2,020
81	Bhutan	2.6	6.65	20.01	140	70	1.9	5.0	3,080
82	Myanmar	2.6	2.85	11.20	140	70	1.5	5.0	1,310
83	Colombia	2.6	13.53	28.34	500	2,000	4.4	23.0	6,190
84	Moldova	2.6	6.55	15.30	180	300	2.0	20.0	2,990
85	Bulgaria	2.6	19.53	43.13	200	80	1.5	20.0	8,860
86	Iran (Islamic Republic of)*	2.7	12.24	39.06	1,000	1,000	2.0	9.0	5,470
87	Albania	2.7	11.11	23.20	2,500	2,200	2.0	20.0	4,860
88	Antigua and Barbuda	2.8	37.04	45.57	700	700	7.0		15,810
89	Montenegro	2.8	19.95	39.30	5,200	5,000	4.0	21.0	8,400
90	Kyrgyzstan	2.9	2.91	9.56	1,200	2,000	4.1	17.0	1,220
91	Pakistan	2.9	3.78	13.72	2,000	2,000	2.0	0.0	1,580
92	Indonesia	2.9	9.22	25.72	140	100	10.0	10.0	3,840
93	Barbados*	3.0	37.50	29.83	Unlimited	Unlimited	1.5		15,240
94	Trinidad and Tobago	3.1	41.54	49.70	300	70	3.0	12.5	16,240
95	Ecuador	3.2	16.10	27.71	200	70	2.0	12.0	6,120
96	Maldives	3.2	24.86	32.67	140	70	2.5	6.0	9,310
97	Suriname	3.2	13.40		300	300	1.5	8.0	4,990

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
98	Hungary	3.3	40.30	72.25	140	70	3.0	5.0	14,590
99	Serbia	3.4	17.95	36.89	140	100	3.0	20.0	6,390
100	North Macedonia	3.4	15.33	35.03	Unlimited	Unlimited	10.0	18.0	5,450
101	Jordan	3.7	12.93	26.82	5,000	200	4.0	46.0	4,210
102	Dominica	3.7	22.22	31.01	Unlimited	Unlimited	1.5		7,210
103	Mongolia	3.7	11.17	30.80	140	70	3.0	10.0	3,580
104	Libya	3.9	20.44		140	70	2.0	0.0	6,330
105	Seychelles	3.9	50.78	80.25	140	70	1.5	15.0	15,600
106	Tonga	4.0	14.31	18.67	4,000	4,000	1.5	15.0	4,300
107	Nigeria	4.1	6.73	13.35	140	70	3.0	5.0	1,960
108	Saint Lucia	4.2	32.78	42.89	Unlimited	Unlimited	8.0		9,460
109	Grenada	4.3	35.19	47.85	300	Unlimited	8.0		9,780
110	Gabon	4.4	25.19	36.81	240	800	2.3	18.0	6,800
111	Thailand	4.6	25.49	66.08	300	70	1.5	7.0	6,610
112	Dominican Rep.	4.7	28.75	62.44	200	1,000	3.0	30.0	7,370
113	Jamaica	4.7	19.63	30.65	Unlimited	70	3.5	25.0	4,990
114	Paraguay	4.8	22.77	48.79	Unlimited	70	3.0	10.0	5,680
115	Curacao*	5.2	82.31	104.76	Unlimited	Unlimited	5.0	6.0	19,070
116	Saint Vincent and the Grenadines	5.3	35.04	48.67	500	70	3.0		7,940
117	Bosnia and Herzegovina	5.4	25.47	53.61	140	70	3.0	17.0	5,690
118	Turkmenistan	5.8	32.86		2,000	500	1.5	15.0	6,740
119	Nepal (Republic of)	6.2	4.96	14.52	490	300	1.5	26.0	960
120	Ghana	6.2	11.01	30.47	400	70	2.0	23.5	2,130
121	Nauru	6.3	58.73		140	70	1.8	15.0	11,240
122	Belize	6.4	25.00		180	Unlimited	5.4	12.5	4,720
123	Guyana	6.7	26.48	42.50	150	150	4.5	14.0	4,760
124	El Salvador	6.7	21.25	42.27	Unlimited	70	6.0		3,820
125	Tajikistan	6.8	5.75		140	100	1.6	23.0	1,010
126	South Africa	7.3	34.79	69.78	140	70	1.5	15.0	5,720
127	Kenya	7.5	10.12	20.40	140	70	2.0	31.0	1,620
128	Côte d'Ivoire	7.5	10.08	24.64	560	560	21.9	18.0	1,610
129	Lebanon	7.6	48.40	75.90	140	110	1.8	10.0	7,690
130	Eswatini	8.5	27.19	64.77	300	100	2.0	14.0	3,850
131	Samoa	8.6	30.07	41.32	140	70	12.0	15.0	4,190
132	Fiji	8.8	42.91	67.82	140	70	3.0	9.0	5,860
133	Timor-Leste	9.0	13.60	21.16	700	700	1.8	5.0	1,820
134	Iraq	9.1	38.30	76.29	140	70	2.0	0.0	5,030
135	Argentina	9.7	99.98		140	70	4.0		12,370
136	Palestine	9.8	30.25	43.48	140	70	2.5	16.0	3,710
137	Lao P.D.R.	10.7	21.90	58.24	140	70	1.5	10.0	2,460
138	Bolivia (Plurinational State of)	12.0	33.57	67.24	140	70	2.0	13.0	3,370
139	Mauritania	12.0	11.94	33.76	140	70	4.0	18.0	1,190
140	Cambodia	12.4	14.25	34.87	140	70	1.5	10.0	1,380
141	Guinea	12.7	8.79	17.36	140	100	2.0	11.0	830
142	Angola	12.8	35.89	46.14	140	70	2.0	10.0	3,370
143	Tanzania	13.8	11.71	31.43	140	1,000	2.1	32.5	1,020
144	Micronesia	14.1	42.00	42.98	140	900	2.0	0.0	3,580

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
145	Botswana	14.2	91.67	175.06	140	70	1.5	12.0	7,750
146	Zambia	14.7	17.54	44.73	140	70	1.5	33.5	1,430
147	Honduras	15.0	29.06	57.02	1,200	70	4.0	15.0	2,330
148	Lesotho	15.6	17.97	48.63	248	70	2.0	9.0	1,380
149	Nicaragua	15.7	26.62	71.64	160	400	4.0	15.0	2,030
150	Ethiopia	16.3	10.72	31.51	166	70	2.0	15.0	790
151	Kiribati	18.1	47.37		140	70	2.7	0.0	3,140
152	Sao Tome and Principe	19.2	30.18	42.36	140	70	3.0	5.0	1,890
153	Guatemala	19.3	70.89	118.39	140	70	2.5	12.0	4,410
154	Cabo Verde	19.7	56.52	118.46	140	70	2.0	15.0	3,450
155	Rwanda	19.9	12.94	35.53	140	70	2.0	28.0	780
156	Vanuatu	20.6	51.01	47.88	140	70	2.5	15.0	2,970
157	Gambia	21.8	12.71	41.01	140	70	1.5	21.3	700
158	Afghanistan	21.8	9.99	34.00	140	70	2.0	0.0	550
159	Comoros	21.8	24.00		360	240	2.0	0.0	1,320
160	Benin	22.0	15.93	40.99	140	70	1.6	18.0	870
161	Cameroon	22.5	26.99	64.61	899	500	1.5	0.0	1,440
162	Djibouti	24.2	43.89	77.46	180	100	3.8	10.0	2,180
163	Haiti	24.5	16.33	34.92	140	70	1.6	10.0	800
164	Senegal	25.3	29.73	72.17	1,400	Unlimited	4.1	23.0	1,410
165	Papua New Guinea	29.1	61.45	74.63	140	70	2.3	10.0	2,530
166	Solomon Islands	29.7	49.49	51.02	140	70	3.2	10.0	2,000
167	Madagascar	31.9	11.70	40.96	140	70	2.0	20.0	440
168	Yemen	32.0	25.59		300	100	3.2	5.0	960
169	Togo	35.2	19.07	46.89	240	70	1.5	18.0	650
170	Mali	45.1	31.17	79.45	140	70	2.0	18.0	830
171	Sierra Leone	46.1	19.20	50.01	140	70	2.0	15.0	500
172	Uganda	51.9	26.83	80.30	1,800	2,000	2.0	18.0	620
173	Niger	56.8	17.99	44.81	2,500	Unlimited	4.0	22.6	380
174	Chad	58.0	32.39		1,000	1,000	1.6	18.0	670
175	Liberia	60.0	30.00	28.68	1,500	300	20.0	14.0	600
176	Guinea-Bissau	61.0	38.15	87.56	140	70	5.0	17.0	750
177	Central African Rep.	63.0	25.19		1,120	2,800	2.1	19.0	480
178	Burkina Faso	63.8	35.09	91.39	1,560	1,560	1.5	18.0	660
179	Malawi	73.4	22.03	64.94	140	70	2.0	26.5	360
180	Mozambique	81.4	29.84		6,300	1,800	1.8	17.0	440
181	Burundi	84.2	19.64	47.94	140	75	1.8	2.0	280
182	Dem. Rep. of the Congo	112.2	45.80		250	70	1.8	26.0	490
	Andorra**		29.63		200	100	1.5		
	Anguilla**		44.44		1,000	1,000	3.0	7.0	
	Cayman Islands**		64.08		300	70	3.0		
	Cuba**		55.55		140	70	2.5		
	Gibraltar**		40.03		300	300	2.0	0.0	
	Liechtenstein**		45.10		140	Unlimited	5.0	7.7	
	Monaco**		59.04		Unlimited	Unlimited	50.0	20.0	
	Somalia**		12.70		140	70	2.0	10.0	
	Syrian Arab Republic**		33.34		140	100	1.8	5.0	

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
	Taiwan, Province of China**		30.70		140	70	1.5	5.0	

Note: Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference. * Data correspond to the GNI p.c. in 2017. ** Country not ranked because data on GNI p.c. are not available.

Source: ITU. GNI p.c. and PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

For the low-consumption mobile-data-and-voice baskets (i.e. those data-and-voice baskets offering at least 70 minutes of voice communication, 20 SMSs and 500 MB of data), there are 49 countries in which such a plan can be bought for less than 1 per cent of GNI p.c. (see Table 3), including 11 middle-income countries. Compared with the high-consumption data-and-voice basket, there are 16 more countries in which the cost is below 1 per cent of GNI p.c., owing to the lower allowances in the plan in question. Conversely, there are also fewer countries in which the low-consumption data-and-voice baskets are above 10 per cent of GNI p.c. – 30 in total – compared with 46 for the high-consumption data-and-voice basket.

Table 3: Low-consumption mobile-data-and-voice basket, 2019

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance	Monthly data allowance (in MB)	Tax rate included (%)	GNI p.c., USD, 2018
1	Luxembourg	0.1	5.89	5.13	70	30	1,024		77,820
2	Macao, China	0.1	6.57	8.18	480	20	880	0.0	78,320
3	Hong Kong, China	0.2	7.69	9.41	70	20	1,024	0.0	50,310
4	Austria	0.3	10.72	10.81	700	700	1,024	20.0	49,250
5	Singapore	0.3	14.83	17.64	150	500	5,120	7.0	58,770
6	New Zealand	0.3	10.38	9.34	200	50	500	15.0	40,820
7	Qatar	0.3	16.48	21.62	70	20	2,867	0.0	61,190
8	Israel	0.3	11.11	9.42	2,500	2,500	30,720	17.0	40,850
9	Estonia	0.3	5.90	8.28	Unlimited	Unlimited	1,024	20.0	20,990
10	Iceland*	0.4	18.37	12.85	Unlimited	Unlimited	500	24.0	60,740
11	Switzerland	0.4	25.57	18.18	Unlimited	Unlimited	500	7.7	83,580
12	United Arab Emirates	0.4	13.14	17.12	70	20	500	5.0	41,010
13	Finland	0.4	16.66	14.90	70	20	Unlimited	24.0	47,820
14	Sri Lanka	0.5	1.53	4.68	70	50	500	37.7	4,060
15	Norway	0.5	30.62	23.09	70	20	1,024	25.0	80,790
16	Belgium	0.5	18.88	18.66	120	70	1,536	21.0	45,430
17	Sweden	0.5	22.89	21.28	Unlimited	Unlimited	2,048	25.0	55,070
18	Denmark	0.5	26.76	21.15	70	20	10,240	25.0	60,140
19	Germany	0.6	22.19	23.35	Unlimited	20	1,024	19.0	47,450
20	Netherlands	0.6	24.80	24.22	Unlimited	Unlimited	2,048	21.0	51,280
21	France	0.6	20.06	20.07	120	20	5,120	20.0	41,070
22	Portugal	0.6	10.63	13.53	70	20	500	23.0	21,680
23	Tunisia	0.6	1.74	5.23	70	20	500	19.0	3,500
24	Brunei Darussalam	0.6	15.94	28.40	70	20	1,024	0.0	31,020
25	United Kingdom	0.6	21.35	20.28	Unlimited	Unlimited	1,024	20.0	41,330
26	United States	0.6	32.66	32.66	Unlimited	Unlimited	500	8.9	62,850
27	Kuwait	0.6	17.88	27.45	100	20	5,120	0.0	33,690
28	Spain	0.7	16.40	19.42	Unlimited	20	3,072	21.0	29,450
29	Latvia	0.7	10.03	15.08	Unlimited	Unlimited	500	21.0	16,880
30	Kazakhstan	0.7	4.73	13.61	Unlimited	20	4,096	12.0	7,830
31	Greece	0.7	11.81	15.13	300	50	600	24.0	19,540
32	Belarus	0.7	3.50	13.85	250	20	50	25.0	5,670
33	Russian Federation	0.7	6.38	15.28	200	200	4,096	20.0	10,230
34	Italy	0.8	21.26	23.06	Unlimited	500	20,480	25.0	33,560
35	Korea (Rep. of)	0.8	19.86	22.73	100	20	700	10.0	30,600
36	Oman	0.8	9.88	19.46	70	50	500	0.0	15,110
37	Mauritius	0.8	8.25	14.07	70	800	1,200	15.0	12,050
38	Australia	0.8	36.61	31.86	Unlimited	Unlimited	15,360	10.0	53,190
39	Ireland	0.8	41.33	35.58	Unlimited	Unlimited	20,480	23.0	59,360
40	India	0.9	1.43	4.75	Unlimited	300	2,048	18.0	2,020
41	Slovenia	0.9	17.70	23.14	Unlimited	Unlimited	2,048	22.0	24,670
42	Egypt	0.9	2.01	10.29	280	20	500	43.0	2,800
43	Armenia	0.9	3.11	7.70	1,500	150	1,000	20.0	4,230
44	Lithuania	0.9	12.87	21.83	Unlimited	Unlimited	2,048	21.0	17,360
45	China	0.9	7.19	12.48	70	20	1,024	0.0	9,470
46	Poland	0.9	10.80	20.91	Unlimited	20	3,072	23.0	14,150
47	Cyprus	0.9	20.08	24.56	300	300	500	19.0	26,300
48	Turkey	0.9	8.08	23.20	750	100	2,560	25.5	10,380

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance	Monthly data allowance (in MB)	Tax rate included (%)	GNI p.c., USD, 2018
49	Slovakia	1.0	14.70	23.06	100	20	500	20.0	18,330
50	Bahrain	1.0	18.46	30.47	500	20	6,000	5.0	21,890
51	Mexico	1.0	7.79	14.75	Unlimited	Unlimited	1,000	16.0	9,180
52	Saudi Arabia	1.0	18.67	38.30	500	20	2,000	5.0	21,540
53	Hungary	1.0	12.73	22.82	70	20	1,024	5.0	14,590
54	Uruguay	1.1	13.83	16.60	93	20	512		15,650
55	Chile	1.1	13.08	18.19	350	20	5,120		14,670
56	Malta	1.1	23.62	31.65	70	20	500	18.0	26,220
57	Azerbaijan	1.1	3.76	15.35	70	200	2,048	18.0	4,050
58	Romania	1.1	10.63	22.53	Unlimited	Unlimited	30,720	19.0	11,290
59	Costa Rica	1.2	11.93	18.58	70	20	2,000	13.0	11,510
60	Myanmar	1.2	1.36	5.36	70	20	900	5.0	1,310
61	Malaysia	1.3	10.90	26.48	Unlimited	20	6,144	0.0	10,460
62	Bhutan	1.3	3.22	9.68	70	20	959	5.0	3,080
63	Ukraine	1.3	2.83	10.73	Unlimited	100	2,000	20.0	2,660
64	Iran (Islamic Republic of)*	1.3	6.12	19.53	400	400	1,000	9.0	5,470
65	Bangladesh	1.4	2.03	4.99	100	50	500	21.0	1,750
66	Japan	1.4	48.51	49.34	Unlimited	20	1,024	8.0	41,340
67	Canada	1.4	52.90	51.15	Unlimited	20	500	13.0	44,860
68	Czech Republic	1.4	24.34	38.08	Unlimited	20	500	21.0	20,250
69	Morocco	1.4	3.73	8.48	100	100	1,040	20.0	3,090
70	Indonesia	1.5	4.69	13.09	70	60	2,048	10.0	3,840
71	Barbados*	1.6	20.00	15.91	100	100	1,024		15,240
72	Maldives	1.6	12.23	16.08	70	20	70	6.0	9,310
73	Bahamas*	1.6	39.96	35.27	12,000	12,000	8,192	12.0	30,210
74	Panama	1.7	20.00	34.87	100	100	Unlimited		14,370
75	Peru	1.7	9.13	17.37	Unlimited	Unlimited	3,000		6,530
76	Aruba*	1.7	33.52	40.02	1,000	100	4,096		23,630
77	Palau	1.8	25.00	26.86	190	2,000	2,048	0.0	16,910
78	Moldova	1.8	4.46	10.43	120	150	500	20.0	2,990
79	Brazil	1.8	13.68	22.23	Unlimited	Unlimited	3,072	40.2	9,140
80	Uzbekistan	1.8	3.05		1,150	20	800	20.0	2,020
81	Montenegro	1.8	12.87	25.34	5,100	100	2,048	21.0	8,400
82	Puerto Rico	1.9	33.45		Unlimited	Unlimited	1,024	11.5	21,100
83	Seychelles	1.9	24.97	39.46	70	20	1,024	15.0	15,600
84	Bulgaria	2.0	14.47	31.95	200	20	600	20.0	8,860
85	Viet Nam	2.0	3.98	9.69	200	30	3,072	10.0	2,400
86	Colombia	2.0	10.46	21.90	Unlimited	Unlimited	750	23.0	6,190
87	Thailand	2.0	11.24	29.14	100	20	500	7.0	6,610
88	Albania	2.1	8.33	17.40	200	200	500	20.0	4,860
89	Serbia	2.1	10.96	22.53	Unlimited	100	500	20.0	6,390
90	Croatia	2.1	23.73	38.28	70	20	5,120	25.0	13,830
91	Namibia	2.2	9.67	19.20	1,400	2,800	800	15.0	5,250
92	Georgia	2.3	7.89		Unlimited	Unlimited	4,000	18.0	4,130
93	Philippines	2.4	7.52	19.39	400	Unlimited	4,096	12.0	3,830
94	North Macedonia	2.4	10.88		Unlimited	20	1,536	18.0	5,450
95	Pakistan	2.4	3.20	11.63	10,000	10,000	1,000	0.0	1,580
96	Trinidad and Tobago	2.5	33.23	39.76	Unlimited	Unlimited	1,000	12.5	16,240
97	Ecuador	2.5	12.60	21.69	200	20	2,000	12.0	6,120

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance	Monthly data allowance (in MB)	Tax rate included (%)	GNI p.c., USD, 2018
98	Algeria	2.5	8.58	24.74	70	Unlimited	13,000	19.0	4,060
99	Bosnia and Herzegovina	2.6	12.10	25.47	70	20	500	17.0	5,690
100	Lebanon	2.7	17.60	27.60	70	440	60	10.0	7,690
101	Antigua and Barbuda	2.8	37.04	45.57	700	700	7,168		15,810
102	Kyrgyzstan	2.9	2.91	9.56	1,200	2,000	4,200	17.0	1,220
103	Paraguay	2.9	13.61	29.16	Unlimited	20	1,024	10.0	5,680
104	Libya	2.9	15.53		70	20	2,000	0.0	6,330
105	Mongolia	3.0	8.81	24.28	70	20	3,072	10.0	3,580
106	Suriname	3.0	12.52		70	60	550	8.0	4,990
107	Turkmenistan	3.1	17.14		2,000	500	500	15.0	6,740
108	South Africa	3.1	14.95	30.00	70	20	500	15.0	5,720
109	Ghana	3.2	5.62	15.55	100	40	500	23.5	2,130
110	Jordan	3.7	12.93	26.82	5,000	200	4,096	46.0	4,210
111	Dominica	3.7	22.22	31.01	Unlimited	Unlimited	1,536		7,210
112	Gabon	3.8	21.59	31.55	240	1,350	900	18.0	6,800
113	Tonga	4.0	14.31	18.67	4,000	4,000	2,000	15.0	4,300
114	Nigeria	4.0	6.53	12.96	253	253	650	5.0	1,960
115	Nauru	4.2	39.49		70	20	1,843	15.0	11,240
116	Dominican Rep.	4.3	26.13	56.74	100	1,000	3,072	30.0	7,370
117	Iraq	4.3	18.09	36.04	70	20	500	0.0	5,030
118	Grenada	4.3	35.19	47.85	300	Unlimited	8,000		9,780
119	Jamaica	4.3	18.08	28.23	Unlimited	20	3,500	25.0	4,990
120	Nepal (Republic of)	4.6	3.65	10.69	70	20	1,500	26.0	960
121	Sao Tome and Principe	4.6	7.23	10.15	1,800	1,800	900	5.0	1,890
122	Eswatini	4.6	14.80	35.26	70	30	700	14.0	3,850
123	Guyana	4.6	18.34	29.44	80	80	3,500		4,760
124	Lao P.D.R.	4.9	10.11	26.88	70	20	540	10.0	2,460
125	El Salvador	5.0	16.07	31.97	Unlimited	20	6,144		3,820
126	Curacao*	5.2	82.31	104.76	Unlimited	Unlimited	5,000	6.0	19,070
127	Angola	5.4	15.23	19.58	70	20	500	10.0	3,370
128	Kenya	5.5	7.38	14.88	70	20	2,048	31.0	1,620
129	Fiji	5.6	27.14	42.91	70	20	3,072	9.0	5,860
130	Argentina	5.6	57.31		70	20	1,400		12,370
131	Bolivia (Plurinational State of)	5.6	15.63	31.30	70	20	500	16.0	3,370
132	Botswana	5.6	35.98	68.71	70	20	500	12.0	7,750
133	Palestine	5.6	17.43	25.07	70	20	2,500	16.0	3,710
134	Cambodia	5.9	6.75	16.52	70	20	700	10.0	1,380
135	Mauritania	6.2	6.17	17.43	120	20	2,048	18.0	1,190
136	Samoa	6.2	21.72	29.84	70	20	12,288	15.0	4,190
137	Timor-Leste	6.3	9.60	14.93	700	700	856	5.0	1,820
138	Sierra Leone	6.4	2.65	6.90	70	20	585	15.0	500
139	Belize	6.4	25.00		90	Unlimited	5,400	12.5	4,720
140	Tajikistan	6.5	5.46		100	100	1,600	23.0	1,010
141	Ethiopia	6.6	4.34	12.76	166	20	500	15.0	790
142	Guinea	7.2	4.97	9.82	70	60	1,200	18.0	830
143	Cameroon	7.5	9.00	21.54	278	500	500	0.0	1,440
144	Côte d'Ivoire	7.5	10.08	24.64	560	560	2,240	18.0	1,610
145	Tanzania	7.8	6.63	17.79	135	1,000	600	32.5	1,020
146	Nicaragua	9.0	15.31	41.20	120	200	2,000	15.0	2,030

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance	Monthly data allowance (in MB)	Tax rate included (%)	GNI p.c., USD, 2018
147	Zambia	9.1	10.84	27.64	70	20	1,536	33.5	1,430
148	Rwanda	9.6	6.26	17.19	70	20	1,024	28.0	780
149	Cabo Verde	9.6	27.73	58.11	70	20	1,000	15.0	3,450
150	Benin	10.4	7.54	19.38	84	20	500	18.0	870
151	Honduras	10.4	20.26	39.74	1,200	20	3,200	15.0	2,330
152	Lesotho	10.5	12.04	32.58	248	20	750	9.0	1,380
153	Micronesia	10.6	31.50	32.23	70	900	2,048	0.0	3,580
154	Guatemala	10.9	40.03	66.86	70	20	2,500	12.0	4,410
155	Madagascar	11.4	4.20	14.70	1,680	560	560	20.0	440
156	Kiribati	11.5	30.04		70	20	2,800	0.0	3,140
157	Vanuatu	11.6	28.68	26.92	70	20	2,560	15.0	2,970
158	Djibouti	12.4	22.51	39.72	240	100	500	10.0	2,180
159	Gambia	12.5	7.29	23.52	70	20	750	21.3	700
160	Afghanistan	13.5	6.17	21.01	70	20	1,024	0.0	550
161	Haiti	13.8	9.20	19.68	70	20	1,600	10.0	800
162	Yemen	14.5	11.63		300	100	500	5.0	960
163	Comoros	15.3	16.80		420	350	700	0.0	1,320
164	Papua New Guinea	19.2	40.56	49.26	70	20	2,400	10.0	2,530
165	Mali	20.4	14.14	36.06	70	20	500	18.0	830
166	Burkina Faso	20.9	11.52	29.99	480	480	500	18.0	660
167	Solomon Islands	22.6	37.64	38.80	70	20	3,276	10.0	2,000
168	Mozambique	22.6	8.29		1,750	500	500	17.0	440
169	Togo	24.9	13.50	33.18	285	237	1,050	18.0	650
170	Senegal	25.3	29.73	72.17	1,400	Unlimited	4,200	23.0	1,410
171	Uganda	26.0	13.42	40.15	900	1,000	1,024	18.0	620
172	Guinea-Bissau	26.3	16.47	37.79	70	20	600	17.0	750
173	Malawi	35.2	10.57	31.16	70	20	600	26.5	360
174	Chad	38.7	21.59		1,000	1,000	1,024	18.0	670
175	Burundi	38.8	9.06	22.12	70	60	500	2.0	280
176	Central African Rep.	48.1	19.25		70	20	1,800	19.0	480
177	Dem. Rep. of the Congo	49.0	20.00		120	25	600	26.0	490
178	Niger	56.8	17.99	44.81	2,500	Unlimited	4,096	22.6	380
179	Liberia	60.0	30.00	28.68	9,000	600	18,432	14.0	600
	Andorra**		18.52		200	100	500		
	Anguilla**		37.03		1,000	1,000	1,024	7.0	
	Cayman Islands**		56.88		300	20	600		
	Cuba**		23.70		70	20	600		
	Gibraltar**		30.69		70	100	500	0.0	
	Liechtenstein**		29.76		70	Unlimited	1,024	7.7	
	Monaco**		59.04		Unlimited	Unlimited	51,200	20.0	
	Saint Kitts and Nevis**		37.04		1,000	1,000	10,000		18,640
	Saint Lucia**		32.78		Unlimited	Unlimited	8,000		9,460
	Saint Vincent and the Grenadines**		31.70		500	20	3,072		7,940
	Somalia**		8.70		70	20	2,000	10.0	
	Syrian Arab Republic**		13.04		70	25	600	5.0	
	Taiwan, Province of China**		20.52		70	20	1,024	5.0	

Note: Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference. * Data correspond to the GNI p.c. in 2017. ** Country not ranked because data on GNI p.c. are not available.

Source: ITU. GNI p.c. and PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

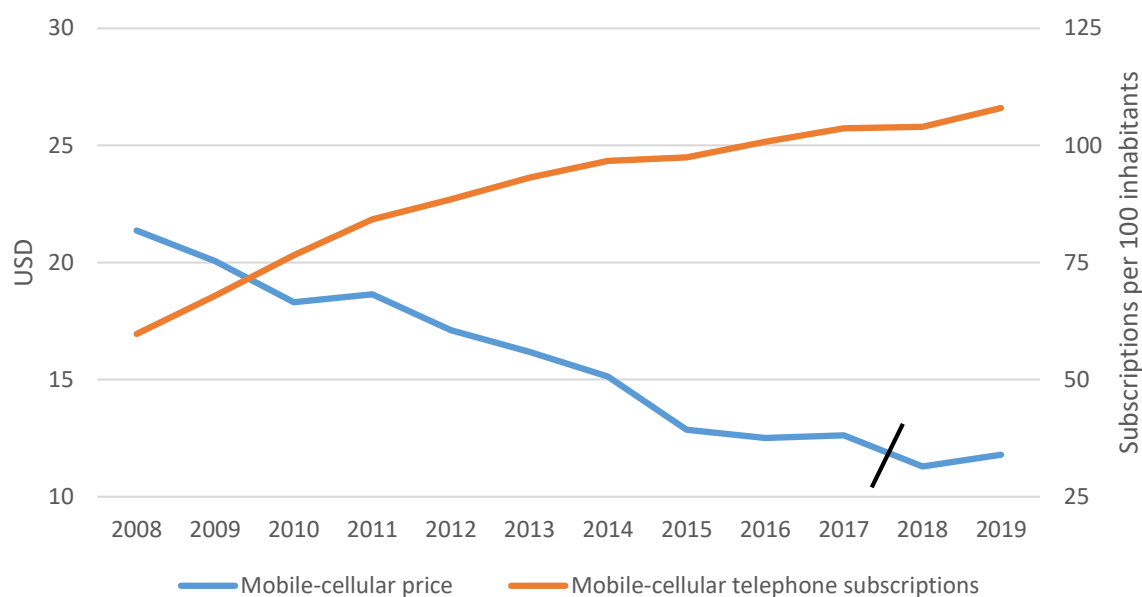
Mobile-voice basket

This section analyses the prices for a basket combining voice and text messages, but without a data allowance. The revised basket for mobile-voice prices corresponds to the non-data part of a low-consumption data-and-voice basket, i.e. 70 voice minutes and 20 SMSs.⁹ The previous mobile-voice basket, applied until 2017, contained 30 calls and 100 SMSs.

Global trends

Between 2008 and 2019, the global average price of a mobile-voice basket decreased from USD 21.4 to USD 11.8, equivalent to a CAGR of -5.3 per cent. Growth rates for the period 2008-2019 should be analysed with caution, as there is a break in series between 2017 and 2018. Since the growth rates for 2009-2017 are very similar to the growth rates for 2008-2019, it is assumed that the impact of the change in basket is minimal, and growth rates are therefore reported nevertheless. Over the same period, mobile-voice penetration increased from 60 to 109 subscriptions per 100 inhabitants, a CAGR of 5.5 per cent.

Chart 4: Global mobile-voice price basket in USD (left axis) and mobile-voice subscriptions per 100 inhabitants (right axis), 2008-2019

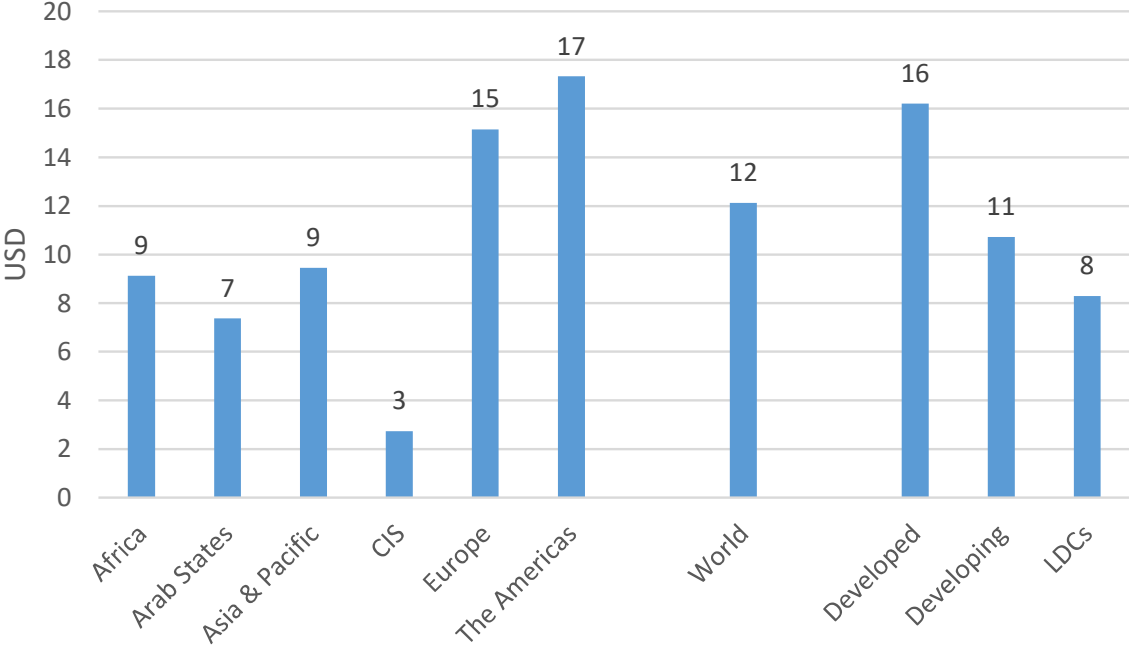


Note: Prices are calculated based on simple averages of data from 138 economies for which data on mobile-voice prices were available for 2008-2019. There is a break in series between 2017 and 2018. Up to 2017, data are for a basket of 30 calls and 100 SMSs.

Source: ITU. USD exchange rates are from the IMF or UN.

Converted to USD, the average price of the mobile-voice basket in LDCs, at USD 8, was USD 3 cheaper than the average price in developing countries and only half the price in developed countries. The CIS region had the lowest prices, at only USD 3, whereas the most expensive baskets were found in the Americas (USD 17) and Europe (USD 15).

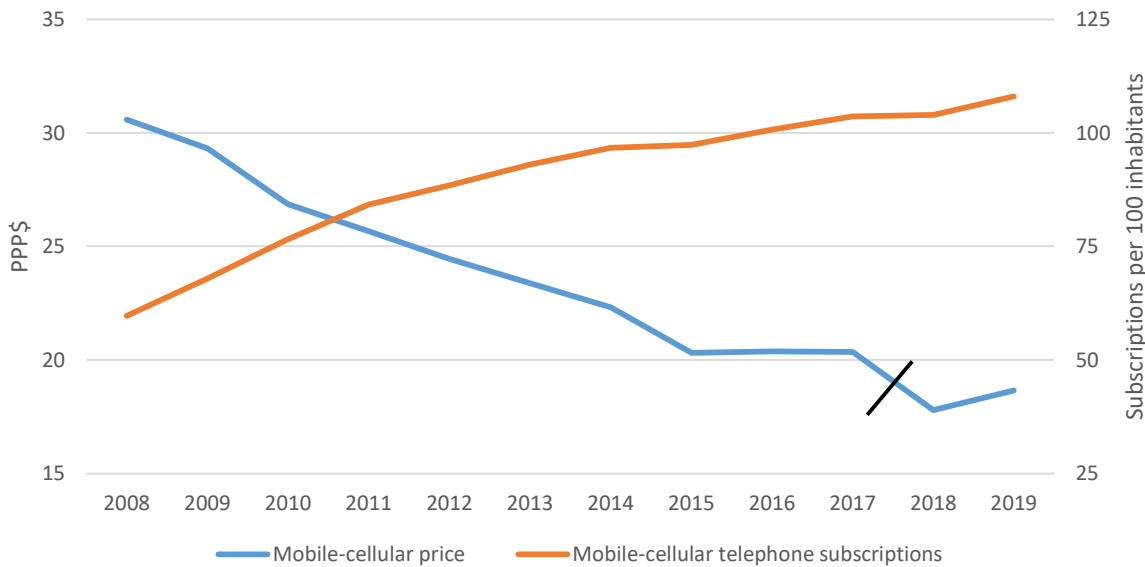
Chart 5: Mobile-voice basket in USD, 2019



Note: Simple averages. Based on 195 economies for which data on mobile-voice prices in USD are available for the year 2019.
Source: ITU. USD exchange rates are from the IMF or UN.

Taking purchasing power into account, the mobile-voice basket fell from PPP\$ 30.6 to PPP\$ 18.7 between 2008 and 2019, a CAGR of -4.4 per cent, compared with a CAGR of 5.5 per cent for the number of subscriptions.

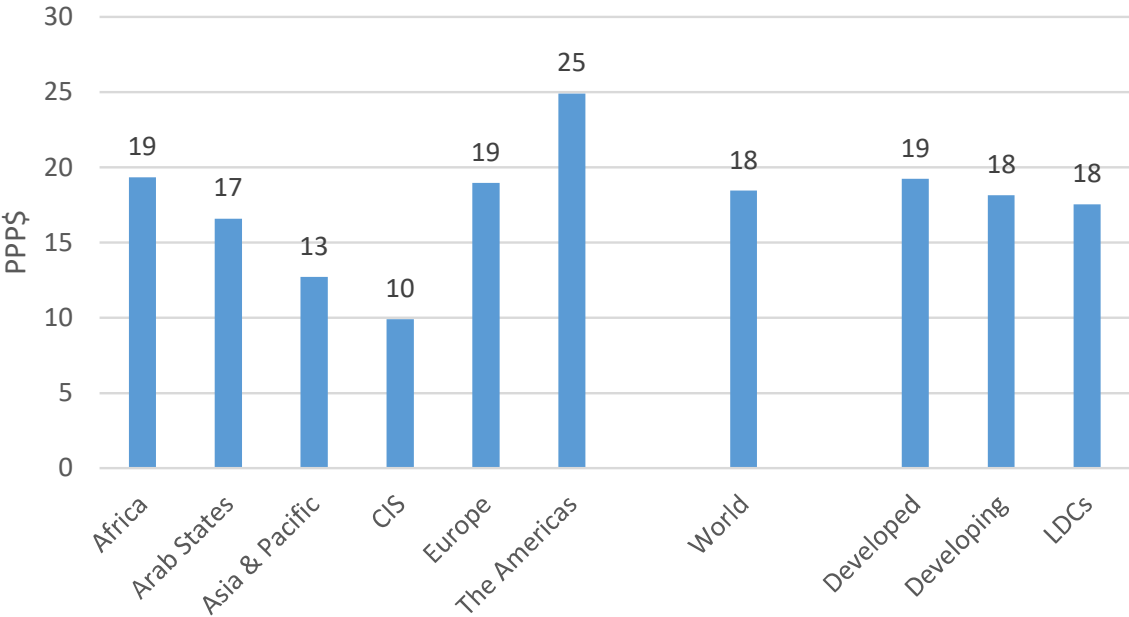
Chart 6: Global mobile-voice price basket in PPP\$ (left axis) and mobile-voice subscriptions per 100 inhabitants (right axis), 2008-2019



Note: Prices are calculated based on simple averages of data from 130 economies for which data on mobile-voice prices were available for 2008-2019. There is a break in series between 2017 and 2018. Up to 2017, data are for a basket of 30 calls and 100 SMSs.
 Source: ITU. PPP\$ conversion factors are from the World Bank.

Correcting for purchasing power has the effect of eliminating the price differences between developed countries (PPP\$ 19), developing countries (PPP\$ 18) and LDCs (PPP\$ 18). The CIS region is still the region with the most affordable prices, with an average of PPP\$ 10, but much closer to the next most affordable region, Asia and the Pacific (PPP\$ 13). The Americas is still the most expensive region (PPP\$ 25), followed by Europe (PPP\$ 19) but also Africa (also at PPP\$ 19). The average for the Arab States is influenced by the very high value for Mauritania (PPP\$ 44.9). Excluding Mauritania, average mobile-voice prices in the Arab states are virtually the same as in Asia and the Pacific in PPP\$ terms.

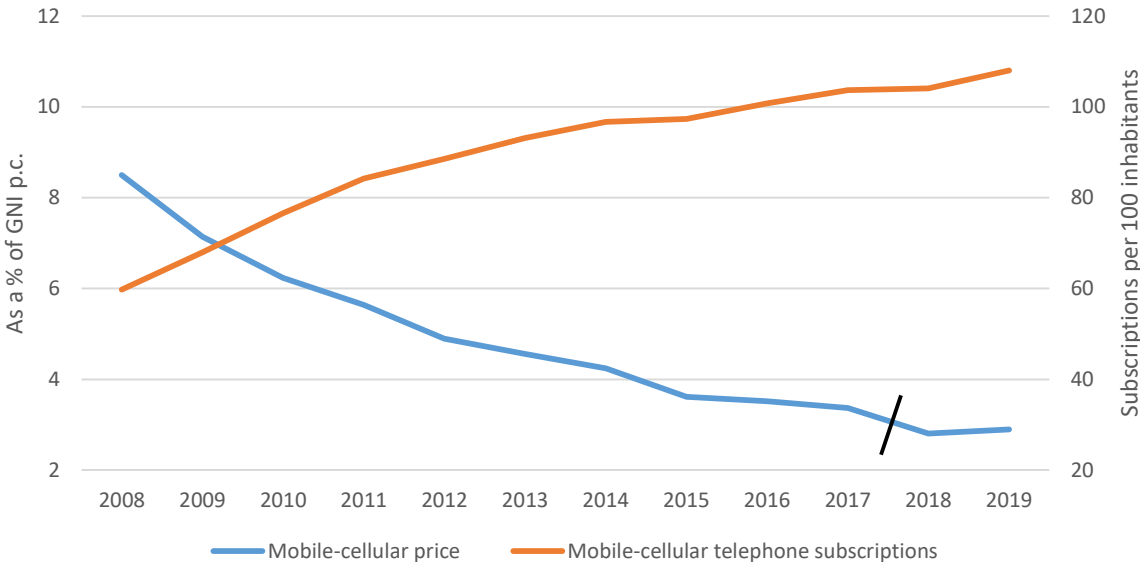
Chart 7: Mobile-voice basket in PPP\$, 2019



Note: Simple averages. Based on 166 economies for which data on mobile-voice prices in PPP\$ are available for the year 2019.
 Source: ITU. PPP\$ conversion factors are from the World Bank.

Taking income levels into account saw a greater reduction in prices, from 8.5 per cent of GNI p.c. to 2.9 per cent, or a CAGR of -9.3 per cent. Although causality is difficult to prove, these price reductions have certainly helped contribute to the rapid rise in the mobile-voice penetration rate, to the effect that globally there are now more mobile-cellular subscriptions than people.

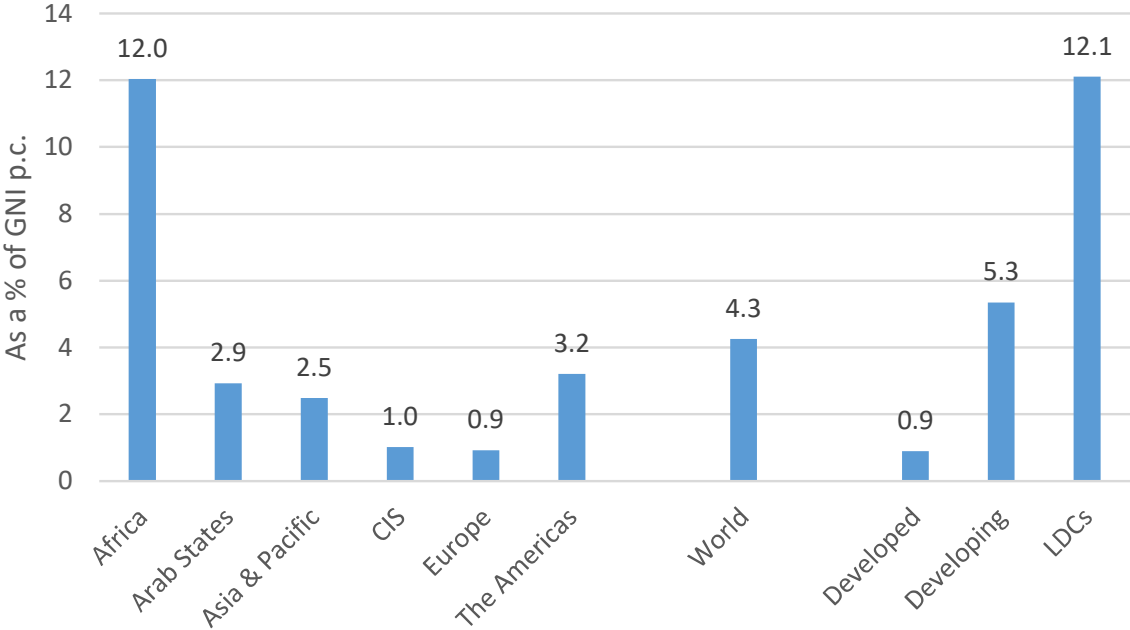
Chart 8: Global mobile-voice price basket as a % of GNI p.c. (left axis) and mobile-voice subscriptions per 100 inhabitants (right axis), 2008-2019



Note: Prices are calculated based on simple averages of data from 137 economies for which data on mobile-voice prices were available for 2008-2019. There is a break in series between 2017 and 2018. Up to 2017, data are for a basket of 30 calls and 100 SMSs.
 Source: ITU. GNI p.c. data are from the World Bank.

Expressing prices as a share of GNI p.c. completely changes the perspective on the differences between the various regions of the world. In developed countries, the cost of a mobile-voice basket represented less than one per cent of GNI p.c. In developing countries, this ratio stood above 5 per cent, whereas in LDCs it was just over 12 per cent. Europe was the region with the most affordable prices, at 0.9 per cent of GNI p.c. on average, closely followed by the CIS region at 1 per cent. The next three regions had affordability levels between 2.5 and 3.2 per cent of GNI p.c., but in Africa it was as much as 12 per cent.

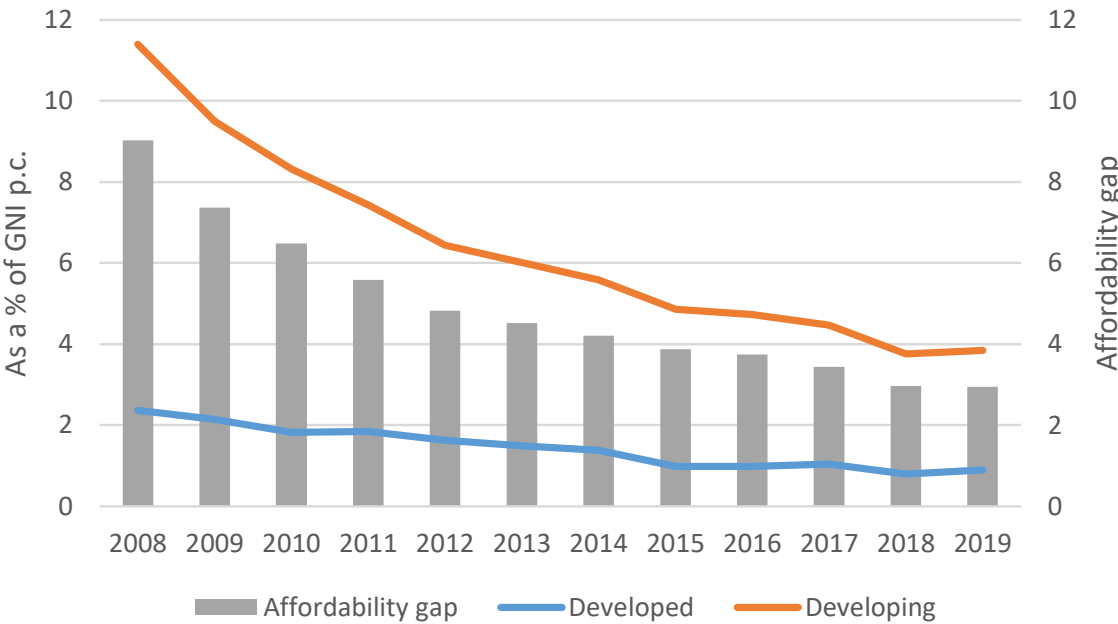
Chart 9: Mobile-voice basket as a % of GNI p.c., 2019



Note: Simple averages. Based on 184 economies for which data on mobile-voice prices as a % of GNI p.c. are available for the year 2019.
 Source: ITU. GNI p.c. data are from the World Bank.

In 2008, the average price of a mobile-voice basket in developing countries stood at 11.4 per cent of GNI p.c., compared with 2.4 per cent in developed countries (see Chart 10). The difference between these two figures, 9 percentage points, can be considered as the affordability gap between developed and developing countries for mobile-voice services. In 2019, the average price of a mobile-voice basket in developing countries had gone down to 3.8 per cent of GNI p.c., whereas the average price in developed countries had shrunk to 0.9 per cent. As such, the affordability gap between developed and developing countries was reduced from 9 to 2.9 percentage points between 2008 and 2019. This is very positive, as it provides an avenue for developing countries to catch-up to penetration levels observed in more developed countries.

Chart 10: Global mobile-voice price basket as a % of GNI p.c. by development level (left axis) and affordability gap for mobile-voice (right axis), 2008-2019

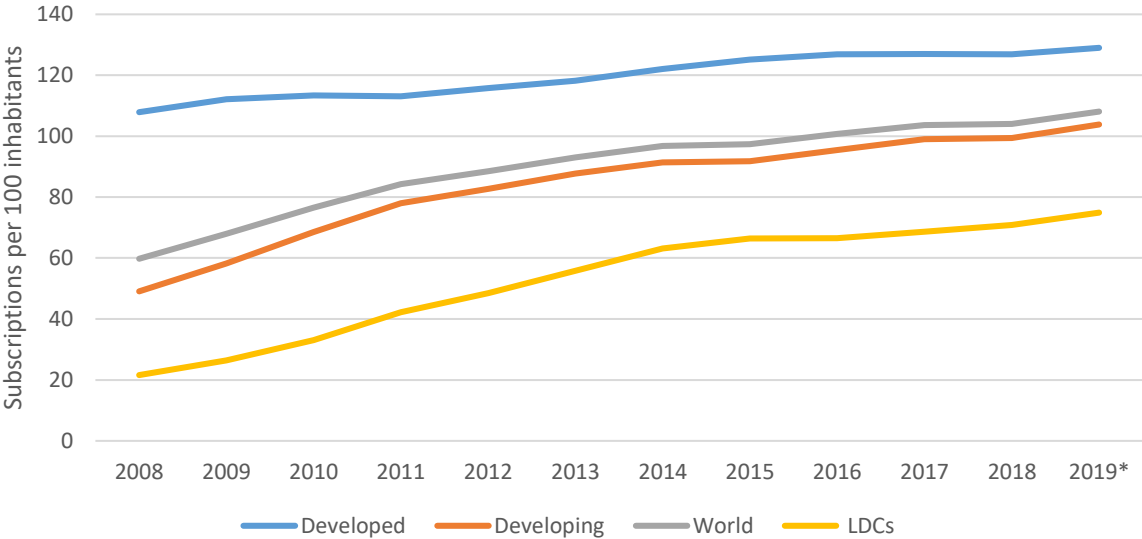


Note: Simple averages. Based on 137 economies for which data on mobile-voice prices as a % of GNI p.c. are available for all years. The affordability gap is defined as the difference between the average price as a % of GNI p.c. for developing countries and the average price for developed countries.
 Source: ITU. GNI p.c. data are from the World Bank.

The global average price reductions have undoubtedly helped contribute to the rapid rise in the mobile-voice penetration rate (see Chart 11), alongside the entry of new operators into the market and better monitoring and evaluation by regulators, many of whom now monitor local market prices and affordability. Globally, the number of mobile-voice subscriptions increased from 60 to 108 per 100 inhabitants between 2008 and 2019.

The most spectacular growth in subscribers has been recorded in the LDCs, where penetration more than tripled from 2008 to 2019, from 22 to 75 subscriptions per 100 inhabitants. Such subscriber growth has contributed substantially to the doubling of penetration in developing countries, from 49 to 104 subscriptions per 100 inhabitants. In mobile markets in developed countries, saturation levels are being reached, with a comparatively small increase recorded from 108 to 129 subscriptions per 100 inhabitants. In these countries, average penetration exceeds total population as a result of multiple SIM-card ownership, on which subscription figures are based.

Chart 11: Mobile-voice subscriptions per 100 inhabitants, 2008-2019*



Note: * Estimate.
Source: ITU.

Benchmarking countries

In most countries, an entry-level mobile-voice basket remains fairly affordable. In 70 countries, a low-usage mobile-voice basket was available for less than 1 per cent of GNI p.c., and in a further 37 countries it stood below 2 per cent. On the other hand, in 20 countries with the least affordable baskets the cost rose above 10 per cent of GNI p.c. – almost exclusively African countries, with the exception of Haiti and Nicaragua.

Table 4: Mobile-voice basket, 2019

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Tax rate included (%)	GNI p.c., USD, 2018
1	Hong Kong, China	0.1	2.46	3.01	0.0	50,310
2	Macao, China	0.1	4.09	5.09	0.0	78,320
3	Luxembourg	0.1	5.89	5.13		77,820
4	Austria	0.1	4.25	4.29	20.0	49,250
5	United Arab Emirates	0.1	3.70	4.82	5.0	41,010
6	Norway	0.2	10.22	7.71	25.0	80,790
7	Qatar	0.2	12.72	16.68	0.0	61,190
8	Bahrain	0.3	4.68	7.73	5.0	21,890
9	Sri Lanka	0.3	0.93	2.83	37.7	4,060
10	France	0.3	9.44	9.44	20.0	41,070
11	Singapore	0.3	14.83	17.64	7.0	58,770
12	Belgium	0.3	11.81	11.67	21.0	45,430
13	Israel	0.3	11.11	9.42	17.0	40,850
14	Russian Federation	0.3	2.81	6.73	20.0	10,230
15	Brunei Darussalam	0.3	8.53	15.19	0.0	31,020
16	Estonia	0.3	5.90	8.28	20.0	20,990
17	Iceland*	0.4	18.37	12.85	24.0	60,740
18	Iran (Islamic Republic of)*	0.4	1.73	5.53	9.0	5,470
19	China	0.4	3.01	5.22	0.0	9,470
20	Sudan	0.4	0.50		35.0	1,560
21	Kazakhstan	0.4	2.62	7.55	12.0	7,830
22	Finland	0.4	16.66	14.90	24.0	47,820
23	Kuwait	0.4	11.76	18.05	0.0	33,690
24	Egypt	0.4	1.01	5.18	23.0	2,800
25	Netherlands	0.4	18.90	18.45	21.0	51,280
26	Mauritius	0.4	4.45	7.58	15.0	12,050
27	New Zealand	0.5	15.91	14.33	15.0	40,820
28	Japan	0.5	16.63	16.91	8.0	41,340
29	Switzerland	0.5	34.01	24.19	7.7	83,580
30	Tunisia	0.5	1.44	4.32	19.0	3,500
31	United Kingdom	0.5	17.34	16.47	20.0	41,330
32	Mexico	0.5	3.98	7.53	16.0	9,180
33	Costa Rica	0.5	5.00	7.78	13.0	11,510
34	Denmark	0.5	26.76	21.15	25.0	60,140
35	Malta	0.5	11.81	15.83	18.0	26,220
36	Canada	0.6	21.80	21.08	13.0	44,860
37	Sweden	0.6	26.80	24.91	25.0	55,070

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Tax rate included (%)	GNI p.c., USD, 2018
38	Portugal	0.6	10.63	13.53	23.0	21,680
39	Cyprus	0.6	12.99	15.89	19.0	26,300
40	Greece	0.6	10.04	12.86	24.0	19,540
41	United States	0.6	32.66	32.66	8.9	62,850
42	Thailand	0.6	3.46	8.96	7.0	6,610
43	Lithuania	0.6	9.33	15.82	21.0	17,360
44	Turkmenistan	0.7	3.65		15.0	6,740
45	Uzbekistan	0.7	1.11		20.0	2,020
46	Saudi Arabia	0.7	11.87	24.35	5.0	21,540
47	Slovakia	0.7	10.13	15.89	20.0	18,330
48	Spain	0.7	16.40	19.42	21.0	29,450
49	Maldives	0.7	5.36	7.05	6.0	9,310
50	Turkey	0.7	6.01	17.25	25.5	10,380
51	Panama	0.7	8.40	14.64	7.0	14,370
52	Malaysia	0.7	6.20	15.05	0.0	10,460
53	Latvia	0.7	10.03	15.08	21.0	16,880
54	Bhutan	0.7	1.86	5.59	5.0	3,080
55	Mongolia	0.8	2.25	6.20	10.0	3,580
56	Armenia	0.8	2.68	6.64	20.0	4,230
57	Oman	0.8	9.62	18.95	0.0	15,110
58	Bahamas*	0.8	20.02	17.67	12.0	30,210
59	Libya	0.8	4.32		0.0	6,330
60	Australia	0.8	36.61	31.86	10.0	53,190
61	Morocco	0.8	2.13	4.85	20.0	3,090
62	Ireland	0.8	41.33	35.58	23.0	59,360
63	Georgia	0.8	2.89		18.0	4,130
64	Italy	0.8	23.50	25.50	22.0	33,560
65	Slovenia	0.9	17.70	23.14	22.0	24,670
66	Belarus	0.9	4.16	16.42	25.0	5,670
67	Poland	0.9	10.80	20.91	23.0	14,150
68	Myanmar	0.9	1.02	4.02	5.0	1,310
69	Seychelles	1.0	12.45	19.68	15.0	15,600
70	Azerbaijan	1.0	3.33	13.58	18.0	4,050
71	Palau	1.0	14.15	15.21		16,910
72	Hungary	1.0	12.55	22.49	27.0	14,590
73	Germany	1.0	41.32	43.48	19.0	47,450
74	Botswana	1.0	6.76	12.92	12.0	7,750
75	Bangladesh	1.1	1.55	3.80	21.0	1,750
76	Jamaica	1.1	4.42	6.91	25.0	4,990
77	India	1.1	1.83	6.05	18.0	2,020
78	Trinidad and Tobago	1.1	14.70	17.58	12.5	16,240
79	Romania	1.1	10.63	22.53	19.0	11,290
80	Pakistan	1.2	1.54	5.59	0.0	1,580
81	Korea (Rep. of)	1.2	29.88	34.19	10.0	30,600
82	Chile	1.3	15.28	21.25		14,670
83	Ukraine	1.3	2.83	10.73	20.0	2,660
84	Aruba*	1.3	26.50	31.64		23,630

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Tax rate included (%)	GNI p.c., USD, 2018
85	Uruguay	1.4	17.73	21.28		15,650
86	Colombia	1.4	7.13	14.92	23.0	6,190
87	Czech Republic	1.4	24.34	38.08	21.0	20,250
88	Serbia	1.5	7.98	16.39	20.0	6,390
89	Jordan	1.5	5.44	11.28	46.0	4,210
90	South Africa	1.6	7.40	14.84	15.0	5,720
91	Saint Kitts and Nevis	1.6	24.56	32.59		18,640
92	Eswatini	1.6	5.21	12.41	14.0	3,850
93	Algeria	1.7	5.64	16.26	19.0	4,060
94	Nauru	1.7	16.33		15.0	11,240
95	Samoa	1.8	6.11	8.40	15.0	4,190
96	Ecuador	1.8	9.10	15.66	12.0	6,120
97	Brazil	1.8	13.68	22.23	40.2	9,140
98	Nepal (Republic of)	1.8	1.45	4.24	26.0	960
99	Albania	1.8	7.41	15.47	20.0	4,860
100	Montenegro	1.9	13.02	25.65	21.0	8,400
101	Ethiopia	1.9	1.23	3.62	15.0	790
102	Indonesia	1.9	6.03	16.80	10.0	3,840
103	Iraq	1.9	7.95	15.83	0.0	5,030
104	Puerto Rico	1.9	33.45		11.5	21,100
105	Tajikistan	1.9	1.64		23.0	1,010
106	Namibia	2.0	8.54	16.95	15.0	5,250
107	Antigua and Barbuda	2.0	26.33	32.40		15,810
108	Dominican Rep.	2.0	12.41	26.96	30.0	7,370
109	Peru	2.0	11.04	21.02		6,530
110	Bulgaria	2.0	15.08	33.30	20.0	8,860
111	Croatia	2.1	23.73	38.28	25.0	13,830
112	Barbados*	2.1	26.61	21.17		15,240
113	Curacao*	2.2	34.61	44.05	6.0	19,070
114	North Macedonia	2.4	10.88	24.86	18.0	5,450
115	Tonga	2.5	8.94	11.67	15.0	4,300
116	Bosnia and Herzegovina	2.5	12.01	25.28	17.0	5,690
117	Kyrgyzstan	2.6	2.60	8.55	17.0	1,220
118	Lebanon	2.6	16.50	25.88	10.0	7,690
119	Viet Nam	2.7	5.33	12.97	10.0	2,400
120	Grenada	2.7	22.26	30.27		9,780
121	Moldova	2.8	6.96	16.28	20.0	2,990
122	Paraguay	2.9	13.71	29.39	10.0	5,680
123	Saint Lucia	2.9	22.96	30.04	12.5	9,460
124	Philippines	3.0	9.46	24.39	12.0	3,830
125	Fiji	3.0	14.78	23.36	9.0	5,860
126	Guyana	3.2	12.64	20.29	14.0	4,760
127	Suriname	3.2	13.37		8.0	4,990
128	Ghana	3.3	5.86	16.23	23.5	2,130
129	Bolivia (Plurinational State of)	3.3	9.39	18.81	13.0	3,370
130	Angola	3.5	9.75	12.54	10.0	3,370
131	El Salvador	3.5	11.10	22.08	18.0	3,820

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Tax rate included (%)	GNI p.c., USD, 2018
132	Nigeria	3.7	6.02	11.95	5.0	1,960
133	Dominica	3.7	22.20	30.97	15.0	7,210
134	Gabon	3.7	21.00	30.69	18.0	6,800
135	Lao P.D.R.	3.7	7.64	20.33	10.0	2,460
136	Palestine	3.9	11.94	17.17	16.0	3,710
137	Argentina	3.9	40.36		26.3	12,370
138	Saint Vincent and the Grenadines	4.1	27.44	38.12		7,940
139	Micronesia	4.2	12.50	12.79	0.0	3,580
140	Rwanda	4.5	2.90	7.97	28.0	780
141	Kenya	4.5	6.14	12.37	31.0	1,620
142	Tanzania	5.2	4.42	11.86	32.5	1,020
143	Belize	5.5	21.70		12.5	4,720
144	Cambodia	5.5	6.35	15.54	10.0	1,380
145	Zambia	5.6	6.70	17.09	33.5	1,430
146	Kiribati	5.8	15.09		0.0	3,140
147	Sao Tome and Principe	6.0	9.51	13.35	5.0	1,890
148	Yemen	6.4	5.12		5.0	960
149	Guinea	6.5	4.51	8.91	18.0	830
150	Marshall Islands	6.7	26.65		0.0	4,740
151	Gambia	6.8	3.94	12.72	21.3	700
152	Timor-Leste	6.8	10.35	16.10	5.0	1,820
153	Lesotho	6.8	7.88	21.32	9.0	1,380
154	Solomon Islands	6.9	11.45	11.81	10.0	2,000
155	Afghanistan	7.1	3.23	11.01	0.0	550
156	Guatemala	7.3	26.86	44.87	12.0	4,410
157	Madagascar	7.3	2.69	9.42	20.0	440
158	Cabo Verde	7.8	22.37	46.89	15.0	3,450
159	Vanuatu	7.9	19.61	18.40	15.0	2,970
160	Uganda	8.0	4.16	12.45	18.0	620
161	Honduras	8.2	15.85	31.10	15.0	2,330
162	Cameroon	8.7	10.41	24.91	0.0	1,440
163	Papua New Guinea	8.8	18.60	22.59	10.0	2,530
164	Djibouti	9.3	16.88	29.79	10.0	2,180
165	Haiti	10.4	6.95	14.87	10.0	800
166	Benin	10.7	7.74	19.92	18.0	870
167	Comoros	10.7	11.80		0.0	1,320
168	Côte d'Ivoire	10.9	14.67	35.86	18.0	1,610
169	Senegal	11.2	13.15	31.93	23.0	1,410
170	Sierra Leone	14.8	6.16	16.04	15.0	500
171	Mauritania	16.0	15.86	44.85	18.0	1,190
172	Mali	17.3	11.97	30.52	18.0	830
173	Nicaragua	17.8	30.05	80.87	15.0	2,030
174	Dem. Rep. of the Congo	18.4	7.51		26.0	490
175	Guinea-Bissau	19.1	11.93	27.38	17.0	750
176	Mozambique	20.6	7.56		17.0	440
177	Burkina Faso	21.1	11.61	30.24	18.0	660

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Tax rate included (%)	GNI p.c., USD, 2018
178	Togo	22.7	12.32	30.29	18.0	650
179	Malawi	25.6	7.67	22.61	26.5	360
180	Central African Rep.	28.5	11.40		19.0	480
181	Chad	31.6	17.62		18.0	670
182	Burundi	32.0	7.48	18.25	52.0	280
183	Liberia	34.8	17.39	16.63	14.0	600
184	Niger	48.6	15.39	38.31	22.6	380
	Andorra**		18.52			
	Anguilla**		21.23			
	Cayman Islands**		28.03			
	Cuba**		17.55		0.0	
	Gibraltar**		19.85		0.0	
	Liechtenstein**		25.78		7.7	
	Monaco**		29.51		20.0	
	San Marino**		8.33	9.25		
	Somalia**		3.70		10.0	
	Syrian Arab Republic**		2.25		5.0	
	Taiwan, Province of China**		9.92		5.0	

Note: Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference. * Data correspond to the GNI p.c. in 2017. ** Country not ranked because data on GNI p.c. are not available.

Source: ITU. GNI p.c. and PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

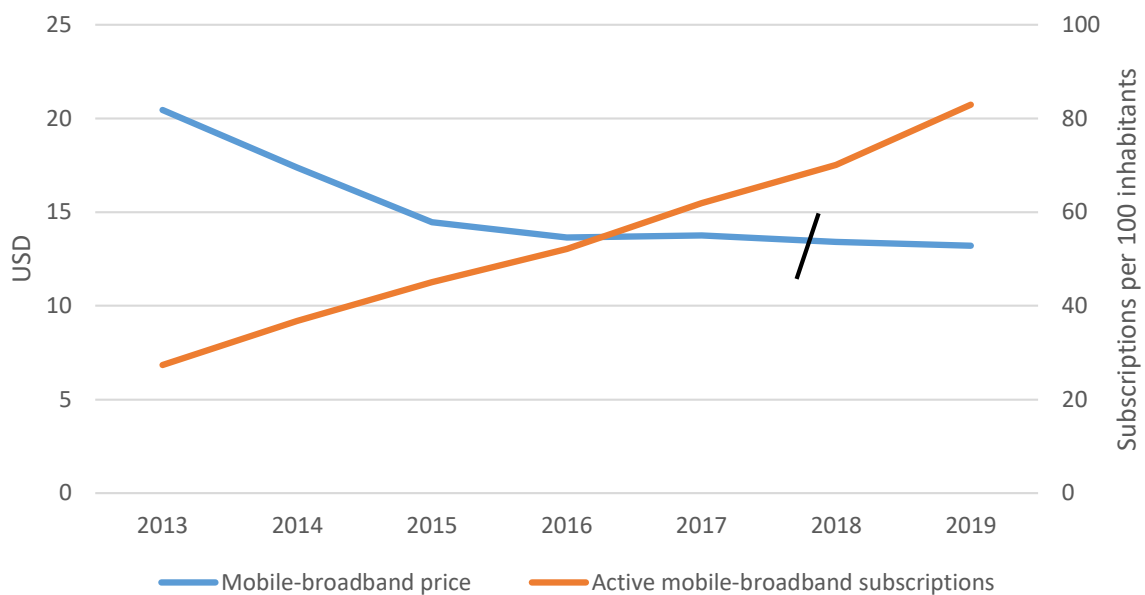
Mobile-data basket

The mobile-data basket uses the cheapest price with the largest operator for a data plan with a monthly allowance of at least 1.5 GB, irrespective of the device used, over a 3G or higher data transmission network. This is a departure from the previous baskets, which consisted of two different plans. The first was a USB/dongle, computer-based, post-paid subscription of at least 1 GB, while the second was a handset-based, prepaid subscription of at least 500 MB. The time series in the analysis below are for the 1GB USB/dongle, computer-based subscription up to 2017, mapped to the 1.5 GB subscription, irrespective of the device used, for 2018 and 2019.

Global trends

The global average price of a mobile-data basket of at least 1.5 GB dropped from USD 20.4 in 2013 to USD 13.2 in 2019, equivalent to a CAGR of -7 per cent – driven mostly by the 2013 to 2015 sub-period, followed by relative stability over the past four years.¹⁰ Over the past six years, there has been an explosion in the number of active mobile-data subscriptions, increasing from 27.4 to 83 per 100 inhabitants, or a CAGR of 20.3 per cent.

Chart 12: Global mobile-data price basket in USD (left axis) and active mobile-data subscriptions per 100 inhabitants (right axis), 2013-2019



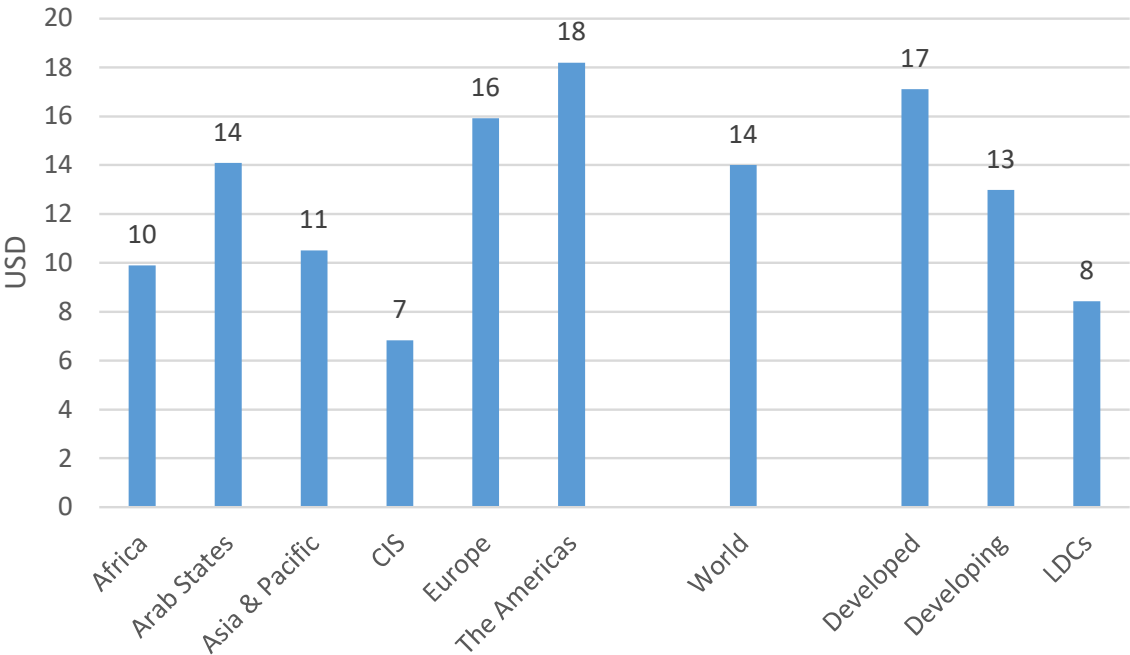
Note: Prices are calculated based on simple averages of data from 145 economies for which data on mobile data prices in USD were available for 2013-2019. There is a break in series between 2017 and 2018. Up to 2017, prices are for 1 GB of data for a USB/dongle, computer-based subscription.

Source: ITU. USD exchange rates are from the IMF or UN.

In developed countries, the price of a mobile-data basket of 1.5 GB stood at USD 17 in 2019, which was above the global average of USD 14. However, as most people in developed countries will have a data-and-voice bundle, a data-only plan will not be very common. In developing countries, the nominal price remained just under the global average, at USD 13, whereas in LDCs the cost was only USD 8 for such a plan.

Expressed in USD, the price of a mobile-data basket was the lowest in the CIS region, at USD 7, followed by Africa (USD 10), Asia and the Pacific (USD 11) and the Arab States (USD 14). The two most expensive regions were Europe at USD 16 and the Americas at USD 18.

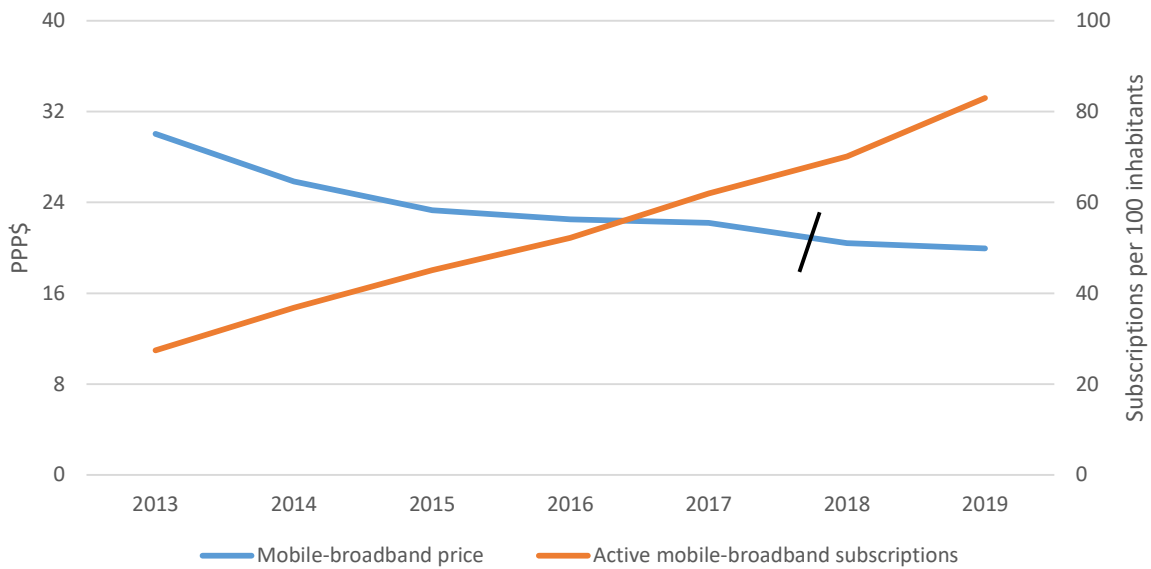
Chart 13: Mobile-data basket in USD, 2019



Note: Simple averages. Based on 193 economies for which data on mobile-data prices in USD are available for the year 2019.
 Source: ITU. USD exchange rates are from the IMF or UN.

Correcting for differences in purchasing power (PPP\$), the CAGR of a mobile-data broadband basket of 1.5 GB between 2013 and 2019 was -6.6 per cent, slightly less than the CAGR in USD (-7 per cent).

Chart 14: Global mobile-data price basket in PPP\$ (left axis) and active mobile-data subscriptions per 100 inhabitants (right axis), 2013-2019

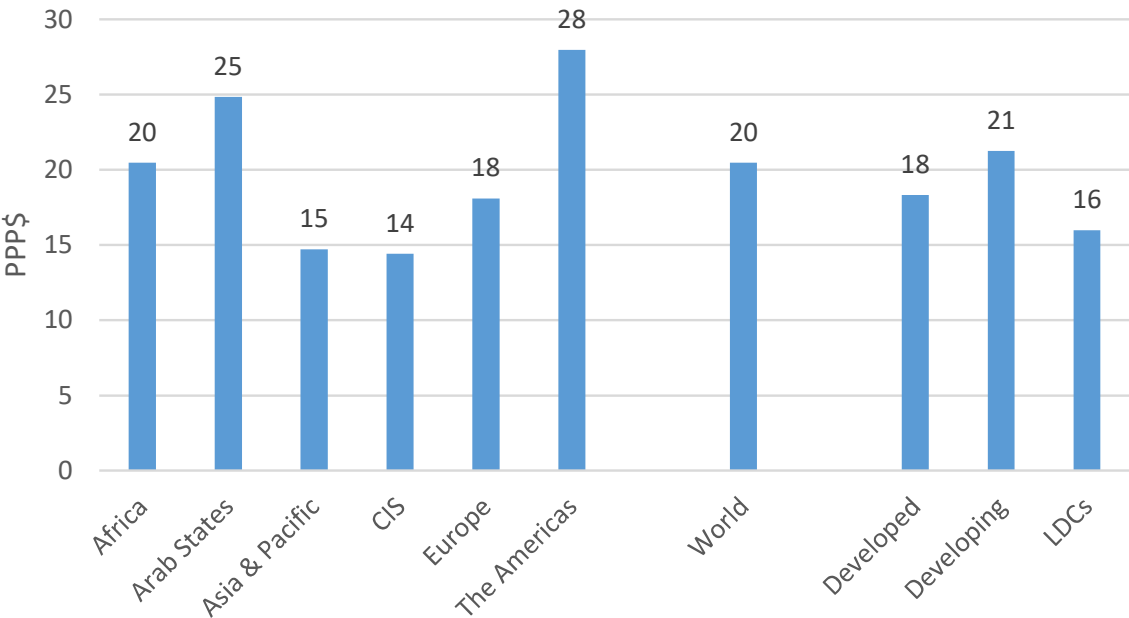


Note: Prices are calculated based on simple averages of data from 133 economies for which data on mobile-data prices in PPP\$ were available for 2013-2019. There is a break in series between 2017 and 2018. Up to 2017, prices are for 1 GB of data for a USB/dongle, computer-based subscription.
 Source: ITU. PPP\$ conversion factors are from the World Bank.

The global average price of a 1.5 GB mobile-data basket in 2019 stood at PPP\$ 20. The average price in developed countries was below the global average (PPP\$ 18), whereas the average price in developing countries was above (PPP\$ 21). In LDCs, however, a 1.5 GB mobile-data basket cost PPP\$ 16, below the global average and below the average for developed countries. Nevertheless, Internet uptake in LDCs is still very low at only 19.1 per cent of individuals, compared with 54.6 per cent globally.¹¹ This indicates that affordability is not the only barrier to Internet use, but that other barriers are important too, such as low level of education, lack of relevant content, lack of skills, in addition to a potentially low-quality Internet connection, preventing effective use.

The CIS region still had the most affordable mobile-data baskets, at an average of PPP\$ 14, just ahead of Asia and the Pacific (PPP\$ 15) and Europe (PPP\$ 18). Mobile-data baskets in the Americas were the most expensive, at PPP\$ 28, followed by the Arab States (PPP\$ 25) and Africa (PPP\$ 20).

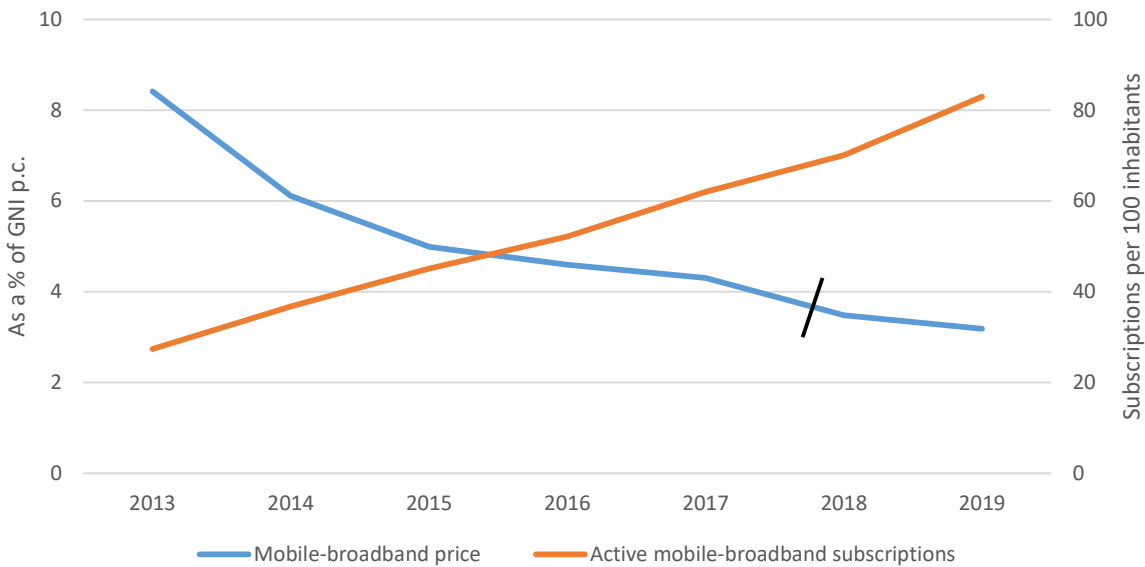
Chart 15: Mobile-data basket in PPP\$, 2019



Note: Simple averages. Based on 166 economies for which data on mobile-data prices in PPP\$ are available for the year 2019.
 Source: ITU. PPP\$ conversion factors are from the World Bank.

Taking into account GNI p.c. levels, the reduction in prices over the period 2013-2019 has been significant. The global average price of a mobile-data basket of 1.5 GB shrank from 8.4 per cent of GNI p.c. in 2013 to 3.2 per cent of GNI p.c. in 2019, a CAGR of almost -15 per cent.

Chart 16: Global mobile-data price basket as a % of GNI p.c. (left axis) and active mobile-data subscriptions per 100 inhabitants (right axis), 2013-2019

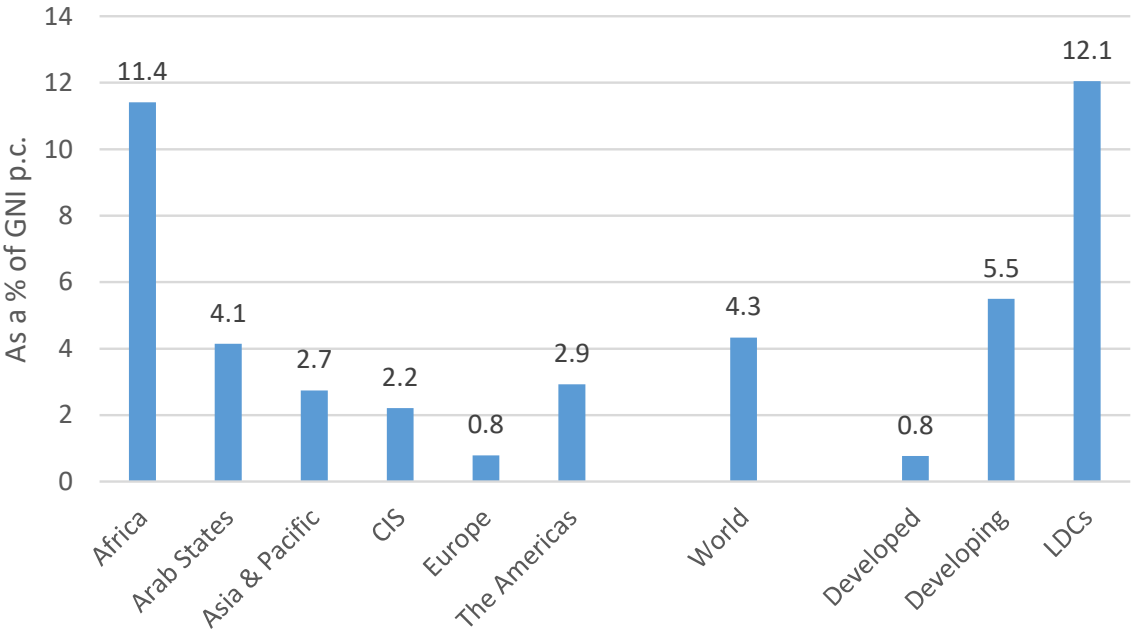


Note: Prices are calculated based on simple averages of data from 140 economies for which data on mobile data prices as a % of GNI p.c. were available for 2013-2019. There is a break in series between 2017 and 2018. Up to 2017, prices are for 1 GB of data for a USB/dongle, computer-based subscription. Source: ITU. GNI p.c. data are from the World Bank.

In 2018, the Broadband Commission for Sustainable Development set as a target for 2025 that entry-level broadband services should be made affordable in developing countries, corresponding to less than 2 per cent of monthly GNI p.c. Globally, a mobile-data basket accounted for 4.3 per cent of GNI p.c., which is substantially above the target. In developed countries, these baskets are generally very affordable, costing the equivalent of 0.8 per cent of GNI p.c. in 2019. In developing countries, the cost of a 1.5 GB mobile-data basket stood at 5.5 per cent of GNI p.c., while in the LDCs it was as high as 12.1 per cent.

Regionally, the least affordable baskets relative to income are found in Africa, at 11.4 per cent of GNI p.c. on average. The other regions are considerably less expensive. Europeans have access to the cheapest baskets, at 0.8 per cent of GNI p.c., followed by the CIS region (2.2 per cent), Asia and the Pacific (2.7 per cent), the Americas (2.9 per cent) and the Arab States (4.1 per cent).

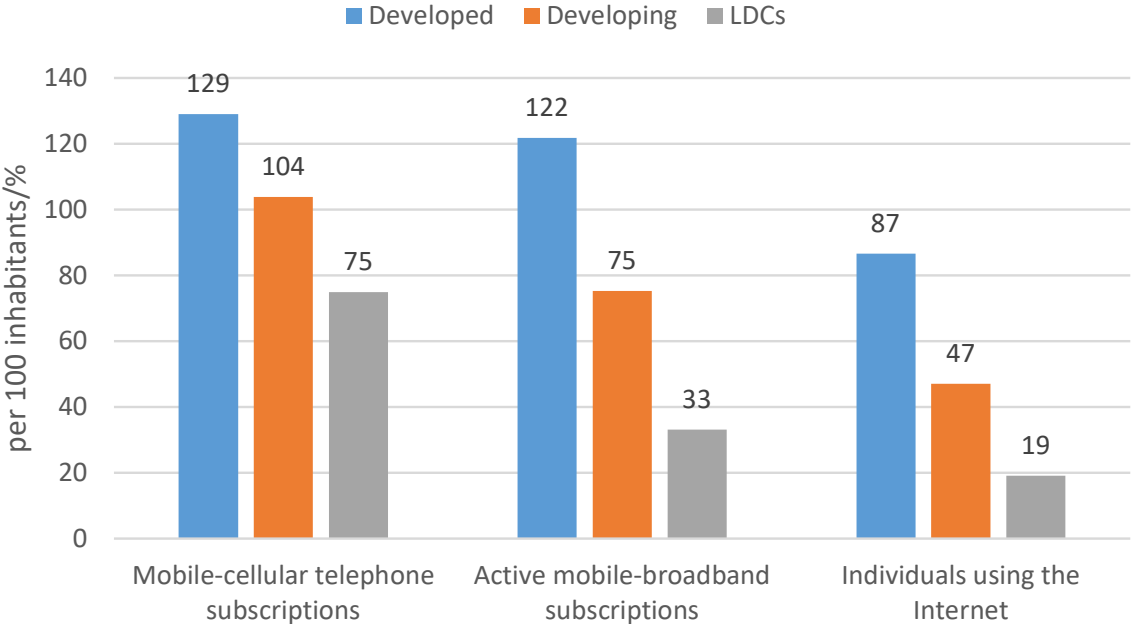
Chart 17: Mobile-data basket as a % of GNI p.c., 2019



Note: Simple averages. Based on 183 economies for which data on mobile-data prices as a % of GNI p.c. are available for the year 2019.
 Source: ITU. GNI p.c. data are from the World Bank.

It is interesting to note that the average prices for the mobile-voice basket and the mobile-data basket are very similar, across levels of development and regions. However, the gap in the penetration rate for mobile broadband and Internet uptake between developed and developing countries is much larger than the gap in mobile-cellular uptake (see Chart 18). This is particularly the case in LDCs. One conclusion that could be drawn is that if people in low-income countries have the choice between a mobile-cellular or a mobile-broadband subscription, preference goes to the latter. This is a further indicator that affordability is not the only, or even the most important, barrier to Internet uptake in developing countries and LDCs.

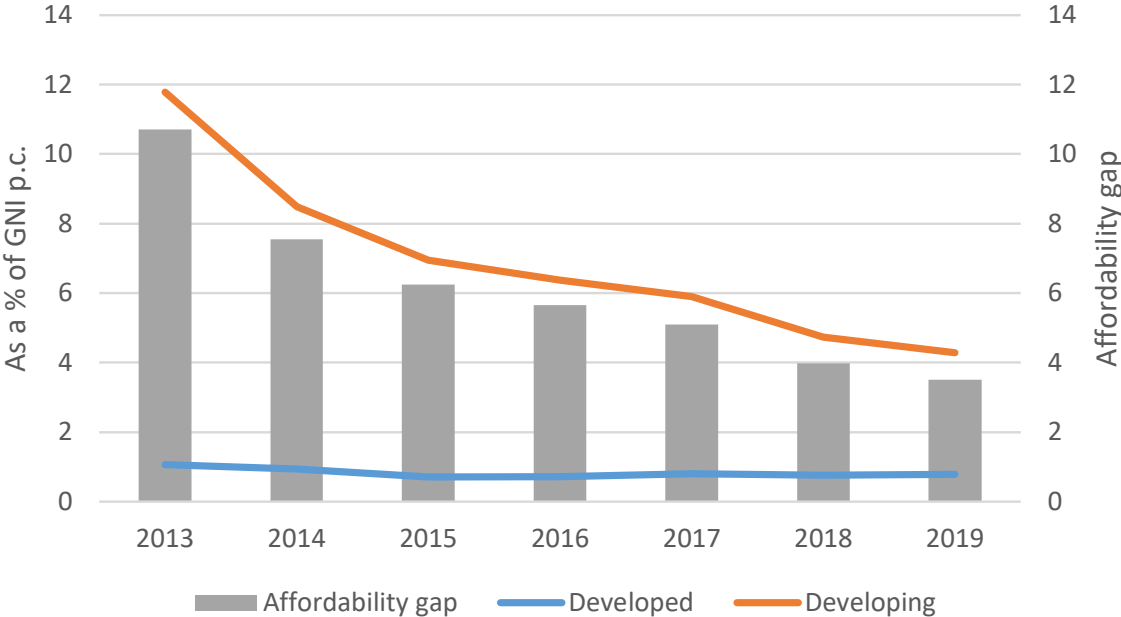
Chart 18: Mobile-cellular subscriptions, active mobile-broadband subscriptions and Internet users, by level of development, 2019*



Note: * Estimate. Source: ITU.

In 2013, the average price of a mobile-data basket in developing countries stood at 11.8 per cent of GNI p.c., compared with 1.1 per cent in developed countries (see Chart 19), translating into an affordability gap of 10.7 percentage points for mobile-data. In 2019, just six years later, the affordability gap had been reduced significantly to 3.5 percentage points, owing to falling relative prices in the developing countries. Nevertheless, the gap in Internet uptake remains substantial.

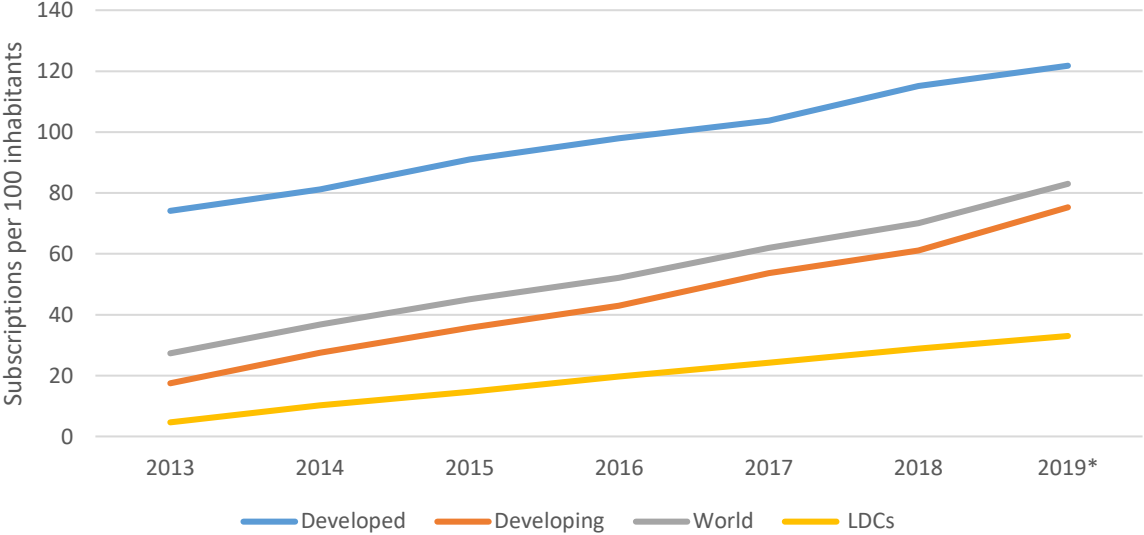
Chart 19: Global mobile-data price basket in terms of GNI p.c. by development level (left axis) and affordability gap for mobile-data (right axis), 2008-2019



Note: Simple averages. Based on 140 economies for which data on mobile-data prices as a % of GNI p.c. are available for all years. The affordability gap is defined as the difference in the average price as a % of GNI p.c. for developing countries and the average price for developed countries.
 Source: ITU. GNI p.c. data are from the World Bank.

The price reductions observed between 2013 and 2019, as well as the relative affordability of mobile-data plans, are certainly a contributing factor driving rapid growth in active mobile-data subscriptions since 2008 (see Chart 20), although - as mentioned above - in LDCs this growth is much slower, compared with growth in mobile-cellular subscriptions.

Chart 20: Active mobile-data subscriptions per 100 inhabitants, 2008-2019*



Note: * Estimate.
Source: ITU.

Benchmarking countries

In 61 economies, consisting of 45 high-income and 16 middle-income economies, a mobile-data basket cost less than 1 per cent of GNI p.c. in 2019.¹² The most affordable basket, relative to income, was available in Luxembourg, followed by Macao (China) and Poland, all at 0.2 per cent of GNI p.c. At the other end of the scale, in 20 countries a mobile-data basket accounted for more than 10 per cent of GNI p.c. Sixteen of the twenty countries with the least affordable baskets are in Africa.

Table 5: Mobile-data basket, 2019

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
1	Luxembourg	0.2	11.81	10.27	2.0		77,820
2	Macao, China	0.2	12.14	15.12	2.0	0.0	78,320
3	Poland	0.2	2.77	5.36	10.0	23.0	14,150
4	Italy	0.3	7.07	7.67	10.0	22.0	33,560
5	Austria	0.3	11.81	11.91	8.0	20.0	49,250
6	Hong Kong, China	0.3	12.25	14.99	2.0	0.0	50,310
7	Singapore	0.3	14.83	17.64	3.0	7.0	58,770
8	Qatar	0.3	16.48	21.62	3.5	0.0	61,190
9	Israel	0.3	11.11	9.42	30.0	17.0	40,850
10	Spain	0.3	8.21	9.72	3.0	21.0	29,450
11	France	0.3	11.80	11.80	2.0	20.0	41,070
12	Norway	0.4	24.47	18.45	5.0	25.0	80,790
13	Germany	0.4	14.75	15.52	4.0	19.0	47,450
14	Sweden	0.4	17.14	15.93	10.0	25.0	55,070
15	Denmark	0.4	18.85	14.89	15.0	25.0	60,140
16	New Zealand	0.4	13.15	11.84	1.8	15.0	40,820
17	United States	0.4	21.78	21.78	2.0	8.9	62,850
18	Kazakhstan	0.4	2.87	8.27	3.0	12.0	7,830
19	Korea (Rep. of)	0.4	11.24	12.86	10.0	10.0	30,600
20	Belgium	0.5	17.71	17.50	2.0	21.0	45,430
21	Australia	0.5	21.67	18.85	10.0	10.0	53,190
22	Latvia	0.5	7.07	10.64	10.0	21.0	16,880
23	Czech Republic	0.5	9.16	14.32	1.5	21.0	20,250
24	Iceland*	0.5	27.61	19.31	5.0	24.0	60,740
25	Brunei Darussalam	0.6	14.83	26.42	3.0	0.0	31,020
26	Bahamas*	0.6	14.55	12.84	2.0	12.0	30,210
27	United Kingdom	0.6	20.01	19.01	5.0	20.0	41,330
28	Kuwait	0.6	16.56	25.42	5.0	0.0	33,690
29	Sri Lanka	0.6	2.15	6.56	2.0	19.7	4,060
30	Canada	0.7	26.16	25.30	2.0	13.0	44,860
31	Switzerland	0.7	50.11	35.64	30.0	7.7	83,580
32	Mauritius	0.7	7.25	12.36	1.7	15.0	12,050
33	Costa Rica	0.7	6.93	10.79	2.0	13.0	11,510
34	Slovenia	0.7	15.34	20.05	5.0	22.0	24,670
35	Iran (Islamic Republic of)*	0.7	3.40	10.86	2.0	9.0	5,470
36	Indonesia	0.7	2.39	6.66	2.0	10.0	3,840

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
37	Pakistan	0.7	0.99	3.58	4.9	0.0	1,580
38	Algeria	0.8	2.57	7.42	2.0	19.0	4,060
39	Slovakia	0.8	11.81	18.53	1.5	20.0	18,330
40	Georgia	0.8	2.76		2.0	18.0	4,130
41	Lithuania	0.8	11.69	19.83	30.0	21.0	17,360
42	Estonia	0.8	14.17	19.86	5.0	20.0	20,990
43	Malta	0.8	17.71	23.74	3.0	18.0	26,220
44	Montenegro	0.8	5.76	11.35	1.5	21.0	8,400
45	Netherlands	0.8	35.43	34.60	10.0	21.0	51,280
46	Belarus	0.8	3.95	15.59	2.0	25.0	5,670
47	Ireland	0.8	41.33	35.58	20.0	23.0	59,360
48	United Arab Emirates	0.8	28.59	37.25	1.5	5.0	41,010
49	India	0.9	1.43	4.75	2.0	18.0	2,020
50	Malaysia	0.9	7.43	18.05	10.0	0.0	10,460
51	Finland	0.9	35.19	31.47	Unlimited	24.0	47,820
52	Chile	0.9	10.90	15.15	5.0		14,670
53	Bulgaria	0.9	6.63	14.64	1.5	20.0	8,860
54	Greece	0.9	15.06	19.29	1.5	24.0	19,540
55	Turkey	0.9	8.08	23.20	2.5	25.5	10,380
56	China	1.0	7.56	13.11	3.0	0.0	9,470
57	Myanmar	1.0	1.05	4.12	1.5	5.0	1,310
58	Saudi Arabia	1.0	17.33	35.57	2.0	5.0	21,540
59	Cyprus	1.0	21.26	26.00	1.5	19.0	26,300
60	Portugal	1.0	17.58	22.39	1.5	23.0	21,680
61	Japan	1.0	34.23	34.82	2.0	8.0	41,340
62	Mexico	1.0	7.79	14.75	1.5	16.0	9,180
63	Russian Federation	1.0	8.78	21.01	10.0	20.0	10,230
64	Oman	1.0	13.00	25.61	2.0	0.0	15,110
65	Egypt	1.0	2.41	12.35	1.8	23.0	2,800
66	Viet Nam	1.1	2.21	5.39	3.0	10.0	2,400
67	Romania	1.1	10.63	22.53	30.0	19.0	11,290
68	Bhutan	1.1	2.91	8.76	1.9	5.0	3,080
69	Albania	1.1	4.63	9.67	3.0	20.0	4,860
70	Barbados*	1.2	15.00	11.93	1.5		15,240
71	Hungary	1.2	14.77	26.47	6.0	5.0	14,590
72	Ukraine	1.2	2.76	10.46	2.0	20.0	2,660
73	Tunisia	1.3	3.78	11.37	2.5	25.0	3,500
74	Serbia	1.3	6.98	14.34	5.0	20.0	6,390
75	Argentina	1.3	13.53		4.0		12,370
76	Croatia	1.4	15.77	25.43	10.0	25.0	13,830
77	Aruba*	1.4	27.37	32.68	4.0		23,630
78	Azerbaijan	1.4	4.71	19.19	1.5	18.0	4,050
79	Thailand	1.4	7.91	20.51	2.0	7.0	6,610
80	Armenia	1.5	5.18	12.84	2.0	20.0	4,230
81	Bosnia and Herzegovina	1.5	7.06	14.86	2.0	17.0	5,690

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
82	Tonga	1.5	5.37	7.00	2.0	15.0	4,300
83	Bahrain	1.5	27.93	46.09	20.0	5.0	21,890
84	Uruguay	1.6	20.99	25.19	15.0		15,650
85	Panama	1.7	20.00	34.87	6.0		14,370
86	Peru	1.7	9.13	17.37	2.9		6,530
87	Cambodia	1.7	2.00	4.89	1.5	10.0	1,380
88	Palau	1.8	25.00	26.86	8.0	0.0	16,910
89	Philippines	1.8	5.68	14.64	2.0	12.0	3,830
90	Brazil	1.8	13.68	22.23	3.0	40.2	9,140
91	Bangladesh	1.9	2.74	6.73	1.5	21.0	1,750
92	North Macedonia	1.9	8.62	19.69	1.5	18.0	5,450
93	Gabon	1.9	10.80	15.78	2.0	18.0	6,800
94	Suriname	1.9	8.04		3.0	8.0	4,990
95	Curacao*	2.0	31.28	39.82	3.5	6.0	19,070
96	Maldives	2.0	15.84	20.82	2.5	6.0	9,310
97	Morocco	2.1	5.33	12.12	5.0	20.0	3,090
98	Palestine	2.1	6.46	9.29	2.5	16.0	3,710
99	Moldova	2.1	5.36	12.52	1.5	20.0	2,990
100	Ecuador	2.2	11.20	19.28	2.0	12.0	6,120
101	Seychelles	2.2	28.68	45.33	2.0	15.0	15,600
102	Libya	2.2	11.72		2.0	0.0	6,330
103	Mongolia	2.2	6.67	18.39	3.0	10.0	3,580
104	Saint Kitts and Nevis	2.4	37.04	49.15	10.0		18,640
105	Nigeria	2.4	3.92	7.77	1.5	0.0	1,960
106	Nauru	2.5	23.16		1.8	15.0	11,240
107	Puerto Rico	2.5	44.60		8.0	11.5	21,100
108	Bolivia (Plurinational State of)	2.6	7.24	14.49	2.0	16.0	3,370
109	Colombia	2.7	14.14	29.61	2.0	19.0	6,190
110	Fiji	2.7	13.39	21.17	12.0	9.0	5,860
111	Nepal (Republic of)	2.8	2.20	6.46	1.5	26.0	960
112	Antigua and Barbuda	2.8	37.04	45.57	7.0		15,810
113	Saint Lucia	2.8	22.22	29.08	2.3		9,460
114	Kyrgyzstan	2.9	2.91	9.56	4.1	17.0	1,220
115	Botswana	2.9	18.53	35.39	5.0	12.0	7,750
116	Uzbekistan	3.0	5.07		2.0	20.0	2,020
117	Senegal	3.1	3.60	8.74	2.5	23.0	1,410
118	Trinidad and Tobago	3.1	41.54	49.70	3.0	12.5	16,240
119	Lao P.D.R.	3.2	6.48	17.23	1.5	10.0	2,460
120	Cabo Verde	3.2	9.10	19.07	2.9	15.0	3,450
121	Lebanon	3.3	20.90	32.78	1.8	10.0	7,690
122	Dominica	3.4	20.37	28.42	1.5		7,210
123	Dominican Rep.	3.4	21.01	45.62	3.0	30.0	7,370
124	Grenada	3.5	28.15	38.28	4.0		9,780
125	Guatemala	3.6	13.17	21.99	2.5	12.0	4,410

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
126	Kenya	3.7	4.94	9.95	2.0	31.0	1,620
127	Vanuatu	3.7	9.08	8.52	2.5	15.0	2,970
128	Jordan	3.7	12.93	26.82	4.0	16.0	4,210
129	South Africa	3.9	18.82	37.74	1.5	15.0	5,720
130	Haiti	4.0	2.65	5.66	1.6	10.0	800
131	Zambia	4.0	4.78	12.19	1.5	33.5	1,430
132	Namibia	4.1	17.76	35.25	1.5	15.0	5,250
133	Turkmenistan	4.3	24.29		1.5	15.0	6,740
134	El Salvador	4.4	14.00	27.85	6.0		3,820
135	Guinea	4.4	3.05	6.02	1.5	18.0	830
136	Paraguay	4.4	20.93	44.86	3.0	10.0	5,680
137	Samoa	4.4	15.46	21.24	12.0	15.0	4,190
138	Belize	4.4	17.50		5.5	12.5	4,720
139	Tajikistan	4.5	3.82		1.5	23.0	1,010
140	Saint Vincent and the Grenadines	4.6	30.37	42.19	3.0		7,940
141	Guyana	4.6	18.29	29.36	3.5	14.0	4,760
142	Cameroon	4.7	5.60	13.40	1.5	0.0	1,440
143	Ghana	4.9	8.72	24.15	2.5	23.5	2,130
144	Iraq	5.0	21.14	42.11	2.0	0.0	5,030
145	Timor-Leste	5.3	8.00	12.44	1.8	5.0	1,820
146	Côte d'Ivoire	5.4	7.20	17.60	1.6	18.0	1,610
147	Eswatini	5.4	17.37	41.38	1.5	14.0	3,850
148	Jamaica	5.6	23.28	36.35	1.5	25.0	4,990
149	Angola	5.6	15.82	20.34	2.0	10.0	3,370
150	Kiribati	5.7	14.94		2.7	0.0	3,140
151	Sao Tome and Principe	6.1	9.64	13.53	3.0	5.0	1,890
152	Benin	6.2	4.50	11.58	1.5	18.0	870
153	Rwanda	7.1	4.65	12.76	2.0	18.0	780
154	Mozambique	7.2	2.65		1.5	17.0	440
155	Tanzania	7.8	6.63	17.79	2.0	18.0	1,020
156	Nicaragua	7.9	13.31	35.82	2.0	15.0	2,030
157	Lesotho	7.9	9.06	24.53	2.0	9.0	1,380
158	Mauritania	8.5	8.41	23.77	3.0	18.0	1,190
159	Honduras	8.6	16.73	32.83	3.2	15.0	2,330
160	Djibouti	8.7	15.76	27.81	2.7	10.0	2,180
161	Comoros	8.7	9.60		2.0	0.0	1,320
162	Afghanistan	9.1	4.16	14.17	2.0	0.0	550
163	Gambia	9.2	5.38	17.36	1.5	21.3	700
164	Liberia	10.0	5.00	4.78	2.0	15.0	600
165	Micronesia	10.1	30.00	30.70	2.0	0.0	3,580
166	Uganda	10.4	5.37	16.06	2.0	18.0	620
167	Papua New Guinea	10.4	21.96	26.67	2.3	10.0	2,530
168	Ethiopia	10.5	6.93	20.37	2.0	15.0	790
169	Mali	13.0	9.00	22.94	2.0	18.0	830

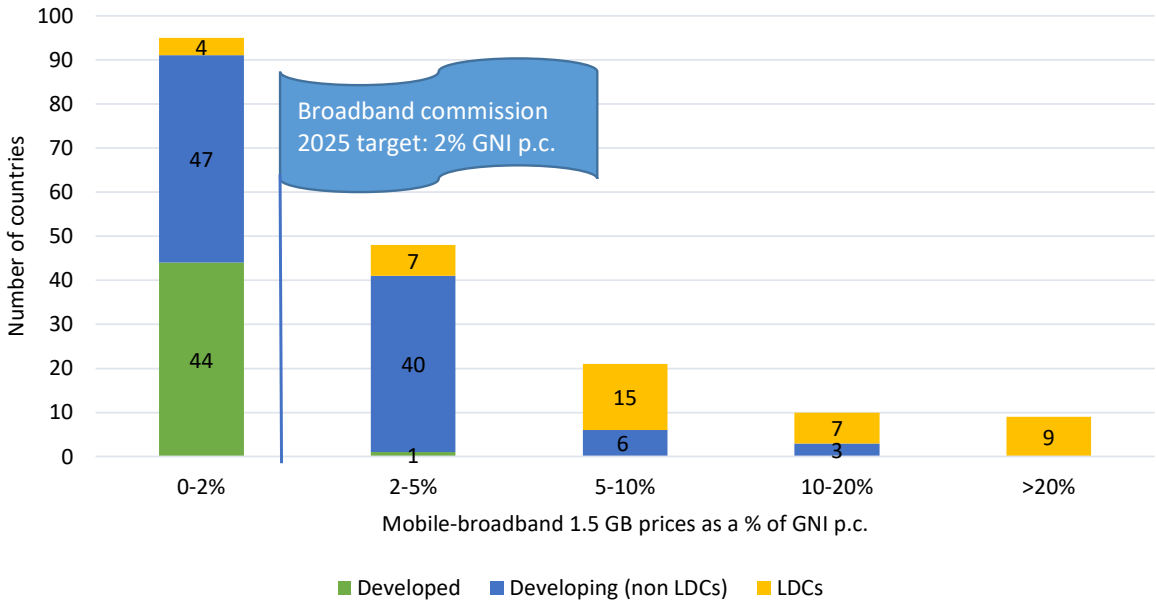
Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
170	Congo (Rep. of the)	13.2	17.99	31.00	2.0	18.0	1,640
171	Solomon Islands	16.6	27.66	28.52	3.2	10.0	2,000
172	Togo	16.6	9.00	22.12	1.7	18.0	650
173	Sierra Leone	16.6	6.93	18.06	2.0	15.0	500
174	Burkina Faso	19.6	10.80	28.12	3.0	18.0	660
175	Burundi	20.4	4.77	11.64	1.5	2.0	280
176	Madagascar	20.4	7.50	26.25	2.0	20.0	440
177	Niger	22.7	7.20	17.92	2.0	22.6	380
178	Malawi	22.8	6.83	20.13	2.0	26.5	360
179	Guinea-Bissau	25.9	16.20	37.17	1.5	17.0	750
180	Yemen	26.2	20.94		3.0	5.0	960
181	Central African Rep.	27.0	10.80		1.8	19.0	480
182	Chad	32.2	17.99		4.0	18.0	670
183	Dem. Rep. of the Congo	61.2	25.00		5.0	26.0	490
	Andorra**		20.99		3.0		
	Anguilla**		34.81		2.0	7.0	
	Cayman Islands**		30.00		2.0		
	Cuba**		20.00		2.5		
	Gibraltar**		40.03		2.0	0.0	
	Liechtenstein**		24.54		20.0	7.7	
	Monaco**		47.23		20.0	20.0	
	Somalia**		5.00		2.0	10.0	
	Syrian Arab Republic**		29.03		1.6	5.0	
	Taiwan, Province of China**		9.91		1.7	5.0	

Note: Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference. * Data correspond to the GNI p.c. in 2017. ** Country not ranked because data on GNI p.c. are not available.

Source: ITU. GNI p.c. and PPP\$ values are based on World Bank data. USD exchange rates are from the IMF or UN.

A key benchmark is the 2 per cent target set by the Broadband Commission for Sustainable Development. For mobile-data, in 2019, in 95 countries, the cost of a mobile-data basket of 1.5 GB was less than 2 per cent of GNI p.c. These 95 countries consisted of 44 developed countries, 47 developing countries (non-LDCs), and four LDCs. In 48 countries, of which one developed country, 40 developing countries and seven LDCs, prices were only just above the Broadband Commission Target, at 2-5 per cent of GNI p.c. In the remaining nine developing countries and 31 LDCs, much progress still needs to be made in order to reach the 2 per cent target by 2025. In nine LDCs in particular, prices are more than 20 per cent of GNI p.c.

Chart 21: Number of countries having achieved the Broadband Commission target with mobile-data services, 2019

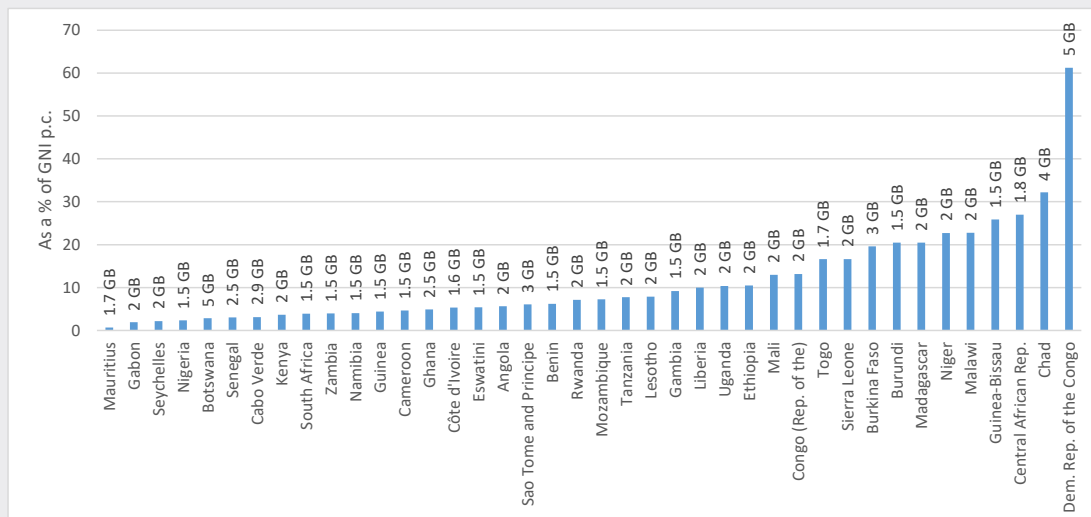


Source: ITU.

Africa

In Africa, the most affordable baskets are available in Mauritius and Gabon, the only two countries with a basket below the Broadband Commission target of 2 per cent. In the next three countries, Seychelles, Nigeria and Botswana, prices accounted for between 2 and 3 per cent of GNI p.c., suggesting that there is a good chance that the Broadband Commission target may be reached in these countries by 2023. In many African countries however, mobile-data baskets are still out of reach for a large part of the population, costing more than 10 per cent of GNI p.c., in situations where incomes are already limited. In eight out of 10 African countries, the data allowance included in the cheapest price (with at least 1.5 GB) did not exceed 2 GB. The highest allowance for this price is observed in Botswana and the Democratic Republic of the Congo, amounting to 5 GB.

Chart 22: Mobile-data prices as a percentage of GNI p.c. and monthly data allowance, Africa, 2019

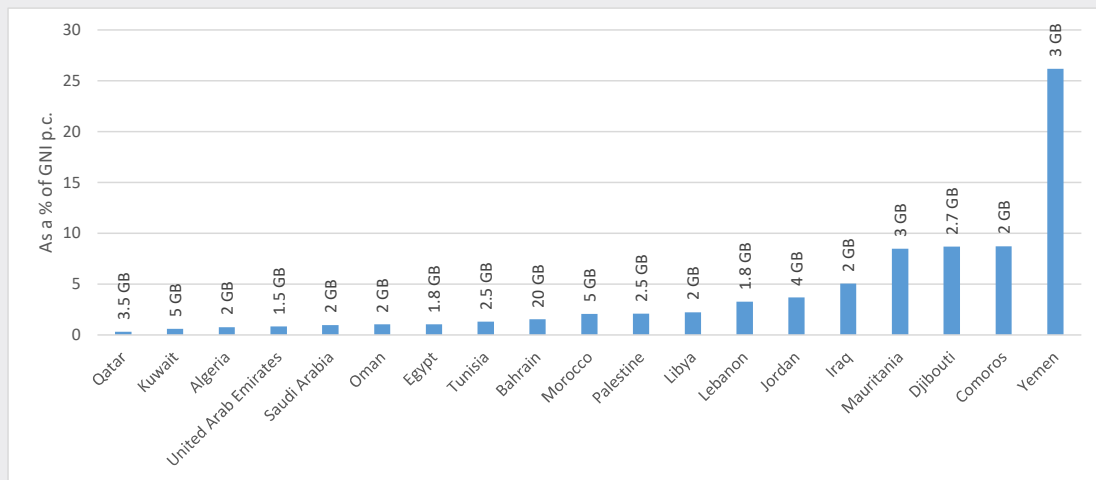


Source: ITU. GNI p.c. values are World Bank data.

Arab States

Relative to income, the most affordable mobile-data baskets in the Arab States in 2019 were available in Qatar, Kuwait, Algeria, United Arab Emirates and Saudi Arabia, all below 1 per cent of GNI p.c. In Iraq, Mauritania, Djibouti and Comoros on the other hand, prices accounted for between 5 and 10 per cent of GNI p.c. The least affordable country was Yemen, where a mobile-data basket cost around 26.2 per cent of GNI p.c. With the exception of Bahrain with 20 GB, data allowance for these lowest prices ranged between 1.5 and 5 GB.

Chart 23: Mobile-data prices as a percentage of GNI p.c. and monthly data allowance, Arab States, 2019

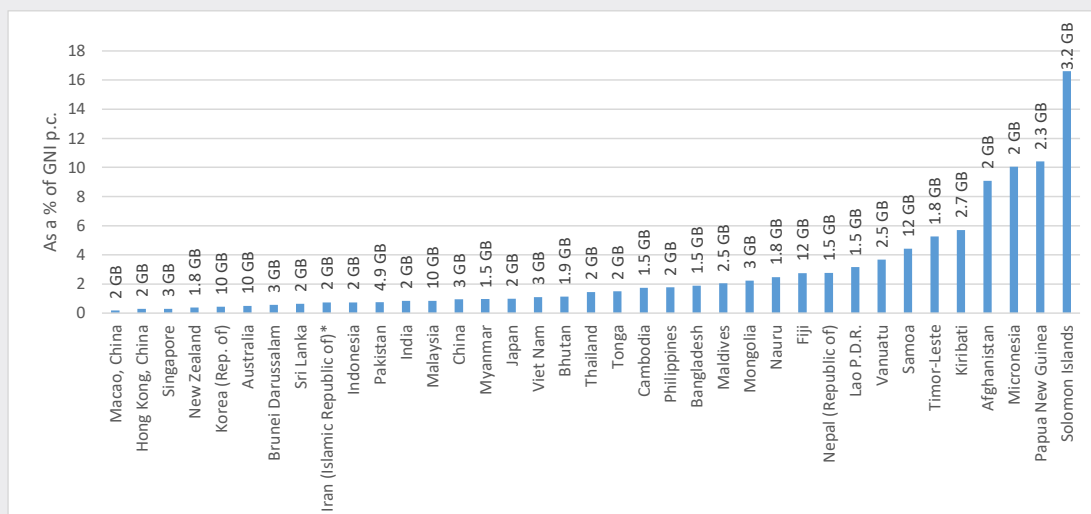


Note: Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference.
Source: ITU. GNI p.c. values are World Bank data.

Asia and the Pacific

Asia and the Pacific is a very diverse region, consisting of high-income, middle-income and low-income countries. In 16 economies, led by Macao (China) and Hong Kong (China), the price of a mobile-data basket was below 1 per cent of GNI p.c. In three countries, it was above 10 per cent. In the Republic of Korea, Australia and Malaysia, the prices below 1 per cent of GNI p.c. also come with a monthly data allowance of 10 GB, which is five times the 2 GB median data allowance in the region.

Chart 24: Mobile-data prices as a percentage of GNI p.c. and monthly data allowance, Asia and the Pacific, 2019

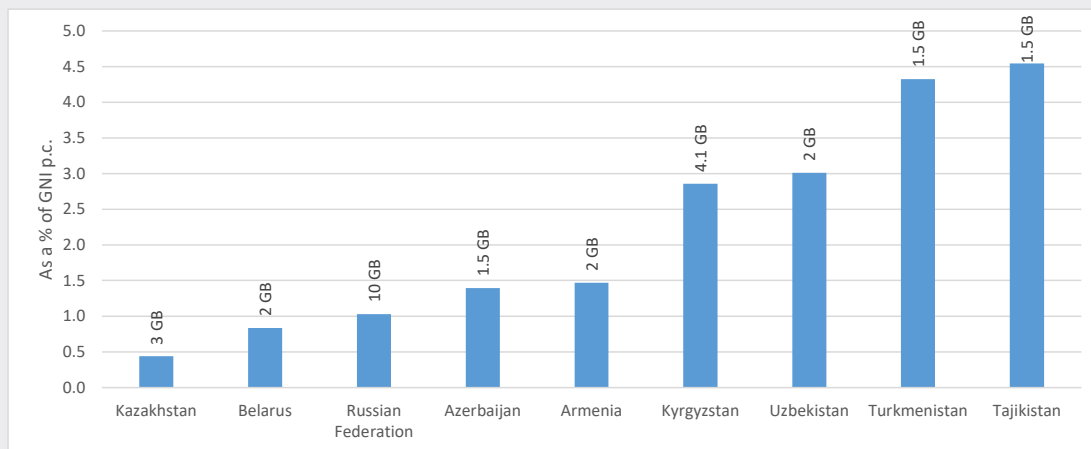


Note: *Data correspond to the GNI p.c. (Atlas method) in 2017.
Source: ITU. GNI p.c. values are World Bank data.

Commonwealth of Independent States

The Commonwealth of Independent States (CIS) is a relatively homogeneous region, with all countries having a mobile-data basket costing less than 5 per cent of GNI p.c. Five CIS countries have achieved the Broadband Commission target. The most affordable basket can be found in Kazakhstan, whereas the least affordable baskets can be found in Turkmenistan and Tajikistan.

Chart 25: Mobile-data prices as a percentage of GNI p.c. and monthly data allowance, CIS, 2019

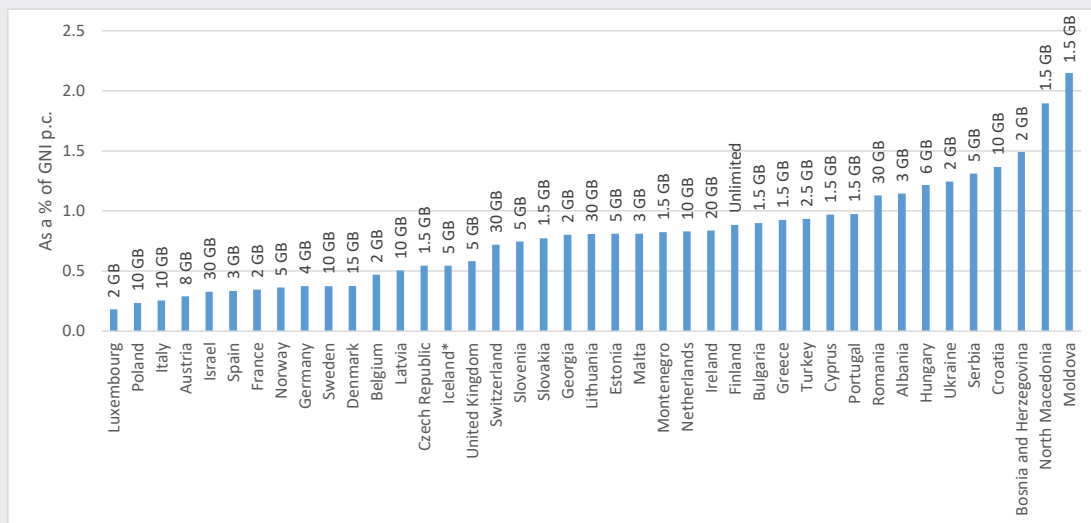


Source: ITU. GNI p.c. values are World Bank data.

Europe

Europe is the region with the most affordable mobile-data baskets relative to income¹³, with 32 countries having a basket costing less than 1 per cent of GNI p.c. and all countries below 2.1 per cent of GNI p.c. Only Moldova is borderline with regard to the Broadband Commission target. Monthly data allowances included in the relevant plans in the region are high, at least 5 GB in more than half of the countries. Finland is a global leader with no data limit applied. Israel, Lithuania, Romania and Switzerland are also worth mentioning, all offering a 30 GB data cap.

Chart 26: Mobile-data prices as a percentage of GNI p.c. and monthly data allowance, Europe, 2019

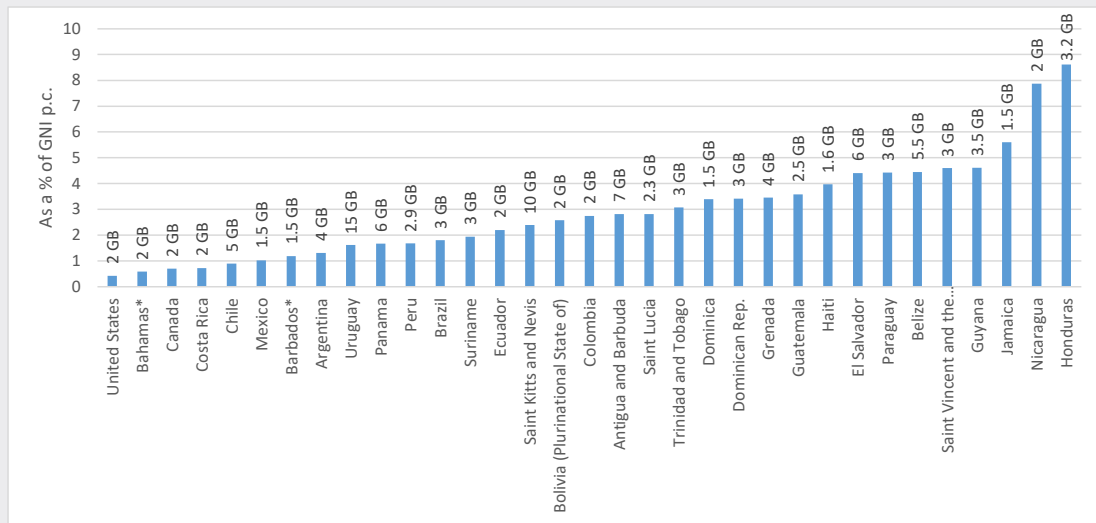


Note: *Data correspond to the GNI p.c. (Atlas method) in 2017.
Source: ITU. GNI p.c. values are World Bank data.

The Americas

In five countries in the Americas, the United States, Bahamas, Canada, Costa Rica and Chile, a mobile-data basket accounted for less than 1 per cent of GNI p.c. In Jamaica, Nicaragua and Honduras, mobile-data baskets were less affordable, at 5.6 per cent, 7.9 per cent and 8.6 per cent of GNI p.c. respectively. The median monthly data allowance for the relevant plans in the region was 3 GB.

Chart 27: Mobile-data prices as a percentage of GNI p.c. and monthly data allowance, the Americas, 2019



Note: *Data correspond to the GNI p.c. (Atlas method) in 2017.
Source: ITU. GNI p.c. values are World Bank data

Fixed-broadband basket

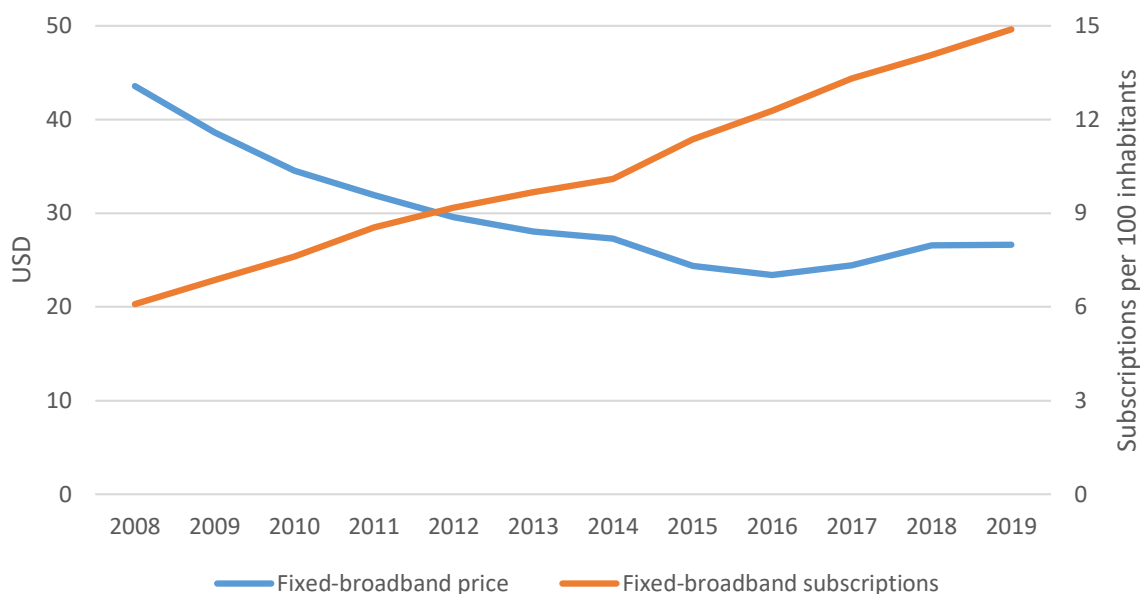
This section analyses fixed-broadband prices. The fixed-broadband basket is based on the cheapest fixed-broadband subscription offered in a country with as a minimum a 5 GB monthly usage and an advertised download speed of at least 256 Kbit/s.

Fixed broadband networks remain important despite the growth of wireless data. Wireless broadband networks still carry far less traffic than fixed networks, and they generally offer lower speeds and reliability. Moreover, the growth of mobile data actually increases demand for fixed networks. Mobile connections only travel over the air for a short distance, after which they are carried on high-capacity wired connections. The growth of Wi-Fi and other mechanisms for offloading cellular traffic will place greater demands on wired networks.¹⁴ The monitoring of fixed-broadband prices therefore remains important as well.

Global trends

There has been a steady growth in the penetration rate of fixed-broadband subscriptions, with just over six subscriptions per 100 inhabitants in 2008 increasing to almost 15 in 2019, a CAGR of 8.5 per cent.¹⁵ During the same period, the average price of an entry-level fixed-broadband basket, converted into USD using market exchange rates, decreased from USD 44 to USD 27, equal to a CAGR of -4.4 per cent over this period (see Chart 28).¹⁶ Interestingly, prices levelled out and in fact increased slightly from 2016 onwards, but this small increase in average price does not seem to have influenced the global average fixed-broadband subscription rate, which has continued to rise.

Chart 28: Global fixed-broadband price basket in USD (left axis) and fixed-broadband subscriptions per 100 inhabitants (right axis), 2008-2019

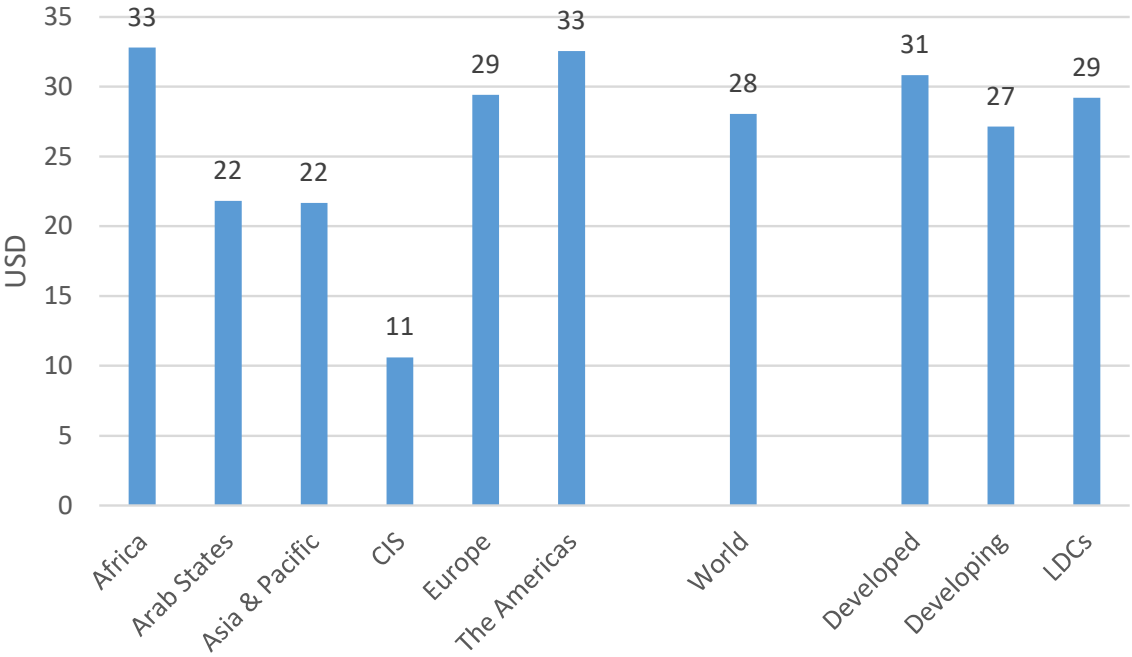


Note: Prices are calculated based on simple averages of data from 142 economies for which data on fixed-broadband prices were available for 2008-2019.
Source: ITU. USD exchange rates are from the IMF or UN.

In 2019, the average price for an entry-level fixed-broadband basket with a minimum of 5 GB monthly usage stood at USD 28 globally.¹⁷ In developed countries, the price was somewhat higher, at USD 31 monthly, whereas in developing countries (USD 27) it was just below the global average. In LDCs (USD 29), it was just above the global average (see Chart 29).

From a regional perspective, what stands out are the low prices in the CIS region, at an average of only USD 11. In the Americas and Africa, fixed-broadband prices are highest (USD 33), followed by Europe (USD 29), the Arab States (USD 22) and Asia and the Pacific (USD 22).

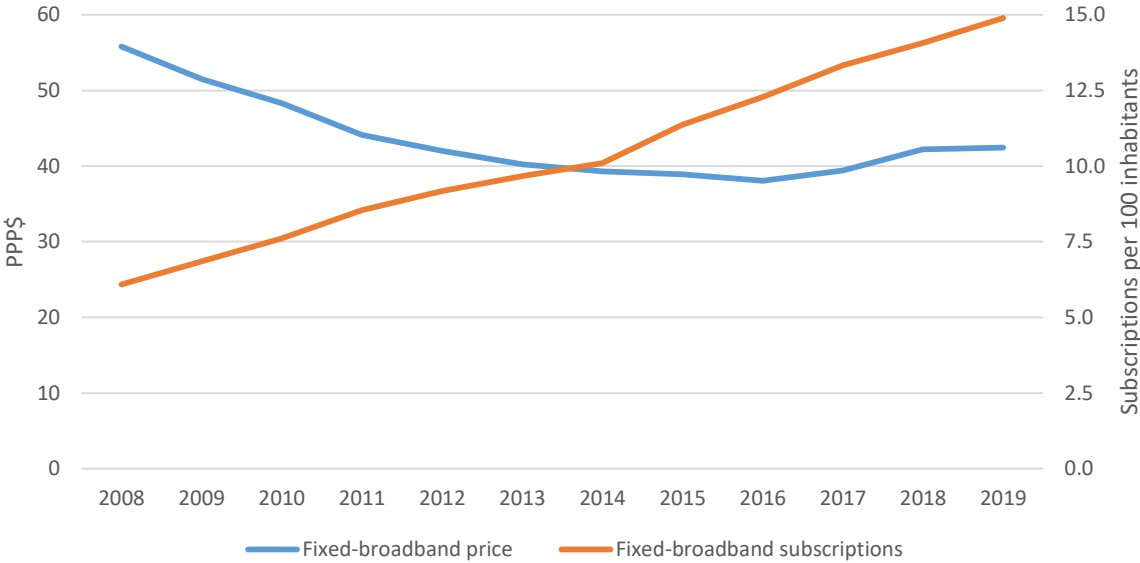
Chart 29: Fixed-broadband basket in USD, 2019



Note: Simple averages. Based on 184 economies for which data on fixed-broadband prices in USD are available for the year 2019. Source: ITU. USD exchange rates are from the IMF or UN.

When converting into international dollars using purchasing power parities (PPP\$), a different picture emerges. The price drop between 2011 and 2019 is much less pronounced, with a CAGR of -2.5 per cent only, compared with -4.4 per cent when converted into USD (see Chart 30). However, the same levelling-out trend in average price is evident. Yet despite the modest price fall, fixed-broadband subscriptions continued to grow steadily.

Chart 30: Global fixed-broadband price basket in PPP\$ (left axis) and fixed-broadband subscriptions per 100 inhabitants (right axis), 2008-2019

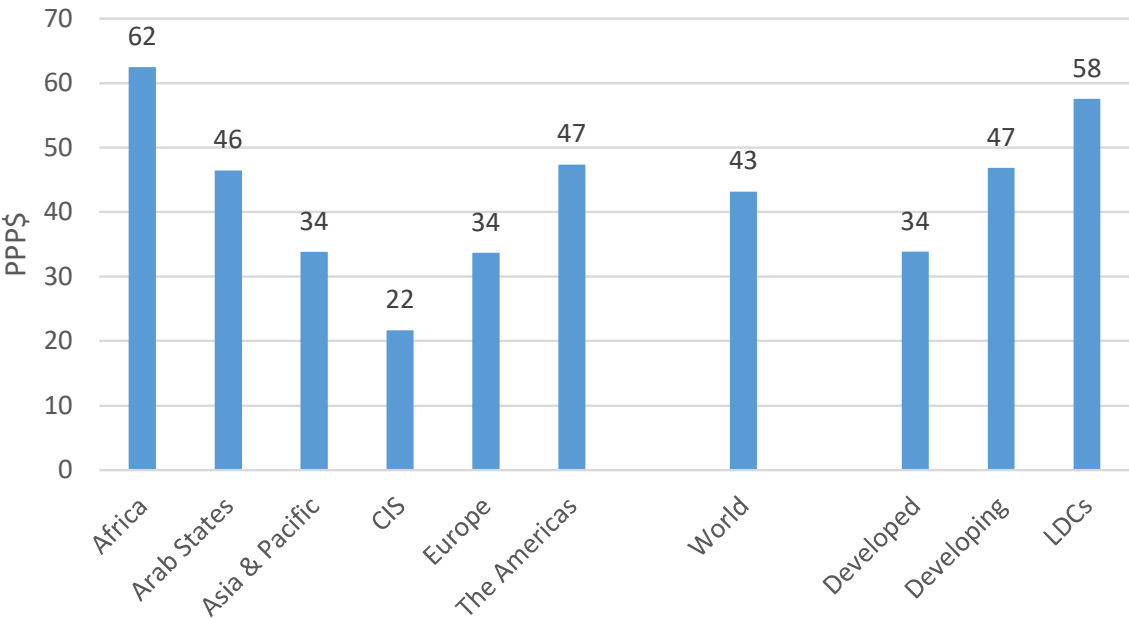


Note: Prices are calculated based on simple averages of data from 135 economies for which data on fixed-broadband prices were available for 2008-2019.
 Source: ITU. PPP\$ conversion factors are from the World Bank.

The global average price stood at some PPP\$ 43 for the fixed-broadband basket. Unlike the comparison in USD, when expressed in purchasing-power terms the price in developed countries was below the global average, at PPP\$ 34. In developing countries, it stood above the global average (PPP\$ 47). In LDCs, the price was even higher, at PPP\$ 58 (see Chart 31).

Across the regions, the highest average price was observed in Africa, at PPP\$ 62, while the lowest average price was still in the CIS region (PPP\$ 22).

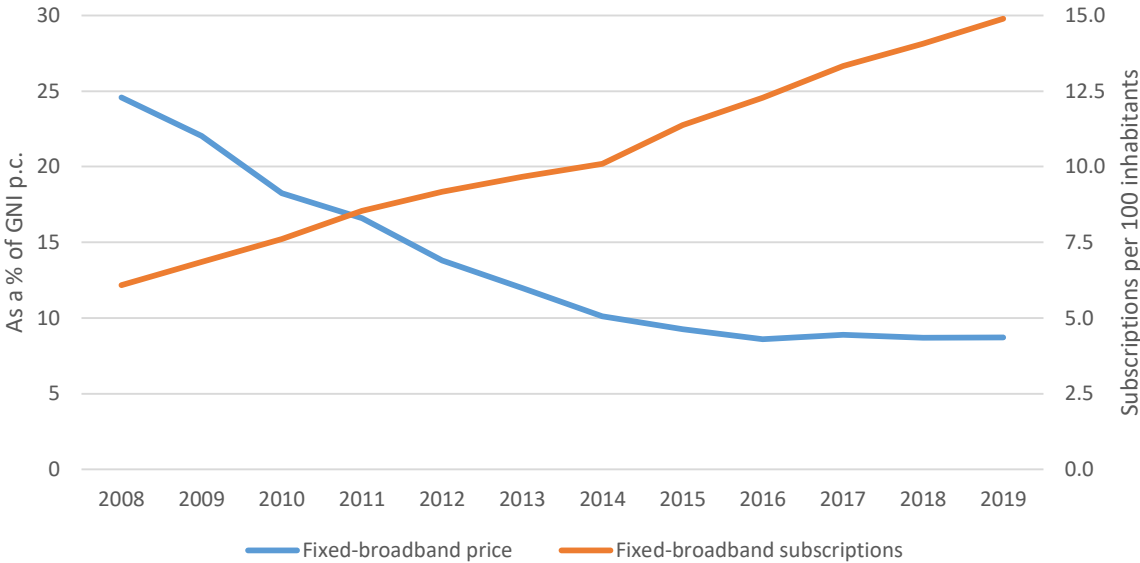
Chart 31: Fixed-broadband basket in PPP\$, 2019



Note: Simple averages. Based on 162 economies for which data on fixed-broadband prices in PPP\$ are available for the year 2019.
Source: ITU. PPP\$ conversion factors are from the World Bank.

When prices are expressed in relation to income levels, however, the picture changes dramatically. A 5 GB fixed-broadband basket has a global average cost of 8.7 per cent of GNI p.c., down from 24.6 per cent in 2008, equivalent to a CAGR of -9 per cent (see Chart 32). Over the past four years, however, the affordability of the fixed-broadband basket has not changed, whereas fixed-broadband uptake has continued to grow. At the same time, the advertised download speed offered for the same price is increasing.

Chart 32: Global fixed-broadband price basket as a % of GNI p.c. (left axis) and fixed-broadband subscriptions per 100 inhabitants (right axis), 2008-2019



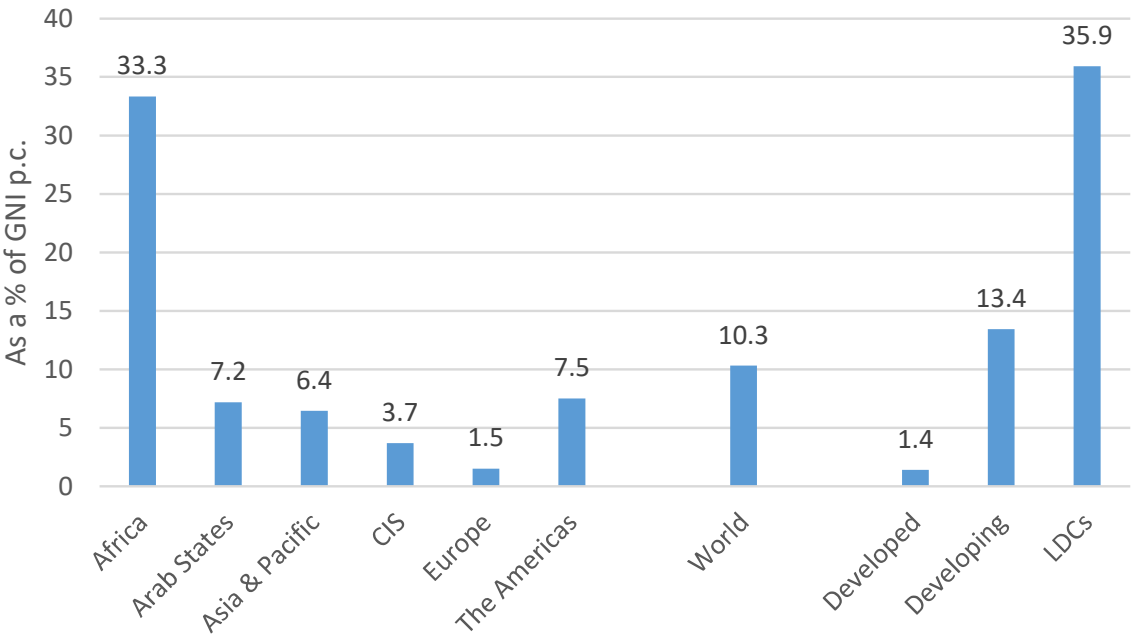
Note: Prices are calculated based on simple averages of data from 141 economies for which data on fixed-broadband prices were available for 2008-2019. Source: ITU. GNI p.c. data are from the World Bank.

Affordability, however, is very varied, depending on the development level of countries. In developed countries, the fixed-broadband basket cost only 1.4 per cent of GNI p.c. In developing countries, this rises to over 13 per cent, and in LDCs to almost 36 per cent, or more than a third of average GNI p.c. (see Chart 33). This explains why fixed-broadband penetration in LDCs stands at just 1.6 subscriptions per 100 inhabitants, compared with 33.6 in developed countries (see Chart 35). It needs to be said, however, that the LDC average is significantly skewed upwards, because of seven countries with very high prices at over 70 per cent of GNI p.c.

One way to correct for outliers is to look at the median rather than the average price. For LDCs, the median price for the fixed-broadband basket was 23.4 per cent of GNI p.c., still high, but considerably less than the average price of 35.9 per cent of GNI p.c. For developing countries, the median price is only 5.0 per cent of GNI p.c., compared with the average price of 13.4 per cent of GNI p.c. For developed countries, the difference is minimal, with a median price of 1.2 per cent of GNI p.c. and an average price of 1.4 per cent.

The regional perspective also changes substantially. Europe is the region with the lowest fixed-broadband basket price as a percentage of GNI p.c. (1.5 per cent), followed by the CIS region (3.7). In Africa, the fixed-broadband basket cost the equivalent of no less than 33.3 per cent of GNI p.c. Very high prices in six African countries impact this figure too.

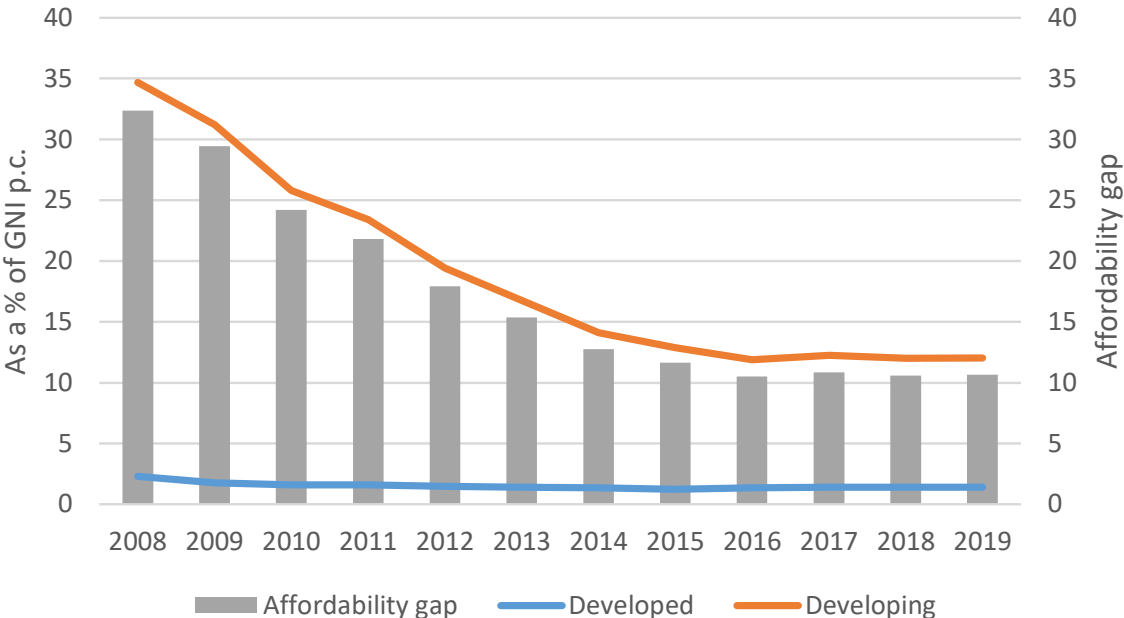
Chart 33: Fixed-broadband basket as a % of GNI p.c., 2019



Note: Simple averages. Based on 173 economies for which data on fixed-broadband prices as a % of GNI p.c. are available for the year 2019. Source: ITU. GNI p.c. data are from the World Bank.

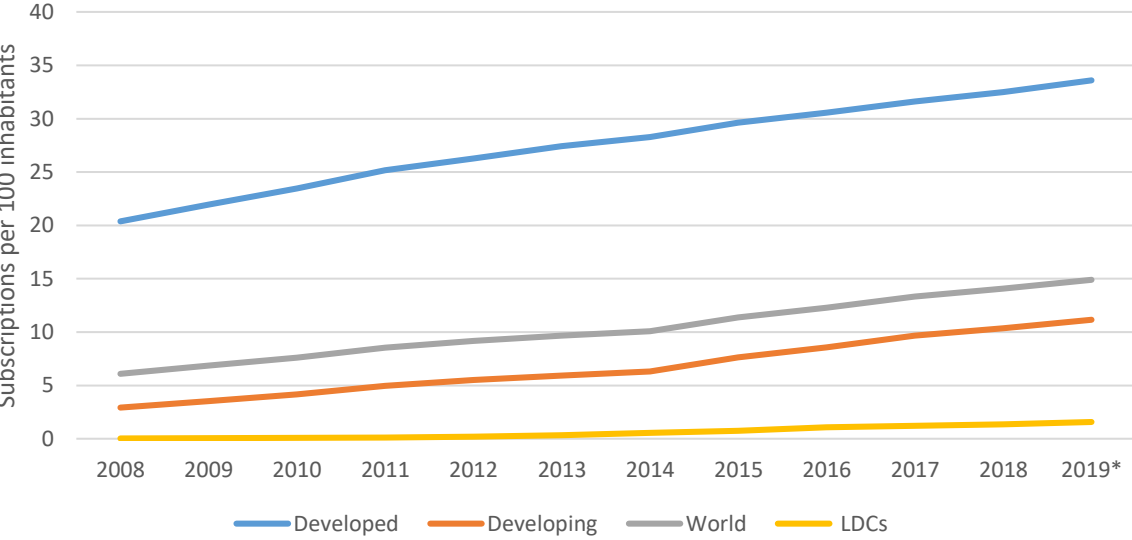
In 2008, the average price of the fixed-broadband basket stood at a hefty 34.7 per cent of GNI p.c. in developing countries, 32.4 percentage points higher than in developed countries. Although the affordability gap between developed and developing countries fell significantly in the following decade, decreasing to 10.6 percentage points in 2019, the fixed-broadband basket was still expensive in developing countries, at 13.4 per cent of GNI p.c.

Chart 34: Global fixed-broadband price basket as a % of GNI p.c. by development level (left axis) and affordability gap for fixed-broadband (right axis), 2008-2019



Notes: Simple averages. Based on 141 economies for which data on fixed-broadband prices as a % of GNI p.c. are available for all years. The affordability gap is defined as the difference in the average price as a % of GNI p.c. for developing countries and the price for developed countries. Source: ITU. GNI p.c. data are from the World Bank.

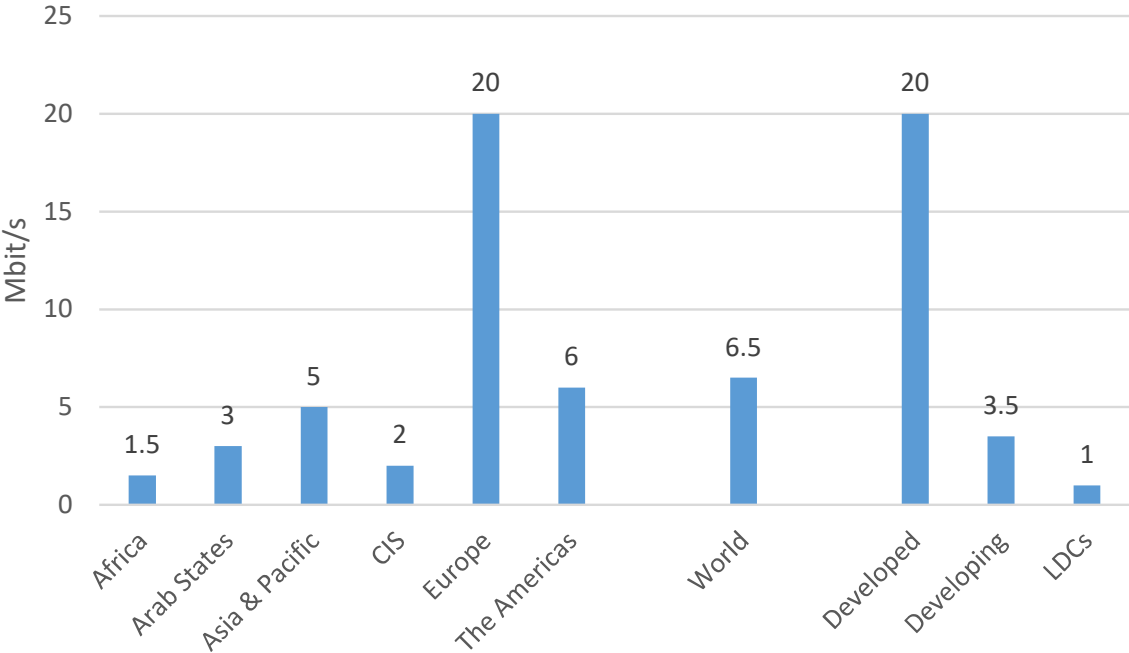
Chart 35: Fixed-broadband subscriptions per 100 inhabitants, 2008-2019*



Note: * Estimate.
Source: ITU.

A difference in quality can be observed when studying the advertised download speeds. Chart 36 shows the median entry-level speeds of the selected plan in each country, by level of development and by region. The global median advertised speed was 6.5 Mbit/s in 2019. In developed countries, this was much higher, at 20 Mbit/s, whereas in developing countries it stood at 3.5 Mbit/s, and in LDCs at only 1 Mbit/s. From a regional perspective, the median speed was highest in Europe (20Mbit/s), followed by the Americas (6 Mbit/s), Asia and the Pacific (5 Mbit/s), the Arab States (3 Mbit/s), the CIS region (2 Mbit/s) and Africa (1.5 Mbit/s).

Chart 36: Entry-level fixed-broadband median speeds, 2019



Source: ITU.

Benchmarking countries

The top 27 countries with the most affordable fixed-broadband basket all had prices that corresponded to less than 1 per cent of GNI p.c. in 2019. The list is a mixture of high-income economies from Asia and the Pacific, the Arab States, Europe and the Americas, as well as a few middle-income countries with particularly low prices, such as China, the Islamic Republic of Iran, the Russian Federation, Romania, Sri Lanka and Belarus. The economy with the most affordable fixed-broadband basket is Macao, China.

At the other end of the scale, in five countries, the fixed-broadband basket cost more than 100 per cent of GNI p.c. (Malawi, Rwanda, Niger, Madagascar and Burundi). In dollar terms, the fixed-broadband baskets in these LDCs cost between USD 36 and 225, which is unaffordable for the vast majority of the population.

Table 6: Fixed-broadband basket, 2019

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Speed, in Mbit/s	Cap per month, in GB	Most value for money (PPP\$ per Mbit/s)	Tax rate included (%)	GNI p.c., USD, 2018
1	Macao, China	0.1	7.80	9.72	3	Unlimited	3.2	0	78,320
2	Kuwait	0.3	9.37	14.39	1	Unlimited	14.4	0	33,690
3	Hong Kong, China	0.5	21.43	26.23	500	Unlimited	0.1	0	50,310
4	China	0.6	4.53	7.87	20	Unlimited	0.4	0	9,470
5	United Arab Emirates	0.6	19.73	25.70	0.26	Unlimited	98.9	5	41,010
6	Croatia	0.7	7.77	12.53	4	15	3.1	25	13,830
7	Norway	0.7	46.60	35.15	0.26	Unlimited	132.6		80,790
8	Brunei Darussalam	0.7	18.53	33.02	10	50	3.3	0	31,020
9	Iran (Islamic Republic of)*	0.7	3.33	10.64	0.51	10	20.9	9	5,470
10	Luxembourg	0.7	48.42	42.11	20	Unlimited	2.1		77,820
11	Russian Federation	0.7	6.38	15.28	100	Unlimited	0.2	20	10,230
12	Singapore	0.8	36.99	44.01	1024	Unlimited	0.0	7	58,770
13	France	0.8	27.15	27.15	15	Unlimited	1.8	20	41,070
14	Austria	0.8	32.95	33.22	20	Unlimited	1.7	20	49,250
15	Romania	0.8	7.61	16.13	300	Unlimited	0.1		11,290
16	Israel	0.8	27.57	23.36	15	Unlimited	1.6	17	40,850
17	United States	0.8	43.54	43.54	100	1024	0.4	8.89	62,850
18	Slovakia	0.8	12.87	20.19	15	Unlimited	1.3	20	18,330
19	Belgium	0.9	32.48	32.08	50	100	0.6	21	45,430
20	Cyprus	0.9	18.94	23.17	5	Unlimited	4.6	19	26,300
21	Denmark	0.9	44.18	34.92	50	Unlimited	0.7	25	60,140
22	Lithuania	0.9	13.65	23.15	8	Unlimited	2.9	21	17,360
23	Switzerland	1.0	66.47	47.27	50	Unlimited	0.9	7.7	83,580
24	Finland	1.0	38.85	34.74	50	Unlimited	0.7	24	47,820
25	Sweden	1.0	44.75	41.59	100	Unlimited	0.4	25	55,070
26	Sri Lanka	1.0	3.32	10.12	21	15	0.5	19.7	4,060
27	Belarus	1.0	4.66	18.42		10		25	5,670
28	Japan	1.0	35.21	35.81	1024	Unlimited	0.0	8	41,340
29	Kazakhstan	1.0	6.67	19.20	1	Unlimited	19.2	12	7,830
30	Germany	1.0	41.27	43.43	16	Unlimited	2.7	19	47,450
31	Estonia	1.1	18.90	26.48	10	Unlimited	2.6	20	20,990
32	Malta	1.1	23.61	31.64	30	Unlimited	1.1	18	26,220
33	Seychelles	1.1	14.47	22.86	1	8	22.9	15	15,600
34	Canada	1.1	42.68	41.27	10	100	4.1	13	44,860
35	Netherlands	1.2	50.19	49.02	50	Unlimited	1.0		51,280
36	Australia	1.2	52.30	45.51	20	100	2.3	10	53,190
37	Korea (Rep. of)	1.2	31.48	36.02	100	Unlimited	0.4	10	30,600
38	Saudi Arabia	1.2	22.40	45.96	2	20	23.0	5	21,540
39	Ireland	1.3	62.58	53.87	100	Unlimited	0.5	23	59,360
40	United Kingdom	1.3	44.01	41.80	10	Unlimited	4.2	20	41,330
41	New Zealand	1.3	44.97	40.49	50	60	0.8	15	40,820
42	Greece	1.3	21.95	28.13	4	Unlimited	7.0	30.2	19,540
43	Czech Republic	1.4	22.96	35.92	20	Unlimited	1.8	21	20,250
44	Bahamas*	1.4	34.71	30.64	8	Unlimited	3.8	12	30,210
45	Brazil	1.4	10.92	17.74	2	Unlimited	8.9	40.2	9,140
46	Portugal	1.4	25.97	33.07	30	Unlimited	1.1	23	21,680
47	Puerto Rico	1.5	25.63		3	Unlimited		11.5	21,100
48	Mauritius	1.5	14.70	25.08	10	15	2.5	15	12,050

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Speed, in Mbit/s	Cap per month, in GB	Most value for money (PPP\$ per Mbit/s)	Tax rate included (%)	GNI p.c., USD, 2018
49	Italy	1.5	41.33	44.85	200	Unlimited	0.2	22	33,560
50	Bahrain	1.5	27.93	46.09	10	70	4.6	5	21,890
51	Trinidad and Tobago	1.5	20.97	25.09	5	Unlimited	5.0	12.5	16,240
52	Albania	1.6	6.48	13.53	1	Unlimited	13.5	20	4,860
53	Qatar	1.6	82.42	108.09	50	Unlimited	2.2	0	61,190
54	Bulgaria	1.6	11.95	26.38	30	Unlimited	0.9	20	8,860
55	Turkey	1.6	14.08	40.45	4	20	10.1	25.5	10,380
56	Latvia	1.6	23.03	34.64	100	Unlimited	0.3	21	16,880
57	Iceland*	1.6	83.10	58.11	50	50	1.2	24	60,740
58	Poland	1.6	19.38	37.52	100	Unlimited	0.4	23	14,150
59	Hungary	1.7	20.72	37.15	150	Unlimited	0.2	5	14,590
60	Azerbaijan	1.7	5.88	23.99	1	Unlimited	24.0	18	4,050
61	Costa Rica	1.8	17.16	26.72	1	Unlimited	26.7	13	11,510
62	Ukraine	1.8	4.04	15.34	20	Unlimited	0.8	20	2,660
63	Spain	1.9	47.24	55.93	50	Unlimited	1.1	21	29,450
64	Montenegro	2.0	13.76	27.11	2	Unlimited	13.6	21	8,400
65	Slovenia	2.0	41.33	54.02	100	Unlimited	0.5	22	24,670
66	Curacao*	2.0	32.37	41.19	8	Unlimited	5.1	6	19,070
67	Tonga	2.2	7.71	10.07		5		15	4,300
68	Mongolia	2.2	6.43	17.72	1	200	17.7	10	3,580
69	Uzbekistan	2.2	3.72		2	6		20	2,020
70	Nepal (Republic of)	2.3	1.84	5.38	5	15	1.1	13	960
71	Mexico	2.4	18.14	34.31	10	Unlimited	3.4	16	9,180
72	Malaysia	2.4	20.75	50.40	30	60	1.7	6	10,460
73	Bosnia and Herzegovina	2.5	12.01	25.28	5	Unlimited	5.1	17	5,690
74	Uruguay	2.6	34.50	41.40	3	350	13.8		15,650
75	Panama	2.7	31.95	55.70	10	Unlimited	5.6		14,370
76	Chile	2.7	32.73	45.51	30	Unlimited	1.5	19	14,670
77	Lebanon	2.7	17.51	27.46	4	40	6.9	10	7,690
78	Saint Kitts and Nevis	2.8	42.90	56.94	6	Unlimited	9.5	17	18,640
79	Libya	2.8	14.65		2	20			6,330
80	Bangladesh	2.8	4.13	10.15	0.5	Unlimited	20.3	15	1,750
81	Bhutan	2.8	7.30	21.96	2	9	11.0	5	3,080
82	Serbia	2.9	15.46	31.78	10	Unlimited	3.2	20	6,390
83	Armenia	2.9	10.33	25.62	5	Unlimited	5.1	20	4,230
84	Egypt	3.0	7.06	36.09	5	100	7.2	14	2,800
85	India	3.1	5.16	17.08	8	Unlimited	2.1	18	2,020
86	Aruba*	3.1	60.72	72.48	100	Unlimited	0.7	3.5	23,630
87	Oman	3.1	39.01	76.82	4	20	19.2	0	15,110
88	Maldives	3.1	24.11	31.68	5	30	6.3	6	9,310
89	Dominican Rep.	3.2	19.69	42.77	4	Unlimited	10.7	30	7,370
90	Barbados*	3.3	42.50	33.81	40	Unlimited	0.8		15,240
91	Georgia	3.4	11.84		20	Unlimited		18	4,130
92	Peru	3.5	18.86	35.89	10	Unlimited	3.6		6,530
93	Tunisia	3.5	10.16	30.58	4	Unlimited	7.6	7	3,500
94	Thailand	3.6	19.84	51.41	50	Unlimited	1.0	7	6,610
95	Viet Nam	3.7	7.30	17.77	2.5	Unlimited	7.1	10	2,400
96	Antigua and Barbuda	3.7	48.15	59.24	10	Unlimited	5.9		15,810
97	Cabo Verde	3.7	10.60	22.21	12	5	1.9	15	3,450

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Speed, in Mbit/s	Cap per month, in GB	Most value for money (PPP\$ per Mbit/s)	Tax rate included (%)	GNI p.c., USD, 2018
98	North Macedonia	3.8	17.25	39.42	20	50	2.0	18	5,450
99	Fiji	3.8	18.68	29.53	20	150	1.5	9	5,860
100	Algeria	4.1	13.72	39.58	2	Unlimited	19.8	0	4,060
101	Morocco	4.1	10.55	23.99	4	Unlimited	6.0	20	3,090
102	Philippines	4.2	13.27	34.23	3	30	11.4	12	3,830
103	Colombia	4.2	21.62	45.27	5	Unlimited	9.1	0	6,190
104	Palau	4.3	60.00	64.48	5	Unlimited	12.9		16,910
105	Botswana	4.4	28.44	54.31	0.5	Unlimited	108.6	12	7,750
106	Saint Lucia	4.4	34.82	45.56	10	Unlimited	4.6	12.5	9,460
107	Ecuador	4.6	23.41	40.30	5	Unlimited	8.1	12	6,120
108	Moldova	4.8	11.90	27.82	100	Unlimited	0.3	20	2,990
109	Paraguay	5.0	23.55	50.47	20	Unlimited	2.5	10	5,680
110	Iraq	5.0	21.14	42.11	10	Unlimited	4.2	0	5,030
111	Grenada	5.5	44.44	60.44	15	Unlimited	4.0		9,780
112	Argentina	5.5	56.95		25	250		21	12,370
113	Dominica	5.9	35.19	49.10	15	Unlimited	3.3	15	7,210
114	Jamaica	6.4	26.67	41.64	1	Unlimited	41.6	16.5	4,990
115	Guatemala	6.5	23.81	39.76	3	Unlimited	13.3	12	4,410
116	Lesotho	6.5	7.48	20.24	256	5	0.1	9	1,380
117	South Africa	6.5	31.18	62.54	2	20	31.3	15	5,720
118	Micronesia	6.7	20.00	20.47	0.5	Unlimited	40.9	0	3,580
119	Saint Vincent and the Grenadines	6.7	44.44	61.74	50	Unlimited	1.2	16	7,940
120	Suriname	6.8	28.14		3	Unlimited		8	4,990
121	Bolivia (Plurinational State of)	7.6	21.27	42.60	3	Unlimited	14.2	13	3,370
122	Turkmenistan	7.6	42.86		0.25	Unlimited		15	6,740
123	Tajikistan	7.8	6.56		4	30		18	1,010
124	El Salvador	7.9	25.00	49.73	5	Unlimited	9.9		3,820
125	Gabon	7.9	44.99	65.74	10	Unlimited	6.6	18	6,800
126	Guyana	8.0	31.77	50.99	1.5	Unlimited	34.0	14	4,760
127	Kyrgyzstan	8.3	8.41	27.68	2	Unlimited	13.8	12	1,220
128	Palestine	8.4	25.85	37.16	4	50	9.3	16	3,710
129	Djibouti	8.5	15.47	27.31	1	30	27.3	10	2,180
130	Namibia	8.6	37.71	74.86	2	Unlimited	37.4	0	5,250
131	Indonesia	8.7	27.81		10	Unlimited		10	3,840
132	Belize	8.8	34.50		10	Unlimited		12.5	4,720
133	Lao P.D.R.	8.8	18.14	48.25	3	Unlimited	16.1	10	2,460
134	Samoa	8.9	30.92	42.48		6		15	4,190
135	Angola	9.3	26.10	33.56	1	30	33.6	10	3,370
136	Jordan	9.6	33.80	70.11	4	Unlimited	17.5	16	4,210
137	Cambodia	10.4	12.00	29.36	4	Unlimited	7.3	10	1,380
138	Pakistan	10.6	13.95	50.69	4	Unlimited	12.7	0	1,580
139	Yemen	12.2	9.77		0.5	6		5	960
140	Marshall Islands	12.6	49.95		0.25	Unlimited		0	4,740
141	Myanmar	12.8	13.99	55.01	1	Unlimited	55.0	5	1,310
142	Eswatini	14.8	47.35	112.81	0.25	6	451.2	14	3,850
143	Afghanistan	15.1	6.94	23.61	0.25	Unlimited	94.4	0	550
144	Guinea	16.8	11.65	23.02		5		18	830
145	Honduras	17.5	34.00	66.70	5	Unlimited	13.3	15	2,330
146	Kenya	18.3	24.67	49.74	5	Unlimited	9.9	31	1,620

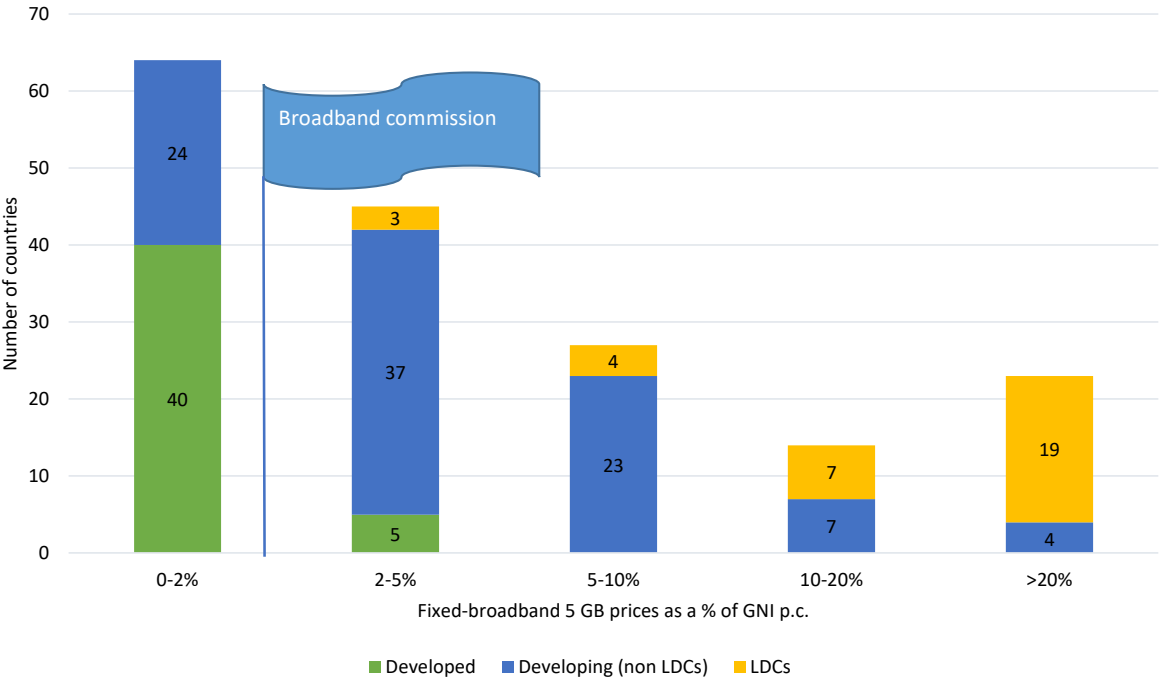
Rank	Economy	as % of GNI p.c.	USD	PPP\$	Speed, in Mbit/s	Cap per month, in GB	Most value for money (PPP\$ per Mbit/s)	Tax rate included (%)	GNI p.c., USD, 2018
147	Sao Tome and Principe	18.7	29.52	41.43	1	12	41.4	5	1,890
148	Nicaragua	19.0	32.19	86.63	1	Unlimited	86.6	15	2,030
149	Congo (Rep. of the)	19.8	26.99	46.49	2	Unlimited	23.2	16	1,640
150	Senegal	19.8	23.21	56.36	1	Unlimited	56.4	23	1,410
151	Zambia	20.1	23.90	60.95	2	10	30.5	33.5	1,430
152	Vanuatu	22.3	55.21	51.82	0.5	Unlimited	103.6	15	2,970
153	Cameroon	22.3	26.81	64.18	1	Unlimited	64.2	0	1,440
154	Tanzania	23.4	19.88	53.37	1	8	53.4	32.5	1,020
155	Nigeria	25.2	41.17	81.63	8	Unlimited	10.2	5	1,960
156	Côte d'Ivoire	25.5	34.19	83.61	1	Unlimited	83.6	18	1,610
157	Mali	25.8	17.81	45.42	1	Unlimited	45.4	18	830
158	Ethiopia	30.5	20.05	58.95	2	6	29.5	15	790
159	Papua New Guinea	30.7	64.65	78.52	24	5	3.3	10	2,530
160	Mauritania	32.2	31.95	90.34	2	Unlimited	45.2	14	1,190
161	Timor-Leste	32.3	49.00	76.22	2	20	38.1	5	1,820
162	Comoros	32.7	36.01		0.5	Unlimited		0	1,320
163	Benin	39.7	28.81	74.10	0.5	Unlimited	148.2	18	870
164	Burkina Faso	40.9	22.49	58.58	0.5	Unlimited	117.2	18	660
165	Togo	41.5	22.49	55.30	2	Unlimited	27.6	18	650
166	Uganda	41.5	21.46	64.24	0.5	5	128.5	18	620
167	Guinea-Bissau	72.6	45.38	104.15	0.25	Unlimited	416.6	17	750
168	Haiti	82.5	55.00	117.62	2	Unlimited	58.8	10	800
169	Malawi	120.4	36.13	106.53	5	20	21.3	26.5	360
170	Rwanda	125.1	81.29	223.25	10	Unlimited	22.3	18	780
171	Niger	169.1	53.53	133.30	0.25	Unlimited	533.2	19	380
172	Madagascar	203.6	74.67	261.49	100	Unlimited	2.6	20	440
173	Burundi	964.3	225.00	549.19	1	Unlimited	549.2	18	280
	Andorra**		18.90		1	7		4.5	
	Anguilla**		55.19		10	Unlimited			
	Cayman Islands**		87.59		8	Unlimited			
	Cuba**		50.00		0.5	Unlimited		0	
	Gibraltar**		32.02		16	Unlimited		0	
	Liechtenstein**		61.36		40	Unlimited		7.7	
	Monaco**		47.23		100	Unlimited			
	San Marino**		19.65	21.82	20	Unlimited	1.1		
	Somalia**		10.00		0.5	6		10	
	Syrian Arab Republic**		3.39		0.5	Unlimited		5	
	Taiwan, Province of China**		10.38		16	Unlimited		5	

Note: Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference. * Data correspond to the GNI p.c. in 2017. ** Country not ranked because data on GNI p.c. are not available.

Source: ITU. GNI p.c. and PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

As mentioned above, in 2018 the Broadband Commission for Sustainable Development set as a target for 2025 that entry-level broadband services should be made affordable in developing countries, corresponding to less than 2 per cent of monthly GNI p.c. The Broadband Commission did not specify whether this target should apply to fixed or mobile broadband. Mobile broadband is generally more affordable than fixed broadband. Furthermore, fixed broadband requires an infrastructure that is not necessarily present in all countries, or all parts thereof. Nevertheless, for the reasons outlined above, fixed broadband remains important, which is why this publication also reports on the number of countries reaching the Broadband Commission target for fixed broadband. In 2019, a fixed-broadband basket including 5 GB of data cost less than 2 per cent of GNI p.c. in 64 countries only. These 64 countries included 40 developed countries and 24 developing countries, but no LDCs. In 45 countries, of which five developed, 37 developing and three LDCs, prices stood just above the Broadband Commission target. In the remaining 34 developing countries and 30 LDCs, much progress still needs to be made in order to reach the 2 per cent target by 2025. In 23 countries in particular, prices are above 20 per cent of GNI p.c.

Chart 37: Number of countries having achieved the Broadband Commission target with fixed-broadband services, 2019

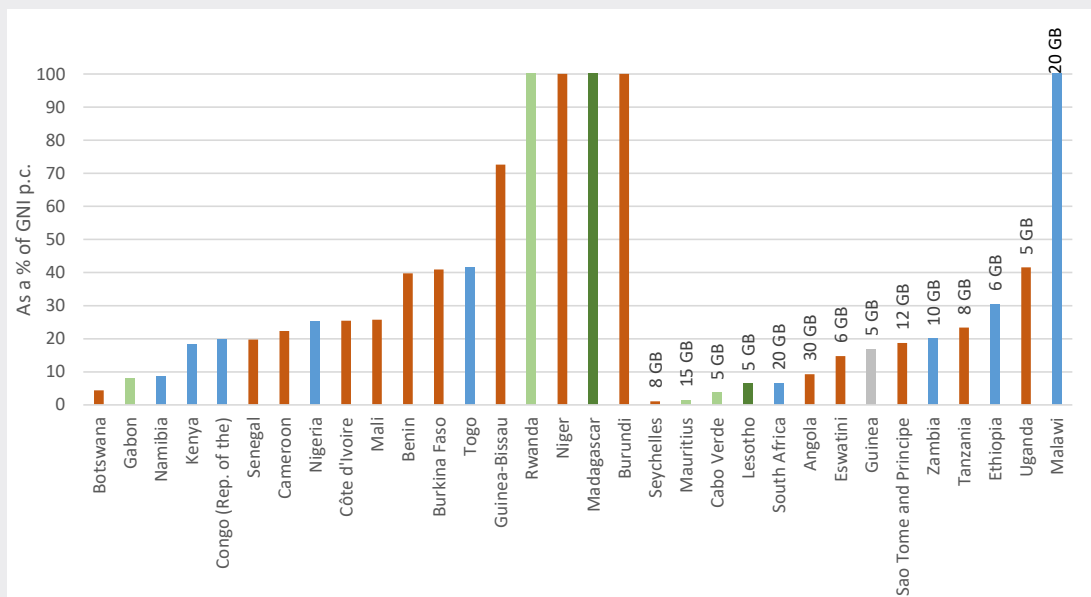


Source: ITU.

Africa

Fixed-broadband prices in Africa range from a cost representing less than 2 per cent of GNI p.c. in the Seychelles and Mauritius, to over 100 per cent in Malawi, Rwanda, Niger, Madagascar and Burundi. As such, those first two countries are the only African countries to have achieved the Broadband Commission target for 2025.

Chart 38: Fixed-broadband prices as a percentage of GNI p.c., speeds and caps, Africa, 2019



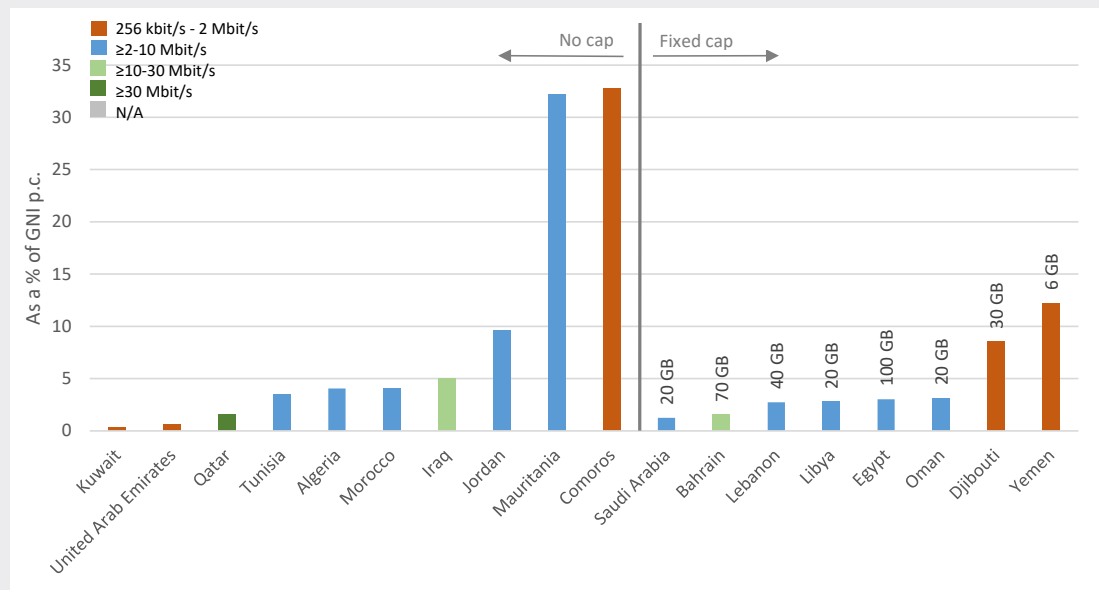
Note: Speeds and caps/month refer to the advertised speeds and the amount of data included in the entry-level fixed-broadband subscription.
Source: ITU. GNI p.c. values are World Bank data.

Almost half of the countries in the region offer entry-level fixed-broadband plans with capped monthly data allowances. This allows operators to offer plans at a reduced cost, but the implication for users is that they are limited in their use of the Internet. In addition, in about half of the countries, entry-level fixed-broadband speeds are only provided between 256 kbit/s and 2 Mbit/s, significantly reducing the usefulness of Internet access. Low bandwidth will prevent the meaningful use of many applications, which in turn will have a negative impact on the development of a digital economy. In six of the countries for which data are available, speeds are 10 Mbit/s or above, although in two of those countries that package is unaffordable for most of the population.

Arab States

In the Arab States, five countries have already achieved the Broadband Commission target of entry-level broadband access for less than 2 per cent of GNI p.c. by 2025: Kuwait, the United Arab Emirates, Saudi Arabia, Bahrain and Qatar. In Comoros and Mauritania, the fixed-broadband basket cost more than 30 per cent of GNI p.c. in 2019.

Chart 39: Fixed-broadband prices as a percentage of GNI p.c., speeds and caps, Arab States, 2019



Note: Speeds and caps/month refer to the advertised speeds and the amount of data included in the entry-level fixed-broadband subscription.

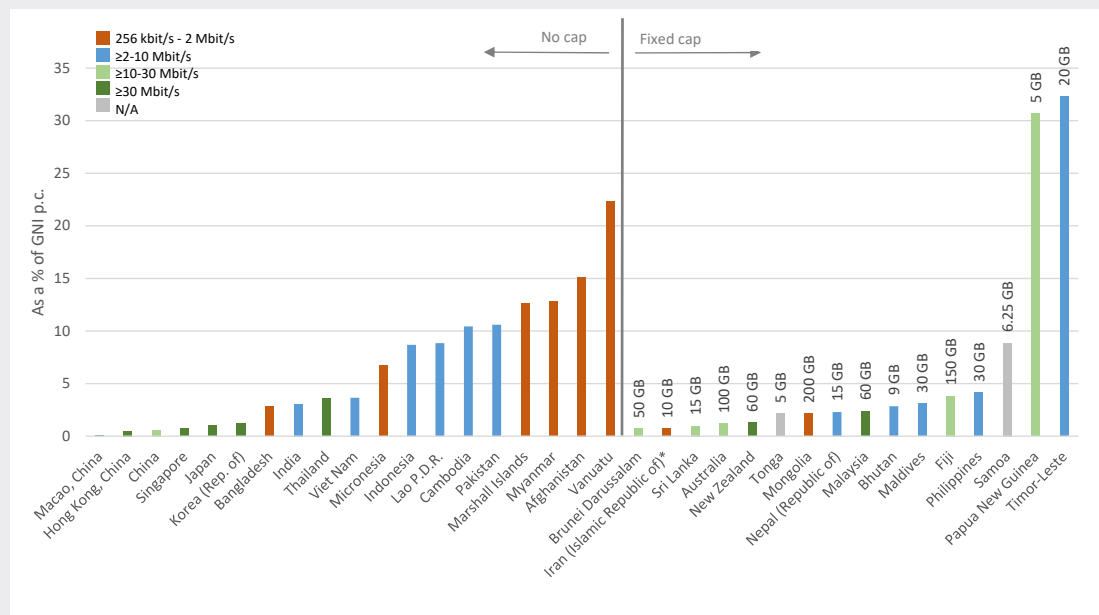
Source: ITU. GNI p.c. values are World Bank data.

Also in the Arab States, almost half of the countries offer entry-level fixed-broadband plans with capped monthly data allowances, although the caps in most cases are higher than in Africa. In five of the countries, the United Arab Emirates, Comoros, Yemen, Kuwait and Djibouti, the advertised download speeds are below 2 Mbit/S, whereas in three countries, Iraq, Bahrain and Qatar, the advertised speeds are 10 Mbit/s or higher.

Asia and the Pacific

Asia and the Pacific is a very diverse region, with a mix of high-income developed countries, emerging economies and developing countries, including a number of LDCs. This is also reflected in the prices of the fixed-broadband baskets. In eleven economies, the fixed-broadband basket cost less than 2 per cent of GNI p.c., while the advertised download speeds of those plans were 10 Mbit/s or above. At the same time, in the four countries offering unlimited access with prices above 10 per cent of GNI p.c., the Marshall Islands, Myanmar, Afghanistan and Vanuatu, advertised download speeds were below 2 Mbit/s.

Chart 40: Fixed-broadband prices as a percentage of GNI p.c., speeds and caps, Asia and the Pacific, 2019



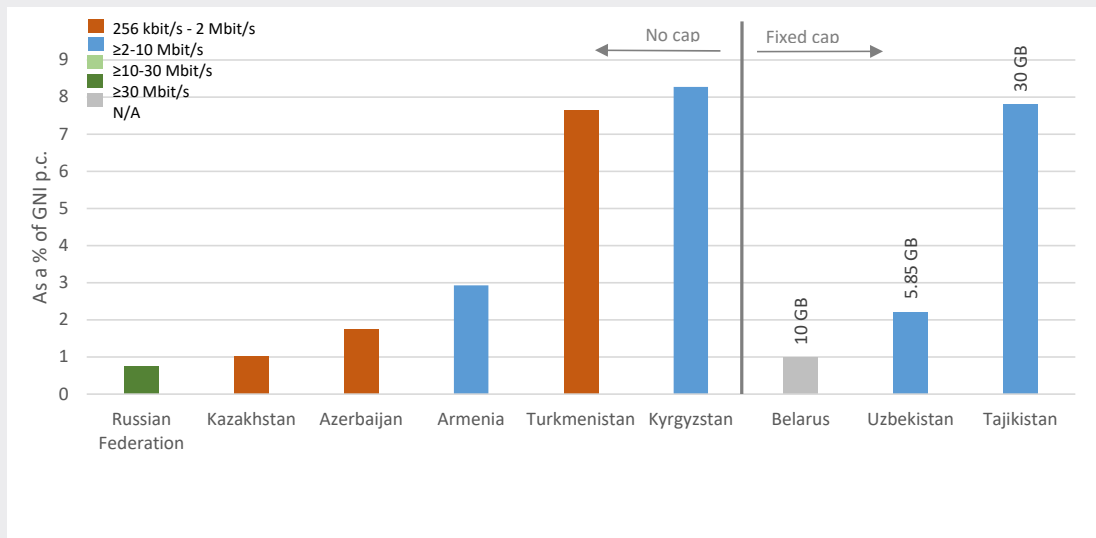
Note: Speeds and caps/month refer to the advertised speeds and the amount of data included in the entry-level fixed-broadband subscription. *Data correspond to the GNI p.c. (Atlas method) in 2017. Source: ITU. GNI p.c. values are World Bank data.

As in Africa and the Arab States, almost half of the countries in the region offered plans with a limited monthly data allowance, ranging from 5 GB per month in Tonga and Papua New Guinea to 200 GB in Mongolia.

Commonwealth of Independent States

In most of the countries in the CIS region, the fixed-broadband baskets are relatively affordable, with four countries already having achieved the Broadband Commission target: the Russian Federation, Belarus, Kazakhstan and Azerbaijan. Except in the Russian Federation, however, the advertised download speeds are not very high. In three countries, Belarus, Uzbekistan and Tajikistan, data caps are in place ranging from 5.85 GB per month to 30 GB.

Chart 41: Fixed-broadband prices as a percentage of GNI p.c., speeds and caps, CIS, 2019



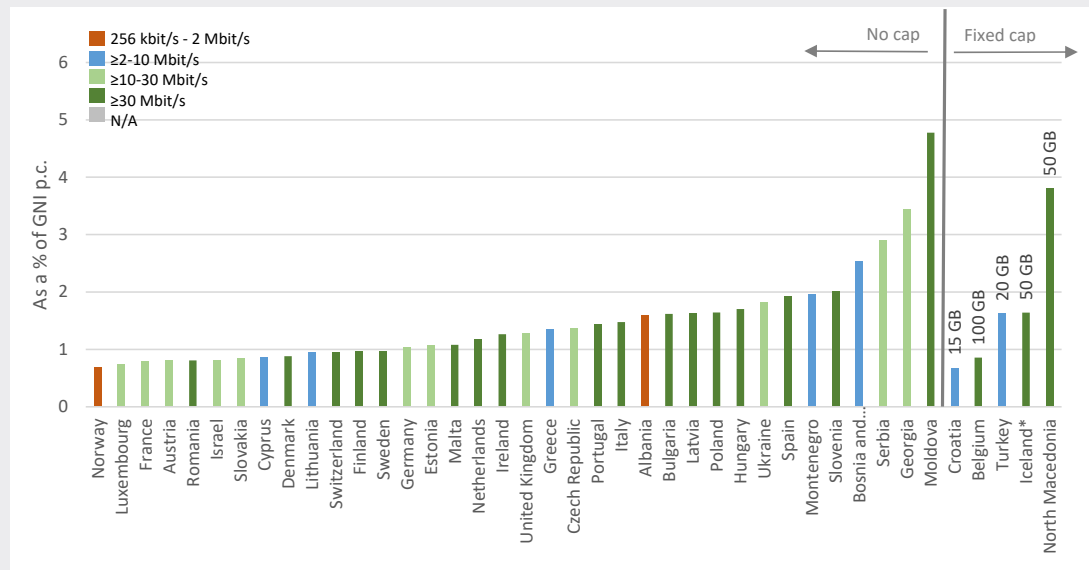
Note: Speeds and caps/month refer to the advertised speeds and the amount of data included in the entry-level fixed-broadband subscription.

Source: ITU. GNI p.c. values are World Bank data.

Europe

In Europe, the fixed-broadband basket costs more than the Broadband Commission target of 2 per cent of GNI p.c. in six countries only: Slovenia, Bosnia and Herzegovina, Serbia, Georgia, North Macedonia and Moldova. In almost all countries, the advertised download speed is 10 Mbit/s or more. In five countries, monthly data allowances are capped.

Chart 42: Fixed-broadband prices as a percentage of GNI p.c., speeds and caps, Europe, 2019

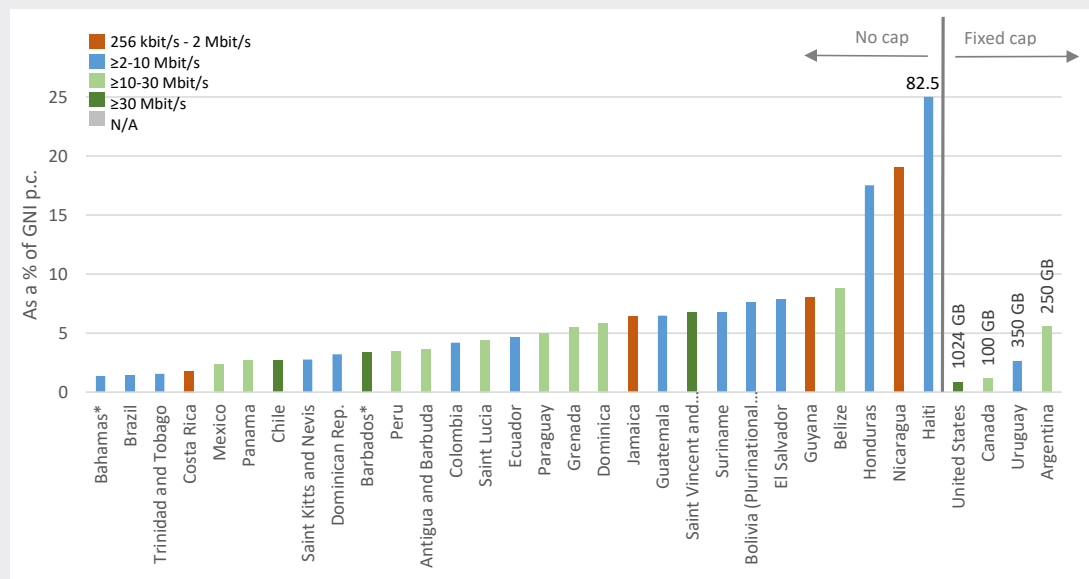


Note: Speeds and caps/month refer to the advertised speeds and the amount of data included in the entry-level fixed-broadband subscription. *Data correspond to the GNI p.c. (Atlas method) in 2017.
Source: ITU. GNI p.c. values are World Bank data.

The Americas

In the Americas, six countries have already achieved the Broadband Commission target: the United States, Canada, the Bahamas, Brazil, Trinidad and Tobago and Costa Rica. In Haiti, however, fixed broadband is unaffordable for the vast majority of the population. In four countries, advertised download speeds remain below 2 Mbit/s. In another four countries, there are also limitations on the monthly data allowance, but these caps are generally quite high, ranging from 100 GB in Canada to 1024 GB in the United States.

Chart 43: Fixed-broadband prices as a percentage of GNI p.c., speeds and caps, the Americas, 2019



Note: Speeds and caps/month refer to the advertised speeds and the amount of data included in the entry-level fixed-broadband subscription. *Data correspond to the GNI p.c. (Atlas method) in 2017.
Source: ITU. GNI p.c. values are World Bank data.

Conclusion

This report has found that on average, mobile-voice, mobile-data and fixed-broadband prices are falling steadily around the world, and in some countries even dramatically. The reduction in price relative to income is even more dramatic, suggesting that globally, telecommunication/ICT services are becoming more affordable. However, this trend in annual average prices is not necessarily true of all countries or for the entire population in each country. Furthermore, falling prices are not translated into rapidly increasing Internet penetration rates, especially in LDCs, pointing to the fact that affordability may not be the only barrier to Internet uptake.

Endnotes

- ¹ EGTI was created in May 2009 with the mandate to revise the list of ITU supply-side indicators (i.e. data collected from operators), as well as to discuss outstanding methodological issues and new indicators. EGTI is open to all ITU members and experts in the field of ICT statistics and data collection. It works through an online discussion forum (<http://www.itu.int/ITU-D/ict/ExpertGroup/default.asp>) and face-to-face meetings. EGTI reports to the World Telecommunication/ICT Indicators Symposium (WTIS).
- ² For example, if country A and country B have the same price in USD for any given ICT service, but in country A the prices of other products are generally cheaper (in USD), then applying PPP exchange rates to the price of the ICT service in country A will make this service more expensive. This is because, compared with country B, in country A the same amount of USD (exchanged into national currency at market exchange rates) can buy more products or services. Therefore, the ICT service in country A is more expensive in terms of what could be bought with the same amount in each country. The International Comparison Program is the major global initiative to produce internationally comparable price levels. For more information on the PPP methodology and data, see <http://icp.worldbank.org>.
- ³ GNI takes into account all production in the domestic economy (i.e. gross domestic product) plus the net flows of factor income (such as rents, profits and labour income) from abroad. The Atlas method smooths exchange-rate fluctuations by using a three-year moving average, price-adjusted conversion factor. See <http://data.worldbank.org/indicator/NY.GNP.PCAP.CD>.
- ⁴ We are however not using the word “bundle” for the combined voice and data baskets, because bundles are not offered in all countries, in which case prices for the separate services are simply added up.
- ⁵ See <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups> for the thresholds of the different income levels, and the countries in each group.
- ⁶ Please note that LDCs are a subset of developing countries. The list of LDCs can be found in this [Excel file](#).
- ⁷ Please see [here](#) for the composition of the ITU regions and the classification of developed/developing countries, according to [UN M49](#).
- ⁸ Country tables for the year 2018 for each of the five baskets can be found in Annex 3.
- ⁹ For the low-usage data-and-voice basket, however, for some of the countries only on-net prices have been taken into account, whereas for the mobile-voice basket a mix of on-net, off-net and calls to fixed-line numbers have been taken into account. As a result, in some cases the price of a data-and-voice basket is cheaper than the mobile-voice basket, even if theoretically this should not be the case.
- ¹⁰ Growth rates for the period 2013-2019 should be analysed with caution, as there is a break in series between 2017 and 2018, but since the old and the new baskets are reasonably close, this is reported nevertheless.
- ¹¹ See <https://itu.foleon.com/itu/measuring-digital-development/offline-population/>.
- ¹² As mentioned above, however, a data-only plan will not be very common in developed countries, as most people will have a data-and-voice bundle.
- ¹³ As mentioned above, however, a data-only plan will not be very common in developed countries, as most people will have a data-and-voice bundle.

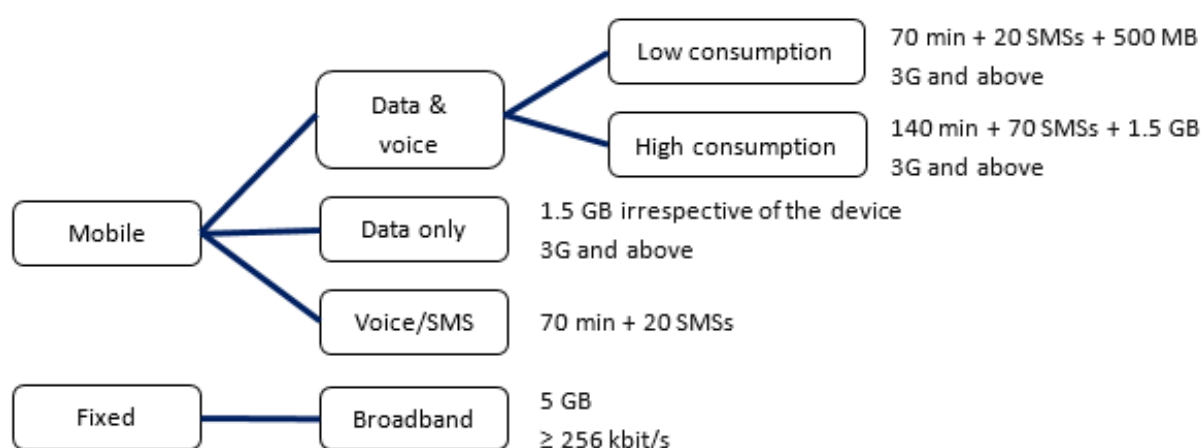
- ¹⁴ OECD (2015), The Development of Fixed Broadband Networks, Working Party on Communication Infrastructures and Services Policy, DSTI/ICCP/CISP(2013)8/FINAL, available at [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP\(2013\)8/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP(2013)8/FINAL&docLanguage=En).
- ¹⁵ Subscription levels for fixed broadband should not be compared with subscription levels for mobile broadband. Fixed-broadband connections are usually shared with several people, while mobile-broadband subscriptions are usually for one person only, and sometimes people have even more than one mobile-broadband subscription.
- ¹⁶ Before the revision in 2017, the fixed-broadband basket was based on a monthly data usage of a minimum of 1 GB. In 2017, which was the last time data were collected with a 1 GB minimum monthly usage, in 154 of 177 countries the data cap was 5 GB or higher. Therefore, the impact of raising the minimum usage from 1 GB to 5 GB is minimal, and time series are therefore presented without a break in series.
- ¹⁷ As in previous sections, there can be a difference between the global price as presented in the time series chart and the price shown in the chart for 2019 alone, because the country coverage is different. The note under the chart indicates the number of countries used for the aggregate.

Annex 1: ICT price data methodology

ICT price baskets

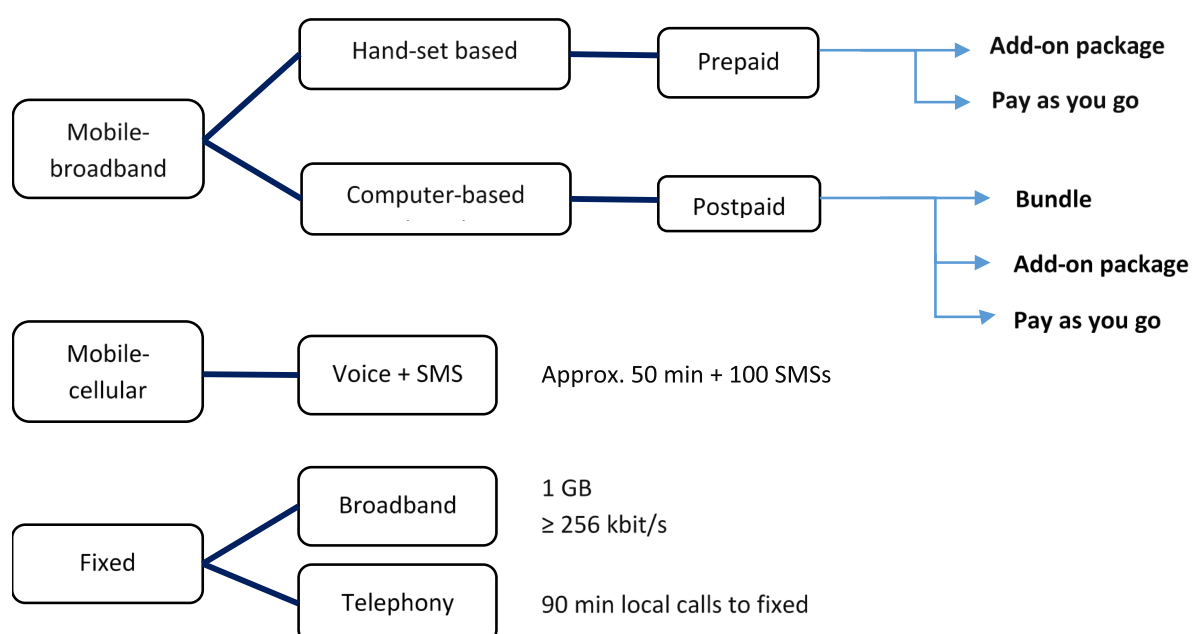
ICT price data are collected for five baskets, as shown in Annex Figure 1.¹

Annex Figure 1: New ICT price baskets (from 2018)



These baskets were introduced in 2018, following a revision of the ICT price baskets in place up to 2017, as shown in Annex Figure 2.

Annex Figure 2: ICT price baskets up to 2017



At the 2017 meeting of the Expert Group on Telecommunication/ICT Indicators (EGTI)², a subgroup was created to review consumption patterns and any changes that had occurred over the previous seven years and propose, if needed, new baskets for implementation. The subgroup collected evidence on the average consumption of voice, SMS and data services from a large set of economies, which resulted in two different consumption groupings (low/high) based on the countries for which evidence was available. The ICT price basket revision was approved by the 2018 meeting of EGTI. The main changes made include the following:

- Two baskets with a combination of voice and data (broadband) were introduced, with two different usage patterns:
 - a. Low-consumption data-and-voice basket: 70 minutes, 20 SMSs and 500 MB.
 - b. High-consumption data-and-voice basket: 140 minutes, 70 SMSs and 1.5 GB.
- Up to 2018, a distinction was made based on the device used for mobile-broadband (computer-based vs. smartphone-based). As from 2018, this distinction has been eliminated.
- Based on the trends towards decreasing usage, the SMS allowance was reduced from 100 to 20 SMSs for the mobile-cellular low-usage basket.
- The number of minutes included in the mobile-cellular low-usage basket was increased from 50 to 70.
- The amount of data consumed for the fixed-broadband basket was increased from 1 GB to 5 GB.

The mobile-cellular low-usage basket

The mobile-cellular basket³ refers to the price of a standard basket of 70 minutes and 20 SMS messages per month in predetermined on-net/off-net/fixed ratios.⁴ The mobile-cellular basket is based on the most common contract modality (prepaid or postpaid) in the economy in question, i.e. if more than 50 per cent of subscriptions are prepaid, then prepaid is selected. Otherwise, a postpaid plan is selected.

The previous mobile-cellular basket was based on the 2009 methodology of the Organisation for Economic Co-operation and Development (OECD) low-usage basket, which is the entry-level basket with the lowest number of calls included. In light of the changes in the market, at the 2017 meeting of EGTI a subgroup was created to study how to improve the baskets to better reflect the consumption patterns in the markets. The subgroup collected evidence on average consumption of voice, SMS and data services from a large set of countries. Based on this exercise, the mobile-cellular basket composition was updated to a low-usage mobile-cellular basket that includes 70 minutes and 20 SMSs per month, in predetermined ratios (Annex Table 1.1). The prices are collected for the largest mobile operator. The ITU mobile-cellular basket does not take into account calls to voicemail or non-recurring charges, such as the one-time charge for a SIM card. The cost of a national SMS is the charge to the consumer for sending a single SMS text message. Both on-net and off-net SMS prices are taken into account. The basket considers on-net and off-net calls as well as calls to a fixed telephone.

Annex Table 1.1: Revised mobile-cellular low-usage basket, call and SMS distribution

	To fixed	On-net	Off-net	TOTAL
Call distribution (%)	7	67	26	100
Call distribution (minutes)	4.9	46.9	18.2	70
SMS		10	10	20

Source: ITU.

Another significant change to the new mobile-cellular basket is the contract modality. In previous years, only prepaid prices were collected for mobile-cellular prices. However, in order to reflect market reality, prices in the updated mobile-cellular basket refer to the most common contract modality (prepaid/postpaid) in the economy concerned. If more than 50 per cent of mobile-cellular subscriptions are postpaid, then a postpaid plan should be chosen. Otherwise a prepaid plan is selected. Data-collection rules for the low-usage mobile-cellular basket can be found in Annex Box 1.1.

Annex Box 1.1: Rules applied in collecting mobile-cellular price data

1. The prices of the operator with the largest market share (measured by the number of subscriptions) are used. If prices vary between different regions of the country, prices refer to those applied in the largest city (in terms of population) or in the capital city.
2. Prices should be collected in the currency they are advertised in, including taxes. If prices are not advertised in local currency, a note should be added specifying the currency.
3. Prices refer to the most common contract modality (prepaid/postpaid) in the country. If more than 50 per cent of mobile-cellular subscriptions are postpaid, then a postpaid plan should be chosen. Otherwise a prepaid plan should be selected.
4. Where the operator offers different packages with a certain number of calls and/or SMS messages included, the cheapest one based on 70 voice minutes and 20 SMSs per month (i.e. with a 30-day validity) should be selected. If instead of a pay-per-use plan a package is selected for the whole basket (e.g. a bundle including 100 minutes, 50 SMSs and 100 MB) or for some of its elements (e.g. a package including 100 SMSs), this should be indicated in the notes.
5. If per-minute prices are only advertised in internal units rather than in national currency, the price of the top-up/refill charge is used to convert internal units into national currency. If there are different refill prices, then the "cheapest/smallest" refill card is used. If different refill charges exist depending on the validity period, the validity period for 30 days (or closest to 30 days) is used.
6. Prices refer to a regular (non-promotional) plan and exclude special or promotional offers, limited discounts or options such as special prices for certain numbers or restricted to new customers, or plans where calls can only be made during a limited number of (or on specific) days during the month.
7. If subscribers can choose "favourite" numbers (for family, friends, etc.) with a special price, this special price will not be taken into consideration, irrespective of how many numbers are involved.
8. Prices refer to outgoing local calls. If different rates apply for local and national calls, then the local rate is used. If different charges apply depending on the mobile operator called, the price of calls to the operator with the second largest market share (measured by the number of subscriptions) should be used, indicating in the notes the rates for calling other mobile operators. If charges apply to incoming calls, these are not taken into consideration.
9. If prices vary between minutes (1st minute = price A, 2nd minute = price B), the per-minute cost of a two-minute call should be reported (i.e. price per minute = $(A+B)/2$). Call set-up rates should not be included in the per-minute price, but reported under call connection charge.
10. If prices vary beyond two minutes, the average price per minute is calculated based on the actual cost of the first two minutes.
11. If there is a connection cost per call, then this is taken into consideration in the formula for the mobile-cellular basket, based on 35 calls.
12. If there are different off-peak prices, then the one that is the cheapest before midnight is used. If the only off-peak period is after midnight, then this is not used. Instead, the peak price is used.

13. If there are different peak prices, the most expensive one during daytime is used.
14. If peak and off-peak SMS prices exist, the average of both is used for on-net and off-net SMS.
15. If calls are charged by call or by hour (and not by minute), the mobile-cellular basket formula will be calculated on the basis of 35 calls or 70 minutes. Similarly, if calls are charged by call or by number of minutes for a specific network/time of day, this will be taken into account for that particular network/time of day.
16. Where monthly, recurring charges exist, they are added to the basket.

Source: ITU.

The fixed-broadband basket

The fixed-broadband basket refers to the price of a monthly subscription to an entry-level fixed-broadband plan. For comparability reasons, the fixed-broadband basket is based on a monthly data usage of a minimum of 5 GB. For plans that limit the monthly amount of data transferred by including data volume caps below 5 GB, the cost for the additional bytes is added to the basket. The minimum speed of a broadband connection is 256 kbit/s.

Where several offers are available, preference is given to the cheapest available connection that offers a speed of at least 256 kbit/s and 5 GB of data volume. Where providers set a limit of less than 5 GB on the amount of data that can be transferred within a month, then the price per additional byte is added to the monthly price in order to calculate the cost of 5 GB of data per month. Preference is given to the most widely used fixed (wired)-broadband technology (DSL, fibre, cable, etc.). The basket does not include the installation charges, modem prices or telephone-line rentals that may be required for a DSL service. The price represents the broadband entry plan in terms of the minimum speed of 256 kbit/s, but does not take into account special offers that are limited in time or to specific geographical areas. The plan does not necessarily represent the fastest or most cost-effective connection since the price for a higher-speed plan is often cheaper in relative terms (i.e. in terms of the price per Mbit/s). The rules applied to collecting fixed-broadband price data may be found in Annex Box 1.2.

Annex Box 1.2: Rules applied in collecting fixed-broadband Internet price data

1. The prices of the operator with the largest market share (measured by the number of fixed-broadband subscriptions) should be used.
2. Prices should be collected in the currency they are advertised in, including taxes. If prices are not advertised in local currency, a note should be added specifying the currency.
3. Only residential, single-user prices should be collected. If prices vary between different regions of the country, prices applying to the largest city (in terms of the population) should be provided. If that information is not available, prices applying to the capital city should be reported. The selected city should be mentioned in a note under the monthly subscription indicator.
4. From all fixed-broadband plans meeting the above-mentioned criteria, the cheapest one based on a 5 GB monthly usage and an advertised download speed of at least 256 kbit/s should be selected. If there is a price distinction between residential and business tariffs, the residential tariff should be used.
5. If the plan selected has no limit on monthly data usage, the cap should be set at 0 and a note added to that indicator specifying “unlimited”.
6. Plans with limited hours of use will not be considered.
7. If operators propose different commitment periods, the 12-month plan (or the one closest to this commitment period) should be used. If the plan selected requires a longer commitment (i.e. above 12 months), this should be indicated in a note under the monthly subscription. Furthermore, if there are different prices (e.g. a discounted price for the first year and a higher price as of the 13th month), then the price after the discount period should be selected. The discounted price charged during the initial period should be indicated in a note under the monthly subscription charge. This is because the initial price paid is considered a limited/discounted price, and the other is the regular price.
8. Prices should be collected for the fixed-broadband (access) technology with the greatest number of subscriptions in the country (FTTH, DSL, cable, etc.).
9. The same price plan should be used for collecting all the data specified. For example, if a given Plan A is selected for the fixed-broadband service, according to the criteria mentioned above, the elements in Plan A apply to the monthly subscription, the excess charge, the volume of data that can be downloaded, etc.
10. Prices should be collected for regular (non-promotional) plans and should not include promotional offers or limited or restricted discounts (e.g. students only, already existing customers only, etc.).
11. With convergence, operators are increasingly providing multiple (bundled) services such as voice telephony, Internet access and TV reception over their networks. They often bundle these offers into a single subscription. This can present a challenge for price-data collection, since it may not be possible to isolate the prices for a given service.
12. The cost of a fixed-telephone line should be excluded if it can be used for other services too. If a monthly rental for the physical line is not required (e.g. naked DSL), this should be mentioned in a note. If a monthly rental of a fixed-telephone line is required, this should also be explained in a note.

Source: ITU.

The data-only mobile-broadband price basket

The data-only mobile-broadband basket⁵ is based on a monthly data usage of a minimum of 1.5 GB. For plans that limit the monthly amount of data transferred by including data volume caps below 1.5 GB, the cost for the additional bytes is added to the basket. The minimum speed of a broadband connection is 256 kbit/s. The data-only mobile-broadband basket is based on the most common contract modality (prepaid or postpaid) in the economy in question, i.e. if more than 50 per cent of subscriptions are prepaid, then prepaid is selected. Otherwise, a postpaid plan is selected.

ITU has been collecting mobile-broadband price data through its annual ICT Price Basket Questionnaire since 2012. The collection of mobile-broadband price data from ITU Member States was agreed upon by EGTI in 2012, and revised by EGTI in 2013 in the light of the lessons learned from the first data-collection exercise. The revised methodology was then applied in the 2014 data collection. Initially, a distinction based on the device used (computer-based, handset-based) as well as the contract modality (prepaid, postpaid) was applied. This was then further updated with the 2018 revision, whereby only one data-only mobile-broadband basket was kept, with at least a 1.5 GB monthly data allowance, irrespective of the device used, and prices referring to the most common contract modality (prepaid/postpaid) in the economy.

For plans that are limited in terms of validity (less than 30 days), the price of the additional days was calculated and added to the base package in order to obtain the final price. Two possibilities exist, depending on the operator, for extending a plan that is limited in terms of data allowance (or validity). The customer either (i) continues to use the service and pays an excess usage charge for additional data⁶, or (ii) purchases an additional (add-on) package. Thus, for some countries, prices reflect the price of the base package plus an excess-usage charge (e.g. a base package including 1 GB plus the price for 500 MB of excess usage for a monthly usage of 1.5 GB), or a multiplication of the base package price (e.g. three times the price of a 500 MB plan for a monthly usage of 1.5 GB).

The plans selected represent the least expensive offers that include the minimum monthly amount of 1.5 GB of data. The guiding principle is to base each plan on what customers could and would purchase given the data allowance and validity of each plan.

Prices for the revised data-only mobile-broadband basket are collected using an updated set of rules (see Annex Box 1.3).

Annex Box 1.3: Rules applied in collecting mobile-broadband price data

1. Prices should be collected based on 3G technologies or above, e.g. UMTS, HSDPA+/HSDPA, CDMA2000, IEEE 802.16e, LTE, LTE-Advanced and WiMAX/WirelessMAN. Prices applying to Wi-Fi or hotspots should be excluded.
2. Prices should be collected in the currency they are advertised in, including taxes. If prices are not advertised in local currency, a note should be added specifying the currency.
3. Only residential, single-user prices should be collected. If prices vary between different regions of the country, prices applying to the largest city (in terms of population) or to the capital city should be provided.
4. Prices refer to the most common contract modality (prepaid/postpaid) in the country. If more than 50 per cent of mobile-broadband subscriptions are postpaid, then a postpaid plan should be chosen. Otherwise a prepaid plan should be selected.
5. Mobile-broadband prices should be collected from the operator with the largest market share measured by the number of mobile-broadband subscriptions. If this information is not available, mobile-broadband prices should be collected from the mobile-cellular operator with the largest market share (measured by the number of mobile-cellular subscriptions) in the country.
6. The validity period considered for the basket is 30 days or four weeks. If a plan with a validity of 15 days is selected, it will be taken twice to cover the whole period. Likewise, if a plan with a validity of a day or a week is selected, it will be taken as many times as necessary to cover a period of four weeks. The cheapest plan on the basis of a validity period of 30 days or four weeks should be selected.
7. Price data should be collected for the cheapest plan with a data volume allowance of a minimum of 1.5 GB per month (irrespective of the device used). The selected plan should not necessarily be the one with the cap closest to 1.5 GB, but include a minimum of 1.5 GB. For example, if an operator offers a 500 MB and a 2 GB plan, the 2 GB plan or three times the 500 MB plan (if the package can be purchased thrice for a monthly capacity of 1.5 GB) could be selected for the data-only mobile-broadband basket. The cheapest option should be chosen. Data volumes should refer to both upload and download data volumes. If prices are linked to "hours of use" and not to data volumes, this information should be added in a separate note. Note: ITU will most likely not be able to include these cases in a comparison.
8. Pay-as-you-go offers should be used when they are the cheapest option for a given basket or the only option available. If operators charge different pay-as-you-go rates depending on the time of day (peak/off-peak), then the average of both should be recorded. Night-time data allowances will not be considered.
9. Even if the plan is advertised as "unlimited", the fine print should be carefully reported since most often there are limits on the data volumes (e.g. fair-usage policies), either applied by throttling (limiting the speed) or by cutting the service.
10. Data on non-recurrent fees, such as installation/set-up fees, are not collected.
11. Preference should be given to the cheapest available package even if this is bundled with other services (e.g. voice services). If the plan chosen includes other services besides mobile-broadband access, these should be specified in a note. Zero-rated services (i.e. services that can be consumed besides the monthly data allowance) should be specified in a note.

12. Prices refer to a regular (non-promotional) plan and exclude promotional offers and limited discounts or special user groups (e.g. existing clients). Special prices that apply to a certain type of phone (e.g. iPhone, iPad) should be excluded. Night-time allowances are not included.

Source: ITU.

The data-and-voice price baskets

The low-consumption data-and-voice price basket is based on a monthly data usage of a minimum of 500 MB of data, 70 voice minutes, and 20 SMSs. The high-consumption data-and-voice price basket is based on a monthly data usage of a minimum of 1.5 GB, 140 minutes, and 70 SMSs. For plans that limit the monthly amount of data transferred by including data volume caps below 500 MB (low-consumption) or 1.5 GB (high-consumption), the cost of the additional bytes is added to the basket. The minimum speed of a broadband connection is 256 kbit/s. The data-and-voice basket is based on the most common contract modality (prepaid or postpaid) in the economy in question, i.e. if more than 50 per cent of subscriptions are prepaid, then prepaid is selected. Otherwise, a postpaid plan is selected.

Price baskets with a combination of data, voice and SMS were added by EGTI in the 2017 revision of the price baskets. To capture the prices of different data packages, covering low- and high-usage consumption patterns, data-and-voice price data are collected for two different thresholds for data, voice and SMS, based on a set of rules (see Annex Box 1.4):

- a. Low-consumption data-and-voice basket: 70 minutes, 20 SMSs and 500 MB.
- b. High-consumption data-and-voice basket: 140 minutes, 70 SMSs and 1.5 GB.

For plans that are limited in terms of validity (less than 30 days), the price of the additional days is calculated and added to the base package in order to obtain the final price. Two possibilities exist, depending on the operator, for extending a plan that is limited in terms of data allowance (or validity). The customer either (i) continues to use the service and pays an excess usage charge for additional data,⁷ or (ii) purchases an additional (add-on) package. Thus, for some countries, prices reflect the price of the base package plus an excess-usage charge (e.g. a base package including 1 GB plus the price for 500 MB of excess usage for a monthly usage of 1.5 GB), or a multiplication of the base package price (e.g. twice the price of a 250 MB plan for a monthly usage of 500 MB).

The plans selected represent the least expensive offers that include the minimum amount of data for each respective data-and-voice basket. The guiding principle is to base each plan on what customers could and would purchase given the data allowance and validity of each plan.

Annex Box 1.4: Rules applied in collecting data-and-voice price data

1. Prices should be collected based on 3G technologies or above, e.g. UMTS, HSDPA+/HSDPA, CDMA2000, IEEE 802.16e, LTE, LTE-Advanced and WiMAX/WirelessMAN. Prices applying to Wi-Fi or hotspots should be excluded.
2. Prices should be collected in the currency they are advertised in, including taxes. If prices are not advertised in local currency, a note should be added specifying the currency.
3. Only residential, single-user prices should be collected. If prices vary between different regions of the country, prices applying to the largest city (in terms of population) or to the capital city should be provided.
4. Prices refer to the most common contract modality (prepaid/postpaid) in the country. If more than 50 per cent of mobile-cellular subscriptions are postpaid, then a postpaid plan should be chosen. Otherwise a prepaid plan should be selected.
5. Prices should be collected from the operator with the largest market share measured by the number of mobile-cellular subscriptions.
6. The validity period considered for the basket is 30 days or four weeks. If a plan with a validity of 15 days is selected, it will be taken twice to cover the whole period. Likewise, if a plan with a validity of a day or a week is selected, it will be taken as many times as necessary to cover a period of four weeks. The cheapest plan on the basis of a validity period of 30 days or four weeks should be selected.
7. Price data should be collected for two data-and-voice baskets separately. The cheapest plan meeting the requirements of each data-and-voice basket should be selected:
 - a. Low-consumption data-and-voice basket: 70 minutes, 20 SMSs and 500 MB.
 - b. High-consumption data-and-voice basket: 140 minutes, 70 SMSs and 1.5 GB.

The selected plan should not necessarily be the one with the data, voice and SMS allowances closest to the consumption set for each data-and-voice basket, but rather the cheapest including the minimum allowances set for each consumption profile. For example, if an operator offers a plan including 35 minutes, 10 SMSs and 250 MB, and a plan including 1 GB and unlimited domestic voice and SMS, either twice the first plan (if the package can be purchased twice per month) or the second plan could be selected for the low-consumption data-and-voice basket. The cheapest option should be chosen. Data volumes should refer to both upload and download data volumes. If prices are linked to "hours of use" and not to data volumes, this information should be added in a separate note. Note: ITU will most likely not be able to include these cases in a comparison.

8. The excess price per voice minute should be reported as the on-net price. If different peak and off-peak prices exist, an average shall be reported. If prices vary between minutes (1st minute = price A, 2nd minute = price B, call set-up rate = price C), the per-minute cost of a two-minute call should be reported (i.e. $(A+B+C)/2$). Call set-up rates should be included in the per-minute price of excess usage and indicated in the corresponding note. If the excess price reported corresponds to a package of minutes, the total price for the package should be reported and the number of minutes included should be specified in a note.

9. The excess price per SMS should be reported as the on-net SMS price. If different peak and off-peak prices exist, the average should be reported. If the excess price reported corresponds to a package of SMSs, the total price for the package should be reported and the number of SMSs included should be specified in a note.
10. Pay-as-you-go offers should be used when they are the cheapest option for a given data-and-voice basket or the only option available. If operators charge different pay-as-you-go rates depending on the time of day (peak/off-peak), then the average of both should be recorded. Night-time data allowances will not be considered.
11. Even if the plan is advertised as “unlimited”, the fine print should be carefully reported since most often there are limits on the data volumes (e.g. fair-usage policies), either applied by throttling (limiting the speed) or by cutting the service.
12. Data on non-recurrent fees, such as installation/set-up fees, are not collected.
13. Preference should be given to the cheapest available package even if this is bundled with other services (e.g. online TV content). If the plan chosen includes other services besides data, voice and SMS, these should be specified in a note. Zero-rated services (i.e. services that can be consumed besides the monthly allowances) should be specified in a note.
14. Prices refer to a regular (non-promotional) plan and exclude promotional offers and limited discounts or special user groups (e.g. existing clients). Special prices that apply to a certain type of phone (e.g. iPhone, iPad) should be excluded. Night-time allowances are not included.

Source: ITU.

Price-data collection and sources

Up to 2018, price data were collected in the fourth quarter of the year. Starting in 2019, price data have been collected in the first quarter of the year. Up to 2017, data were collected through the ITU ICT Price Basket Questionnaire, with the exception of data on mobile-broadband prices, which were collected directly from operator websites. From 2018 onwards, all data were collected through the ITU ICT Price Basket Questionnaire, which was sent to the administrations and statistics contacts of 220 economies in October 2018 for 2018 and in April 2019 for 2019 data. Through the questionnaire, contacts were requested to provide data for fixed-broadband prices; low-usage mobile-cellular prices; data-only mobile-broadband prices; and voice-and-data-prices (low and high usage). In 2019, the 2018 prices were included for reference, where available. For those economies that did not reply to the ITU ICT Price Basket Questionnaire, price data were collected directly from operator websites and/or through direct correspondence with the operator. Price data were collected from the operator with the largest market share, as measured by the number of subscriptions. If it was not clear which Internet service provider (ISP) had the dominant market share, preference was given to the (former) incumbent telecommunication operator. In some cases, especially where prices were not clearly advertised or were indicated only in the local language, and where operators did not respond to queries, alternative operators were chosen. All prices were converted into United States dollars using IMF's average annual rate of exchange for 2018⁸, and into PPP\$ using World Bank conversion factors for 2018 (as published in October 2019). Prices are also presented as a percentage of countries' monthly GNI p.c. using GNI p.c. values from the World Bank (Atlas method) for 2018 (as published in October 2019). Price data for 2008 to 2018, which are also shown and used in this publication, were collected in previous years (always during the second half of the respective year), in national currencies, and converted using the same sources.

Endnotes to Annex 1

- ¹ The names of the various baskets used in this annex differ slightly different from those used in the main body of this publication. The terminology in this annex reflects that officially agreed to by the Expert Group on Telecommunication/ICT Indicators (EGTI), which is also used when collecting the data, whereas the names of the baskets in the analytical part of this publication are more descriptive. In particular, in the analysis, the mobile-cellular basket is called “mobile-voice basket” and the data-only mobile-broadband basket is called “mobile-data basket”.
- ² EGTI was created in May 2009 with the mandate to revise the list of ITU supply-side indicators (i.e. data collected from operators), as well as to discuss outstanding methodological issues and new indicators. EGTI is open to all ITU members and experts in the field of ICT statistics and data collection. It works through an online discussion forum (<http://www.itu.int/ITU-D/ict/ExpertGroup/default.asp>) and face-to-face meetings. EGTI reports to the World Telecommunication/ICT Indicators Symposium (WTIS).
- ³ In the analytical part of this publication this basket is called the “mobile-voice basket”.
- ⁴ On-net refers to a call made to the same mobile network, while off-net and fixed-line refer to calls made to other (competing) mobile networks and to a fixed-telephone line, respectively.
- ⁵ In the analytical part of this publication this basket is called the “mobile-data basket”.
- ⁶ Some operators throttle speeds after the data allowance included in the base package has been used up. Customers can then pay an excess-usage charge in order to continue to have full-speed connections. In some cases, even throttled speeds are still considered to be broadband (i.e. equal to or greater than 256 kbit/s, according to ITU’s definition).
- ⁷ Some operators throttle speeds after the data allowance included in the base package has been used up. Customers can then pay an excess-usage charge in order to continue to have full-speed connections. In some cases, even throttled speeds are still considered to be broadband (i.e. equal to or greater than 256 kbit/s, according to ITU’s definition).
- ⁸ For economies where IMF’s average annual rate of exchange was not available, the average annual UN Operational exchange rate was used when available.

Annex 2: Detailed ICT price tables, 2019

Annex Table 2.1: High-consumption mobile-data-and-voice basket - plan details, 2019

Rank	Economy	Notes	Price of the plan		Included minutes	Included SMS	Data allowance (in GB)	Validity	Operator
			USD	PPP\$					
1	Afghanistan		1.0	3.5	0	0	0.5	7	Roshan
2	Albania	1	11.1	23.2	2,500	2,200	2.0	30	Vodafone Albania
3	Algeria	2	8.6	24.7	140	70	13.0	30	Algérie Télécom Mobile "MOBILIS"
4	Andorra		29.6		200	100	1.5	30	Andorra Telecom
5	Angola		15.8	20.3	0	0	2.0	31	Unitel
6	Anguilla		44.4		1,000	1,000	3.0	30	Flow
7	Antigua and Barbuda		37.0	45.6	700	700	7.0	30	Flow
8	Argentina		6.8		0	0	2.0	15	Claro
9	Armenia	3	5.2	12.8	2,500	250	3.9	30	MTS Armenia CJSC
10	Aruba		33.5	40.0	1,000	100	4.0	30	SETAR
11	Australia	4	36.6	31.9	140	70	15.0	30	Telstra
12	Austria	5	16.6	16.8	1,000	1,000	4.0	30	A1 Telekom Austria
13	Azerbaijan		2.9	12.0	0	200	2.0	30	Azercell
14	Bahamas	6	10.0	8.8	3,000	3,000	2.0	7	Bahamas Telecommunication Company Ltd. (BTC)
15	Bahrain	7	16.8	27.7	500	0	6.0	30	VIVA
16	Bangladesh		3.2	7.8	150	200	1.5	30	Grameenphone
17	Barbados	8	37.5	29.8	150	70	1.5	30	Digicel
18	Belarus		3.1	12.1	250	0	0.5	30	Mobile TeleSystems Joint Limited Liability Company (MTS)
19	Belgium		18.9	18.7	120	70	1.5	30	Proximus
20	Belize	9	12.5		90	70	2.7	15	Digi
21	Benin		9.9	25.5	90	0	1.6	30	MTN Bénin
22	Bhutan	10	2.9	8.8	0	0	1.9	30	Bhutan Telecom Ltd
23	Bolivia (Plurinational State of)		7.2	14.5	0.0	0	0	30	Entel S.A.
24	Bosnia and Herzegovina	11	21.2	44.6	0	0	3.0	30	BH Telecom
25	Botswana	12	77.9	148.8	0	0	1.5	60	Mascom
26	Brazil	13	13.7	22.2	0	0	3.0	30	Vivo
27	Brunei Darussalam	14	14.8	26.4	0	0	3.0	30	DST
28	Bulgaria	15	14.5	32.0	200	80	0.1	30	A1 Bulgaria EAD
29	Burkina Faso	16	2.7	7.0	120	120	0.1	7	ONATEL
30	Burundi		6.2	15.1	0	75	1.8	30	ECONET LEO
31	Cabo Verde		8.6	17.9	0	0	2.0	30	CV Movel
32	Cambodia		2.0	4.9	0	0	1.5	30	Metfone
33	Cameroon	17	27.0	64.6	899	500	1.5	30	MTN Cameroon
34	Canada	18	83.4	80.7	140	70	2.0	30	Rogers
35	Cayman Islands		54.0		300	0	3.0	30	Digicel
36	Central African Rep.		0.9		40	100	0.1	1	Orange
37	Chad		32.4		1,000	1,000	1.6	30	Tigo
38	Chile	19	10.9	15.2	350	0	5.0	30	Movistar
39	China		8.8	15.2	150	0	3.0	30	China Mobile
40	Colombia		6.8	14.2	250	1,000	2.2	15	COMCEL S.A. (CLARO)
41	Comoros	20	12.0		180	120	1.0	20	Comores Télécom

Annex Table 2.1: High-consumption mobile-data-and-voice basket - plan details, 2019 (continued)

Rank	Economy	Notes	Price of the plan		Included minutes	Included SMS	Data allowance (in GB)	Validity	Operator
			USD	PPP\$					
42	Costa Rica	21	6.9	10.8	0	0	2.0	30	Instituto Costarricense de Electricidad
43	Côte d'Ivoire	22	0.4	0.9	20	20	0.8	1	Orange Cote d'Ivoire
44	Croatia	23	23.7	38.3	140	70	5.0	30	Hrvatski Telekom d.d.
45	Cuba		22.5		0	45	2.5	30	ETECSA
46	Curacao	24	82.3	104.8	140	70	5.0	30	United Telecommunications Services N.V. (UTS)
47	Cyprus	25	33.1	40.5	140	70	1.0	30	Cyta
48	Czech Republic	26	36.8	57.5	140	70	4.0	30	T-Mobile Czech Republic a.s.
49	Dem. Rep. of the Congo		45.0		250.0	250	50	30	Vodacom DRC
50	Denmark	27	26.8	21.2	140	70	10.0	30	youSee
51	Djibouti		43.9	77.5	180	100	3.8	30	Djibouti Telecom
52	Dominica	28	22.2	31.0	140	70	1.5	30	Digicel
53	Dominican Rep.	29	28.8	62.4	200	1,000	3.0	30	CLARO
54	Ecuador	30	11.2	19.3	200	0	2.0	30	CONECCEL-CLARO
55	Egypt	31	3.2	16.5	330	70	1.5	28	Vodafone
56	El Salvador	32	7.0	13.9	140	0	3.0	14	Tigo
57	Estonia	33	14.2	19.9	140	70	5.0	30	Telia
58	Eswatini		27.2	64.8	300	100	2.0	30	MTN
59	Ethiopia		10.2	30.0	166	0	2.0	30	Ethio Telecom
60	Fiji		13.4	21.2	0	0	3.0	30	Vodafone Fiji
61	Finland	34	9.3	8.3	0	0	0.0	30	Elisa
62	France	35	31.9	31.9	140	70	10.0	30	Orange
63	Gabon	36	25.2	36.8	240	800	2.3	30	Gabon Telecom
64	Gambia		5.4	17.6	0	0	1.5	30	QCELL
65	Georgia	37	2.0		140	70	1.0	7	MagtiCom
66	Germany	38	18.9	19.9	140	0	1.5	30	Vodafone
67	Ghana		10.9	30.2	400	60	2.0	30	MTN
68	Gibraltar		40.0		300	300	2.0	30	Gibtelecom
69	Greece		24.8	31.8	300	100	1.5	30	Cosmote
70	Grenada	39	35.2	47.8	300	140	8.0	30	Digicel
71	Guatemala	40	13.2	22.0	0	0	2.5	30	Comunicaciones Celulares, S.A.
72	Guinea		1.7	3.3	25	25	0.5	7	Orange Guinea
73	Guinea-Bissau		18.0	41.3	0	0	5.0	30	MTN Bissau
74	Guyana		26.5	42.5	150	150	4.5	30	Digicel
75	Haiti		0.3	0.6	0	0	0.2	3	Digicel
76	Honduras		4.2	8.2	300	0	1.0	7	Tigo
77	Hong Kong, China	41	12.2	15.0	0	0	2.0	30	CSL Mobile Limited
78	Hungary	42	32.5	58.3	140	10	3.0	30	Magyar Telekom
79	Iceland	43	27.6	19.3	140	70	5.0	30	NOVA
80	India	44	1.4	4.7	140	300	2.0	28	Reliance Jio Infocomm Limited
81	Indonesia		6.7	18.8	100	100	10.0	30	Telkomsel
82	Iran (Islamic Republic of)		12.2	39.1	1,000.0	1,000	1,000	30	MCI
83	Iraq		21.1	42.1	0	0	2.0	30	Zain Iraq

Annex Table 2.1: High-consumption mobile-data-and-voice basket - plan details, 2019 (continued)

Rank	Economy	Notes	Price of the plan		Included minutes	Included SMS	Data allowance (in GB)	Validity	Operator
			USD	PPP\$					
84	Ireland	45	41.3	35.6	140	70	20.0	30	Vodafone
85	Israel		11.1	9.4	2,500	2,500	30.0	30	Cellcom
86	Italy	46	21.3	23.1	140	500	20.0	30	TIM
87	Jamaica	47	17.5	27.3	140	0	3.5	28	Digicel
88	Japan		53.8	54.7	140	0	2.0	30	NTT Docomo
89	Jordan	48	12.9	26.8	5,000	200	4.0	30	Zain
90	Kazakhstan	49	6.9	20.0	140	100	12.0	30	Activ (KCell)
91	Kenya	50	4.9	10.0	0	0	2.0	30	Safaricom
92	Kiribati		14.9		0	0	2.7	30	Amalgamated Telecom Holdings Kiribati
93	Korea (Rep. of)	51	37.3	42.7	150	70	1.5	30	SK Telecom
94	Kuwait	52	23.2	35.6	140	70	5.0	30	Zain
95	Kyrgyzstan		0.7	2.4	300	500	1.0	7	MegaCom
96	Lao P.D.R.		6.5	17.2	0	0	1.5	30	Unitel
97	Latvia	53	14.2	21.3	140	70	2.0	30	TELE 2
98	Lebanon		41.8	65.6	110	110	1.8	30	Touch Lebanon
99	Lesotho		13.9	37.6	248	0	2.0	30	Vodacom Lesotho
100	Liberia		30.0	28.7	1,500	300	20.0	30	MTN Liberia (Lonestar Cell)
101	Libya		5.9		0	0	1.0	15	Libyana
102	Liechtenstein	54	35.7		100	70	5.0	30	Telecom Liechtenstein AG
103	Lithuania	55	12.9	21.8	140	70	2.0	30	Telia
104	Luxembourg		21.2	18.5	500	500	3.0	30	Post Luxembourg
105	Macao, China		12.1	15.1	480	0	2.0	30	CTM
106	Madagascar		7.5	26.3	0	0	2.0	30	Telma Mobile
107	Malawi		6.8	20.1	0	0	2.0	30	Airtel Malawi
108	Malaysia	56	9.9	24.1	140	0	6.0	30	DiGi Telecommunications Sdn Bhd
109	Maldives	57	14.9	19.6	0	0	2.5	30	Dhiraagu
110	Mali		9.0	22.9	0	0	2.0	30	Orange Mali
111	Malta	58	35.4	47.5	140	70	1.5	30	Vodafone
112	Mauritania		5.6	15.8	120	0	4.0	30	Mauritel
113	Mauritius	59	7.2	12.4	0	1,000	1.7	30	Cellplus Mobile Communications Ltd (my.t)
114	Mexico		10.4	19.7	140	70	1.5	30	Telcel
115	Micronesia		30.0	30.7	60	900	2.0	30	FSM Telecommunications Corporation
116	Moldova		6.5	15.3	180	300	2.0	30	Orange Moldova
117	Monaco	60	59.0		140	70	50.0	30	Monaco Telecom
118	Mongolia		6.7	18.4	0	0	3.0	30	MobiCom
119	Montenegro		19.9	39.3	5,200	5,000	4.0	30	Crnogorski Telekom
120	Morocco	61	6.4	14.5	160	100	2.0	28	IAM
121	Mozambique		5.0		1,050	300	0.3	5	mCel
122	Myanmar		1.0	4.1	0	0	1.5	30	MPT
123	Namibia	62	2.4	4.8	100	700	1.0	7	MTC
124	Nauru		23.2		0	0	1.8	30	Digicel
125	Nepal (Republic of)		5.0	14.5	490	300	1.5	28	Nepal Doorsanchar Company Limited (Nepal Telecom)

Annex Table 2.1: High-consumption mobile-data-and-voice basket - plan details, 2019 (continued)

Rank	Economy	Notes	Price of the plan		Included minutes	Included SMS	Data allowance (in GB)	Validity	Operator
			USD	PPP\$					
126	Netherlands	63	24.8	24.2	140	70	2.0	30	KPN
127	New Zealand		14.5	13.1	200	500	1.8	28	Vodafone
128	Nicaragua		6.7	17.9	40	100	1.0	15	Claro
129	Niger	64	18.0	44.8	2,500	70	4.0	30	Airtel Niger SA (Ex Celtel)
130	Nigeria		6.5	13.0	140	55	3.0	30	MTN
131	North Macedonia	65	15.3	35.0	140	70	10.0	30	ONE.VIP
132	Norway	66	36.8	27.7	140	70	3.0	30	Telenor
133	Oman	67	13.0	25.6	100	100	1.0	30	Omantel
134	Pakistan		3.8	13.7	2,000	2,000	2.0	30	Jazz
135	Palau		25.0	26.9	190	2,000	2.0	30	PNCC
136	Palestine	68	6.5	9.3	0	0	2.5	30	Jawwal
137	Panama	69	5.0	8.7	25	25	1.5	7	Movistar
138	Papua New Guinea		5.5	6.7	0	0	0.6	7	Digicel Papua New Guinea
139	Paraguay	70	20.9	44.9	140	0	3.0	30	Telefonica Celular del Paraguay S.A.
140	Peru		9.1	17.4	140	70	2.9	28	Movistar
141	Philippines	71	1.9	4.8	100	70	1.0	7	Smart
142	Poland	72	12.5	24.1	140	70	7.0	30	Orange Polska
143	Portugal	73	4.7	6.0	250	250	3.0	7	MEO
144	Puerto Rico	74	44.6		140	70	8.0	30	AT&T MOBILITY PUERTO RICO INC
145	Qatar	75	16.5	21.6	140	70	2.0	30	Ooredoo
146	Romania	76	10.6	22.5	140	70	30.0	30	Orange
147	Russian Federation		6.4	15.3	200	200	4.0	30	MTS
148	Rwanda		4.6	12.8	0	0	2.0	30	MTN Rwanda
149	Saint Kitts and Nevis	77	37.0	49.2	1,000	1,000	10.0	30	Flow
150	Saint Lucia	78	32.8	42.9	250	70	8.0	30	Digicel
151	Saint Vincent and the Grenadines	79	30.4	42.2	500	0	3.0	30	Digicel
152	Samoa		7.7	10.6	0	0	6.0	15	Digicel Samoa
153	Sao Tome and Principe		9.6	13.5	0.0	0	0	30	CST
154	Saudi Arabia		17.3	35.6	500	0	2.0	30	Saudi Telecom Company
155	Senegal	80	1.1	2.6	50	70	0.1	1	Orange Senegal
156	Serbia		17.9	36.9	140	100	3.0	30	Telekom Srbija
157	Seychelles		28.5	45.1	0	0	1.5	30	Cable and Wireless (Seychelles) Ltd
158	Sierra Leone		6.9	18.1	0	0	2.0	30	Africall
159	Singapore	81	14.8	17.6	150	500	5.0	30	Singtel
160	Slovakia	82	23.6	37.1	140	70	0.5	30	Orange
161	Slovenia	83	17.7	23.1	140	70	2.0	30	Telekom Slovenije
162	Solomon Islands		13.8	14.3	0	0	1.6	14	Our Telekom
163	Somalia		5.0		0	0	2.0	30	Hormuud Telecom
164	South Africa		18.8	37.7	0	0	1.5	30	Vodacom SA
165	Spain	84	14.1	16.7	140	0	3.0	30	Movistar (Telefonica)
166	Sri Lanka		3.3	10.2	140	70	1.5	30	Dialog Axiata
167	Suriname	85	13.4		300	300	1.5	30	Telesur
168	Sweden	86	22.9	21.3	140	70	2.0	30	Telia

Annex Table 2.1: High-consumption mobile-data-and-voice basket - plan details, 2019 (continued)

Rank	Economy	Notes	Price of the plan		Included minutes	Included SMS	Data allowance (in GB)	Validity	Operator
			USD	PPP\$					
169	Switzerland	87	35.8	25.5	140	70	1.5	30	Swisscom
170	Syrian Arab Republic		3.6		0	100	0.2	30	SyriaTel
171	Taiwan, Province of China		14.5		0.0	0	0	30	Chunghwa Telecom Co., Ltd
172	Tajikistan		5.5		100	100	1.6	30	Babilon-Mobile
173	Tanzania		11.0	29.6	135	1,000	2.1	30	Vodacom Tanzania
174	Thailand		18.5	48.1	300	0	1.5	30	AIS Group
175	Timor-Leste	88	13.6	21.2	700	700	1.8	28	Telemor
176	Togo		18.0	44.2	240	50	1.5	30	Togocel
177	Tonga		14.3	18.7	4,000	4,000	2.0	30	Digicel Tonga
178	Trinidad and Tobago	89	41.5	49.7	300	70	3.0	30	Digicel Trinidad and Tobago Limited
179	Tunisia		3.7	11.0	140	70	1.5	30	Ooredoo
180	Turkey		8.1	23.2	750	100	2.5	30	Turkcell
181	Turkmenistan		32.9		2,000	500	1.5	30	TMCCell
182	Uganda		13.4	40.1	900	1,000	1.0	30	MTN
183	Ukraine	90	2.8	10.7	140	100	1.9	30	Kyivstar
184	United Arab Emirates	91	28.6	37.2	100	0	1.5	30	Etisalat
185	United Kingdom	92	25.3	24.1	140	70	3.0	30	EE
186	United States	93	43.5	43.5	140	70	1.5	30	Verizon
187	Uruguay	94	22.9	27.5	140	70	1.5	30	ANTEL
188	Uzbekistan	95	4.3		2,000	200	1.5	30	UCell
189	Vanuatu		9.1	8.5	0	0	2.5	30	Digicel Vanuatu
190	Viet Nam		4.0	9.7	200	30	3.0	30	Viettel
191	Yemen		25.6		300	100	3.2	30	Yemen Mobile
192	Zambia		4.8	12.2	0	0	1.5	30	MTN Zambia

Note: * Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference.

Source: ITU. PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

Annex Table 2.2: High-consumption mobile-data-and-voice basket - call and SMS rate, 2019

Rank	Economy	Notes	Per minute call rate		Local SMS	
			USD	PPP\$	USD	PPP\$
1	Afghanistan		0.035	0.118	0.014	0.047
2	Albania		0.269	0.561	0.120	0.251
3	Algeria	1	0.000	0.000	0.000	0.000
4	Andorra		0.000		0.000	
5	Angola		0.119	0.153	0.049	0.064
6	Anguilla		0.348		0.093	
7	Antigua and Barbuda		0.352	0.433	0.085	0.105
8	Argentina		0.555		0.125	
9	Armenia	2	0.010	0.026	0.010	0.026
10	Aruba	3	0.327	0.390	0.089	0.107
11	Australia	4	0.000	0.000	0.000	0.000
12	Austria		0.236	0.238	0.236	0.238
13	Azerbaijan		0.012	0.048	0.029	0.120
14	Bahamas		0.269	0.237	0.056	0.049
15	Bahrain		0.043	0.070	0.085	0.140
16	Bangladesh		0.020	0.049	0.007	0.018
17	Barbados	5	0.300	0.239	0.000	0.000
18	Belarus		0.017	0.068	0.022	0.087
19	Belgium	6	0.354	0.350	0.000	0.000
20	Belize	7	0.281		0.000	
21	Benin		0.108	0.278	0.009	0.023
22	Bhutan	8	0.023	0.070	0.007	0.020
23	Bolivia (Plurinational State of)		0.174	0.348	0.029	0.058
24	Bosnia and Herzegovina		0.139	0.292	0.042	0.089
25	Botswana	9	0.088	0.169	0.020	0.037
26	Brazil	10	0.000	0.000	0.000	0.000
27	Brunei Darussalam	11	0.111	0.198	0.037	0.066
28	Bulgaria		0.211	0.466	0.151	0.333
29	Burkina Faso		0.162	0.422	0.018	0.047
30	Burundi		0.094	0.230	0.014	0.034
31	Cabo Verde		0.289	0.606	0.107	0.224
32	Cambodia		0.075	0.184	0.025	0.061
33	Cameroon		0.110	0.264	0.056	0.134
34	Canada	12	0.000	0.000	0.000	0.000
35	Cayman Islands		0.540		0.144	
36	Central African Rep.		0.108		0.045	
37	Chad		0.160		0.022	
38	Chile		0.187	0.260	0.109	0.152
39	China		0.029	0.050	0.015	0.026
40	Colombia	13	0.000	0.000	0.000	0.000
41	Comoros		0.144		0.036	
42	Costa Rica		0.070	0.109	0.005	0.008
43	Côte d'Ivoire		0.189	0.462	0.072	0.176
44	Croatia		0.000	0.000	0.000	0.000

Annex Table 2.2: High-consumption mobile-data-and-voice basket - call and SMS rate, 2019 (continued)

Rank	Economy	Notes	Per minute call rate		Local SMS	
			USD	PPP\$	USD	PPP\$
45	Cuba		0.220		0.090	
46	Curacao	14	0.408	0.519	0.162	0.206
47	Cyprus		0.000	0.000	0.000	0.000
48	Czech Republic	15	0.000	0.000	0.000	0.000
49	Dem. Rep. of the Congo		0.095		0.040	
50	Denmark		0.000	0.000	0.000	0.000
51	Djibouti		0.169	0.298	0.056	0.099
52	Dominica		0.000	0.000	0.000	0.000
53	Dominican Rep.		0.095	0.205	0.026	0.057
54	Ecuador		0.110	0.189	0.070	0.120
55	Egypt		0.011	0.058	0.011	0.058
56	El Salvador	16	0.000	0.000	0.104	0.206
57	Estonia		0.000	0.000	0.000	0.000
58	Eswatini		0.068	0.162	0.023	0.054
59	Ethiopia		0.015	0.046	0.007	0.021
60	Fiji		0.177	0.280	0.067	0.106
61	Finland		0.081	0.073	0.081	0.073
62	France	17	0.000	0.000	0.000	0.000
63	Gabon		0.281	0.410	0.045	0.066
64	Gambia		0.048	0.154	0.008	0.027
65	Georgia	18	0.000		0.000	
66	Germany	19	0.000	0.000	0.224	0.236
67	Ghana		0.024	0.067	0.010	0.029
68	Gibraltar		0.200		0.053	
69	Greece	20	0.024	0.030	0.047	0.061
70	Grenada	21	0.293	0.398	0.000	0.000
71	Guatemala	22	0.346	0.578	0.133	0.222
72	Guinea		0.053	0.105	0.013	0.026
73	Guinea-Bissau		0.117	0.268	0.054	0.124
74	Guyana		0.165	0.264	0.056	0.090
75	Haiti		0.088	0.189	0.019	0.041
76	Honduras		0.176	0.346	0.176	0.346
77	Hong Kong, China	23	0.011	0.014	0.038	0.047
78	Hungary		0.130	0.232	0.130	0.232
79	Iceland	24	0.000	0.000	0.000	0.000
80	India		0.000	0.000	0.015	0.048
81	Indonesia		0.062	0.173	0.025	0.069
82	Iran (Islamic Republic of)		0.024	0.076	0.003	0.009
83	Iraq		0.101	0.202	0.042	0.084
84	Ireland	25	0.000	0.000	0.000	0.000
85	Israel		0.220	0.186	0.220	0.186
86	Italy	26	0.000	0.000	0.224	0.243
87	Jamaica		0.000	0.000	0.031	0.048
88	Japan		0.000	0.000	0.029	0.030

Annex Table 2.2: High-consumption mobile-data-and-voice basket - call and SMS rate, 2019 (continued)

Rank	Economy	Notes	Per minute call rate		Local SMS	
			USD	PPP\$	USD	PPP\$
89	Jordan	27	0.042	0.088	0.042	0.088
90	Kazakhstan		0.000	0.000	0.020	0.058
91	Kenya	28	0.032	0.065	0.010	0.020
92	Kiribati		0.194		0.075	
93	Korea (Rep. of)	29	0.108	0.123	0.020	0.023
94	Kuwait		0.149	0.229	0.066	0.102
95	Kyrgyzstan		0.014	0.045	0.014	0.045
96	Lao P.D.R.		0.104	0.276	0.013	0.034
97	Latvia	30	0.000	0.000	0.000	0.000
98	Lebanon		0.220	0.345	0.055	0.086
99	Lesotho		0.096	0.260	0.058	0.157
100	Liberia		0.220	0.210	0.050	0.048
101	Libya		0.044		0.037	
102	Liechtenstein	31	0.235		0.000	
103	Lithuania	32	0.000	0.000	0.000	0.000
104	Luxembourg		0.236	0.205	0.083	0.072
105	Macao, China		0.050	0.062	0.031	0.039
106	Madagascar	33	0.018	0.063	0.024	0.084
107	Malawi		0.098	0.290	0.020	0.060
108	Malaysia	34	0.000	0.000	0.050	0.120
109	Maldives		0.064	0.085	0.013	0.017
110	Mali		0.140	0.358	0.036	0.092
111	Malta		0.295	0.396	0.059	0.079
112	Mauritania		0.219	0.618	0.028	0.079
113	Mauritius	35	0.035	0.060	0.018	0.030
114	Mexico	36	0.000	0.000	0.000	0.000
115	Micronesia		0.150	0.153	0.100	0.102
116	Moldova		0.089	0.209	0.036	0.083
117	Monaco	37	0.000		0.000	
118	Mongolia		0.028	0.078	0.008	0.021
119	Montenegro		0.176	0.346	0.035	0.070
120	Morocco	38	0.027	0.061	0.011	0.024
121	Mozambique		0.099		0.030	
122	Myanmar		0.007	0.029	0.011	0.043
123	Namibia		0.113	0.225	0.030	0.060
124	Nauru		0.205		0.097	
125	Nepal (Republic of)		0.017	0.051	0.012	0.034
126	Netherlands	39	0.000	0.000	0.000	0.000
127	New Zealand		0.339	0.305	0.138	0.125
128	Nicaragua		0.391	1.053	0.082	0.222
129	Niger		0.216	0.538	0.009	0.022
130	Nigeria		0.088	0.175	0.013	0.026
131	North Macedonia	40	0.000	0.000	0.000	0.000
132	Norway		0.000	0.000	0.000	0.000

Annex Table 2.2: High-consumption mobile-data-and-voice basket - call and SMS rate, 2019 (continued)

Rank	Economy	Notes	Per minute call rate		Local SMS	
			USD	PPP\$	USD	PPP\$
133	Oman	41	0.104	0.205	0.026	0.051
134	Pakistan	42	0.020	0.072	0.017	0.061
135	Palau		0.185	0.199	0.060	0.064
136	Palestine		0.139	0.200	0.061	0.088
137	Panama		0.100	0.174	0.070	0.122
138	Papua New Guinea		0.244	0.296	0.076	0.093
139	Paraguay	43	0.000	0.000	0.026	0.056
140	Peru	44	0.000	0.000	0.000	0.000
141	Philippines		0.123	0.318	0.019	0.049
142	Poland	45	0.000	0.000	0.000	0.000
143	Portugal	46	0.236	0.301	0.236	0.301
144	Puerto Rico	47	0.000		0.000	
145	Qatar	48	0.165	0.216	0.107	0.141
146	Romania	49	0.000	0.000	0.000	0.000
147	Russian Federation		0.048	0.115	0.032	0.076
148	Rwanda		0.052	0.144	0.014	0.038
149	Saint Kitts and Nevis		0.330	0.437	0.074	0.098
150	Saint Lucia	50	0.304	0.397	0.000	0.000
151	Saint Vincent and the Grenadines		0.367	0.509	0.067	0.093
152	Samoa		0.070	0.096	0.070	0.096
153	Sao Tome and Principe		0.121	0.170	0.051	0.071
154	Saudi Arabia		0.147	0.301	0.067	0.137
155	Senegal		0.215	0.522	0.036	0.087
156	Serbia	51	0.119	0.244	0.059	0.121
157	Seychelles		0.144	0.227	0.030	0.048
158	Sierra Leone		0.082	0.213	0.011	0.030
159	Singapore		0.119	0.141	0.040	0.047
160	Slovakia	52	0.000	0.000	0.000	0.000
161	Slovenia	53	0.000	0.000	0.000	0.000
162	Solomon Islands		0.124	0.128	0.063	0.065
163	Somalia		0.050		0.010	
164	South Africa		0.094	0.189	0.039	0.079
165	Spain	54	0.000	0.000	0.114	0.135
166	Sri Lanka		0.013	0.039	0.002	0.005
167	Suriname		0.180		0.040	
168	Sweden	55	0.000	0.000	0.000	0.000
169	Switzerland	56	0.000	0.000	0.000	0.000
170	Syrian Arab Republic		0.029		0.014	
171	Taiwan, Province of China		0.099		0.033	
172	Tajikistan		0.007		0.011	
173	Tanzania		0.133	0.356	0.022	0.059
174	Thailand		0.050	0.129	0.099	0.258
175	Timor-Leste	57	0.105	0.163	0.070	0.109
176	Togo	58	0.142	0.349	0.054	0.133

Annex Table 2.2: High-consumption mobile-data-and-voice basket - call and SMS rate, 2019 (continued)

Rank	Economy	Notes	Per minute call rate		Local SMS	
			USD	PPP\$	USD	PPP\$
177	Tonga		0.098	0.128	0.054	0.070
178	Trinidad and Tobago	59	0.214	0.256	0.056	0.067
179	Tunisia		0.013	0.040	0.019	0.057
180	Turkey		0.118	0.339	0.085	0.244
181	Turkmenistan		0.003		0.003	
182	Uganda		0.054	0.161	0.016	0.048
183	Ukraine	60	0.000	0.000	0.074	0.279
184	United Arab Emirates		0.038	0.050	0.052	0.067
185	United Kingdom	61	0.000	0.000	0.000	0.000
186	United States	62	0.000	0.000	0.000	0.000
187	Uruguay		0.244	0.293	0.032	0.039
188	Uzbekistan		0.012		0.010	
189	Vanuatu		0.254	0.239	0.091	0.085
190	Viet Nam		0.070	0.171	0.009	0.022
191	Yemen		0.042		0.019	
192	Zambia		0.080	0.205	0.022	0.055

Note: * Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference.

Source: ITU. PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

Annex Table 2.3: Low-consumption mobile-data-and-voice basket - plan details, 2019

	Economy	Notes	Price of the plan		Included minutes	Included SMS	Data allowance (in MB)	Validity	Operator
			USD	PPP\$					
1	Afghanistan		3.5	11.8	0	0	1,024.0	30	Roshan
2	Albania		8.3	17.4	200	200	500.0	30	Vodafone Albania
3	Algeria	1	8.6	24.7	70	20	13,000.0	30	Algérie Télécom Mobile "MOBILIS"
4	Andorra		18.5		200	100	500.0	30	Andorra Telecom
5	Angola		5.9	7.6	0	0	500.0	31	Unitel
6	Anguilla		37.0		1,000	1,000	1,024.0	30	Flow
7	Antigua and Barbuda		37.0	45.6	700	700	7,168.0	30	Flow
8	Argentina		0.6		0	0	50.0	1	Claro
9	Armenia	2	3.1	7.7	1,500	150	1,000.0	30	MTS Armenia CJSC
10	Aruba		33.5	40.0	1,000	100	4,096.0	30	SETAR
11	Australia	3	36.6	31.9	70	20	15,360.0	30	Telstra
12	Austria	4	10.7	10.8	700	700	1,024.0	30	A1 Telekom Austria
13	Azerbaijan		2.9	12.0	0	200	2,048.0	30	Azercell
14	Bahamas	5	10.0	8.8	3,000	3,000	2,048.0	7	Bahamas Telecommunications Company Ltd (BTC)
15	Bahrain	6	16.8	27.7	500	0	6,000.0	30	VIVA
16	Bangladesh		2.0	5.0	100	50	500.0	30	Grameenphone
17	Barbados		20.0	15.9	100	100	1,024.0	30	Digicel
18	Belarus		3.1	12.1	250	0	500.0	30	Mobile TeleSystems Joint Limited Liability Company (MTS)
19	Belgium		18.9	18.7	120	70	1,536.0	30	Proximus
20	Belize	7	12.5		90	20	2,700.0	15	Digi
21	Benin		0.2	0.5	3	0	3.0	1	MTN Bénin
22	Bhutan	8	1.4	4.4	0	0	959.0	30	Bhutan Telecom Ltd
23	Bolivia (Plurinational State of)		2.9	5.8	0	0	500.0	30	Entel S.A
24	Bosnia and Herzegovina	9	10.6	22.3	0	0	500.0	30	BH Telecom
25	Botswana		29.4	56.2	0	0	500.0	60	Mascom
26	Brazil	10	13.7	22.2	0	0	3,072.0	30	Vivo
27	Brunei Darussalam	11	7.4	13.2	0	0	1,024.0	30	DST
28	Bulgaria	12	11.5	25.3	200	0	600.0	30	A1 Bulgaria EAD
29	Burkina Faso		2.7	7.0	120	120	120.0	7	ONATEL
30	Burundi		1.1	2.7	0	60	250.0	30	ECONET LEO
31	Cabo Verde		5.4	11.2	0	0	1,000.0	30	CV Movel
32	Cambodia		1.0	2.4	0	0	700.0	30	Metfone
33	Cameroon	13	9.0	21.5	277.7	500	500.0	30	MTN Cameroon
34	Canada	14	52.9	51.2	70	20	500.0	30	Rogers
35	Cayman Islands		54.0		300	0	3,072.0	30	Digicel
36	Central African Rep.		2.7		0	0	450.0	7	Orange
37	Chad		21.6		1,000	1,000	1,024.0	30	Tigo
38	Chile	15	10.9	15.2	350	0	5,120.0	30	Movistar
39	China		5.7	10.0	30	0	1,024.0	30	China Mobile
40	Colombia	16	3.5	7.3	70	20	250.0	10	COMCEL S.A. (CLARO)
41	Comoros		2.4		60	50	100.0	4	Huri (Comores Télécom)

Annex Table 2.3: Low-consumption mobile-data-and-voice basket - plan details, 2019 (continued)

	Economy	Notes	Price of the plan		Included minutes	Included SMS	Data allowance (in MB)	Validity	Operator
			USD	PPP\$					
42	Costa Rica		6.9	10.8	0	0	2,000.0	30	Instituto Costarricense de Electricidad
43	Côte d'Ivoire		0.4	0.9	20	20	80.0	1	Orange Cote d'Ivoire
44	Croatia	17	23.7	38.3	70	20	5,120.0	30	Hrvatski Telekom d.d.
45	Cuba	18	8.3		0	20	600.0	30	ETECSA
46	Curacao	19	82.3	104.8	70	20	5,000.0	30	United Telecommunications Services N.V. (UTS)
47	Cyprus	20	20.1	24.6	300	300	500.0	30	Cyta
48	Czech Republic	21	23.0	35.9	70	0	500.0	30	T-Mobile Czech Republic a.s.
49	Dem. Rep. of the Congo		20.0		120	25	600.0	30	Vodacom DR Congo
50	Denmark		26.8	21.2	70	20	10,240.0	30	youSee
51	Djibouti		11.3	19.9	120	50	250.0	30	Djibouti Telecom
52	Dominica	22	22.2	31.0	70	20	1,536.0	30	Digicel
53	Dominican Rep.	23	26.1	56.7	100	1,000	3,072.0	30	CLARO
54	Ecuador	24	11.2	19.3	200	0	2,000.0	30	CONECEL-CLARO
55	Egypt	25	2.0	10.3	280	20	500.0	28	Vodafone
56	El Salvador	26	7.0	13.9	70	0	3,072.0	14	Tigo
57	Estonia	27	5.9	8.3	70	20	1,024.0	30	Telia
58	Eswatini		12.1	28.8	30	30	700.0	30	MTN
59	Ethiopia		4.2	12.3	166	0	500.0	30	Ethio Telecom
60	Fiji		13.4	21.2	0	0	3,072.0	30	Vodafone
61	Finland	28	9.3	8.3	0	0	0.0	30	Elisa
62	France	29	20.1	20.1	120	20	5,120.0	30	Orange
63	Gabon		21.6	31.6	240	1,350	900.0	30	Gabon Telecom
64	Gambia		3.8	12.2	0	0	750.0	30	QCELL
65	Georgia	30	2.0		70	20	1,000.0	7	MagtiCom
66	Germany	31	17.7	18.6	70	0	1,024.0	30	Vodafone
67	Ghana		2.2	6.0	100	40	200.0	30	MTN
68	Gibraltar		16.7		0	100	500.0	30	Gibtelecom
69	Greece		11.8	15.1	300	50	600.0	30	Cosmote
70	Grenada	32	35.2	47.8	300	20	8,000.0	30	Digicel
71	Guatemala		13.2	22.0	0	0	2,500.0	30	Comunicaciones Celulares, S.A.
72	Guinea	33	1.1	2.2	15	15	300.0	7	Orange Guinea
73	Guinea-Bissau		1.8	4.1	0	0	150.0	7	MTN Guinea-Bissau
74	Guyana		18.3	29.4	80	80	3,500.0	30	Digicel
75	Haiti		0.3	0.6	0	0	160.0	3	Digicel
76	Honduras	34	4.2	8.2	300	0	800.0	7	Tigo
77	Hong Kong, China	35	6.1	7.5	0	0	1,024.0	30	CSL Mobile Limited
78	Hungary	36	11.4	20.5	70	10	1,024.0	30	Magyar Telekom
79	Iceland	37	18.4	12.8	70	20	500.0	30	Nova
80	India	38	1.4	4.7	70	300	2,048.0	28	Reliance Jio Infocomm Limited
81	Indonesia		4.1	11.4	60	60	2,048.0	30	Telkomsel
82	Iran (Islamic Republic of)		6.1	19.5	400	400	1,000.0	30	MCI
83	Iraq		10.1	20.2	0	0	500.0	30	Zain Iraq
84	Ireland	39	41.3	35.6	70	20	20,480.0	30	Vodafone

Annex Table 2.3: Low-consumption mobile-data-and-voice basket - plan details, 2019 (continued)

	Economy	Notes	Price of the plan		Included minutes	Included SMS	Data allowance (in MB)	Validity	Operator
			USD	PPP\$					
85	Israel		11.1	9.4	2,500	2,500	30,720.0	30	Cellcom
86	Italy	40	21.3	23.1	70	500	20,480.0	30	TIM
87	Jamaica	41	17.5	27.3	70	0	3,500.0	30	Digicel
88	Japan	42	47.9	48.7	70	0	1,024.0	30	NTT Docomo
89	Jordan		12.9	26.8	5,000	200	4,096.0	30	Zain
90	Kazakhstan	43	4.3	12.4	70	0	4,096.0	30	Activ (KCell)
91	Kenya		4.9	10.0	0	0	2,048.0	30	Safaricom PLC
92	Kiribati		14.9		0	0	2,800.0	30	Amalgamated Telecom Holdings Kiribati
93	Korea (Rep. of)		28.5	32.6	100	0	700.0	30	SK Telecom
94	Kuwait	44	16.6	25.4	100	0	5,120.0	30	XTRA (ZAIN)
95	Kyrgyzstan		0.7	2.4	300	500	1,050.0	7	MegaCom
96	Lao P.D.R.		2.6	6.9	0	0	540.0	30	Unitel
97	Latvia	45	10.0	15.1	70	20	500.0	30	TELE 2
98	Lebanon		15.4	24.2	60	440	600.0	30	Touch Lebanon
99	Lesotho		10.9	29.4	248	0	750.0	30	Vodacom Lesotho
100	Liberia		5.0	4.8	1,500	100	3,072.0	5	MTN Liberia (Lonestar Cell)
101	Libya		5.9		0	0	1,000.0	15	Libyana
102	Liechtenstein	46	20.4		30	20	1,024.0	30	Telecom Liechtenstein AG
103	Lithuania	47	12.9	21.8	70	20	2,048.0	30	Telia
104	Luxembourg		5.9	5.1	70	30	1,024.0	30	Post Luxembourg
105	Macao, China		5.9	7.4	480	0	880.0	30	CTM
106	Madagascar	48	0.1	0.5	8.3	20	20.0	1	Telma
107	Malawi		0.8	2.4	0	0	150.0	7	Airtel Malawi
108	Malaysia	49	9.9	24.1	70	0	6,144.0	30	DiGi Telecommunications Sdn Bhd
109	Maldives	50	7.5	9.8	0	0	700.0	30	Dhiraagu
110	Mali		3.6	9.2	0	0	500.0	30	Orange Mali
111	Malta	51	23.6	31.7	70	20	500.0	30	Vodafone
112	Mauritania		5.6	15.8	120	0	2,048.0	30	Mauritel
113	Mauritius	52	1.4	2.5	0	200	300.0	7	Cellplus Mobile Communications Ltd (my.t)
114	Mexico		7.8	14.7	70	20	1,000.0	28	Telcel
115	Micronesia		30.0	30.7	60	900	2,048.0	30	FSM Telecommunications Corporation
116	Moldova		4.5	10.4	120	150	500.0	30	Orange Moldova
117	Monaco	53	59.0		70	20	51,200.0	30	Monaco Telecom
118	Mongolia		6.7	18.4	0	0	3,072.0	30	MobiCom
119	Montenegro		12.9	25.3	5,100	100	2,048.0	30	Crnogorski Telekom
120	Morocco	54	3.7	8.5	100	100	1,040.0	28	IAM
121	Mozambique		0.3		70	20	20.0	2	mCel
122	Myanmar		0.6	2.5	0	0	900.0	30	MPT
123	Namibia		2.4	4.8	350	700	200.0	7	MTC
124	Nauru		23.2		0	0	1,843.2	30	Digicel
125	Nepal (Republic of)		2.2	6.5	0	0	1,500.0	28	Nepal Doorsanchar Company Limited (Nepal Telecom)
126	Netherlands	55	24.8	24.2	70	20	2,048.0	30	KPN
127	New Zealand		10.4	9.3	200	50	500.0	28	Vodafone

Annex Table 2.3: Low-consumption mobile-data-and-voice basket - plan details, 2019 (continued)

	Economy	Notes	Price of the plan		Included minutes	Included SMS	Data allowance (in MB)	Validity	Operator
			USD	PPP\$					
128	Nicaragua		7.7	20.6	60	100	1,000.0	15	CLARO
129	Niger	56	18.0	44.8	2,500	20	4,096.0	30	Airtel Niger SA (Ex Celtel)
130	Nigeria		6.5	13.0	253	253	650.0	30	MTN Nigeria Limited
131	North Macedonia	57	8.6	19.7	70	0	1,536.0	30	ONE.VIP
132	Norway		30.6	23.1	70	20	1,024.0	30	Telenor
133	Oman		7.8	15.4	50	50	500.0	30	Omantel
134	Pakistan	58	3.2	11.6	10,000	10,000	1,000.0	30	Jazz
135	Palau		25.0	26.9	190	2,000	2,048.0	30	Palau National Communications Corporation
136	Palestine*	59	6.5	9.3	0	0	2,500.0	30	Jawwal
137	Panama	60	5.0	8.7	25	25	500.0	7	Movistar
138	Papua New Guinea		5.5	6.7	0	0	600.0	7	Digicel Papua New Guinea
139	Paraguay	61	13.1	28.0	70	0	1,024.0	30	Telefonica Celular del Paraguay
140	Peru		9.1	17.4	70	20	3,000.0	28	Movistar
141	Philippines	62	1.9	4.8	100	20	1,024.0	7	Smart
142	Poland	63	9.7	18.8	70	0	3,072.0	30	Orange Polska
143	Portugal	64	8.9	11.3	70	5	500.0	30	MEO
144	Puerto Rico	65	33.5		70	20	1,024.0	30	AT&T MOBILITY PUERTO RICO INC.
145	Qatar	66	16.5	21.6	70	20	2,867.0	30	Ooredoo
146	Romania	67	9.0	22.5	70	20	30,720.0	30	Orange
147	Russian Federation		6.4	15.3	200	200	4,096.0	30	MTS
148	Rwanda		2.3	6.4	0	0	1,024.0	30	MTN Rwanda
149	Saint Kitts and Nevis	68	37.0	49.2	1,000	1,000	10,000.0	30	Flow
150	Saint Lucia	69	32.8	42.9	250	20	8,000.0	30	Digicel
151	Saint Vincent and the Grenadines	70	30.4	42.2	500	0	3,072.0	30	Digicel
152	Samoa		7.7	10.6	0	0	6,144.0	15	Digicel Samoa
153	Sao Tome and Principe		7.2	10.1	1,800	1,800	900.0	30	CST
154	Saudi Arabia		17.3	35.6	500	0	2,000.0	30	Saudi Telecom Company
155	Senegal	71	1.1	2.6	50	20	150.0	1	Orange Senegal
156	Serbia		11.0	22.5	70	100	500.0	30	Telekom Srbija
157	Seychelles		14.3	22.6	0	0	1,024.0	30	Cable and Wireless (Seychelles) Ltd
158	Sierra Leone		2.6	6.9	0	0	585.0	30	Africell
159	Singapore		14.8	17.6	150	500	5,120.0	30	SingTel
160	Slovakia		11.8	18.5	100	0	250.0	30	Orange
161	Slovenia	72	17.7	23.1	70	20	2,048.0	30	Telekom Slovenije
162	Solomon Islands		13.8	14.3	0	0	1,638.4	14	Our Telekom
163	Somalia		5.0		0	0	2,000.0	30	Hormuud Telecom
164	South Africa		7.6	15.2	0	0	500.0	30	Vodacom SA
165	Spain	73	14.1	16.7	140	0	3,072.0	30	Movistar (Telefonica)
166	Sri Lanka		1.5	4.7	70	50	500.0	30	Dialog Axiata
167	Suriname		10.7		60	60	550.0	30	Telesur
168	Sweden	74	22.9	21.3	70	20	2,048.0	30	Telia
169	Switzerland	75	25.6	18.2	70	20	500.0	30	Swisscom

Annex Table 2.3: Low-consumption mobile-data-and-voice basket - plan details, 2019 (continued)

	Economy	Notes	Price of the plan		Included minutes	Included SMS	Data allowance (in MB)	Validity	Operator
			USD	PPP\$					
170	Syrian Arab Republic		3.6		0	25	0.2	30	SyriaTel
171	Taiwan, Province of China		19.9		70	0	1,024.0	30	Chunghwa Telecom Co., Ltd
172	Tajikistan		5.5		100	100	1,600.0	30	Babilon-Mobile
173	Tanzania		6.6	17.8	135	1,000	600.0	30	Vodacom Tanzania
174	Thailand		9.3	24.0	100	0	500.0	30	AIS Group
175	Timor-Leste	76	9.6	14.9	700	700	856.0	28	Telemor
176	Togo	77	4.5	11.1	94.9	50	350.0	10	Togocel
177	Tonga		14.3	18.7	4,000	4,000	2,000.0	30	Digicel Tonga
178	Trinidad and Tobago	78	33.2	39.8	100	20	1,000.0	30	Digicel Trinidad and Tobago Limited
179	Tunisia		1.7	5.2	0	0	0.0	30	Ooredoo
180	Turkey		8.1	23.2	750	100	2,560.0	30	Turkcell
181	Turkmenistan		17.1		2,000	500	500.0	30	TMCcell
182	Uganda	79	13.4	40.1	900	1,000	1,024.0	30	MTN Uganda
183	Ukraine	80	2.8	10.5	70	0	2,000.0	30	Kyivstar
184	United Arab Emirates	81	10.0	13.0	15	0	500.0	30	Etisalat
185	United Kingdom	82	21.3	20.3	70	20	1,024.0	30	EE
186	United States	83	32.7	32.7	70	20	500.0	30	Verizon
187	Uruguay		13.8	16.6	93	20	512.0	30	ANTEL
188	Uzbekistan		2.9		1,150	0	800.0	30	UCell
189	Vanuatu		9.1	8.5	0	0	2,560.0	30	Digicel Vanuatu
190	Viet Nam		4.0	9.7	200	30	3,072.0	30	Viettel
191	Yemen	84	11.6		300	100	500.0	30	Yemen Mobile
192	Zambia		4.8	12.2	0	0	1,536.0	30	MTN Zambia

Note: * Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference.

Source: ITU. PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

Annex Table 2.4: Low-consumption mobile-data-and-voice basket - call and SMS rate, 2019

	Economy	Notes	Notes	Per minute call rate		Local SMS	
				USD	PPP\$	USD	PPP\$
1	Afghanistan			0.035	0.118	0.014	0.047
2	Albania			0.269	0.561	0.120	0.251
3	Algeria	1	1	0.000	0.000	0.000	0.000
4	Andorra			0.307		0.189	
5	Angola			0.119	0.153	0.049	0.064
6	Anguilla			0.348		0.093	
7	Antigua and Barbuda			0.352	0.433	0.085	0.105
8	Argentina			0.555		0.125	
9	Armenia	2	2	0.010	0.026	0.010	0.026
10	Aruba		3	0.327	0.390	0.089	0.107
11	Australia	3	4	0.000	0.000	0.000	0.000
12	Austria	4		0.236	0.238	0.236	0.238
13	Azerbaijan			0.012	0.048	0.029	0.120
14	Bahamas	5	5	0.269	0.237	0.056	0.049
15	Bahrain	6		0.043	0.070	0.085	0.140
16	Bangladesh			0.020	0.049	0.007	0.018
17	Barbados			0.300	0.239	0.165	0.131
18	Belarus			0.017	0.068	0.022	0.087
19	Belgium			0.354	0.350	0.000	0.000
20	Belize	7	6	0.281		0.000	
21	Benin			0.108	0.278	0.009	0.023
22	Bhutan	8		0.023	0.070	0.007	0.020
23	Bolivia (Plurinational State of)			0.174	0.348	0.029	0.058
24	Bosnia and Herzegovina	9		0.139	0.292	0.042	0.089
25	Botswana			0.088	0.169	0.020	0.037
26	Brazil	10	7	0.000	0.000	0.000	0.000
27	Brunei Darussalam	11	8	0.111	0.198	0.037	0.066
28	Bulgaria	12		0.211	0.466	0.151	0.333
29	Burkina Faso			0.162	0.422	0.018	0.047
30	Burundi			0.094	0.230	0.014	0.034
31	Cabo Verde			0.289	0.606	0.107	0.224
32	Cambodia			0.075	0.184	0.025	0.061
33	Cameroon	13		0.110	0.264	0.056	0.134
34	Canada	14	9	0.000	0.000	0.000	0.000
35	Cayman Islands			0.540		0.144	
36	Central African Rep.			0.108		0.045	
37	Chad			0.160		0.022	
38	Chile	15		0.187	0.260	0.109	0.152
39	China			0.029	0.050	0.015	0.026
40	Colombia	16	10	0.000	0.000	0.000	0.000
41	Comoros			0.144		0.036	
42	Costa Rica			0.070	0.109	0.005	0.008
43	Côte d'Ivoire			0.189	0.462	0.072	0.176
44	Croatia	17		0.000	0.000	0.000	0.000

Annex Table 2.4: Low-consumption mobile-data-and-voice basket - call and SMS rate, 2019 (continued)

	Economy	Notes	Notes	Per minute call rate		Local SMS	
				USD	PPP\$	USD	PPP\$
45	Cuba	18		0.220		0.090	
46	Curacao	19	11	0.408	0.519	0.162	0.206
47	Cyprus	20		0.083	0.101	0.024	0.029
48	Czech Republic	21		0.000	0.000	0.069	0.108
49	Dem. Rep. of the Congo			0.095		0.040	
50	Denmark			0.000	0.000	0.000	0.000
51	Djibouti			0.169	0.298	0.056	0.099
52	Dominica	22		0.000	0.000	0.000	0.000
53	Dominican Rep.	23		0.095	0.205	0.026	0.057
54	Ecuador	24		0.110	0.189	0.070	0.120
55	Egypt	25		0.011	0.058	0.011	0.058
56	El Salvador	26	12	0.000	0.000	0.104	0.206
57	Estonia	27	13	0.000	0.000	0.000	0.000
58	Eswatini			0.068	0.162	0.023	0.054
59	Ethiopia			0.015	0.046	0.007	0.021
60	Fiji			0.177	0.280	0.067	0.106
61	Finland	28		0.081	0.073	0.081	0.073
62	France	29	14	0.000	0.000	0.000	0.000
63	Gabon			0.281	0.410	0.045	0.066
64	Gambia			0.048	0.154	0.008	0.027
65	Georgia	30	15	0.000		0.000	
66	Germany	31	16	0.000	0.000	0.224	0.236
67	Ghana			0.024	0.067	0.010	0.029
68	Gibraltar			0.200		0.053	
69	Greece			0.024	0.031	0.048	0.061
70	Grenada	32	17	0.293	0.398	0.000	0.000
71	Guatemala			0.346	0.578	0.133	0.222
72	Guinea	33	18	0.053	0.105	0.013	0.026
73	Guinea-Bissau			0.117	0.268	0.054	0.124
74	Guyana			0.165	0.264	0.056	0.090
75	Haiti			0.088	0.189	0.019	0.041
76	Honduras	34		0.176	0.346	0.176	0.346
77	Hong Kong, China	35	19	0.011	0.014	0.038	0.047
78	Hungary	36		0.130	0.232	0.130	0.232
79	Iceland	37	20	0.000	0.000	0.000	0.000
80	India	38	21	0.000	0.000	0.015	0.048
81	Indonesia			0.062	0.173	0.025	0.069
82	Iran (Islamic Republic of)		22	0.024	0.076	0.003	0.009
83	Iraq			0.101	0.202	0.042	0.084
84	Ireland	39	23	0.000	0.000	0.000	0.000
85	Israel			0.220	0.186	0.220	0.186
86	Italy	40	24	0.000	0.000	0.224	0.243
87	Jamaica	41	25	0.000	0.000	0.031	0.048
88	Japan	42		0.000	0.000	0.029	0.030

Annex Table 2.4: Low-consumption mobile-data-and-voice basket - call and SMS rate, 2019 (continued)

	Economy	Notes	Notes	Per minute call rate		Local SMS	
				USD	PPP\$	USD	PPP\$
89	Jordan		26	0.042	0.088	0.042	0.088
90	Kazakhstan	43		0.000	0.000	0.020	0.058
91	Kenya		27	0.032	0.065	0.010	0.020
92	Kiribati			0.194		0.075	
93	Korea (Rep. of)			0.108	0.123	0.020	0.023
94	Kuwait	44		0.149	0.229	0.066	0.102
95	Kyrgyzstan			0.014	0.045	0.014	0.045
96	Lao P.D.R.			0.104	0.276	0.013	0.034
97	Latvia	45	28	0.000	0.000	0.000	0.000
98	Lebanon			0.220	0.345	0.055	0.086
99	Lesotho			0.096	0.260	0.058	0.157
100	Liberia			0.220	0.210	0.050	0.048
101	Libya			0.044		0.037	
102	Liechtenstein	46	29	0.235		0.000	
103	Lithuania	47	30	0.000	0.000	0.000	0.000
104	Luxembourg			0.236	0.205	0.083	0.072
105	Macao, China			0.050	0.062	0.031	0.039
106	Madagascar	48	31	0.018	0.063	0.024	0.084
107	Malawi			0.098	0.290	0.020	0.060
108	Malaysia	49	32	0.000	0.000	0.050	0.120
109	Maldives	50		0.064	0.085	0.013	0.017
110	Mali			0.140	0.358	0.036	0.092
111	Malta	51		0.295	0.396	0.059	0.079
112	Mauritania			0.219	0.618	0.028	0.079
113	Mauritius	52	33	0.035	0.060	0.018	0.030
114	Mexico		34	0.000	0.000	0.000	0.000
115	Micronesia			0.150	0.153	0.100	0.102
116	Moldova			0.089	0.209	0.036	0.083
117	Monaco	53	35	0.000		0.000	
118	Mongolia			0.028	0.078	0.008	0.021
119	Montenegro			0.176	0.346	0.035	0.070
120	Morocco	54	36	0.027	0.061	0.011	0.024
121	Mozambique			0.099		0.030	
122	Myanmar			0.007	0.029	0.011	0.043
123	Namibia			0.113	0.225	0.030	0.060
124	Nauru			0.205		0.097	
125	Nepal (Republic of)			0.017	0.051	0.012	0.034
126	Netherlands	55	37	0.000	0.000	0.000	0.000
127	New Zealand			0.339	0.305	0.138	0.125
128	Nicaragua			0.471	1.268	0.082	0.221
129	Niger	56		0.216	0.538	0.009	0.022
130	Nigeria			0.088	0.175	0.013	0.026
131	North Macedonia	57	38	0.000	0.000	0.113	0.259
132	Norway			0.000	0.000	0.000	0.000

Annex Table 2.4: Low-consumption mobile-data-and-voice basket - call and SMS rate, 2019 (continued)

	Economy	Notes	Notes	Per minute call rate		Local SMS	
				USD	PPP\$	USD	PPP\$
133	Oman		39	0.104	0.205	0.026	0.051
134	Pakistan	58	40	0.015	0.054	0.017	0.061
135	Palau			0.185	0.199	0.060	0.064
136	Palestine*	59		0.139	0.200	0.061	0.088
137	Panama	60		0.100	0.174	0.070	0.122
138	Papua New Guinea			0.244	0.296	0.076	0.093
139	Paraguay	61	41	0.000	0.000	0.026	0.056
140	Peru		42	0.000	0.000	0.000	0.000
141	Philippines	62		0.123	0.318	0.019	0.049
142	Poland	63	43	0.000	0.000	0.055	0.107
143	Portugal	64		0.118	0.150	0.118	0.150
144	Puerto Rico	65	44	0.000		0.000	
145	Qatar	66	45	0.165	0.216	0.107	0.141
146	Romania	67	46	0.000	0.000	0.000	0.000
147	Russian Federation			0.048	0.115	0.032	0.076
148	Rwanda			0.052	0.144	0.014	0.038
149	Saint Kitts and Nevis	68		0.330	0.437	0.074	0.098
150	Saint Lucia	69	47	0.304	0.397	0.000	0.000
151	Saint Vincent and the Grenadines	70		0.367	0.509	0.067	0.093
152	Samoa			0.070	0.096	0.070	0.096
153	Sao Tome and Principe			0.121	0.170	0.051	0.071
154	Saudi Arabia			0.147	0.301	0.067	0.137
155	Senegal	71		0.215	0.522	0.036	0.087
156	Serbia		48	0.119	0.244	0.059	0.121
157	Seychelles			0.144	0.227	0.030	0.048
158	Sierra Leone			0.082	0.213	0.011	0.030
159	Singapore			0.119	0.141	0.040	0.047
160	Slovakia			0.118	0.185	0.071	0.111
161	Slovenia	72	49	0.000	0.000	0.000	0.000
162	Solomon Islands			0.124	0.128	0.063	0.065
163	Somalia			0.050		0.010	
164	South Africa			0.094	0.189	0.039	0.079
165	Spain	73	50	0.000	0.000	0.114	0.135
166	Sri Lanka			0.013	0.039	0.002	0.005
167	Suriname			0.180		0.040	
168	Sweden	74	51	0.000	0.000	0.000	0.000
169	Switzerland	75	52	0.000	0.000	0.000	0.000
170	Syrian Arab Republic			0.029		0.014	
171	Taiwan, Province of China			0.099		0.033	
172	Tajikistan			0.007		0.011	
173	Tanzania			0.133	0.356	0.022	0.059
174	Thailand			0.050	0.129	0.099	0.258
175	Timor-Leste	76	53	0.105	0.163	0.070	0.109
176	Togo	77	54	0.142	0.349	0.054	0.133

Annex Table 2.4: Low-consumption mobile-data-and-voice basket - call and SMS rate, 2019 (continued)

	Economy	Notes	Notes	Per minute call rate		Local SMS	
				USD	PPP\$	USD	PPP\$
177	Tonga			0.098	0.128	0.054	0.070
178	Trinidad and Tobago	78	55	0.220	0.263	0.056	0.067
179	Tunisia			0.013	0.040	0.019	0.057
180	Turkey			0.118	0.339	0.085	0.244
181	Turkmenistan			0.003		0.003	
182	Uganda	79		0.054	0.161	0.016	0.048
183	Ukraine	80	56	0.000	0.000	0.074	0.279
184	United Arab Emirates	81	57	0.038	0.050	0.052	0.067
185	United Kingdom	82	58	0.000	0.000	0.000	0.000
186	United States	83	59	0.000	0.000	0.000	0.000
187	Uruguay			0.244	0.293	0.032	0.039
188	Uzbekistan			0.012		0.010	
189	Vanuatu			0.254	0.239	0.091	0.085
190	Viet Nam			0.070	0.171	0.009	0.022
191	Yemen	84		0.042		0.019	
192	Zambia			0.080	0.205	0.022	0.055

Note: * Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference.

Source: ITU. PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

Annex Table 2.5: Mobile-voice basket - on-net and off-net, 2019

Rank	Economy	Notes	Call connection charge		Per minute local call, on-net				Per minute local call, off-net			
					Peak		Off-peak		Peak		Off-peak	
			USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$
1	Afghanistan				0.035	0.118	0.035	0.118	0.049	0.165	0.049	0.165
2	Albania				0.361	0.754	0.361	0.754	0.269	0.561	0.269	0.561
3	Algeria				0.068	0.197	0.068	0.197	0.068	0.197	0.068	0.197
4	Andorra				0.307		0.307		0.307		0.307	
5	Angola				0.119	0.153	0.119	0.153	0.142	0.183	0.142	0.183
6	Anguilla				0.252		0.252		0.348		0.348	
7	Antigua and Barbuda				0.352	0.433	0.352	0.433	0.352	0.433	0.352	0.433
8	Argentina		0.249		0.555		0.555		0.555		0.555	
9	Armenia	1			0.010	0.026	0.010	0.026	0.072	0.180	0.072	0.180
10	Aruba				0.441	0.527	0.212	0.253	0.497	0.594	0.263	0.313
11	Australia	2			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	Austria				0.047	0.048	0.047	0.048	0.047	0.048	0.047	0.048
13	Azerbaijan		0.024	0.096	0.024	0.096	0.024	0.096	0.035	0.144	0.035	0.144
14	Bahamas	3			0.370	0.327	0.170	0.150	0.370	0.327	0.170	0.150
15	Bahrain				0.043	0.070	0.043	0.070	0.043	0.070	0.043	0.070
16	Bangladesh				0.020	0.049	0.020	0.049	0.020	0.049	0.020	0.049
17	Barbados				0.300	0.239	0.300	0.239	0.400	0.318	0.400	0.318
18	Belarus				0.039	0.155	0.039	0.155	0.079	0.310	0.079	0.310
19	Belgium				0.354	0.350	0.354	0.350	0.354	0.350	0.354	0.350
20	Belize				0.264		0.264		0.281		0.281	
21	Benin				0.108	0.278	0.108	0.278	0.108	0.278	0.108	0.278
22	Bhutan	4			0.029	0.088	0.018	0.053	0.029	0.088	0.023	0.070
23	Bolivia (Plurinational State of)				0.174	0.348	0.078	0.157	0.174	0.348	0.078	0.157
24	Bosnia and Herzegovina				0.139	0.292	0.139	0.292	0.139	0.292	0.139	0.292
25	Botswana				0.118	0.225	0.059	0.112	0.118	0.225	0.059	0.112
26	Brazil	5			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	Brunei Darussalam				0.148	0.264	0.074	0.132	0.148	0.264	0.074	0.132
28	Bulgaria				0.211	0.466	0.211	0.466	0.211	0.466	0.211	0.466
29	Burkina Faso				0.162	0.422	0.162	0.422	0.162	0.422	0.162	0.422
30	Burundi				0.094	0.230	0.094	0.230	0.118	0.288	0.118	0.288
31	Cabo Verde				0.289	0.606	0.289	0.606	0.289	0.606	0.289	0.606
32	Cambodia				0.075	0.184	0.075	0.184	0.090	0.220	0.090	0.220
33	Cameroon				0.110	0.264	0.110	0.264	0.163	0.390	0.163	0.390
34	Canada	6			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35	Cayman Islands				0.300		0.300		0.540		0.420	
36	Central African Rep.				0.108		0.108		0.216		0.216	
37	Chad				0.160		0.160		0.382		0.382	
38	Chile				0.187	0.260	0.187	0.260	0.187	0.260	0.187	0.260
39	China	7			0.029	0.050	0.029	0.050	0.029	0.050	0.029	0.050
40	Colombia	8			0.081	0.170	0.081	0.170	0.081	0.170	0.081	0.170
41	Comoros	9	0.002		0.144		0.144		0.194		0.194	
42	Costa Rica	10			0.070	0.109	0.070	0.109	0.070	0.109	0.070	0.109
43	Côte d'Ivoire				0.189	0.462	0.189	0.462	0.189	0.462	0.189	0.462
44	Croatia	11			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
45	Cuba	12			0.350		0.100		0.350		0.100	
46	Curacao	13	0.006	0.007	0.447	0.569	0.447	0.569	0.447	0.569	0.447	0.569

Annex Table 2.5: Mobile-voice basket - on-net and off-net, 2019 (continued)

Rank	Economy	Notes	Call connection charge		Per minute local call, on-net				Per minute local call, off-net			
					Peak		Off-peak		Peak		Off-peak	
			USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$
47	Cyprus				0.083	0.101	0.083	0.101	0.083	0.101	0.083	0.101
48	Czech Republic				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
49	Dem. Rep. of the Congo		0.002		0.095		0.095		0.095		0.095	
50	Denmark				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
51	Djibouti	14	0.169	0.298	0.169	0.298	0.113	0.199	0.169	0.298	0.113	0.199
52	Dominica				0.259	0.362	0.259	0.362	0.370	0.517	0.370	0.517
53	Dominican Rep.	15			0.158	0.342	0.158	0.342	0.205	0.445	0.158	0.342
54	Ecuador	16			0.110	0.189	0.110	0.189	0.110	0.189	0.110	0.189
55	Egypt	17			0.011	0.058	0.011	0.058	0.011	0.058	0.011	0.058
56	El Salvador				0.125	0.248	0.125	0.248	0.147	0.293	0.147	0.293
57	Estonia				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58	Eswatini				0.091	0.216	0.045	0.108	0.091	0.216	0.045	0.108
59	Ethiopia				0.018	0.054	0.013	0.038	0.018	0.054	0.013	0.038
60	Fiji				0.192	0.303	0.163	0.257	0.230	0.363	0.201	0.318
61	Finland				0.081	0.073	0.081	0.073	0.081	0.073	0.081	0.073
62	France				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
63	Gabon				0.281	0.410	0.281	0.410	0.281	0.410	0.281	0.410
64	Gambia				0.048	0.154	0.048	0.154	0.060	0.194	0.060	0.194
65	Georgia		0.039		0.000		0.000		0.028		0.028	
66	Germany	18			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
67	Ghana		0.109	0.302	0.024	0.067	0.024	0.067	0.030	0.082	0.030	0.082
68	Gibraltar		0.133		0.200		0.200		0.213		0.213	
69	Greece	19			0.874	1.120	0.874	1.120	0.874	1.120	0.874	1.120
70	Grenada				0.293	0.398	0.293	0.398	0.293	0.398	0.293	0.398
71	Guatemala				0.346	0.578	0.346	0.578	0.346	0.578	0.346	0.578
72	Guinea				0.053	0.105	0.053	0.105	0.073	0.145	0.073	0.145
73	Guinea-Bissau				0.110	0.252	0.082	0.189	0.275	0.630	0.275	0.630
74	Guyana				0.165	0.264	0.165	0.264	0.165	0.264	0.165	0.264
75	Haiti				0.088	0.189	0.088	0.189	0.093	0.198	0.093	0.198
76	Honduras				0.176	0.346	0.176	0.346	0.176	0.346	0.176	0.346
77	Hong Kong, China	20			0.015	0.019	0.008	0.009	0.015	0.019	0.008	0.009
78	Hungary				0.130	0.232	0.130	0.232	0.130	0.232	0.130	0.232
79	Iceland	21			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80	India	22			0.022	0.073	0.022	0.073	0.022	0.073	0.022	0.073
81	Indonesia				0.069	0.192	0.055	0.154	0.126	0.353	0.101	0.282
82	Iran (Islamic Republic of)				0.024	0.076	0.024	0.076	0.024	0.076	0.024	0.076
83	Iraq				0.101	0.202	0.101	0.202	0.101	0.202	0.101	0.202
84	Ireland				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85	Israel				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86	Italy				0.272	0.295	0.272	0.295	0.272	0.295	0.272	0.295
87	Jamaica				0.054	0.085	0.054	0.085	0.054	0.085	0.054	0.085
88	Japan	23			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
89	Jordan				0.042	0.088	0.042	0.088	0.113	0.234	0.113	0.234
90	Kazakhstan				0.026	0.075	0.026	0.075	0.035	0.100	0.035	0.100
91	Kenya		0.099	0.199	0.042	0.086	0.022	0.044	0.042	0.086	0.042	0.086
92	Kiribati				0.194		0.194		0.194		0.194	

Annex Table 2.5: Mobile-voice basket - on-net and off-net, 2019 (continued)

Rank	Economy	Notes	Call connection charge		Per minute local call, on-net				Per minute local call, off-net			
					Peak		Off-peak		Peak		Off-peak	
			USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$
93	Korea (Rep. of)				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
94	Kuwait				0.149	0.229	0.149	0.229	0.149	0.229	0.149	0.229
95	Kyrgyzstan				0.015	0.050	0.015	0.050	0.059	0.196	0.059	0.196
96	Lao P.D.R.				0.104	0.276	0.104	0.276	0.104	0.276	0.104	0.276
97	Latvia				0.130	0.195	0.130	0.195	0.130	0.195	0.130	0.195
98	Lebanon				0.275	0.431	0.165	0.259	0.275	0.431	0.165	0.259
99	Lesotho				0.096	0.260	0.096	0.260	0.096	0.260	0.096	0.260
100	Liberia				0.220	0.210	0.220	0.210	0.250	0.239	0.250	0.239
101	Libya				0.044		0.044		0.066		0.066	
102	Liechtenstein	24			0.000		0.000		0.235		0.235	
103	Lithuania				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104	Luxembourg				0.236	0.205	0.236	0.205	0.236	0.205	0.236	0.205
105	Macao, China				0.050	0.062	0.050	0.062	0.050	0.062	0.050	0.062
106	Madagascar				0.018	0.063	0.018	0.063	0.054	0.189	0.054	0.189
107	Malawi	25			0.098	0.290	0.098	0.290	0.109	0.322	0.109	0.322
108	Malaysia				0.074	0.181	0.074	0.181	0.074	0.181	0.074	0.181
109	Maldives				0.064	0.085	0.064	0.085	0.090	0.119	0.090	0.119
110	Mali				0.194	0.495	0.086	0.220	0.194	0.495	0.194	0.495
111	Malta				0.295	0.396	0.295	0.396	0.295	0.396	0.295	0.396
112	Marshall Islands				0.500		0.250		0.500		0.250	
113	Mauritania				0.219	0.618	0.219	0.618	0.219	0.618	0.219	0.618
114	Mauritius	26			0.035	0.060	0.035	0.060	0.106	0.181	0.106	0.181
115	Mexico				0.044	0.084	0.044	0.084	0.044	0.084	0.044	0.084
116	Micronesia	27			0.150	0.153	0.150	0.153	0.150	0.153	0.150	0.153
117	Moldova				0.089	0.209	0.089	0.209	0.089	0.209	0.089	0.209
118	Monaco	28			0.000		0.000		0.000		0.000	
119	Mongolia	29			0.028	0.078	0.028	0.078	0.032	0.089	0.032	0.089
120	Montenegro				0.176	0.346	0.176	0.346	0.176	0.346	0.176	0.346
121	Morocco	30			0.027	0.061	0.027	0.061	0.027	0.061	0.027	0.061
122	Mozambique				0.099		0.099		0.099		0.099	
123	Myanmar				0.007	0.029	0.007	0.029	0.020	0.078	0.020	0.078
124	Namibia				0.113	0.225	0.113	0.225	0.113	0.225	0.113	0.225
125	Nauru				0.224		0.187		0.224		0.187	
126	Nepal (Republic of)				0.017	0.051	0.017	0.051	0.017	0.051	0.017	0.051
127	Netherlands				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
128	New Zealand				0.208	0.187	0.208	0.187	0.208	0.187	0.208	0.187
129	Nicaragua				0.380	1.023	0.380	1.023	0.460	1.238	0.460	1.238
130	Niger				0.216	0.538	0.216	0.538	0.216	0.538	0.216	0.538
131	Nigeria				0.082	0.163	0.082	0.163	0.082	0.163	0.082	0.163
132	North Macedonia	31			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
133	Norway				0.122	0.092	0.122	0.092	0.122	0.092	0.122	0.092
134	Oman				0.156	0.307	0.104	0.205	0.156	0.307	0.104	0.205
135	Pakistan	32	0.001	0.004	0.015	0.054	0.015	0.054	0.021	0.075	0.021	0.075
136	Palau				0.220	0.236	0.150	0.161	0.220	0.236	0.150	0.161
137	Palestine*				0.139	0.200	0.139	0.200	0.167	0.240	0.167	0.240
138	Panama				0.100	0.174	0.100	0.174	0.100	0.174	0.100	0.174
139	Papua New Guinea				0.244	0.296	0.244	0.296	0.244	0.296	0.244	0.296

Annex Table 2.5: Mobile-voice basket - on-net and off-net, 2019 (continued)

Rank	Economy	Notes	Call connection charge		Per minute local call, on-net				Per minute local call, off-net			
			Call connection charge		Peak		Off-peak		Peak		Off-peak	
			USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$
140	Paraguay				0.188	0.404	0.188	0.404	0.188	0.404	0.188	0.404
141	Peru				0.149	0.284	0.149	0.284	0.149	0.284	0.149	0.284
142	Philippines				0.123	0.318	0.123	0.318	0.142	0.367	0.142	0.367
143	Poland	33			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
144	Portugal	34			0.118	0.150	0.118	0.150	0.118	0.150	0.118	0.150
145	Puerto Rico	35			0.000		0.000		0.000		0.000	
146	Qatar	36			0.151	0.198	0.151	0.198	0.151	0.198	0.151	0.198
147	Romania				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
148	Russian Federation				0.028	0.067	0.028	0.067	0.040	0.095	0.040	0.095
149	Rwanda	37			0.052	0.144	0.001	0.003	0.052	0.144	0.052	0.144
150	Saint Kitts and Nevis				0.330	0.437	0.330	0.437	0.330	0.437	0.330	0.437
151	Saint Lucia				0.304	0.397	0.304	0.397	0.304	0.397	0.304	0.397
152	Saint Vincent and the Grenadines				0.367	0.509	0.367	0.509	0.367	0.509	0.367	0.509
153	Samoa				0.070	0.096	0.070	0.096	0.070	0.096	0.070	0.096
154	San Marino				0.077	0.085	0.077	0.085	0.118	0.131	0.118	0.131
155	Sao Tome and Principe	38			0.121	0.170	0.121	0.170	0.121	0.170	0.121	0.170
156	Saudi Arabia				0.147	0.301	0.147	0.301	0.147	0.301	0.147	0.301
157	Senegal				0.215	0.522	0.140	0.341	0.215	0.522	0.140	0.341
158	Serbia				0.119	0.244	0.119	0.244	0.119	0.244	0.119	0.244
159	Seychelles				0.201	0.318	0.086	0.136	0.284	0.449	0.158	0.250
160	Sierra Leone				0.082	0.213	0.082	0.213	0.088	0.229	0.088	0.229
161	Singapore				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162	Slovakia				0.106	0.167	0.106	0.167	0.106	0.167	0.106	0.167
163	Slovenia				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
164	Solomon Islands				0.124	0.128	0.124	0.128	0.189	0.194	0.189	0.194
165	Somalia				0.050		0.050		0.050		0.050	
166	South Africa				0.094	0.189	0.094	0.189	0.094	0.189	0.094	0.189
167	Spain	39			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
168	Sri Lanka				0.013	0.039	0.013	0.039	0.013	0.039	0.013	0.039
169	Sudan				0.006		0.006		0.008		0.008	
170	Suriname				0.180		0.180		0.180		0.180	
171	Sweden		0.114	0.106	0.114	0.106	0.114	0.106	0.114	0.106	0.114	0.106
172	Switzerland				0.000	0.000	0.000	0.000	0.409	0.291	0.409	0.291
173	Syrian Arab Republic				0.030		0.025		0.030		0.025	
174	Taiwan, Province of China				0.099		0.099		0.199		0.199	
175	Tajikistan				0.008		0.007		0.033		0.022	
176	Tanzania				0.119	0.320	0.119	0.320	0.146	0.391	0.146	0.391
177	Thailand	40			0.030	0.079	0.030	0.079	0.030	0.079	0.030	0.079
178	Timor-Leste				0.140	0.218	0.070	0.109	0.170	0.264	0.170	0.264
179	Togo				0.142	0.349	0.142	0.349	0.198	0.487	0.198	0.487
180	Tonga				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
181	Trinidad and Tobago				0.191	0.228	0.191	0.228	0.191	0.228	0.191	0.228
182	Tunisia				0.015	0.045	0.015	0.045	0.015	0.045	0.015	0.045
183	Turkey	41			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Annex Table 2.5: Mobile-voice basket - on-net and off-net, 2019 (continued)

Rank	Economy	Notes	Call connection charge		Per minute local call, on-net				Per minute local call, off-net			
			Call connection charge		Peak		Off-peak		Peak		Off-peak	
			USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$
184	Turkmenistan				0.040		0.040		0.057		0.057	
185	Uganda				0.054	0.161	0.054	0.161	0.054	0.161	0.054	0.161
186	Ukraine	42			0.000	0.000	0.000	0.000	0.037	0.139	0.037	0.139
187	United Arab Emirates	43			0.038	0.050	0.038	0.050	0.038	0.050	0.038	0.050
188	United Kingdom				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
189	United States				0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	Uruguay				0.244	0.293	0.244	0.293	0.244	0.293	0.244	0.293
191	Uzbekistan				0.012		0.012		0.015		0.015	
192	Vanuatu				0.254	0.239	0.254	0.239	0.254	0.239	0.254	0.239
193	Viet Nam				0.070	0.171	0.070	0.171	0.079	0.193	0.079	0.193
194	Yemen				0.074		0.023		0.102		0.102	
195	Zambia				0.105	0.268	0.055	0.141	0.129	0.329	0.080	0.205

Note: * Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference.

Source: ITU. PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

Annex Table 2.6: Mobile-voice basket - to fixed and SMS, 2019

			Per minute local call, to fixed telephone				Local SMS			
			Peak		Off-peak		On-net		Off-net	
Rank	Economy	Notes	USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$
1	Afghanistan		0.049	0.165	0.049	0.165	0.014	0.047	0.035	0.118
2	Albania		0.269	0.561	0.269	0.561	0.120	0.251	0.120	0.251
3	Algeria		0.068	0.197	0.068	0.197	0.043	0.124	0.043	0.124
4	Andorra		0.307		0.307		0.189		0.189	
5	Angola		0.142	0.183	0.107	0.137	0.049	0.064	0.049	0.064
6	Anguilla		0.252		0.252		0.093		0.093	
7	Antigua and Barbuda		0.352	0.433	0.352	0.433	0.085	0.105	0.085	0.105
8	Argentina		0.555		0.555		0.125		0.125	
9	Armenia	1	0.072	0.180	0.072	0.180	0.010	0.026	0.041	0.103
10	Aruba		0.497	0.594	0.263	0.313	0.089	0.107	0.151	0.180
11	Australia	2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12	Austria		0.047	0.048	0.047	0.048	0.047	0.048	0.047	0.048
13	Azerbaijan		0.035	0.144	0.035	0.144	0.029	0.120	0.029	0.120
14	Bahamas	3	0.370	0.327	0.170	0.150	0.056	0.049	0.056	0.049
15	Bahrain	4	0.043	0.070	0.043	0.070	0.085	0.140	0.085	0.140
16	Bangladesh		0.020	0.049	0.020	0.049	0.007	0.018	0.007	0.018
17	Barbados		0.400	0.318	0.400	0.318	0.165	0.131	0.165	0.131
18	Belarus		0.079	0.310	0.079	0.310	0.010	0.039	0.010	0.039
19	Belgium	5	0.354	0.350	0.354	0.350	0.000	0.000	0.000	0.000
20	Belize		0.281		0.281		0.140		0.140	
21	Benin		0.108	0.278	0.108	0.278	0.009	0.023	0.009	0.023
22	Bhutan	6	0.029	0.088	0.029	0.088	0.007	0.020	0.007	0.022
23	Bolivia (Plurinational State of)		0.174	0.348	0.078	0.157	0.029	0.058	0.029	0.058
24	Bosnia and Herzegovina		0.121	0.254	0.121	0.254	0.042	0.089	0.042	0.089
25	Botswana		0.118	0.225	0.059	0.112	0.020	0.037	0.039	0.075
26	Brazil	7	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	Brunei Darussalam		0.148	0.264	0.074	0.132	0.037	0.066	0.037	0.066
28	Bulgaria		0.211	0.466	0.211	0.466	0.151	0.333	0.151	0.333
29	Burkina Faso		0.108	0.281	0.108	0.281	0.018	0.047	0.036	0.094
30	Burundi		0.118	0.288	0.118	0.288	0.014	0.034	0.020	0.048
31	Cabo Verde		0.289	0.606	0.289	0.606	0.107	0.224	0.107	0.224
32	Cambodia		0.090	0.220	0.090	0.220	0.025	0.061	0.050	0.122
33	Cameroon		0.163	0.390	0.163	0.390	0.056	0.134	0.092	0.220
34	Canada	8	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35	Cayman Islands		0.540		0.420		0.144		0.144	
36	Central African Rep.		0.216		0.216		0.045		0.090	
37	Chad		0.382		0.382		0.022		0.108	
38	Chile		0.187	0.260	0.187	0.260	0.109	0.152	0.109	0.152
39	China	9	0.029	0.050	0.029	0.050	0.015	0.026	0.015	0.026
40	Colombia		0.081	0.170	0.081	0.170	0.046	0.097	0.098	0.205
41	Comoros	10	0.144		0.144		0.036		0.036	
42	Costa Rica		0.070	0.109	0.070	0.109	0.005	0.008	0.005	0.008
43	Côte d'Ivoire		0.189	0.462	0.189	0.462	0.072	0.176	0.072	0.176
44	Croatia	11	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
45	Cuba	12	0.350		0.100		0.090		0.090	
46	Curacao	13	0.447	0.569	0.447	0.569	0.156	0.199	0.156	0.199
47	Cyprus		0.083	0.101	0.083	0.101	0.041	0.051	0.041	0.051
48	Czech Republic		0.000	0.000	0.000	0.000	0.069	0.108	0.069	0.108

Annex Table 2.6: Mobile-voice basket - to fixed and SMS, 2019 (continued)

			Per minute local call, to fixed telephone				Local SMS			
			Peak		Off-peak		On-net		Off-net	
Rank	Economy	Notes	USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$
49	Dem. Rep. of the Congo		0.095		0.095		0.040		0.040	
50	Denmark		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
51	Djibouti		0.169	0.298	0.113	0.199	0.056	0.099	0.056	0.099
52	Dominica		0.370	0.517	0.370	0.517	0.074	0.103	0.074	0.103
53	Dominican Rep.	14	0.205	0.445	0.205	0.445	0.026	0.057	0.046	0.100
54	Ecuador	15	0.110	0.189	0.110	0.189	0.070	0.120	0.070	0.120
55	Egypt	16	0.011	0.058	0.011	0.058	0.011	0.058	0.011	0.058
56	El Salvador		0.102	0.204	0.102	0.204	0.104	0.206	0.104	0.206
57	Estonia		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58	Eswatini		0.091	0.216	0.045	0.108	0.023	0.054	0.023	0.054
59	Ethiopia		0.018	0.054	0.013	0.038	0.007	0.021	0.007	0.021
60	Fiji		0.220	0.348	0.192	0.303	0.067	0.106	0.086	0.136
61	Finland		0.081	0.073	0.081	0.073	0.081	0.073	0.081	0.073
62	France		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
63	Gabon		0.281	0.410	0.281	0.410	0.045	0.066	0.090	0.131
64	Gambia		0.060	0.194	0.060	0.194	0.008	0.027	0.023	0.074
65	Georgia		0.028		0.028		0.024		0.024	
66	Germany	17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
67	Ghana		0.030	0.082	0.030	0.082	0.010	0.029	0.013	0.035
68	Gibraltar		0.187		0.160		0.053		0.053	
69	Greece	18	0.874	1.120	0.874	1.120	0.295	0.378	0.295	0.378
70	Grenada		0.293	0.398	0.293	0.398	0.089	0.121	0.089	0.121
71	Guatemala		0.346	0.578	0.346	0.578	0.133	0.222	0.133	0.222
72	Guinea		0.073	0.145	0.073	0.145	0.013	0.026	0.019	0.037
73	Guinea-Bissau		0.275	0.630	0.275	0.630	0.054	0.124	0.054	0.124
74	Guyana		0.165	0.264	0.165	0.264	0.056	0.090	0.056	0.090
75	Haiti		0.093	0.198	0.093	0.198	0.019	0.041	0.049	0.104
76	Honduras		0.176	0.346	0.176	0.346	0.176	0.346	0.176	0.346
77	Hong Kong, China	19	0.015	0.019	0.008	0.009	0.038	0.047	0.089	0.109
78	Hungary		0.130	0.232	0.130	0.232	0.130	0.232	0.130	0.232
79	Iceland	20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80	India	21	0.022	0.073	0.022	0.073	0.015	0.048	0.015	0.048
81	Indonesia		0.126	0.353	0.101	0.282	0.025	0.069	0.025	0.069
82	Iran (Islamic Republic of)	22	0.024	0.076	0.024	0.076	0.003	0.009	0.003	0.009
83	Iraq		0.101	0.202	0.101	0.202	0.042	0.084	0.042	0.084
84	Ireland		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
85	Israel		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86	Italy		0.272	0.295	0.272	0.295	0.224	0.243	0.224	0.243
87	Jamaica		0.054	0.085	0.054	0.085	0.027	0.042	0.035	0.055
88	Japan	23	0.000	0.000	0.000	0.000	0.029	0.030	0.029	0.030
89	Jordan	24	0.113	0.234	0.113	0.234	0.042	0.088	0.042	0.088
90	Kazakhstan		0.044	0.125	0.044	0.125	0.020	0.058	0.035	0.100
91	Kenya	25	0.042	0.086	0.042	0.086	0.010	0.020	0.010	0.020
92	Kiribati		0.194		0.194		0.075		0.075	
93	Korea (Rep. of)		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
94	Kuwait	26	0.149	0.229	0.149	0.229	0.066	0.102	0.066	0.102
95	Kyrgyzstan		0.069	0.226	0.069	0.226	0.023	0.076	0.023	0.076
96	Lao P.D.R.		0.104	0.276	0.104	0.276	0.013	0.034	0.026	0.069

Annex Table 2.6: Mobile-voice basket - to fixed and SMS, 2019 (continued)

			Per minute local call, to fixed telephone				Local SMS			
			Peak		Off-peak		On-net		Off-net	
Rank	Economy	Notes	USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$
97	Latvia		0.130	0.195	0.130	0.195	0.083	0.124	0.083	0.124
98	Lebanon		0.275	0.431	0.165	0.259	0.055	0.086	0.055	0.086
99	Lesotho		0.096	0.260	0.096	0.260	0.058	0.157	0.058	0.157
100	Liberia		0.250	0.239	0.250	0.239	0.050	0.048	0.050	0.048
101	Libya		0.066		0.066		0.037		0.037	
102	Liechtenstein	27	0.235		0.235		0.000		0.000	
103	Lithuania		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104	Luxembourg		0.236	0.205	0.236	0.205	0.083	0.072	0.083	0.072
105	Macao, China		0.050	0.062	0.050	0.062	0.031	0.039	0.031	0.039
106	Madagascar		0.054	0.189	0.054	0.189	0.024	0.084	0.036	0.126
107	Malawi		0.109	0.322	0.109	0.322	0.020	0.060	0.033	0.097
108	Malaysia		0.074	0.181	0.074	0.181	0.050	0.120	0.050	0.120
109	Maldives		0.090	0.119	0.090	0.119	0.013	0.017	0.013	0.017
110	Mali		0.194	0.495	0.194	0.495	0.036	0.092	0.054	0.138
111	Malta	28	0.295	0.396	0.295	0.396	0.059	0.079	0.059	0.079
112	Marshall Islands		0.500		0.250		0.020		0.020	
113	Mauritania		0.219	0.618	0.219	0.618	0.028	0.079	0.028	0.079
114	Mauritius	29	0.103	0.175	0.103	0.175	0.018	0.030	0.018	0.030
115	Mexico		0.044	0.084	0.044	0.084	0.044	0.084	0.044	0.084
116	Micronesia		0.150	0.153	0.150	0.153	0.100	0.102	0.100	0.102
117	Moldova		0.089	0.209	0.089	0.209	0.036	0.083	0.036	0.083
118	Monaco	30	0.000		0.000		0.000		0.000	
119	Mongolia	31	0.032	0.089	0.032	0.089	0.008	0.021	0.010	0.027
120	Montenegro		0.176	0.346	0.176	0.346	0.035	0.070	0.035	0.070
121	Morocco	32	0.027	0.061	0.027	0.061	0.011	0.024	0.011	0.024
122	Mozambique		0.099		0.099		0.030		0.030	
123	Myanmar		0.020	0.078	0.020	0.078	0.011	0.043	0.011	0.043
124	Namibia		0.113	0.225	0.113	0.225	0.030	0.060	0.030	0.060
125	Nauru		0.224		0.187		0.097		0.097	
126	Nepal (Republic of)		0.017	0.051	0.017	0.051	0.012	0.034	0.012	0.034
127	Netherlands		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
128	New Zealand		0.208	0.187	0.208	0.187	0.069	0.062	0.069	0.062
129	Nicaragua		0.460	1.238	0.460	1.238	0.080	0.215	0.080	0.215
130	Niger		0.216	0.538	0.216	0.538	0.009	0.022	0.018	0.045
131	Nigeria		0.082	0.163	0.082	0.163	0.013	0.026	0.013	0.026
132	North Macedonia	33	0.000	0.000	0.000	0.000	0.113	0.259	0.113	0.259
133	Norway		0.122	0.092	0.122	0.092	0.085	0.064	0.085	0.064
134	Oman		0.156	0.307	0.104	0.205	0.026	0.051	0.026	0.051
135	Pakistan	34	0.021	0.075	0.021	0.075	0.017	0.061	0.017	0.061
136	Palau		0.220	0.236	0.150	0.161	0.060	0.064	0.060	0.064
137	Palestine*		0.167	0.240	0.139	0.200	0.061	0.088	0.100	0.144
138	Panama		0.100	0.174	0.100	0.174	0.070	0.122	0.070	0.122
139	Papua New Guinea		0.244	0.296	0.244	0.296	0.076	0.093	0.076	0.093
140	Paraguay		0.188	0.404	0.188	0.404	0.026	0.056	0.026	0.056
141	Peru		0.149	0.284	0.149	0.284	0.030	0.058	0.030	0.058
142	Philippines		0.142	0.367	0.142	0.367	0.019	0.049	0.019	0.049
143	Poland		0.000	0.000	0.000	0.000	0.055	0.107	0.055	0.107
144	Portugal	35	0.118	0.150	0.118	0.150	0.118	0.150	0.118	0.150

Annex Table 2.6: Mobile-voice basket - to fixed and SMS, 2019 (continued)

			Per minute local call, to fixed telephone				Local SMS			
			Peak		Off-peak		On-net		Off-net	
Rank	Economy	Notes	USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$
145	Puerto Rico	36	0.000		0.000		0.000		0.000	
146	Qatar	37	0.151	0.198	0.151	0.198	0.107	0.141	0.107	0.141
147	Romania		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
148	Russian Federation		0.028	0.067	0.028	0.067	0.032	0.076	0.032	0.076
149	Rwanda		0.052	0.144	0.052	0.144	0.014	0.038	0.030	0.083
150	Saint Kitts and Nevis		0.330	0.437	0.330	0.437	0.074	0.098	0.074	0.098
151	Saint Lucia		0.304	0.397	0.304	0.397	0.074	0.097	0.096	0.126
152	Saint Vincent and the Grenadines		0.367	0.509	0.367	0.509	0.067	0.093	0.111	0.154
153	Samoa		0.039	0.053	0.039	0.053	0.070	0.096	0.070	0.096
154	San Marino		0.094	0.105	0.094	0.105	0.106	0.118	0.106	0.118
155	Sao Tome and Principe	38	0.121	0.170	0.121	0.170	0.051	0.071	0.051	0.071
156	Saudi Arabia		0.147	0.301	0.147	0.301	0.067	0.137	0.093	0.192
157	Senegal		0.215	0.522	0.140	0.341	0.036	0.087	0.036	0.087
158	Serbia		0.119	0.244	0.119	0.244	0.059	0.121	0.059	0.121
159	Seychelles		0.284	0.449	0.158	0.250	0.030	0.048	0.030	0.048
160	Sierra Leone		0.088	0.229	0.088	0.229	0.011	0.030	0.017	0.044
161	Singapore		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162	Slovakia		0.106	0.167	0.106	0.167	0.071	0.111	0.071	0.111
163	Slovenia		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
164	Solomon Islands		0.189	0.194	0.189	0.194	0.063	0.065	0.063	0.065
165	Somalia		0.050		0.050		0.010		0.010	
166	South Africa		0.094	0.189	0.094	0.189	0.039	0.079	0.039	0.079
167	Spain	39	0.000	0.000	0.000	0.000	0.114	0.135	0.114	0.135
168	Sri Lanka		0.013	0.039	0.013	0.039	0.002	0.005	0.002	0.005
169	Sudan		0.008		0.008		0.002		0.002	
170	Suriname		0.180		0.180		0.040		0.040	
171	Sweden		0.114	0.106	0.114	0.106	0.000	0.000	0.000	0.000
172	Switzerland		0.409	0.291	0.000	0.000	0.000	0.000	0.000	0.000
173	Syrian Arab Republic		0.037		0.032		0.014		0.014	
174	Taiwan, Province of China		0.199		0.199		0.033		0.033	
175	Tajikistan		0.033		0.022		0.011		0.022	
176	Tanzania		0.146	0.391	0.146	0.391	0.022	0.059	0.022	0.059
177	Thailand	40	0.030	0.079	0.030	0.079	0.066	0.172	0.066	0.172
178	Timor-Leste		0.170	0.264	0.170	0.264	0.070	0.109	0.080	0.124
179	Togo		0.198	0.487	0.198	0.487	0.054	0.133	0.054	0.133
180	Tonga		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
181	Trinidad and Tobago		0.191	0.228	0.191	0.228	0.055	0.065	0.081	0.097
182	Tunisia		0.015	0.045	0.015	0.045	0.019	0.057	0.019	0.057
183	Turkey	41	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
184	Turkmenistan		0.057		0.057		0.023		0.023	
185	Uganda		0.054	0.161	0.054	0.161	0.016	0.048	0.024	0.072
186	Ukraine	42	0.110	0.418	0.110	0.418	0.074	0.279	0.074	0.279
187	United Arab Emirates	43	0.038	0.050	0.038	0.050	0.052	0.067	0.052	0.067
188	United Kingdom		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
189	United States		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
190	Uruguay		0.244	0.293	0.244	0.293	0.032	0.039	0.032	0.039
191	Uzbekistan		0.015		0.015		0.010		0.010	
192	Vanuatu		0.254	0.239	0.254	0.239	0.091	0.085	0.091	0.085

Annex Table 2.6: Mobile-voice basket - to fixed and SMS, 2019 (continued)

Rank	Economy	Notes	Per minute local call, to fixed telephone				Local SMS			
			Peak		Off-peak		On-net		Off-net	
			USD	PPP\$	USD	PPP\$	USD	PPP\$	USD	PPP\$
193	Viet Nam		0.079	0.193	0.079	0.193	0.009	0.022	0.011	0.027
194	Yemen		0.102		0.102		0.023		0.023	
195	Zambia		0.129	0.329	0.080	0.205	0.022	0.056	0.030	0.076

Note: * Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference.

Source: ITU. PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

Annex Table 2.7: Mobile-data basket, 2019

	Economy	Notes	Price of the plan		Data allowance (in GB)	Validity	Operator
			USD	PPP\$			
1	Afghanistan		1.0	3.5	0.5	7	Roshan
2	Albania		4.6	9.7	3.0	30	Vodafone Albania
3	Algeria		2.6	7.4	2.0	30	Algérie Télécom Mobile "MOBILIS"
4	Andorra		21.0		3.0	30	Andorra Telecom
5	Angola		15.8	20.3	2.0	31	Unitel
6	Anguilla		17.4		1.0	30	Flow
7	Antigua and Barbuda		37.0	45.6	7.0	30	Flow
8	Argentina		6.8		2.0	15	Claro
9	Armenia	1	5.2	12.8	2.0	30	MTS Armenia CJSC
10	Aruba		27.4	32.7	4.0	30	SETAR
11	Australia	2	21.7	18.9	10.0	30	Telstra
12	Austria	3	11.8	11.9	8.0	30	A1 Telekom Austria
13	Azerbaijan		4.7	19.2	1.5	30	Azercell
14	Bahamas	4	14.6	12.8	2.0	30	Bahamas Telecommunications Company Ltd. (BTC)
15	Bahrain	5	27.9	46.1	20.0	30	VIVA
16	Bangladesh		2.7	6.7	1.5	30	Grameenphone
17	Barbados		15.0	11.9	1.5	30	Digicel
18	Belarus		3.9	15.6	2.0	30	Mobile TeleSystems Joint Limited Liability Company (MTS)
19	Belgium		17.7	17.5	2.0	30	Proximus
20	Belize		17.5		5.5	30	Digi
21	Benin		4.5	11.6	1.5	30	MTN Bénin
22	Bhutan	6	2.9	8.8	1.9	30	Bhutan Telecom limited
23	Bolivia (Plurinational State of)		7.2	14.5	2.0	30	Entel S.A.
24	Bosnia and Herzegovina		7.1	14.9	2.0	30	BH Telecom
25	Botswana		18.5	35.4	5.0	30	Mascom Wireless
26	Brazil	7	13.7	22.2	3.0	30	Vivo
27	Brunei Darussalam		14.8	26.4	3.0	30	DST
28	Bulgaria	8	6.6	14.6	1.5	30	Telenor Bulgaria EAD
29	Burkina Faso		10.8	28.1	3.0	30	ONATEL
30	Burundi		4.8	11.6	1.5	30	Econet leo
31	Cabo Verde		9.1	19.1	2.9	30	CV Movel
32	Cambodia		2.0	4.9	1.5	30	Metfone
33	Cameroon		5.1	12.3	1.5	30	MTN Cameroon
34	Canada	9	26.2	25.3	2.0	30	Rogers
35	Cayman Islands		30.0		2.0	30	Digicel
36	Central African Rep.		2.7		0.4	7	Orange Central African Republic
37	Chad		4.5		1.0	7	Tigo
38	Chile		10.9	15.2	5.0	30	Movistar
39	China		7.6	13.1	3.0	30	China Mobile
40	Colombia		7.1	14.8	1.0	15	COMCEL S.A. (CLARO)
41	Comoros		2.4		0.5	7	(Huri)Comores Télécom
42	Congo (Rep. of the)		18.0	31.0	2.0	30	MTN
43	Costa Rica		6.9	10.8	2.0	30	Instituto Costarricense de Electricidad
44	Côte d'Ivoire		7.2	17.6	1.6	30	Orange Cote d'Ivoire
45	Croatia		15.8	25.4	10.0	30	Hrvatski telekom d.d.

Annex Table 2.7: Mobile-data basket, 2019 (continued)

	Economy	Notes	Price of the plan		Data allowance (in GB)	Validity	Operator
			USD	PPP\$			
46	Cuba		20.0		2.5	30	ETECSA
47	Curacao	10	31.3	39.8	3.5	30	Digicel Curacao
48	Cyprus	11	13.0	15.9	1.0	30	cyta
49	Czech Republic		9.2	14.3	1.5	30	T-Mobile Czech Republic a.s.
50	Dem. Rep. of the Congo		25.0		5.0	30	Vodacom
51	Denmark		18.8	14.9	15.0	30	youSee
52	Djibouti		0.6	1.0	0.1	1	Djibouti Telecom
53	Dominica		20.4	28.4	1.5	30	Digicel
54	Dominican Rep.	12	21.0	45.6	3.0	30	CLARO
55	Ecuador	13	11.2	19.3	2.0	30	CONECEL-CLARO
56	Egypt	14	2.4	12.3	1.8	30	Vodafone Egypt
57	El Salvador		7.0	13.9	3.0	14	Tigo
58	Estonia		14.2	19.9	5.0	30	Telia
59	Eswatini		17.4	41.4	1.5	30	MTN
60	Ethiopia		6.9	20.4	2.0	30	Ethio Telecom
61	Fiji		3.3	5.3	3.0	7	Vodafone Fiji
62	Finland	15	35.2	31.5	0.0	30	Elisa
63	France		11.8	11.8	2.0	30	Orange
64	Gabon	16	10.8	15.8	2.0	30	Gabon Telecom
65	Gambia		5.4	17.4	1.5	45	Africell
66	Georgia		2.8		2.0	30	Silknet
67	Germany	17	14.8	15.5	4.0	30	Vodafone
68	Ghana		8.7	24.2	2.5	30	MTN
69	Gibraltar		40.0		2.0	30	Gibtelecom
70	Greece	18	10.0	12.9	1.0	30	Cosmote
71	Grenada		7.0	9.6	1.0	7	Digicel
72	Guatemala	19	13.2	22.0	2.5	30	Comunicaciones Celulares, S.A.
73	Guinea		0.1	0.2	0.0	1	Orange Guinea
74	Guinea-Bissau	20	0.5	1.2	0.0	1	MTN Bissau
75	Guyana		18.3	29.4	3.5	30	Digicel
76	Haiti		0.3	0.6	0.2	3	Digicel
77	Honduras		4.2	8.2	0.8	7	Tigo
78	Hong Kong, China	21	12.2	15.0	2.0	30	CSL Mobile Limited
79	Hungary		14.8	26.5	6.0	30	Magyar Telekom
80	Iceland	22	27.6	19.3	5.0	30	Nova
81	India		1.4	4.7	2.0	28	Reliance Jio Infocomm Limited
82	Indonesia		2.4	6.7	2.0	30	Telkomsel
83	Iran (Islamic Republic of)		3.4	10.9	2.0	30	MCI
84	Iraq		21.1	42.1	2.0	30	Zain Iraq
85	Ireland		41.3	35.6	20.0	30	Vodafone
86	Israel		11.1	9.4	30.0	30	Cellcom
87	Italy		7.1	7.7	10.0	30	TIM
88	Jamaica	23	23.3	36.3	1.5	30	Digicel
89	Japan		34.2	34.8	2.0	30	NTT Docomo
90	Jordan		12.9	26.8	4.0	30	Zain
91	Kazakhstan		2.9	8.3	3.0	30	Active (KCell)

Annex Table 2.7: Mobile-data basket, 2019 (continued)

	Economy	Notes	Price of the plan		Data allowance (in GB)	Validity	Operator
			USD	PPP\$			
92	Kenya	24	4.9	10.0	2.0	30	Safaricom
93	Kiribati		14.9		2.7	30	Amalgamated Telecom Holdings Kiribati
94	Korea (Rep. of)	25	15.0	17.2	10.0	30	SK Telecom
95	Kuwait		16.6	25.4	5.0	30	Zain
96	Kyrgyzstan	26	0.7	2.4	1.0	7	MegaCom
97	Lao P.D.R.		6.5	17.2	1.5	30	Unitel
98	Latvia		7.1	10.6	10.0	30	TELE2
99	Lebanon		20.9	32.8	1.8	30	Touch Lebanon
100	Lesotho		9.1	24.5	2.0	30	Vodacom Lesotho
101	Liberia		5.0	4.8	2.0	30	MTN Liberia (Lonestar Cell)
102	Libya		5.9		1.0	15	Libyana
103	Liechtenstein	27	24.5		20.0	30	Telecom Liechtenstein AG
104	Lithuania		11.7	19.8	30.0	30	Telia
105	Luxembourg		11.8	10.3	2.0	30	Post Luxembourg
106	Macao, China		12.1	15.1	2.0	30	CTM
107	Madagascar		7.5	26.3	2.0	30	Telma Mobile
108	Malawi		6.8	20.1	2.0	30	Airtel Malawi
109	Malaysia	28	7.4	18.1	10.0	30	DiGi Telecommunications Sdn Bhd
110	Maldives		15.8	20.8	2.5	30	Dhiraagu
111	Mali		9.0	22.9	2.0	30	ORANGE MALI
112	Malta		17.7	23.7	3.0	30	Vodafone Malta Ltd
113	Mauritania		8.4	23.8	3.0	30	Mauritel
114	Mauritius	29	7.2	12.4	1.7	30	Cellplus Mobile Communications Ltd (my.t)
115	Mexico		7.8	14.7	1.5	28	Telcel
116	Micronesia		30.0	30.7	2.0	30	FSM Telecommunications Corporation
117	Moldova		5.4	12.5	1.5	30	Orange Moldova
118	Monaco		47.2		20.0	30	Monaco Telecom
119	Mongolia	30	6.7	18.4	3.0	30	MobiCom
120	Montenegro		4.6	9.1	1.0	30	Crnogorski Telekom
121	Morocco		5.3	12.1	5.0	30	IAM
122	Mozambique		2.7		1.5	30	mCel
123	Myanmar		1.0	4.1	1.5	30	MPT
124	Namibia		17.8	35.3	1.5	60	MTC
125	Nauru		23.2		1.8	30	Digicel
126	Nepal (Republic of)		2.2	6.5	1.5	28	Nepal Doorsanchar Company Limited (Nepal Telecom)
127	Netherlands		35.4	34.6	10.0	30	KPN
128	New Zealand		13.1	11.8	1.8	28	Vodafone
129	Nicaragua		6.7	17.9	1.0	15	CLARO
130	Niger		7.2	17.9	2.0	30	Airtel Niger SA (Ex Celtel)
131	Nigeria		3.9	7.8	1.5	30	MTN
132	North Macedonia		8.6	19.7	1.5	30	ONE.VIP
133	Norway		24.5	18.5	5.0	30	Telenor
134	Oman		13.0	25.6	2.0	30	Omantel
135	Pakistan		1.0	3.6	4.9	30	Jazz

Annex Table 2.7: Mobile-data basket, 2019 (continued)

	Economy	Notes	Price of the plan		Data allowance (in GB)	Validity	Operator
			USD	PPP\$			
136	Palau		25.0	26.9	8.0	30	Palau National Communications Corporation
137	Palestine*	31	6.5	9.3	2.5	30	Jawwal
138	Panama	32	5.0	8.7	1.5	7	Movistar
139	Papua New Guinea		5.5	6.7	0.6	7	Digicel Papua New Guinea
140	Paraguay		20.9	44.9	3.0	30	Telefonica Celular del Paraguay S.A.
141	Peru		9.1	17.4	2.9	28	Movistar
142	Philippines		5.7	14.6	2.0	30	Smart
143	Poland	33	2.8	5.4	10.0	30	Orange Polska
144	Portugal		11.7	14.9	1.0	30	MEO
145	Puerto Rico	34	44.6		8.0	30	AT&T MOBILITY PUERTO RICO INC.
146	Qatar	35	16.5	21.6	3.5	30	Ooredoo
147	Romania		10.6	22.5	30.0	30	Orange
148	Russian Federation		8.8	21.0	10.0	30	MTS
149	Rwanda	36	2.3	6.4	1.0	30	MTN Rwanda Ltd
150	Saint Kitts and Nevis	37	37.0	49.2	10.0	30	Flow
151	Saint Lucia		22.2	29.1	2.3	30	Digicel
152	Saint Vincent and the Grenadines	38	30.4	42.2	3.0	30	Digicel
153	Samoa		7.7	10.6	6.0	15	Digicel
154	Sao Tome and Principe		9.6	13.5	3.0	30	CST
155	Saudi Arabia		17.3	35.6	2.0	30	STC
156	Senegal		3.6	8.7	2.5	30	Orange Senegal
157	Serbia	39	7.0	14.3	5.0	30	Telekom Srbija
158	Seychelles		28.7	45.3	2.0	30	Cable and Wireless (Seychelles) Ltd
159	Sierra Leone		6.9	18.1	2.0	30	Africell
160	Singapore		14.8	17.6	3.0	30	Singtel
161	Slovakia	40	11.8	18.5	1.5	30	Orange Slovakia
162	Slovenia	41	15.3	20.0	5.0	30	Telekom Slovenije
163	Solomon Islands		13.8	14.3	1.6	14	Our Telekom
164	Somalia		5.0		2.0	30	Hormuud Telecom
165	South Africa		18.8	37.7	1.5	30	Vodacom SA
166	Spain		8.2	9.7	3.0	30	Movistar (Telefonica)
167	Sri Lanka	42	2.1	6.6	2.0	30	Dialog Axiata
168	Suriname		8.0		3.0	30	Telesur
169	Sweden		17.1	15.9	10.0	30	Telia
170	Switzerland		50.1	35.6	30.0	30	Swisscom
171	Syrian Arab Republic		3.6		0.2	30	SyriaTel
172	Taiwan, Province of China		9.9		1.7	30	Chunghwa Telecom Co., Ltd
173	Tajikistan		3.8		1.5	30	Babilon-Mobile
174	Tanzania		6.6	17.8	2.0	30	Vodacom Tanzania
175	Thailand	43	7.9	20.5	2.0	30	AIS Group
176	Timor-Leste		2.0	3.1	0.4	7	Telemor
177	Togo		9.0	22.1	1.7	30	Togocel
178	Tonga		1.3	1.8	0.5	7	Digicel Tonga
179	Trinidad and Tobago	44	41.5	49.7	3.0	30	Digicel Trinidad and Tobago Limited
180	Tunisia		3.8	11.4	2.5	30	Ooredoo

Annex Table 2.7: Mobile-data basket, 2019 (continued)

	Economy	Notes	Price of the plan		Data allowance (in GB)	Validity	Operator
			USD	PPP\$			
181	Turkey		8.1	23.2	2.5	30	Turkcell
182	Turkmenistan		24.3		1.5	30	TMCCell
183	Uganda		5.4	16.1	2.0	30	MTN
184	Ukraine	45	2.8	10.5	2.0	30	Kyivstar
185	United Arab Emirates	46	28.6	37.2	1.5	30	Etisalat
186	United Kingdom		20.0	19.0	5.0	30	EE
187	United States		21.8	21.8	2.0	30	Verizon
188	Uruguay		21.0	25.2	15.0	30	ANTEL
189	Uzbekistan		5.1		2.0	30	UCell
190	Vanuatu		9.1	8.5	2.5	30	Digicel Vanuatu
191	Viet Nam		2.2	5.4	3.0	30	Viettel
192	Yemen		20.9		3.0	30	Yemen Mobile
193	Zambia		4.8	12.2	1.5	30	MTN

Note: * Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference.

Source: ITU. PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

Annex Table 2.8: Fixed-broadband basket, 2019

	Economy	Notes	Residential monthly subscription		Speed, in Mbit/s	Cap per month, in GB	ISP
			USD	PPP\$			
1	Afghanistan	1	6.94	23.61	0.25	Unlimited	Afghan Telecom
2	Albania	2	6.48	13.53	1.00	Unlimited	Albtelecom
3	Algeria	3	13.72	39.58	2.00	Unlimited	Algérie Télécom
4	Andorra		18.90		1.00	7	Andorra Telecom
5	Angola		26.10	33.56	1.00	30	Angola telecom
6	Anguilla		55.19		10.00	Unlimited	Flow
7	Antigua and Barbuda	4	48.15	59.24	10.00	Unlimited	APUA (Inet)
8	Argentina		56.95		25.00	250	Fibertel
9	Armenia	5	10.33	25.62	5.00	Unlimited	VEON Armenia CJSC
10	Aruba	6	60.71	72.48	100.00	Unlimited	SETAR
11	Australia	7	52.30	45.51	20.00	100	Telstra
12	Austria	8	32.95	33.22	20.00	Unlimited	A1 Telekom Austria
13	Azerbaijan	9	5.88	23.99	1.00	Unlimited	Aztelekom
14	Bahamas	10	34.71	30.64	8.00	Unlimited	BTC
15	Bahrain		27.93	46.09	10.00	70	Batelco
16	Bangladesh	11	4.13	10.15	0.50	Unlimited	Bangladesh Telecommunications Company Limited
17	Barbados	12	42.50	33.81	40.00	Unlimited	Flow
18	Belarus		4.66	18.42		10	RUE "Beltelecom"
19	Belgium		32.48	32.08	50.00	100	Proximus
20	Belize		34.50		10.00	Unlimited	Digi
21	Benin	13	28.81	74.10	0.50	Unlimited	BENIN TELECOM SERVICES
22	Bhutan	14	7.30	21.96	2.00	9	Bhutan Telecom Limited
23	Bolivia (Plurinational State of)	15	21.27	42.60	3.00	Unlimited	Tigo
24	Bosnia and Herzegovina	16	12.01	25.28	5.00	Unlimited	BH Telecom d.d. Sarajevo
25	Botswana	17	28.44	54.31	0.50	Unlimited	Botswana Telecommunications Corporation Limited (BTCL)
26	Brazil	18	10.92	17.74	2.00	Unlimited	NET (TELECOM AMERICA)
27	Brunei Darussalam		18.53	33.02	10.00	50	TelBru
28	Bulgaria	19	11.95	26.38	30.00	Unlimited	Bulgarian Telecommunication Company EAD
29	Burkina Faso	20	22.49	58.58	0.50	Unlimited	ONATEL
30	Burundi	21	225.00	549.19	1.00	Unlimited	CBINET
31	Cabo Verde		10.60	22.21	12.00	5	Cabo Verde Telecom (CVMultimedia)
32	Cambodia	22	12.00	29.36	4.00	Unlimited	Metfone
33	Cameroon	23	26.81	64.18	1.00	Unlimited	CAMTEL
34	Canada	24	42.68	41.27	10.00	100	Bell Canada
35	Cayman Islands		87.59		8.00	Unlimited	Flow
36	Chile	25	32.73	45.51	30.00	Unlimited	VTR
37	China	26	4.53	7.87	20.00	Unlimited	China Telecom
38	Colombia		21.62	45.27	5.00	Unlimited	TELMEX COLOMBIA S.A. (CLARO)
39	Comoros	27	36.01		0.50	Unlimited	Comores Telecom
40	Congo (Rep. of the)	28	26.99	46.49	2.00	Unlimited	Congo Telecom
41	Costa Rica	29	17.16	26.72	1.00	Unlimited	kolbi
42	Côte d'Ivoire	30	34.19	83.61	1.00	Unlimited	Orange Cote d'Ivoire
43	Croatia	31	7.77	12.53	4.00	15	Hrvatski Telekom d.d.
44	Cuba	32	50.00		0.50	Unlimited	ETECSA

Annex Table 2.8: Fixed-broadband basket, 2019 (continued)

			Residential monthly subscription		Speed, in Mbit/s	Cap per month, in GB	ISP
	Economy	Notes	USD	PPP\$			
45	Curacao	33	32.37	41.19	8.00	Unlimited	United Telecommunications Services N.V. (UTS)
46	Cyprus		18.94	23.17	5.00	Unlimited	Cyta
47	Czech Republic	34	22.96	35.92	20.00	Unlimited	O2 Czech Republic a.s.
48	Denmark	35	44.18	34.92	50.00	Unlimited	YouSee
49	Djibouti		15.47	27.31	1.00	30	Djibouti Telecom
50	Dominica	36	35.19	49.10	15.00	Unlimited	Flow
51	Dominican Rep.	37	19.69	42.77	4.00	Unlimited	CLARO
52	Ecuador	38	23.41	40.30	5.00	Unlimited	CNT EP
53	Egypt	39	7.06	36.09	5.00	100	Telecom Egypt
54	El Salvador		25.00	49.73	5.00	Unlimited	Claro
55	Estonia	40	18.90	26.48	10.00	Unlimited	Telia Eesti AS
56	Eswatini		47.35	112.81	0.25	6	SPTC
57	Ethiopia		20.05	58.95	2.00	6	Ethio Telecom
58	Fiji		18.68	29.53	20.00	150	Telecom Fiji Limited
59	Finland	41	38.85	34.74	50.00	Unlimited	Elisa
60	France	42	27.15	27.15	15.00	Unlimited	Orange
61	Gabon	43	44.99	65.74	10.00	Unlimited	GABON TELECOM
62	Georgia	44	11.84		20.00	Unlimited	Magticom
63	Germany	45	41.27	43.43	16.00	Unlimited	Telekom Deutschland GmbH
64	Gibraltar	46	32.02		16.00	Unlimited	Gibtelecom
65	Greece	47	21.95	28.13	4.00	Unlimited	OTE
66	Grenada		44.44	60.44	15.00	Unlimited	Flow
67	Guatemala	48	23.81	39.76	3.00	Unlimited	Telecomunicaciones de Guatemala, S.A.
68	Guinea		11.65	23.02		5	Orange Guinea
69	Guinea-Bissau	49	45.38	104.15	0.25	Unlimited	Orange Bissau, SA
70	Guyana	50	31.77	50.99	1.50	Unlimited	GTT
71	Haiti		55.00	117.62	2.00	Unlimited	Natcom Digicel Acces Haiti Hainet et Haiti Data Network (HDN)
72	Honduras		34.00	66.70	5.00	Unlimited	Claro
73	Hong Kong, China	51	21.43	26.23	500.00	Unlimited	PCCW-HKT Telephone Limited and Hong Kong Telecommunications (HKT) Limited
74	Hungary	52	20.72	37.15	150.00	Unlimited	Magyar Telekom
75	Iceland	53	83.10	58.11	50.00	50	Siminn
76	India	54	5.16	17.08	8.00	Unlimited	Bharat Sanchar Nigam Ltd
77	Indonesia	55			10.00	Unlimited	Telkom Indonesia
78	Iran (Islamic Republic of)		3.33	10.64	0.51	10	TCI
79	Iraq		21.14	42.11	10.00	Unlimited	Iraqi Telecommunication and Information Company
80	Ireland	56	62.58	53.87	100.00	Unlimited	Eir
81	Israel	57	27.57	23.36	15.00	Unlimited	Bezeq
82	Italy	58	41.33	44.85	200.00	Unlimited	TIM
83	Jamaica	59	26.67	41.64	1.00	Unlimited	FLOW
84	Japan	60	35.21	35.81	1024.00	Unlimited	Open Computer Network (NTT)
85	Jordan	61	33.80	70.11	4.00	Unlimited	Orange
86	Kazakhstan	62	6.67	19.20	1.00	Unlimited	JSC "Kazakhtelecom"
87	Kenya	63	24.67	49.74	5.00	Unlimited	Wananchi Group

Annex Table 2.8: Fixed-broadband basket, 2019 (continued)

	Economy	Notes	Residential monthly subscription		Speed, in Mbit/s	Cap per month, in GB	ISP
			USD	PPP\$			
88	Korea (Rep. of)	64	31.48	36.02	100.00	Unlimited	KT
89	Kuwait	65	9.38	14.40	1.00	Unlimited	QUALITY NET
90	Kyrgyzstan	66	8.41	27.68	2.00	Unlimited	Kyrgyz Telekom
91	Lao P.D.R.	67	18.14	48.25	3.00	Unlimited	Unitel
92	Latvia	68	23.03	34.64	100.00	Unlimited	Latt telecom
93	Lebanon		17.51	27.46	4.00	40	Ogero Telecom
94	Lesotho		7.48	20.24	256.00	5	Econet Telecom Lesotho
95	Libya		14.65		2.00	20	Libya Telecom and Technology (LTT)
96	Liechtenstein	69	61.36		40.00	Unlimited	Telecom Liechtenstein AG
97	Lithuania	70	13.65	23.15	8.00	Unlimited	Telia
98	Luxembourg	71	48.42	42.11	20.00	Unlimited	Post Luxembourg (Post Telecom)
99	Macao, China	72	7.80	9.72	3.00	Unlimited	CTM
100	Madagascar	73	74.67	261.49	100.00	Unlimited	Telma Global Net (Groupe Telma)
101	Malawi	74	36.13	106.53	5.00	20	Skyband
102	Malaysia	75	20.75	50.40	30.00	60	Telekom Malaysia Berhad
103	Maldives		24.11	31.68	5.00	30	Dhiraagu
104	Mali		17.81	45.42	1.00	Unlimited	SOTELMA SA
105	Malta	76	23.61	31.64	30.00	Unlimited	Melita Ltd
106	Marshall Islands	77	49.95		0.25	Unlimited	National Telecommunications Authority Marshall Islands (NTAMAR)
107	Mauritania		31.95	90.34	2.00	Unlimited	Mauritel
108	Mauritius		14.70	25.08	10.00	15	Mauritius Telecom Ltd
109	Mexico	78	18.14	34.31	10.00	Unlimited	Telmex
110	Micronesia	79	20.00	20.47	0.50	Unlimited	FSM Telecommunications Corporation
111	Moldova	80	11.90	27.82	100.00	Unlimited	Moldtelecom
112	Monaco	81	47.23		100.00	Unlimited	Monaco Telecom
113	Mongolia		6.43	17.72	1.00	200	Univision LLC
114	Montenegro	82	13.76	27.11	2.00	Unlimited	Crnogorski Telekom
115	Morocco	83	10.55	23.99	4.00	Unlimited	IAM
116	Myanmar	84	13.99	55.01	1.00	Unlimited	MPT
117	Namibia	85	37.71	74.86	2.00	Unlimited	Telecom Namibia
118	Nepal (Republic of)	86	1.84	5.38	5.00	15	Nepal Doorsanchar Company Limited (Nepal Telecom)
119	Netherlands	87	50.19	49.02	50.00	Unlimited	KPN
120	New Zealand	88	44.97	40.49	50.00	60	Spark
121	Nicaragua	89	32.19	86.63	1.00	Unlimited	CLARO
122	Niger		53.53	133.30	0.25	Unlimited	Niger Télécoms SA (ex SONITEL)
123	Nigeria		41.17	81.63	8.00	Unlimited	ipNX Nigeria
124	North Macedonia	90	17.25	39.42	20.00	50	Makedonski Telekom
125	Norway	91	46.60	35.15	0.26	Unlimited	Telenor
126	Oman	92	39.01	76.82	4.00	20	Omantel
127	Pakistan	93	13.95	50.69	4.00	Unlimited	Pakistan Telecommunication Company Limited (PTCL)
128	Palau	94	60.00	64.48	5.00	Unlimited	Palau National Communications Company
129	Palestine*	95	25.85	37.16	4.00	50	Paltel (Access Line) and Hadara (Internet)
130	Panama	96	31.95	55.70	10.00	Unlimited	Cable Onda
131	Papua New Guinea		64.65	78.52	24.00	5	Telikom PNG

Annex Table 2.8: Fixed-broadband basket, 2019 (continued)

			Residential monthly subscription		Speed, in Mbit/s	Cap per month, in GB	ISP
	Economy	Notes	USD	PPP\$			
132	Paraguay	97	23.55	50.47	20.00	Unlimited	Telefónica Celular del Paraguay
133	Peru		18.86	35.89	10.00	Unlimited	Movistar
134	Philippines		13.27	34.23	3.00	30	Philippine Long Distance Telephone (PLDT)
135	Poland	98	19.38	37.52	100.00	Unlimited	Orange Polska
136	Portugal	99	25.97	33.07	30.00	Unlimited	MEO
137	Puerto Rico	100	25.63		3.00	Unlimited	Claro - Puerto Rico Telephone Company, Inc.
138	Qatar	101	82.42	108.09	50.00	Unlimited	Ooredoo
139	Romania	102	7.61	16.13	300.00	Unlimited	S.C. RCS & RDS S.A.
140	Russian Federation	103	6.38	15.28	100.00	Unlimited	Rostelecom
141	Rwanda	104	81.29	223.25	10.00	Unlimited	Liquid Telecom (Former RwandaTel)
142	Saint Kitts and Nevis	105	42.90	56.94	6.00	Unlimited	Flow
143	Saint Lucia		34.82	45.56	10.00	Unlimited	Cable & Wireless Communications Plc.
144	Saint Vincent and the Grenadines		44.44	61.74	50.00	Unlimited	Flow
145	Samoa		30.92	42.48		6	Bluesky Samoa
146	San Marino	106	19.65	21.82	20.00	Unlimited	Telecom Italia San Marino
147	Sao Tome and Principe		29.52	41.43	1.00	12	CST
148	Saudi Arabia	107	22.40	45.96	2.00	20	Saudi Telecom Company
149	Senegal	108	23.21	56.36	1.00	Unlimited	Orange Senegal
150	Serbia	109	15.46	31.78	10.00	Unlimited	Telekom Srbija
151	Seychelles		14.47	22.86	1.00	8	Cable and Wireless (Seychelles) Ltd
152	Singapore	110	36.99	44.01	1024.00	Unlimited	Singtel
153	Slovakia	111	12.87	20.19	15.00	Unlimited	Slovak Telekom, a.s.
154	Slovenia	112	41.33	54.02	100.00	Unlimited	SMP Telekom Slovenije
155	Somalia		10.00		0.50	6	Hormuud Telecom
156	South Africa		31.18	62.54	2.00	20	Telkom
157	Spain	113	47.24	55.93	50.00	Unlimited	Telefonica
158	Sri Lanka		3.32	10.12	21.00	15	Sri Lanka Telecom
159	Suriname	114	28.14		3.00	Unlimited	Telesur
160	Sweden	115	44.75	41.59	100.00	Unlimited	Telia
161	Switzerland	116	66.47	47.27	50.00	Unlimited	Swisscom
162	Syrian Arab Republic	117	3.39		0.50	Unlimited	Syrian Telecom
163	Taiwan, Province of China	118	10.38		16.00	Unlimited	Chunghwa Telecom Co., Ltd
164	Tajikistan		6.56		4.00	30	tojNet
165	Tanzania		19.88	53.37	1.00	8	TTCL
166	Thailand	119	19.84	51.41	50.00	Unlimited	True online
167	Timor-Leste		49.00	76.22	2.00	20	Timor Telecom
168	Togo	120	22.49	55.30	2.00	Unlimited	Togo Telecom
169	Tonga		7.71	10.07		5	Tonga Communications Corporation
170	Trinidad and Tobago	121	20.97	25.09	5.00	Unlimited	Columbus Communications Trinidad Limited
171	Tunisia	122	10.16	30.58	4.00	Unlimited	Topnet
172	Turkey		14.08	40.45	4.00	20	TTNET AS
173	Turkmenistan	123	42.86		0.25	Unlimited	Turkmen Telecom
174	Uganda		21.46	64.24	0.50	5	Uganda Telecom

Annex Table 2.8: Fixed-broadband basket, 2019 (continued)

			Residential monthly subscription		Speed, in Mbit/s	Cap per month, in GB	ISP
	Economy	Notes	USD	PPP\$			
175	Ukraine	124	4.04	15.34	20.00	Unlimited	Ukrtelecom
176	United Arab Emirates	125	19.73	25.70	0.26	Unlimited	Etisalat
177	United Kingdom	126	44.01	41.80	10.00	Unlimited	BT
178	United States		43.54	43.54	100.00	1024	Comcast Xfinity
179	Uruguay		34.50	41.40	3.00	350	ANTEL
180	Uzbekistan		3.72		2.00	6	Uztelecom
181	Vanuatu	127	55.21	51.82	0.50	Unlimited	Telecom Vanuatu Ltd
182	Viet Nam	128	7.30	17.77	2.50	Unlimited	Vietnam Posts and Telecommunications Group (VNPT)
183	Yemen		9.77		0.50	6	Yemen Telecom
184	Zambia		23.90	60.95	2.00	10	Zamtel

Note: * Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference.

Source: ITU. PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

Notes

The notes are presented here as submitted by countries to ITU.

High-consumption mobile-data-and-voice basket – plan details, 2019

1) 200 International/National SMS. Also included 2000 Vodafone SMS. 2) Unlimited on-net calls and SMS (Mobilis) +2000 DA towards other networks (off-net) + 13 GB + free Facebook. Unlimited SM towards Mobilis (on-net) + 400 SMS towards the other networks (off-net). 3) Currency in AMD. The tariff plan includes 2500 minutes on-net airtime and 50 minutes off-net airtime. 4) Unlimited Calls and Texts to standard Australian numbers. Plan is monthly. 5) 1 month. 6) Monthly basis so varies according to number of days in the month. 7) We selected this package because most of mobile subscriptions with data are prepaid. 8) \$30 30 Day 1.5GB+ \$45 Pick Talk 30 day. Unlimited on-net. Unlimited. 9) Unlimited. 10) Not applicable as free voice calls are not included in any plans. Free SMSs not included in any plans. 11) The included amount of mojMidi 30 (30,00 KM) package can be used for: voice and video calls to fixed and mobile networks within BiH, international calls, SMS, MMS. 12) 1580MB. 13) Unlimited. The plan offers unlimited calls to all local operators. The plan offers unlimited SMS to all local operators. 14) No SMS included. This is based on pay-as-you-go. 15) There is a possibility to add 80 SMS at the price of 5,99 BGN for all national networks; to add 300 SMS at the same price, but only in the network of A1 Bulgaria or to pay monthly fee of 3,99 BGN and 0,01 BGN for every SMS sent in the network of A1. 16) Includes 120 MB. 17) Bundle includes 55000 F worth of calls to all networks. 18) Includes 13% tax + 0.75 emergency fee. Unlimited minutes included. Unlimited SMS included. It is a monthly plan. 19) Free social media. 20) 90 hours multiplied by 60 minutes. 21) 5 GB. 22) 800MB. 23) 5 GB + unlimited one-net voice & SMS + 1000 off-net mins & SMS. 24) The price is inclusive tax (NAf. 139,- + 6% tax). Unlimited. The bundle is valid for 30 days, subscribers will get unlimited (on-net) calls, SMS and 10 GB data. 30 Days. 25) Unlimited. After the usage of 1GB you can buy an additional 1 GB for a fee of 5 Euros. 26) Unlimited. 27) Unlimited. 28) Unlimited. 29) 3GB is the minimum capacity offered. 30) Tax inclusive. Includes 200 minutes. No SMS included. 31) Tax inclusive. Main bundle (1 Giga + 150 min + 4 free jokers) a joker can be (250 MB mobile internet or 125 min or 500 MB Soc. & Media). Main bundle has 150 minutes with SMS inclusive in the minutes' quota. Main bundle (1 Giga + 150 min + 4 free jokers) a joker can be (250 MB mobile internet or 125 min or 500 MB Soc. & Media). 32) Unlimited. 33) 12 Euro - 5 GB, unlimited domestic and EU roaming calls/SMS. 34) Unlimited. 35) EUR 21.99 for 12 months, EUR 26.99 thereafter. Unlimited voice and SMS. 36) This is a weekly plan. Operator does not offer monthly plans. 37) Unlimited minutes. 38) Plan 14.99€ + 1€/500MB. Unlimited. 1 month. 39) Unlimited. 40) This plan includes 2.5GB to surf the Internet and includes a validity of 30 days. The voice time will depend on whether the recharge of this prepaid plan of Q99 is done on days of air time recharge promotion. It also includes unlimited WhatsApp and Facebook during the validity of the plan. Likewise, for the calculated price (Q533), we added a fare of: $Q2.60 \times 140 \text{min} = Q364$ plus, $Q1.00 \times 70 \text{sms} = Q70$; so, the total is calculated as the sum of $Q99 + Q364 + 20 = Q70$ (this total is an estimated price due to the fare per minutes and per SMS, because both these rates correspond to the price per minute and per SMS as a prepaid user but cannot be purchased at retail. This plan includes 2.5GB to surf the Internet and includes a validity of 30 days. The voice time will depend on whether the recharge of this prepaid plan of Q99 is done on days of air time recharge promotion. It also includes unlimited WhatsApp and Facebook during the validity of the plan. Likewise, for the calculated price (Q533), we added a fare of: $Q2.60 \times 140 \text{min} = Q364$ plus, $Q1.00 \times 70 \text{sms} = Q70$; so, the total is calculated as the sum of $Q99 + Q364 + Q70 = Q533$. 41) The base plan: HK\$48 for 1 GB, 30 days validity. Take the base plan twice to cover at least 1.5 GB for 30 days. To be combined with HK\$3 administration fee; HK\$12.6 for 140 min (i.e. HK\$0.09 per min = HK\$(0.12+0.06)/2 per min), the average of peak and off-peak prices); and HK\$35 for 70 SMS (i.e. HK0.5 per SMS = HK\$(0.7+0.3)/2 per SMS, the average of off-net and on-net prices). 42) This price is calculated as

follows: i) 140 min + 10 SMS for 6500 HUF, ii) 3 GB data for 2290 HUF. The plan covers 150 minutes OR 150 SMSs per 30 days. 43) Unlimited minutes and SMS. 44) Unlimited voice calls. 300 SMS per month. 45) Unlimited. 24 months plan. 46) Unlimited. 47) Unlimited. 48) 1000 off-net minutes. 49) Unlimited on-net calls + 200 mins to other operators. 50) 2 GB. 51) Includes unlimited on-net calls and 150 minutes for off-net calls. Unlimited. For a month. 52) KD 5 monthly for 5 GB internet and unlimited messages + Add on KD 2 for Unlimited On net calls - total KD 7 add on unlimited on net calls. Unlimited messages. 53) Unlimited. 54) Unlimited. 55) Unlimited. 56) biGBonus 35 + unlimited on-net calls add-on for RM 5. Unlimited on-net calls add-on for RM 5. 57) 250 MB free social media allowance is included in the plan. 58) 2000 units to use freely on MB/SMS/Calls with every €30 top-up. 2000 units to use freely on MB/SMS/Calls with every €30 top-up. 59) Rs99 (inclusive of VAT) refer to a Weekly 800MB & 400SMS plan, valid for 7 days. To be combined with: 3 times Weekly 300MB & 200SMS plan at Rs49 (Inclusive of VAT) and 140mins on-net voice at the pay-as-you-go rate of Rs1.20/min (Exclusive of VAT). Therefore the base plan should be the Weekly 800MB & 400SMS plan as per the IPB rules. VAT is already deducted when consumer purchases airtime. Therefore when calls, SMS or data packs are purchased, VAT of 15% is not levied again on the approved tariff. Voice minutes do not form part of the mobile internet bundle (data & SMS) and are based on the pay-as-you-go offers. The base plan has data allowance of 400 SMS. Add-ons have additional allowances of 600 SMS (3 times 200 SMS), as per IPB rules. The base plan has data allowance of 800MB. Add-ons have additional allowances of 900MB (3 times 300MB), as per the IPB rules. Base plan has validity of 7 days. Add-ons also have the validity of 7 days."60) Unlimited. 61) 60 MAD = 2X [Pass JAWAL IAM 25MAD including 60min+ 1Go] + 2X [Pass Jawal 5 DH including 20min + 20 Mo+ 5Mad of credits]. The consumer buy both the pass jawal 25DH and the pass jawal 5DH at the beginning of the month and at the half of the month. The consumer converts the 5MAD of credits included on the 5MAD add-on to 50 SMS each time s/he takes it: 160 Min+ 100 SMS+ 2.04 GB valid for 4 weeks. 60minX2 + 20minX250 SMS X 2 1GB*2 + 2X 20MB". 62) 1GB data, 500MB for social media only (WhatsApp & Facebook). 63) Unlimited. 64) Unlimited. 65) Unlimited minutes to all networks. Unlimited SMS to all national networks. Post-paid tariff plan. 66) Unlimited. 67) Unlimited calls to 5 favourite numbers only. 68) Pay-as-you-go for (voice minutes and SMS) + 2.5 GB monthly data package priced 23.2 NIS: $(0.5 \text{ NIS} * 140) + (0.22 \text{ NIS} * 70) + (23.2 \text{ NIS}) = 108.6 \text{ NIS}$ (including VAT). 69) Unlimited. 70) Unlimited. 71) Unlimited. 72) Unlimited. 73) 4 € per week. 500 voice minutes and SMS included. Please note that 3 GB data and 500 voice minutes and SMS are offered per month, not per week. 74) Unlimited. 75) Same Flexi card as for the low usage bundle. A Flexi card with a price of 60 QAR gives you 500 points valid for 30 days. One local call minute costs 1 point, one SMS costs 1 point, 1MB data costs 0.14 point. 76) Unlimited. 77) Includes unlimited social messaging, 1000 local anywhere minutes, and 1000 local anywhere SMS. 78) Unlimited on-net calls. Unlimited Digicel texts. 79) Includes unlimited Digicel minutes, unlimited WhatsApp messages, 500 Anywhere Local Minutes, and 3GB Free D'Music. 80) Unlimited. 81) 5GB data + 2GB Singtel WiFi. 82) Unlimited. 30 days. 83) Unlimited voice and SMS. 84) Unlimited. 85) 10 times 3 days. $10 * 10 = 100$ 10*150 Mb =1.5 GB. 86) Unlimited. 87) Unlimited on-net calls. Unlimited SMS. 88) A combination of F20 plan with 25 minutes, 25 free SMS and 2 MB for \$0.2 with validity of 1 day and a D3 data add-on with 450 MB for \$1 valid for 7 days. 89) Prices for 2019 are VAT inclusive. 90) The base plan does not include free SMS. Buy 100 SMS package for 2 UAH. Minimal tariff term starts from the day of connection. 91) 5% VAT included. 100 Flexi Minutes valid for Local & International Calls to select countries. No SMS included in the Bundle. 30 days. 92) Unlimited. 93) Unlimited. 94) Unlimited SMS towards Antel. 95) Includes extra 500 MB for use at night (01:00-09:00) and extra 1500 MB for social media.

High-consumption mobile-data-and-voice basket - call and SMS rate, 2019

1) 0 DA towards Mobilis network (on-net) and 7.96 DA towards other networks (off-net). 2) 5 AMD on-net, 35 AMD off-net. 3) Average between on-net peak 0.79 call rate and on-net off-peak 0.38 call rate. 4) Unlimited Calls and Texts to standard Australian numbers. 5) Unlimited. 6) Unlimited. 7) Unlimited. 8) Not applicable as no free voice call is included. No free SMSs included in any plans. 9) Average of peak and off-peak price. 10) The plan offers unlimited calls to all local operators. 11) Average of peak and off-peak rate. 12) Unlimited minutes included. Unlimited SMS included. 13) There is no defined single price, since once the user finishes the capacity of the plan, the operator provides him with a menu of options to select the way in which he wishes to continue consuming, which implies different prices per minute. Single price defined, once the user finishes the capacity of the plan, the operator provides a menu of options to select the way in which you want to continue consuming, which implies different prices per SMS. 14) The operator UTS additional price per voice minute for on-net is NAF. 0,73 inclusive of tax (NAF. 0,69 + 6%) and for off-net NAF. 0,78 inclusive of tax (NAF. 0,74 + 6%). 15) Unlimited. 16) Unlimited. 17) Unlimited. 18) Unlimited. 19) Unlimited. 20) You have to activate the add-on [Extra 100 to all]: 2,02€, 100 minutes to all, 30 days validity. You have to activate the add on [SMS 100]: 4,03€, 100 SMS, 30 days validity. 21) Unlimited. 22) This is a prepaid plan. This plan does not represent a contract between the user and the operator. There's no price for excess in voice due to the validity of the plan. Q2.6 is the price per minute if the customer uses his prepaid phone to acquire airtime for voice calls. This is a prepaid plan. This plan does not represent a contract between the user and the operator. There's no price for excess in SMS due to the validity of the plan. This plan itself does not include SMS. Q1.00 is the price per minute if the customer uses his prepaid phone to acquire airtime and uses it for SMS. 23) HK\$0.09 per min = HK\$(0.12+0.06)/2 per min, the average of peak and off-peak prices. 24) Unlimited minutes and SMS. 25) Unlimited voice + SMS. 26) Unlimited. 27) Any additional calls beyond the minutes offered will be charged 0.03JOD per minute for all local networks, local SMS. This is the rate after consuming 200 SMS. 28) An average on-net rate between peak (4.3) and off-peak (2.2). 29) Includes unlimited on-net calls and 150 minutes for off-net calls. Unlimited. 30) Unlimited. 31) Unlimited. 32) Unlimited. 33) Plan Ye'low SMS: Ar 200 for 100 SMS, which is Ar 2/SMS. 34) Unlimited on-net calls add-on for RM 5. 35) VAT is already deducted when consumer purchases airtime. Therefore when calls, SMS or data packs are purchased, VAT of 15% is not levied again on the approved tariff. Rs0.60 is exclusive of VAT. 36) Unlimited. 37) Unlimited. 38) Based on the smallest add-on "Pass Jawal 5DH" of 5MAD including 20minutes+20MB+5MAD of credits: Price/min = 0.25. Based on the smallest add on of SMS "Pass Jawal IAM SMS 5DH" 5MAD = 50SMS. 39) Unlimited. 40) Unlimited minutes to all national networks. Unlimited SMS to all national networks. 41) Out of bundle rate is R.O 0.044 per local minute. 42) Price may vary as per default packages. Default packages include: Jazz Budget@Rs. 2.40/min. Jazz Champion @Rs 2.40/min. Jazz Easy@Rs.2.65/min. Price may vary as per default packages. Default packages include: Jazz Budget@Rs. 2.05/SMS. Jazz Champion @Rs 1.8/SMS and Jazz Easy@Rs.2.05/SMS. 43) Unlimited. 44) Unlimited. 45) Unlimited. 46) 500 mins / SMS included. 47) Unlimited. 48) The price for each minute included in indicator "i271mb_low_min" with a Flexi card for 60 QAR and you would get 500 minutes Extra would be 0.12QAR per minute. The price for every additional minute on top of the extra 500 minutes/points would be 0.6 QAR per minute (list price) The price for each SMS included in indicator "i271mb_low_sms" with a Flexi card for 60 QAR and you would get 500 points Extra would be 0.12QAR per SMS. The price for every additional SMS on top of the extra 500 points would be 0.39 QAR per SMS (list price). 49) Unlimited. 50) Unlimited Digicel texts. 51) For off-net calls. 52) Unlimited. 53) Unlimited voice and SMS. 54) Unlimited. 55) Unlimited. 56) Unlimited on-net calls. Unlimited SMS. 57) Average of peak and off-peak price. 58) 79 FCFA for on-net and 110 for off-net. 59) Prices for 2019 are VAT inclusive. 60) Unlimited on-net mins. The payment is established per package. The operator provides 1st package with 100 SMS and from 2nd to 91st packages with 10 SMS per day. When all packages are expired the payment is 1 UAH per SMS. "61) Unlimited. 62) Unlimited.

Low-consumption mobile-data-and-voice basket - plan details, 2019

1) Unlimited calls and SMS towards Mobilis (on-net) + 2000 DA towards other networks (off-net) + 13Gb + Facebook for free. Unlimited SMS towards network Mobilis (on-net) +2000 DA towards other networks (off-net). 2) Currency in AMD. 3) Unlimited Calls and Texts to standard Australian numbers. Binary conversion GB to MB). Plan is monthly. "4) 1 month. 5) Includes unlimited WhatsApp. 6) It is 6 GB. 7) Unlimited. 8) For all voice call subscribers have to follow normal voice call tariff. No free SMSs included in any plans. 9) The included amount of MojM package (15,00 KM) can be used for: voice and video calls to fixed and mobile networks within BiH, international calls, SMS, MMS. 10) Unlimited. The plan offers unlimited calls to all local operators. Unlimited. The plan offers unlimited SMS to all local operators. 3GB. "11) No SMS included. This is based on pay-as-you-go rates.12) There is a possibility to add 80 SMS at the price of 5,99 BGN for all national networks; to add 300 SMS at the same price, but only in the network of A1 Bulgaria or to pay monthly fee of 3,99 BGN and 0,01 BGN for every SMS sent in the network of A1.The selected plan is postpaid and includes also mobile TV and 100 GB cloud storage space. To be combined with Additional Package (Extras) - 500 MB at the price of 2,99 BGN. 13) 17000 F worth of calls to all networks. 14) Includes 13% tax + 0.75 emergency fee. Unlimited minutes included. Unlimited SMS included. It is a monthly plan. 15) Free social networks. 16) Unlimited. 17) Unlimited on-net minutes and SMS and 5GB data. 18) Plan 20 SMS= \$1.30. Plan 600 Mb = \$7.00. 19) The price is inclusive of tax (NAf. 139,- + 6%). Unlimited calls - The bundle is valid for 30 days, subscribers will get unlimited (on-net) calls, SMS and 5000 MB data. Unlimited number of SMS - The bundle is valid for 30 days, subscribers will get unlimited (on-net) calls, SMS and 5000 MB data. 5'000 MB for 30 days. 20) Monthly plan. 21) 499 + 30 = 529. Unlimited. 22) Unlimited. 23) 3GB is the minimum capacity offered. Plan control selected for UIT suggestion, due to majority of prepaid customer in the Dominican Republic market. 24) Tax inclusive. Plan does not include SMS. 200 minutes are included in the plan. 25) Tax inclusive main bundle (0.5 Giga + 50 min + 2 free jokers) a joker can be (250 MB mobile internet or 125 min or 500 MB Soc. & Media). Main bundle has 50 min, with SMS inclusive in the minutes' quota. Main bundle (0.5 Giga + 50 min + 2 free jokers) a joker can be (250 MB mobile internet or 125 min or 500 MB Soc. & Media). Main bundle (0.5 Giga + 50 min + 2 free jokers) a joker can be (250 MB mobile internet or 125 min or 500 MB Soc. & Media), and with SMS inclusive in the minutes quota of the main bundle. 26) Unlimited. 27) 5 EUR for 1GB, unlimited domestic and EU roaming calls/SMS. 28) Unlimited. 29) EUR 11.99 for 12 months, EUR 16.99 thereafter. Unlimited. 30) Unlimited on-net calls. Unlimited on-net SMS. 31) Unlimited. 32) Unlimited. 33) This operator has multiple offers. Offer MINI 4 EN UN (500 M\B + 50 minutes + 50 SMS + WhatsApp) fits the basket the most. 34) 300 on-net minutes. 35) The base plan: HK\$48 for 1 GB, 30 days validity. To be combined with HK\$3 administration fee; HK\$6.3 for 70 min (i.e. HK\$0.09 per min = HK\$(0.12+0.06)/2 per min), the average of peak and off-peak prices); and HK\$10 for 20 SMS (i.e. HK0.5 per SMS = HK\$(0.7+0.3)/2 per SMS, the average of off-net and on-net prices). 36) This price is calculated as follows: i) 70 min + 10 SMS for 2000 HUF, ii) 1 GB data for 1090 HUF. The plan covers 80 minutes OR 80 SMSs per 30 days. 37) Unlimited. 38) Unlimited voice calls. 300 SMS per month. 2GB data for 28 days. 39) Unlimited. Includes unlimited voice + SMS + 20 GB data. 24 month plan. 40) 15 € plus 3 € for Opzione 500 SMS. Unlimited. 41) Unlimited. 42) Kake-hodai Lite Plan: JPY 1836 + Sp-mode: JPY 324 + Basic pack Step 1: JPY 3132. 43) Unlimited on-net calls + 40 min for off-net calls. 44) 5GB. 45) Unlimited. 46) The plan MAXX! S includes 1 GB, unlimited SMS, unlimited minutes on-net, and 30 minutes for calls to Liechtenstein (off-net, fixed net), Switzerland and EEA. 30 voice minutes to domestic operators (Liechtenstein), Switzerland or EEA. And unlimited voice minutes on-net. 47) Unlimited. 48) Taxes included. 49) biGBonus 35 + unlimited on-net calls add-on for RM 5. Unlimited on-net calls add-on for RM 56 GB.50) Extra 100 MB social media allowance is available in the plan. 51) 1000 units to use freely on MB/SMS/Calls with every €20 top-up. 52) Based on the weekly mobile internet package with allowance of 300 MB valid for 7 days. To be taken 4 times. Tax of 15% already included. VAT is already deducted when consumer purchases airtime. Therefore when calls, SMS or data packs are purchased, VAT of 15% is not levied again on the approved tariff.

To be combined with: 70 min at the pay-as-you-go on-net tariff of Rs 1.20 (exc of VAT). 53) Unlimited. 54) 35 MAD = The consumer buys 1X "Pass JAWAL IAM 25DH" including 60min + 1GB combined twice with "Pass JAWAL IAM 5DH" including 20min+20MB+5MAD credits. The first base plan (25MAD) is taken at the beginning of the month, the Jawal 5MAD add on is taken twice at the second half of the month. 60min + 2X20min. 50 SMS X21GB + 2X20MB. 55) Unlimited. 56) Unlimited. 57) It is post-paid tariff plan and is included: unlimited voice call to all national networks, 1,5 GB , SMS is paid by price 5.9MKD (on-net/off-net). Unlimited. 58) 1,000 on-net minutes, 1000 MBs and 10,000 SMSes10000 (on net minutes). Daily limit of 333 min. 59) Pay-as-you-go for (voice minutes and SMS) + 2.5 GB monthly data package priced 23.2 NIS: $(0.5 \text{ NIS} * 70) + (0.22 \text{ NIS} * 20) + (23.2 \text{ NIS}) = 62.6 \text{ NIS}$ (including VAT). "60) Based on three days. 61) Unlimited. 62) Unlimited. 63) Unlimited. 64) Unlimited on-net calls and SMS. Please note that this traffic limit (75) includes both minutes and SMS (i.e. number of minutes + number of SMS = 75). Includes 500 MB with a 7.50€ charge. 65) Unlimited. 66) The Flexi cards gives you a number of points that you can use for international calls, local calls & SMS and local data. One local call minute costs 1 point, one SMS costs 1 point, 1MB data costs 0.143 point. A Flexi card with a price of 60 QAR gives you 500 points valid for 30 days. The Flexi cards gives you a number of points that you can use for international calls, local calls & SMS and local data. One local call minute costs 1 point, one SMS costs 1 point, 1MB data costs 0.143 point. 67) Unlimited. 68) Includes unlimited social messaging, 1000 local anywhere minutes, 1000 local anywhere SMS. 69) Unlimited on-net calls. Unlimited Digicel Texts. 70) Includes unlimited Digicel minutes, unlimited WhatsApp messages, 500 Anywhere Local Minutes, and 3GB Free D'Music. 71) Unlimited. 72) Unlimited phone calls in TS network, 500 minutes in other Slovenian networks and EU-tariff states, unlimited SMS in Slovenia and EU-tariff states, 2 GB data transfer in Slovenia and EU-tariff states. 73) Unlimited. 74) Unlimited. 75) Unlimited on-net calls. Unlimited SMS. 76) A combination of F20 plan with 25 minutes, 25 free SMS and 2 MB for \$0.2 with validity of 1 day and a D2 data add-on with 200 MB for \$1 valid for 7 days. 77) This price corresponds to 125 minutes (100 minutes on-net minutes and 25 off-net minutes), 50 SMS, and 350 MB with validity of 10 days. 7500 FCFA worth of calls; 79F/min = 94.9 mins. 78) Prices for 2019 and VAT inclusive. Unlimited on-net minutes 100 anywhere minutes (applicable to ALL local (Bmobile and landline) calls, USA (mobile and landline), Canada (mobile and landline), UK landlines only Venezuela (Telefonica Mobile) and Digicel Caribbean (excluding Jamaica, Haiti). 79) Offer also includes 100 off-net minutes. 80) The customer is charged for a service package once every four weeks. Unlimited on-net mins. The base plan does not include free SMS messages. Buy 100 SMS package for 2 UAH. The minimal tariff term starts from the day of connection. 81) 5% VAT included. 0 (No SMS included in the Bundle).82) Unlimited. 83) Unlimited. 84) Mazaia plan (1000 YR)+ Mobile net 500 MB (1500 YR).

Low-consumption mobile-data-and-voice basket - call and SMS rate, 2019

1) 0 DA for on-net SMS. 5 DA for off-net SMS. 2) Currency in AMD. 5 AMD on-net, 20 AMD off-net. 3) Average between on-net peak 0.79 and on-net off-peak 0.38. 4) Unlimited Calls and Texts to standard Australian numbers. 5) An average of 0.33 cents during peak hours and 0.15 cents during off peak hours. 0.05 cents plus VAT. 6) Unlimited. 7) The plan offers unlimited calls to all local operators. The plan offers unlimited SMS to all local operators. 8) Average of peak and off-peak rate. 9) Unlimited minutes included. 10) Unlimited. 11) The operator UTS additional price per voice minute for on-net is Naf. 0,73 inclusive of tax (NAf. 0,69 + 6%) and for off-net Naf. 0,78 inclusive of tax (NAf. 0,74 + 6%). 12) Unlimited. 13) Unlimited. 14) Unlimited. 15) Unlimited. 16) Unlimited. 17) Unlimited. 18) Includes on-net calls and SMS. 19) HK\$0.09 per min = HK\$(0.12+0.06)/2 per min, the average of peak and off-peak prices. 20) Unlimited. 21) Unlimited free voice calls. 22) Tax included. 23) Unlimited. 24) Unlimited. 25) Unlimited. 26) This is the rate after consuming 200 SMS. 27) An average on-net rate between peak (4.3) and off-peak rate (2.2). 28) Unlimited. 29) CHF 0.23 per minute to off-net Liechtenstein/Switzerland/EU/Zone A. (Zone A: China (incl. Hong Kong, China),

India, Canada, Taiwan, Thailand, USA). Unlimited. 30) Unlimited. 31) Plan Ye'low SMS: Ar 200 for 100 SMS, which is Ar 2/SMS. 32) Unlimited on-net calls add-on for RM 5. 33) Pay-as-you-go tariff for on-net call: Rs 1.20/min (Exclusive of VAT). VAT is already deducted when consumer purchases airtime. Therefore when calls, SMS or data packs are purchased, VAT of 15% is not levied again on the approved tariff. Rs0.60 per SMS is exclusive of VAT. 34) Unlimited. 35) Unlimited. 36) Based on the smallest add on "Pass Jawal 5DH" of 5MAD = 20min+ 20MB+ 5MAD of credits: Price/min = 0.25 MAD. Based on the smallest add-on of SMS "pass Jawal SMS 5DH" = 50SMS. 37) Unlimited. 38) Unlimited. 39) Out of bundle rate R.O 0.044/min. 40) Jazz budget and Jazz easy price Rs. 2.0/ SMS and Jazz Champion has price of Rs. 1.80/SMS. 41) Unlimited. 42) Unlimited. 43) Unlimited. 44) Unlimited. 45) The price for each minute included in indicator "i271mb_low_min" with a Flexi card for 60 QAR and you would get 500 minutes Extra would be 0.12QAR per minute. The price for every additional minute on top of the extra 500 minutes/points would be 0.6 QAR per minute (list price) The price for each SMS included in indicator "i271mb_low_sms" with a Flexi card for 60 QAR and you would get 500 points Extra would be 0.12QAR per SMS. The price for every additional SMS on top of the extra 500 points would be 0.39 QAR per SMS (list price). 46) Unlimited. 47) Unlimited Digicel Texts. 48) For off-net calls. 49) Unlimited voice and SMS. 50) Unlimited. 51) Unlimited. 52) Unlimited on-net calls. 53) Average of peak and off-peak price. 54) 79 FCFA for on-net and 110 for off-net. 55) Prices for 2019 and VAT inclusive. 56) Operator provides unlimited connections within the own network. The payment is established per package. The operator provides 1st package with 100 SMS and from 2nd to 91st packages with 10 SMS per day. When all packages are expired the payment is 1 UAH per SMS. 57) 5% VAT inclusive. 58) Unlimited. 59) Unlimited.

Mobile-voice basket - on-net and off-net, 2019

1) Currency in AMD. 2) Includes unlimited calls and SMS to standard Australian numbers and 15 GB. 3) 0.33 plus 12% VAT. 0.15 plus 12% VAT. 0.33 plus 12% VAT. 0.15 plus 12% VAT. 4) No call connection charges levied. 5) The plan offers a bundle of unlimited local calls and SMS to all operators, and a data cap of 3GB for R\$ 49.99 monthly. The plan offers unlimited local calls to on-net mobile terminals regardless the time of the day. The plan offers unlimited local calls to off-net mobile terminal regardless the time of the day. The plan offers unlimited local calls to fixed terminal regardless the time of the da.. 6) Plan includes 150 minutes with no extra charge for those. 7) 18yuan/month,60 minutes and 100 SMS included. 8) 200 minutes for \$9.900. 9) Charged 1fc per second. A decision was made regarding fixed tariffs for fixed, mobile, or SMS prices. 10) There is not call connection charge. 11) Unlimited on-net minutes. 12) Price in pesos cubanos convertibles (CUC). There is only one mobile operator in Cuba. 13) Local calls have a per call fee of NAf. 0,01 (On-net and Off-net) per call and calls to international have a per call fee of NAf. 0,20 per call. The price is inclusive of tax (NAf. 0,75 + 6%). "14) 20 DJF off peak. No competing network. 15) CLARO does not apply call connection charge. Prices per minute call do not vary between peak and peak off period. Tax include. "16) Prepaid. 17) Tax inclusive. 18) All calls included. 19) This price refers to the basic price per minute in case a package is not selected. It includes 24% VAT. 20) No tax rate required. 21) The plan "Null hja Nova" is a plan that costs 0 ISK, for unlimited minutes and SMS's to all local/national networks, fixed or mobile. Then data is charged by usage. Other plans entail a fee for a package of data, with unlimited minutes and SMS included. There are unlimited minutes and SMS's to all local/national networks, fixed or mobile, included. 22) Charged at 2.5 paise per second. 23) NTT DOCOMO provides postpaid "Kake-hodai Lite Plan" for basic monthly charge of JPY 1700 (for Smart phones) with free calling for calls under 5 minutes. Call under 5 minutes: 0. Over 5 minutes: additional JPY 43.2 per minnute. 24) The subscription includes unlimited on-net minutes, with a fair-use policy of 3000 minutes. The price of 0.23 CHF per minute applies for call minutes in excess of the included monthly volume. 25) No fee for call connection fee. 26) Tax of 15% not included. VAT is already deducted when consumer purchases airtime. Therefore when calls, SMS or data packs are purchased, VAT of 15% is not levied again on the approved tariff. 27)

Differs depending on call destination. 28) Unlimited calls and SMS. 29) On-net and off-net call fee is different. 30) The base plan "pass jawal 5DH" is at 5MAD and consists of 20 minutes, 20 MB and 5 MAD of credits convertible to SMS. The consumer takes the base plan of 5 MAD each week (X 4 during the month): 20MAD (5MADX4) for the ITU basket of 70 min+ 20SMS. The price per minute on peak period = off peak period = on-net = off-net = to fixed = 0.25 The pass jawal of 5MAD provides the consumer with 20min, 20MB and 5MAD of credits: Price/min = 0.25 MAD. 31) Unlimited voice. 32) Telenor and Jazz are charging approved call setup of 0.125/call. 33) Charge per minute - per second counting. 34) 0.099 euro. 35) Unlimited. 36) Pay as you go out of bundle list prices. You can also buy a Flexi card for 60 QAR and you would get 500 minutes of local calls. The price per minute would be 0.12 QAR on average. 37) This tariff is charged from 11:01 PM to 4:59 am. Otherwise, 35RWF/min is charged. 38) No call connection price applicable. The price is 1,26 Dbs/30 seconds. 39) Unlimited calls. 40) Call all network 1.1 Satang/second (24 hours). Call rates 0.25 bath/Min For all network 12 hours. During 5 am-5 pm. Depends on promotion TOLL KHUM 3 bath (the first 10 minutes) next 1 bath/min: Example rate, actual rate varies depending on promotion CALL 12 HOURS. 1.25Bath/min: Example rate, actual rate varies depending on promotions. "41) Lifecell Seçmece Paket offers all-net 500 minutes of call, 1GB mobile internet and all-net 100 SMS or 1000 minutes of call and all-net 100 SMS. No price differentiation based on peak time and/or off-peak time. 42) Operator provides unlimited calling connections within the own network. This payment is established per 1 minute of connections when free 30 subscribed minutes are expired. When the package is expired the payment is 1.5 UAH per minute. 43) Call connection fee is not applicable. All day (24x7); 5% VAT included. "

Mobile-voice basket - to fixed and SMS, 2019

1) Currency in AMD. 2) Includes unlimited calls and SMS to standard Australian numbers and 15 GB. 3) 0.33 plus 12% VAT. 0.15 plus 12% VAT. 0.05 plus 12% VAT. 0.05 plus 12% VAT. 4) Please note that all prepaid packages are inclusive of free minutes and data. For instance the package we use here has a monthly rental of BD6.3 and it includes 500 free local minutes (to all operators) and free data (6GB). 5) Unlimited. 6) Nu. 0.10 per SMS during the time between 12 midnight to 4 am. 7) The plan offers unlimited local calls to fixed terminals regardless the time of the day. The plan offers unlimited SMS to on-net mobile terminal. 8) Plan includes 150 minutes with no extra charge for those. Plan includes 50 SMS with no extra charge for those. 9) 18yuan/month, 60 minutes and 100 SMS included. 10) Data concerts Comores Télécom. There is no fixed-telephone service and interconnection between the two operations is not yet in place. A decision was made regarding the tariffs for fixed, mobile and SMS prices. 11) Unlimited on-net SMS 200 minutes and 100 SMS to all national networks and 200 MB of Internet traffic within Republic of Croatia for monthly charge of 24.00 HRK. 12) Prices in pesos cubanos convertibles (CUC). There is only one mobile operator in Cuba. 13) The price is inclusive of tax (NAf. 0,75 + 6%). SMS to On-net and Off-net is NAf. 0,28. SMS to international is NAf. 0,45 incl. tax (NAf. 0,42 + 6%). 14) Prices per minute call do not vary between peak and peak off period. Tax included. 15) Prepaid. 16) Tax inclusive. 17) All calls included. All SMS included. 18) This price refers to the basic price per minute in case a package is not selected. It includes 24% VAT. This price refers to the basic price per SMS in case a package is not selected. 19) No tax rate required. 20) There are unlimited minutes and SMS's to all local/national networks, fixed or mobile, included. 21) Charged at 2.5 paise per second. Local SMS. 22) It should be mentioned this price is only for sending SMS in Persian language the price of sending SMS in other language is 264 Rials. 23) Call under 5 minutes: 0. Over 5 minutes: additional JPY 43.2 per minute. NTT DOCOMO provides postpaid "Kake-hodai Lite Plan" for basic monthly charge of JPY 1836 (for Smart phones) with free unlimited calls under 5 minutes. 24) No differences between on-net & off-net. 25) 1.50 sh./min to all networks both mobile-mobile, mobile-fixed, on-net and off net. 0.04 Ksh. per SMS. 26) No peak rate charged. 27) The price of 0.23 CHF per minute applies for call minutes in excess of the included monthly volume. The monthly subscription includes an unlimited volume of

SMS to on-net and off-net, national and international, with a fair-use policy of 3000 SMS messages. 28) This is the price for a min or SMS once the 500 units included in the plan are exhausted. 29) Tax of 15% not included. VAT is already deducted when consumer purchases airtime. Therefore when calls, SMS or data packs are purchased, VAT of 15% is not levied again on the approved tariff. "30) Unlimited calls and SMS. 31) No peak time call rate. 32) The price per minute on peak period = off peak period = on-net = off-net = to fixed = 0.25 The pass jawal of 5MAD provides the consumer with 20min, 20MB and 5MAD of credits ==> Price/min = 0.25 MADhe price per minute on peak period = off peak period = on-net = off-net = to fixed = 0.25 The pass jawal of 5MAD provides the consumer with 20min, 20MB and 5MAD of credits ==> Price/min = 0.25 MAD"pass jawal SMS"of 5MAD provides 50 SMS off-net valid for one month So Price/SMS = 5/50= 0.10 MAD"pass jawal SMS"of 5MAD provides 50 SMS off-net valid for one month So Price/SMS = 5/50= 0.10 MAD33) Unlimited voice call. In "VIP NEO S SIM" are not included SMS, additional fee for 1SMS=5.9MKD. 35) 0.099 euros. 36) Unlimited. 37) Pay as you go out of bundle list prices. You can also buy a Flexi card for 60 QAR and you would get 500 minutes of local calls. The price per minute would be 0.12 QAR on average. 38) Price is 1,26 Dbs per 30 seconds. 39) Unlimited calls. 40) Depends on promotions1.10 bath. Example rate, actual rate varies depending on promotion. 41) Lifecell Seçmece Paket offers all-net 500 minutes of call, 1GB mobile internet and all-net 100 SMS or 1000 minutes of call and all-net 100 SMS. No price differentiation based on peak time and/or off-peak time. 42) The payment is established per a service package which includes 3 packages with 3 minutes per day. When the package is expired the payment is 1.5 UAH per minute. The payment is established per a service package which includes 3 packages with 3 minutes per day. When the package is expired the payment is 1.5 UAH per minute. The operator provides 1st package with 100 SMS and from 2nd to 91st packages with 10 SMS. When the package is expired a payment is 1 UAH per SMS. 43) All day (24x7); 5% VAT included.

Mobile-data basket, 2019

1) Currency in AMD. 2) \$29/mth: 12 or 24 month term. 3) 1 month. 4) 12.99 plus VAT. 5) We used the postpaid package because most of mobile broadband data only subscriptions are postpaid. 6) Charges in Nu. Valid for one month. 7) The plan also includes "Ligações ilimitadas locais para todas as operadoras" and unlimited WhatsApp. 8) The selected plan is postpaid. The price is for 24 months contract. 9) Includes 13%, uses the 2GB option. 10) 3.5 GB data. 30 days. 11) Includes 1 GB for 11 euros and another 7 euros to buy an additional 0.5 GB. Monthly Plan. 12) The plan includes 3GB for one month. It is a prepaid package. Packages for one day, three, seven, fifteen days are offered. 13) Includes taxes. 14) Tax inclusive. 15) EUR 24.90 for the first 12 months and EUR 29.80 /month thereafter. Unlimited. 16) Price for monthly 2 GB. 17) EUR 9.99 for the first 12 months, thereafter EUR 12.49/month. 18) Price 8,5Euro, capacity 1GB, validity 30 days. The cheapest option for a 1.5GB monthly consumption is to take this plan twice. The total price is 17 (8.5*2) Euro. 19) The consigned price refers to a data plan for prepaid telephony, taking into account that more than 90% of mobile telephony users are prepaid users. The operator Comunicaciones Celulares, S.A. is the operator with the most mobile lines, being the operator with the most representative number of mobile telephony users in the market. This operator does not offer a 1.5GB plan but a 2.5GB plan (3GB if you are an LTE network user), 3GB if you are an LTE network user. 20) 50MB. 21) The base plan: HK\$48, capacity 1 GB, validity 30 days. Take the base plan twice to cover at least 1.5 GB for 30 days. Combined with HK\$3 administration fee. 22) The 5GB plan is the smallest available now. 23) Unlimited. 24) 2 GB + Free WhatsApp. 25) For a month. 26) Data allowance per day. 27) CHF 24.00 per month: FL1 Tablet M, 10 GB per month in EU/EEA/CH, 20 GB per month in Liechtenstein. FL1 Tablet M: 20 GB per month in Liechtenstein, 10 GB per month in EU/EEA/CH. 28) The pack comes together with pre-loaded value of RM30, whereby subscribers can use the pre-loaded amount to purchase min of 20GB data at RM30Plan consists of 10 GB base quota and 10 GB streaming quota. 29) A combination of 3x 300 MB weekly + 1x 800MB weekly (3x 300 MB + 1x 800 MB). 30) 40GB

1 month. 31) Price include VAT. 32) Unlimited LTE. 33) The subscription fee includes the discount for the e-invoice and payments on time - PLN 5 and the marketing agreement- PLN 5. 34) The plan also includes unlimited calls and SMS. 35) The Flexi cards gives you a number of points that you can use for international calls, local calls & SMS and local data. One local call minute costs 1 point, one SMS costs 1 point, 1MB data costs 0.143 point. A Flexi card with a price of 60 QAR gives you 500 points. 36) This basket can also be exhausted in the time less than 30 days due to the usage of the subscribers. 37) Includes unlimited Social messaging, 1000 local anywhere minutes, 1000 local anywhere SMS. 38) Includes unlimited Digicel minutes, unlimited WhatsApp messages, 500 Anywhere Local Minutes, and 3GB Free D'Music. 39) Base plan include 5GB.month. 40) 10.00 € (9.99€) validity 24 months 31.00 (up to 31 days). 41) The basic plan is with 5 GB data volume, with 1 GB data (price is 1,99 EUR subscription + optional 7 EUR for 1 GB/month). "42) 2GB day time and 2GB night time (00.00 to 09.00). 43) 1.5GB (After reach quota, the speed will reduce to maximum 128 kbps). 44) Prices for 2019 are VAT inclusive. Price for 2018 are VAT exclusive. 45) The service of Internet access is at the price of ordinary mobile Internet according to the terms of acting tariff plan. Minimal term of tariff activity after the day when connections is started. 46) 5% VAT included, there are also flexi minutes. 30 days.

Fixed-broadband basket, 2019

1) Unlimited. 2) Unlimited. 3) Unlimited. No applicable taxes for Internet ADSL. 4) Unlimited. 5) Unlimited. 6) Afl. 105+3.5% Tax. Unlimited. 7) 10% Goods and Services Tax. Standard NBN Evening Speed. 8) Unlimited. 9) Fixed broadband monthly subscription charge refers to the speed of 1 Mbit/s. Unlimited. 10) 30.99+VAT. Unlimited. 11) Unlimited. 512 Kbps. 12) Unlimited. 13) Unlimited. 14) Additional data can be topped up with additional cost. 15) Unlimited. 16) Unlimited. 17) 259 + VAT. Unlimited. 18) City of reference - São Paulo. Formally, the cap indicated in contract is of 30GB, however ANATEL has suspended the application of broadband caps until it reaches a final decision regarding the validity of such limits. 19) Standard monthly subscription charge for a 12-month contract. The subscription charge for a 24-month contract is 17,80 BGN. Unlimited. 20) Unlimited. 21) Depends on the capacity of the chosen plan. 22) Unlimited. 23) Unlimited. 24) Includes 13% harmonized sales tax. Harmonized sales taxes are 13%. 25) Unlimited. 26) Unlimited. 27) Unlimited. No tax. Dedicated line is 10 Mb/s. 28) Unlimited. 29) Plan does not refer to a maximum amount of Internet data. 30) Unlimited. 31) 155.94 is a price for standalone service. 80.94 is price for Internet with telephone service. 15 GB but with monthly subscription charge for Internet traffic usage of 60,45 HRK or 48,79 HRK with 12-month contract duration. 32) Unlimited. 33) Unlimited. 8 Mbps. 34) Unlimited. 35) Unlimited. 36) Unlimited. 37) CLARO does not offer fixed-broadband by capacity (GB), they offer the service by speed (Mbps/s). Unlimited. CLARO offers residential plans up to 100 Mbps. 38) Unlimited. 39) Tax inclusive. 40) Unlimited. 41) First 12 months 19,90 €/month. Unlimited. 42) Unlimited. 43) Unlimited. Zero means no limit. 44) Unlimited. 45) EUR 19.95 for the first 6 months and EUR 34.95 thereafter. Unlimited. 46) Unlimited. 47) Unlimited. 48) The basic plan includes not only the Internet but also a fixed telephony service. The basic plan that is offered has an unlimited amount of internet data, in GB that can be transferred within a month. 49) Unlimited. 50) Unlimited. 51) 24-month commitment period. Unlimited. 52) Subscription for stand-alone service with or without loyalty period is the same. Unlimited. 53) 50GB is the smallest cheapest plan available from the ISP with largest market share, Siminn, the old incumbent. Includes the line fee, which gives access to fixed-network phone and IPTV50 Mbps for VDSL, 100 Mbps for VSDL with vectoring, 1000 Mbps on GPON at no change in fees. 54) Data is unlimited. Until 15 GB speed is up to 8 Mbps, thereafter up to 1 Mbps. 55) Fixed broadband bundled with TV and fixed telephone. Unlimited. 56) Unlimited. Up to 100Mbps. 57) Notice that this tariff does not include the ISP service (which requires extra cost). It's important to note that we keep update about the 15 Mbps fixed (wired) broadband plan although the 100 Mbps plans are more common today in Israel and cost 99 ILS for the fixed broadband only (without ISP). Unlimited. 58) EUR 25 for the first 12 months and thereafter EUR 35

/ month. Unlimited. 59) Unlimited. 60) Unlimited. 61) Normal charge is 24JOD but if the customer committed for 2 years the charge will be 20JODno cab, it is unlimited and not subject to fair usage policy. 62) Unlimited. 63) Service is unlimited. 64) Unlimited. 65) Unlimited. No taxes. 66) Unlimited. 67) Unlimited. 68) Unlimited. The 100 Mbps speed refers to the offer "Starta internets" with FTTH and 10 Mbps with DSL. 69) The CHF 60.00 monthly charge refers to the offer "All4you-Internet S" with 40 Mbps download and 3 Mbps upload (or 40 Mbps upload with glass fibre), and unlimited GB. Until end of May 2019 All4you-Internet-S is offered at a promotional price of CHF 49.00. Unlimited. The 40 Mbps download speed refers to the offer "All4you-Internet S" with 40 Mbps download and 3 Mbps upload (or 40 Mbps upload with glass fibre), and unlimited GB. 70) Unlimited. 71) Unlimited. 72) Unlimited. 73) 24 months contract. Unlimited. Maximum speed. 74) Cheapest subscription offered is 20GB valued at MK26,460.00 a month at speeds of 5 Mbps. 75) Inclusive 6% tax, 24 months commitment period. Includes multiple bundled service: Internet access, television reception, voice telephony. 76) 24 month contract. Unlimited. 77) Unlimited. 78) Unlimited. 79) Unlimited. 80) Unlimited. 81) Unlimited. 82) Unlimited. 83) Unlimited. 84) Unlimited. 85) N\$499 for 12-month contract. N\$399 for 24-month contract. N\$349 for 36-month contract. Unlimited. 86) ADSL Volume Based. 87) EUR 35 / month for the first 6 months and EUR 42.50 / month thereafter. Unlimited. 88) This depends on the wholesaler and technology available. 89) Unlimited. 90) In the price are included broadband traffic 50GB and unlimited on-net voice call. 91) Unlimited. Speed range from 0.2-6 Mbit/s. 92) No tax applied. 93) Unlimited. 94) Unlimited. 95) Price include VAT. Note that we use the BSA model in which access and internet provided and billed separately from two providers, so the price sums up both access line subscription speed 4 Mbps (55*1.16 NIS) and internet service subscription speed 4 Mbps (29 NIS)=92.8. 96) Unlimited. 97) Unlimited. 98) For first 12 months the price is 39.99Unlimited. 99) Unlimited. 100) 22.99+tax. Unlimited. 101) Unlimited. No tax. As of 27 February 2019 the lowest residential fibre speed is 50 Mbps. 102) Unlimited. 103) Unlimited. 104) Unlimited. 105) 99+VAT. Unlimited. 106) Unlimited. 107) Price without VAT is SAR 80. 108) Unlimited. 109) Charge is 1549 RSD in case of 24 months contract. Without contract charge is 1,749 RSD per month. Unlimited. 110) Unlimited. 111) Unlimited. 112). For new customers price is 30 EUR/month. Unlimited. Internet speed till 100/20 Mbit/s on optics, till 30/5 Mbit/s on VDSL, till 20/1 Mbit/s on ADSL - All three technologies and speeds have the same price. Package with the lowest speed. "113) Unlimited. 114) Unlimited. 115) Unlimited. 116) Unlimited. 117) Unlimited. 118) Unlimited. 119) Unlimited. 120) Price corresponds to the monthly plan "ADSL chez Nous" with speed of 2 Mbps and 12 months contract. 121) Unlimited. Value Added Tax included in Price. 122) Unlimited. 123) Unlimited. 124) Unlimited Internet. Monthly for apartment blocks in large cities. 125) Unlimited. 5% VAT include. Fixed-broadband speed of 0.256 Mbit/s. "126) £29.99 for the contractual period of 18 months. £32.99 thereafter. Unlimited. 127) Unlimited. 128) Unlimited.

Annex 3: ICT price basket country tables 2018

Annex Table 3.1: High-consumption mobile-data-and-voice basket, 2018

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance (in SMS)	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
1	Macao, China	0.22	14.31	17.82	480	70	2.0	0.0	78,320
2	Singapore	0.30	14.83	17.64	150	500	10.0	7.0	58,770
3	Qatar	0.32	16.48	21.62	140	70	2.0	0.0	61,190
4	Luxembourg	0.33	21.25	18.48	500	500	2.1		77,820
5	Hong Kong, China	0.35	14.75	18.05	140	7	2.0	0.0	50,310
6	Switzerland	0.43	29.66	21.09	Unlimited	Unlimited	1.5	7.7	83,580
7	New Zealand	0.43	14.53	13.08	200	500	1.8	15.0	40,820
8	Denmark	0.47	23.60	18.65	Unlimited	Unlimited	5.0		60,140
9	Sweden	0.50	22.89	21.28	Unlimited	Unlimited	2.0	25.0	55,070
10	Iceland*	0.55	27.61	19.31	Unlimited	Unlimited	5.0	24.0	60,740
11	Norway	0.55	36.77	27.73	Unlimited	Unlimited	2.0		80,790
12	Lithuania	0.56	8.15	13.82	150	Unlimited	2.0		17,360
13	Israel	0.57	19.47	16.50	9,000	7,000	100.0	17.0	40,850
14	Italy	0.63	17.71	19.22	Unlimited	Unlimited	5.0	22.0	33,560
15	United Kingdom	0.66	22.68	21.54	Unlimited	Unlimited	3.0	20.0	41,330
16	Belgium	0.69	25.97	25.66	140	Unlimited	1.5	21.0	45,430
17	Ireland	0.72	35.43	30.50	Unlimited	Unlimited	5.0		59,360
18	Finland	0.74	29.41	26.30	Unlimited	Unlimited	Unlimited	24.0	47,820
19	Netherlands	0.75	31.89	31.14	Unlimited	Unlimited	3.0		51,280
20	Croatia	0.75	8.60	13.87	500	500	2.0	25.0	13,830
21	Russian Federation	0.75	6.38	15.28	200	200	4.0	18.0	10,230
22	Kuwait	0.75	21.20	32.53	Unlimited	70	2.0	0.0	33,690
23	Australia	0.83	36.61	31.86	Unlimited	Unlimited	15.0	10.0	53,190
24	United States	0.83	43.55	43.55	Unlimited	Unlimited	1.5	8.9	62,850
25	Austria	0.86	35.11	35.40	Unlimited	Unlimited	1.5		49,250
26	Germany	0.87	34.59	36.39	Unlimited	70	1.5	19.0	47,450
27	Spain	0.88	21.49	25.45	140	70	1.5	21.0	29,450
28	France	0.93	31.87	31.88	Unlimited	Unlimited	10.0		41,070
29	Poland	0.94	11.07	21.44	Unlimited	Unlimited	5.0	23.0	14,150
30	United Arab Emirates	0.99	33.74	43.95	140	70	1.5	5.0	41,010
31	Sri Lanka	1.00	3.37	10.30	140	70	1.5	37.7	4,060
32	Latvia	1.01	14.16	21.30	Unlimited	Unlimited	2.0	21.0	16,880
33	Romania	1.01	9.47	20.08	Unlimited	Unlimited	8.0		11,290
34	Portugal	1.05	18.90	24.06	1,000	1,000	12.0	23.0	21,680
35	Estonia	1.15	20.08	28.14	Unlimited	Unlimited	5.0	20.0	20,990
36	Bahrain	1.18	21.54	35.56	500	70	6.0	0.0	21,890
37	Mauritius	1.21	12.20	20.81	140	1,000	1.7	15.0	12,050
38	Saudi Arabia	1.23	22.00	45.14	500	70	2.0	5.0	21,540
39	Brunei Darussalam	1.28	32.99	58.77	140	70	3.0	0.0	31,020
40	Ukraine	1.28	2.83	10.73	Unlimited	100	1.9	20.0	2,660
41	India	1.29	2.18	7.21	140	2,800	42.0	18.0	2,020
42	Mexico	1.36	10.39	19.66	Unlimited	Unlimited	1.5	16.0	9,180
43	Egypt	1.38	3.22	16.46	330	70	1.5	43.0	2,800
44	Slovenia	1.44	29.51	38.57	Unlimited	Unlimited	30.0	22.0	24,670
45	Korea (Rep. of)	1.46	37.28	42.65	Unlimited	Unlimited	1.5	10.0	30,600
46	Armenia	1.47	5.18	12.84	2,550	250	2.0	20.0	4,230
47	Kazakhstan	1.49	9.75	28.06	140	1,000	15.0	12.0	7,830
48	Chile	1.52	18.56	25.80	400	70	4.0		14,670

Annex Table 3.1: High-consumption mobile-data-and-voice basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance (in SMS)	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
49	Belarus	1.55	7.35	29.03	500	100	1.2	25.0	5,670
50	Peru	1.57	8.52	16.21	Unlimited	Unlimited	6.0		6,530
51	Bahamas*	1.59	39.96	35.27	12,000	12,000	8.0	12.0	30,210
52	Uruguay	1.62	21.12	25.35	340	Unlimited	1.5		15,650
53	Japan	1.62	55.85	56.80	Unlimited	70	2.0	8.0	41,340
54	Malta	1.62	35.43	47.48	140	70	1.5	18.0	26,220
55	Aruba*	1.70	33.52	40.02	1,000	100	4.0		23,630
56	Turkey	1.77	15.33	44.02	1,000	100	7.0		10,380
57	Costa Rica	1.77	17.00	26.47	140	70	2.0	13.0	11,510
58	Palau	1.77	25.00	26.86	190	2,000	2.0	0.0	16,910
59	Brazil	1.80	13.68	22.23	Unlimited	Unlimited	2.5	40.2	9,140
60	Greece	1.82	29.56	37.87	250	100	1.5	24.0	19,540
61	China	1.82	14.36	24.91	220	70	3.0	0.0	9,470
62	Slovakia	1.86	28.34	44.46	Unlimited	Unlimited	1.5		18,330
63	Tunisia	1.87	5.44	16.37	140	70	1.5	25.0	3,500
64	Canada	1.88	70.34	68.02	Unlimited	Unlimited	3.0	13.0	44,860
65	Panama	2.00	24.00	41.84	140	100	Unlimited		14,370
66	Cyprus	2.05	44.88	54.90	Unlimited	Unlimited	3.0	19.0	26,300
67	Viet Nam	2.17	4.34	10.56	200	70	3.0	10.0	2,400
68	Czech Republic	2.18	36.77	57.52	Unlimited	Unlimited	4.0	21.0	20,250
69	Namibia	2.21	9.67	19.20	400	2,800	4.0	15.0	5,250
70	Azerbaijan	2.27	7.65	31.19	200	Unlimited	1.5	18.0	4,050
71	Philippines	2.36	7.52	19.39	400	Unlimited	4.0	12.0	3,830
72	Malaysia	2.45	21.31	51.76	140	70	5.0	0.0	10,460
73	Morocco	2.48	6.39	14.54	160	100	2.0	20.0	3,090
74	Antigua and Barbuda	2.53	33.33	41.01	1,000	1,000	3.0		15,810
75	Algeria	2.54	8.58	24.74	Unlimited	Unlimited	10.0	19.0	4,060
76	Puerto Rico	2.54	44.60		Unlimited	Unlimited	8.0	11.5	21,100
77	Bhutan	2.59	6.65	20.01	140	70	1.7	5.0	3,080
78	Colombia	2.62	13.53	28.34	500	2,000	4.0	23.0	6,190
79	Moldova	2.63	6.55	15.30	180	300	2.0	20.0	2,990
80	Iran (Islamic Republic of)*	2.68	12.24	39.06	1,000	1,000	2.0	9.0	5,470
81	North Macedonia	2.74	12.46	28.46	Unlimited	Unlimited	5.0	18.0	5,450
82	Albania	2.74	11.11	23.20	2,500	200	2.0	20.0	4,860
83	Montenegro	2.85	19.95	39.30	5,200	5,000	4.0	21.0	8,400
84	Kyrgyzstan	2.86	2.91	9.56	1,200	2,000	4.1	17.0	1,220
85	Oman	2.86	36.05	70.98	140	70	2.0	0.0	15,110
86	Indonesia	2.88	9.22	25.72	140	100	10.0	10.0	3,840
87	Uzbekistan	2.94	4.96		2,500	500	1.5	20.0	2,020
88	Trinidad and Tobago	3.07	41.54	49.70	300	Unlimited	3.0	12.5	16,240
89	Serbia	3.09	16.44	33.79	200	200	1.5	20.0	6,390
90	Pakistan	3.11	4.10	14.88	1,600	1,500	2.0	0.0	1,580
91	Ecuador	3.12	15.90	27.37	200	70	2.0	12.0	6,120
92	Bulgaria	3.19	23.58	52.08	200	70	1.5	20.0	8,860
93	Georgia	3.21	11.05		Unlimited	Unlimited	1.5	18.0	4,130
94	Maldives	3.23	25.05	32.93	140	300	2.5	6.0	9,310

Annex Table 3.1: High-consumption mobile-data-and-voice basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance (in SMS)	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
95	Saint Kitts and Nevis	3.27	50.74	67.34	1,000	1,000	2.0		18,640
96	Hungary	3.31	40.30	72.25	150	150	3.0	5.0	14,590
97	Bangladesh	3.47	5.06	12.41	300	200	1.5	21.0	1,750
98	Barbados*	3.54	45.00	35.80	Unlimited	Unlimited	3.0		15,240
99	Jordan	3.69	12.93	26.82	5,000	200	4.0	46.2	4,210
100	Dominica	3.70	22.22	31.01	Unlimited	Unlimited	1.5		7,210
101	Mongolia	3.75	11.17	30.80	140	70	3.0	10.0	3,580
102	Libya	3.87	20.44		140	70	2.0	0.0	6,330
103	Seychelles	3.91	50.78	80.25	140	70	1.5	15.0	15,600
104	Myanmar	4.40	4.80	18.89	140	70	1.5	5.0	1,310
105	Thailand	4.63	25.49	66.08	300	70	1.5	7.0	6,610
106	Gabon	4.76	26.99	39.44	240	1,350	2.3	18.0	6,800
107	Saint Lucia	4.91	38.74	50.69	250	70	8.0		9,460
108	Tonga	4.99	17.88	23.34	4,000	4,000	2.0	15.0	4,300
109	Grenada	5.08	41.41	56.31	300	70	8.0		9,780
110	Curacao*	5.18	82.31	104.76	Unlimited	Unlimited	10.0	6.0	19,070
111	Saint Vincent and the Grenadines	5.30	35.04	48.67	500	70	3.0		7,940
112	Bosnia and Herzegovina	5.37	25.47	53.61	140	70	3.0	17.0	5,690
113	Jamaica	5.40	22.46	35.07	300	70	1.8	25.0	4,990
114	Dominican Rep.	5.54	34.00	73.84	200	1,000	2.0	30.0	7,370
115	Paraguay	5.55	26.26	56.27	Unlimited	70	2.0	10.0	5,680
116	Suriname	5.80	24.12		190	190	1.5	8.0	4,990
117	El Salvador	6.17	19.64	39.07	Unlimited	70	3.0		3,820
118	Ghana	6.20	11.01	30.47	400	70	2.0	23.5	2,130
119	Nauru	6.27	58.73		140	70	1.8	15.0	11,240
120	Belize	6.36	25.00		180	Unlimited	5.4	12.5	4,720
121	Guyana	6.68	26.48	42.50	150	150	4.5	14.0	4,760
122	Tajikistan	6.83	5.75		140	70	1.6	23.0	1,010
123	Turkmenistan	7.12	40.00		2,000	50	2.0	15.0	6,740
124	South Africa	7.25	34.58	69.36	140	70	1.5	15.0	5,720
125	Côte d'Ivoire	7.51	10.08	24.64	560	560	21.9	18.0	1,610
126	Lebanon	7.55	48.40	75.90	140	110	1.8	10.0	7,690
127	Argentina	8.14	83.86		140	70	4.0		12,370
128	Fiji	8.39	40.99	64.79	140	70	6.0	9.0	5,860
129	Eswatini	8.47	27.19	64.77	300	100	2.0	14.0	3,850
130	Kenya	8.57	11.57	23.33	140	70	2.0	31.0	1,620
131	Samoa	8.61	30.07	41.32	140	70	8.0	15.0	4,190
132	Iraq	9.14	38.30	76.29	140	70	2.0	0.0	5,030
133	Nigeria	10.00	16.34	32.39	209	209	1.5	5.0	1,960
134	Nepal (Republic of)	10.32	8.26	24.20	140	70	4.0	26.0	960
135	Lao P.D.R.	10.68	21.90	58.24	140	70	1.5	10.0	2,460
136	Palestine	10.70	33.09	47.57	140	70	2.5	16.0	3,710
137	Honduras	10.84	21.04	41.28	1,200	70	4.0	15.0	2,330
138	Mauritania	11.31	11.21	31.70	140	70	4.0	18.0	1,190
139	Bolivia (Plurinational State of)	11.96	33.57	67.24	140	70	2.0	13.0	3,370
140	Cambodia	12.39	14.25	34.87	140	70	1.5	10.0	1,380

Annex Table 3.1: High-consumption mobile-data-and-voice basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance (in SMS)	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
141	Guinea	12.71	8.79	17.36	140	100	2.0	11.0	830
142	Angola	12.78	35.89	46.14	140	70	2.0	10.0	3,370
143	Nicaragua	13.57	22.96	61.79	120	200	2.0	15.0	2,030
144	Micronesia	14.08	42.00	42.98	140	900	2.0	0.0	3,580
145	Botswana	14.19	91.67	175.06	140	70	1.5	12.0	7,750
146	Zambia	14.72	17.54	44.73	140	70	1.5	33.5	1,430
147	Ethiopia	15.51	10.21	30.01	166	525	2.0	15.0	790
148	Tanzania	15.59	13.25	35.58	600	3,000	3.0	32.5	1,020
149	Lesotho	15.62	17.97	48.63	248	70	2.0	9.0	1,380
150	Kiribati	18.10	47.37		140	70	2.7	0.0	3,140
151	Timor-Leste	18.50	28.06	43.65	140	70	2.2	5.0	1,820
152	Sao Tome and Principe	19.16	30.18	42.36	140	70	3.0	5.0	1,890
153	Guatemala	19.29	70.89	118.39	140	70	2.5	12.0	4,410
154	Cabo Verde	19.66	56.52	118.46	140	70	2.0	15.0	3,450
155	Haiti	19.67	13.11	28.04	140	70	6.0	10.0	800
156	Rwanda	19.90	12.94	35.53	140	70	2.0	28.0	780
157	Vanuatu	20.61	51.01	47.88	140	70	2.5	15.0	2,970
158	Gambia	21.79	12.71	41.01	140	70	1.5	21.3	700
159	Afghanistan	21.79	9.99	34.00	140	70	2.0	0.0	550
160	Comoros	21.82	24.00		360	240	2.0	0.0	1,320
161	Cameroon	22.49	26.99	64.61	4,500	500	2.0	19.3	1,440
162	Djibouti	24.16	43.89	77.46	180	100	3.8	10.0	2,180
163	Papua New Guinea	25.10	52.91	64.26	140	70	2.3	10.0	2,530
164	Senegal	27.41	32.21	78.20	1,800	Unlimited	7.0	23.0	1,410
165	Solomon Islands	29.70	49.49	51.02	140	70	3.2	10.0	2,000
166	Madagascar	31.90	11.70	40.96	140	70	2.0	20.0	440
167	Yemen	31.99	25.59		300	100	3.0	5.0	960
168	Togo	33.22	17.99	44.24	240	100	1.5	18.0	650
169	Central African Rep.	33.74	13.50		600	1,500	1.5	19.0	480
170	Mali	37.26	25.77	65.69	140	70	2.0	18.0	830
171	Benin	47.29	34.28	88.19	1,120	70	1.5	18.0	870
172	Sierra Leone	50.02	20.84	54.28	3	70	1.5	15.0	500
173	Niger	51.14	16.20	40.33	150	100	2.0	22.6	380
174	Uganda	51.93	26.83	80.30	1,800	2,000	2.0	18.0	620
175	Liberia	60.00	30.00	28.68	1,500	300	20.0	14.0	600
176	Guinea-Bissau	61.04	38.15	87.56	140	70	5.0	17.0	750
177	Burkina Faso	63.80	35.09	91.39	1,560	1,560	1.5	18.0	660
178	Malawi	73.42	22.03	64.94	140	70	2.0	26.5	360
179	Chad	75.00	41.88		140	70	4.0	18.0	670
180	Mozambique	81.38	29.84		6,300	1,800	1.8	17.0	440
181	Burundi	84.18	19.64	47.94	140	75	1.8	2.0	280
182	Dem. Rep. of the Congo	111.67	45.60		250	70	1.8	26.0	490
	Andorra**		35.79		3,000	1,000	4.0		
	Anguilla**		44.44		1,000	1,000	3.0	7.0	
	British Virgin Islands**		54.10		150	70	1.5	0.0	
	Cayman Islands**		64.08		300	70	6.0		
	Cuba**		55.55		140	70	1.5		

Annex Table 3.1: High-consumption mobile-data-and-voice basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance (in SMS)	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
	Gibraltar**		40.03		300	300	2.0	0.0	
	Liechtenstein**		45.10		100	3,000	5.0	7.7	
	Monaco**		59.04		Unlimited	Unlimited	50.0		
	San Marino**		19.06	21.17	Unlimited	70	1.5		
	Somalia**		12.70		140	70	2.0	10.0	
	Syrian Arab Republic**		33.34		140	100	1.8	5.0	
	Taiwan, Province of China**		30.70		140	70	1.5	5.0	

Note: Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference. * Data correspond to the GNI p.c. in 2017. ** Country not ranked because data on GNI p.c. are not available.

Source: ITU. GNI p.c. and PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

Annex Table 3.2: Low-consumption mobile-data-and-voice basket, 2018

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance (in SMS)	Monthly data allowance (in MB)	Tax rate included (%)	GNI p.c., USD, 2018
1	Macao, China	0.1	6.6	8.2	480	20	880	0.0	78,320
2	Hong Kong, China	0.2	7.2	8.8	70	20	1,024	0.0	50,310
3	Luxembourg	0.2	11.8	10.3	500	500	1,000		77,820
4	Singapore	0.3	14.8	17.6	150	500	10,240	7.0	58,770
5	New Zealand	0.3	10.4	9.3	200	50	500	15.0	40,820
6	Qatar	0.3	16.5	21.6	70	20	2,929	0.0	61,190
7	Iceland*	0.4	18.4	12.8	Unlimited	Unlimited	500	24.0	60,740
8	United Arab Emirates	0.4	13.1	17.1	70	20	750	5.0	41,010
9	Israel	0.4	13.9	11.8	9,000	7,000	30,000	17.0	40,850
10	Switzerland	0.4	29.7	21.1	Unlimited	Unlimited	1,500	7.7	83,580
11	Sri Lanka	0.5	1.5	4.7	70	50	500	37.7	4,060
12	Norway	0.5	30.6	23.1	Unlimited	Unlimited	1,000		80,790
13	Denmark	0.5	23.6	18.6	Unlimited	Unlimited	5,000		60,140
14	Lithuania	0.5	7.1	12.1	150	Unlimited	500		17,360
15	Belgium	0.5	18.9	18.7	120	Unlimited	1,536	21.0	45,430
16	Sweden	0.5	22.9	21.3	Unlimited	Unlimited	2,000	25.0	55,070
17	United Kingdom	0.5	18.7	17.7	Unlimited	Unlimited	1,000	20.0	41,330
18	Germany	0.6	22.2	23.3	Unlimited	20	1,000	19.0	47,450
19	Finland	0.6	22.6	20.2	70	20	Unlimited	24.0	47,820
20	Spain	0.6	14.2	16.8	120	20	1,500	21.0	29,450
21	Netherlands	0.6	24.8	24.2	100	100	1,000		51,280
22	France	0.6	20.1	20.1	120	Unlimited	5,000		41,070
23	Portugal	0.6	10.6	13.5	70	20	500	23.0	21,680
24	Brunei Darussalam	0.6	15.9	28.4	70	20	1,024	0.0	31,020
25	United States	0.6	32.7	32.7	Unlimited	Unlimited	500	8.9	62,850
26	Italy	0.6	17.7	19.2	Unlimited	Unlimited	5,000	22.0	33,560
27	Kuwait	0.6	17.9	27.4	100	20	5,120	0.0	33,690
28	Estonia	0.7	11.8	16.6	Unlimited	Unlimited	1,000	20.0	20,990
29	Latvia	0.7	10.0	15.1	Unlimited	Unlimited	500	21.0	16,880
30	Ireland	0.7	35.4	30.5	Unlimited	Unlimited	5,000		59,360
31	Croatia	0.7	8.4	13.6	500	200	500	25.0	13,830
32	Belarus	0.7	3.5	13.8	250	20	500	25.0	5,670
33	Russian Federation	0.7	6.4	15.3	200	200	4,096	18.0	10,230
34	Poland	0.8	9.4	18.2	Unlimited	20	2,000	23.0	14,150
35	Mauritius	0.8	8.3	14.1	70	800	1,200	15.0	12,050
36	Australia	0.8	36.6	31.9	Unlimited	Unlimited	15,360	10.0	53,190
37	Tunisia	0.8	2.4	7.3	70	20	500	25.0	3,500
38	Austria	0.9	35.1	35.4	Unlimited	Unlimited	1,500		49,250
39	Egypt	0.9	2.0	10.3	280	20	500	43.0	2,800
40	Armenia	0.9	3.1	7.7	1,500	150	1,000	20.0	4,230
41	Greece	0.9	14.8	18.9	300	100	500	24.0	19,540
42	China	0.9	7.2	12.5	70	20	1,024	0.0	9,470
43	Cyprus	0.9	20.1	24.6	300	300	500	19.0	26,300
44	Slovenia	0.9	18.9	24.7	Unlimited	1,000	500	22.0	24,670
45	Bahrain	1.0	17.6	29.0	500	20	6,000	0.0	21,890
46	Slovakia	1.0	14.7	23.1	100	20	500	0.0	18,330
47	Uruguay	1.0	12.7	15.2	93	20	512		15,650
48	Romania	1.0	9.5	20.1	Unlimited	Unlimited	8,000		11,290

Annex Table 3.2: Low-consumption mobile-data-and-voice basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance (in SMS)	Monthly data allowance (in MB)	Tax rate included (%)	GNI p.c., USD, 2018
49	Mexico	1.0	7.8	14.7	Unlimited	Unlimited	1,000	16.0	9,180
50	Saudi Arabia	1.0	18.7	38.3	Unlimited	20	2,000	5.0	21,540
51	Hungary	1.0	12.7	22.8	70	20	1,024	5.0	14,590
52	Chile	1.1	13.1	18.2	400	20	4,096		14,670
53	Malta	1.1	23.6	31.7	70	20	500	18.0	26,220
54	Korea (Rep. of)	1.1	28.9	33.0	100	20	700	10.0	30,600
55	Kazakhstan	1.2	7.5	21.6	Unlimited	1,000	15,360	12.0	7,830
56	Malaysia	1.2	10.2	24.7	70	20	1,200	0.0	10,460
57	Costa Rica	1.2	11.9	18.5	70	20	2,000	13.0	11,510
58	Bhutan	1.3	3.2	9.7	70	20	860	5.0	3,080
59	Ukraine	1.3	2.8	10.7	Unlimited	100	2,000	20.0	2,660
60	India	1.3	2.2	7.2	Unlimited	2,800	43,008	18.0	2,020
61	Iran (Islamic Republic of)*	1.3	6.1	19.5	400	400	1,000	9.0	5,470
62	Azerbaijan	1.4	4.7	19.2	200	Unlimited	500	18.0	4,050
63	Japan	1.4	48.5	49.3	Unlimited	20	1,024	8.0	41,340
64	Canada	1.4	52.9	51.2	Unlimited	Unlimited	500	13.0	44,860
65	Czech Republic	1.4	24.3	38.1	Unlimited	20	500	21.0	20,250
66	Morocco	1.4	3.7	8.5	100	100	1,040	20.0	3,090
67	Indonesia	1.5	4.7	13.1	70	60	2,048	10.0	3,840
68	Peru	1.6	8.5	16.2	Unlimited	Unlimited	6,000		6,530
69	Barbados*	1.6	20.0	15.9	100	100	1,024		15,240
70	Bahamas*	1.6	40.0	35.3	12,000	12,000	8,192	12.0	30,210
71	Uzbekistan	1.6	2.7		1,000	20	700	20.0	2,020
72	Panama	1.7	20.0	34.9	100	100	Unlimited		14,370
73	Maldives	1.7	13.1	17.2	70	300	700	6.0	9,310
74	Aruba*	1.7	33.5	40.0	1,000	100	4,096		23,630
75	Serbia	1.8	9.4	19.3	100	100	500	20.0	6,390
76	Turkey	1.8	15.3	44.0	1,000	100	7,000		10,380
77	Palau	1.8	25.0	26.9	190	2,000	2,048	0.0	16,910
78	Moldova	1.8	4.5	10.4	120	150	500	20.0	2,990
79	Brazil	1.8	13.7	22.2	Unlimited	Unlimited	2,560	40.2	9,140
80	Bangladesh	1.8	2.6	6.5	100	50	500	21.0	1,750
81	Montenegro	1.8	12.9	25.3	5,100	100	2,000	21.0	8,400
82	Seychelles	1.9	25.0	39.5	70	20	1,024	15.0	15,600
83	Bulgaria	2.0	14.5	32.0	200	20	600	20.0	8,860
84	Myanmar	2.0	2.2	8.5	70	20	500	5.0	1,310
85	Viet Nam	2.0	4.0	9.7	200	30	3,072	10.0	2,400
86	Colombia	2.0	10.5	21.9	Unlimited	Unlimited	750	23.0	6,190
87	Thailand	2.0	11.2	29.1	100	20	500	7.0	6,610
88	Oman	2.1	26.7	52.6	70	20	3,072	0.0	15,110
89	Namibia	2.2	9.7	19.2	1,400	2,800	800	15.0	5,250
90	Philippines	2.4	7.5	19.4	400	Unlimited	1,024	12.0	3,830
91	Saint Kitts and Nevis	2.4	37.0	49.1	1,000	1,000	1,000		18,640
92	North Macedonia	2.4	10.9	24.9	5,000	Unlimited	500	18.0	5,450
93	Pakistan	2.4	3.2	11.6	10,000	10,000	1,000	0.0	1,580
94	Trinidad and Tobago	2.5	33.2	39.8	100	Unlimited	1,000	12.5	16,240
95	Ecuador	2.5	12.5	21.6	200	20	2,000	12.0	6,120

Annex Table 3.2: Low-consumption mobile-data-and-voice basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance (in SMS)	Monthly data allowance (in MB)	Tax rate included (%)	GNI p.c., USD, 2018
96	Antigua and Barbuda	2.5	33.3	41.0	1,000	1,000	3,072		15,810
97	Algeria	2.5	8.6	24.7	Unlimited	Unlimited	10,000	19.0	4,060
98	Puerto Rico	2.5	44.6		Unlimited	Unlimited	8,192	11.5	21,100
99	Bosnia and Herzegovina	2.6	12.1	25.5	70	20	500	17.0	5,690
100	Albania	2.7	11.1	23.2	2,500	200	2,000	20.0	4,860
101	Lebanon	2.7	17.6	27.6	60	440	600	10.0	7,690
102	Kyrgyzstan	2.9	2.9	9.6	1,200	2,000	4,200	17.0	1,220
103	Georgia	2.9	9.9		Unlimited	Unlimited	1,000	18.0	4,130
104	Libya	2.9	15.5		70	20	2,000	0.0	6,330
105	Mongolia	3.0	8.8	24.3	70	20	3,072	10.0	3,580
106	Suriname	3.0	12.5		70	60	550	8.0	4,990
107	South Africa	3.1	14.8	29.8	70	20	500	15.0	5,720
108	Ghana	3.2	5.6	15.5	100	40	500	23.5	2,130
109	Jordan	3.7	12.9	26.8	5,000	200	4,096	46.1	4,210
110	Dominica	3.7	22.2	31.0	Unlimited	Unlimited	1,536		7,210
111	Gabon	3.8	21.6	31.6	240	1,350	900	18.0	6,800
112	Nigeria	4.0	6.5	13.0	253	253	650	5.0	1,960
113	Nauru	4.2	39.5		70	20	1,843	15.0	11,240
114	Dominican Rep.	4.3	26.1	56.7	100	1,000	1,024	30.0	7,370
115	Iraq	4.3	18.1	36.0	70	20	500	0.0	5,030
116	Turkmenistan	4.3	24.3		2,000	500	1,024	15.0	6,740
117	Saint Lucia	4.4	34.5	45.1	250	20	8,000		9,460
118	Paraguay	4.5	21.5	46.0	Unlimited	20	1,000	10.0	5,680
119	Grenada	4.5	37.0	50.3	300	20	8,000		9,780
120	Eswatini	4.6	14.8	35.3	70	30	700	14.0	3,850
121	Guyana	4.6	18.3	29.4	80	80	3,500		4,760
122	Argentina	4.7	48.2		70	20	1,400		12,370
123	Saint Vincent and the Grenadines	4.8	31.7	44.0	500	20	3,072		7,940
124	El Salvador	4.9	15.6	31.1	Unlimited	20	3,072		3,820
125	Lao P.D.R.	4.9	10.1	26.9	70	20	540	10.0	2,460
126	Tonga	5.0	17.9	23.3	4,000	4,000	2,048	15.0	4,300
127	Jamaica	5.1	21.1	33.0	300	20	1,800	25.0	4,990
128	Fiji	5.2	25.2	39.9	70	20	6,144	9.0	5,860
129	Curacao*	5.2	82.3	104.8	Unlimited	Unlimited	10,240	6.0	19,070
130	Angola	5.4	15.2	19.6	70	20	500	10.0	3,370
131	Bolivia (Plurinational State of)	5.6	15.6	31.3	70	20	500	16.0	3,370
132	Botswana	5.6	36.0	68.7	70	20	500	12.0	7,750
133	Mauritania	5.7	5.6	15.8	70	20	2,048	18.0	1,190
134	Cambodia	5.9	6.8	16.5	70	20	700	10.0	1,380
135	Kenya	6.0	8.1	16.3	70	20	2,048	31.0	1,620
136	Samoa	6.2	21.7	29.8	70	20	8,192	15.0	4,190
137	Belize	6.4	25.0		150	Unlimited	5,400	12.5	4,720
138	Tajikistan	6.5	5.5		100	100	1,600	23.0	1,010
139	Palestine	6.6	20.5	29.4	70	20	2,500	16.0	3,710
140	Guinea	7.2	5.0	9.8	70	60	1,200	11.0	830
141	Cameroon	7.5	9.0	21.5	15,000	500	500	19.3	1,440

Annex Table 3.2: Low-consumption mobile-data-and-voice basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance (in SMS)	Monthly data allowance (in MB)	Tax rate included (%)	GNI p.c., USD, 2018
142	Côte d'Ivoire	7.5	10.1	24.6	560	560	2,240	18.0	1,610
143	Nepal (Republic of)	7.6	6.0	17.7	70	20	4,096	26.0	960
144	Ethiopia	8.0	5.3	15.5	166	525	500	15.0	790
145	Nicaragua	9.0	15.3	41.2	120	200	2,000	15.0	2,030
146	Zambia	9.1	10.8	27.6	70	20	1,536	33.5	1,430
147	Sao Tome and Principe	9.1	14.3	20.1	70	20	900	5.0	1,890
148	Honduras	9.3	18.0	35.2	300	20	800	15.0	2,330
149	Rwanda	9.6	6.3	17.2	70	20	1,024	28.0	780
150	Cabo Verde	9.6	27.7	58.1	70	20	1,000	15.0	3,450
151	Lesotho	10.5	12.0	32.6	248	20	750	9.0	1,380
152	Micronesia	10.6	31.5	32.2	70	900	2,048	0.0	3,580
153	Guatemala	10.9	40.0	66.9	70	20	2,500	12.0	4,410
154	Madagascar	11.4	4.2	14.7	233	560	560	20.0	440
155	Kiribati	11.5	30.0		70	20	2,800	0.0	3,140
156	Vanuatu	11.6	28.7	26.9	70	20	2,560	15.0	2,970
157	Timor-Leste	12.0	18.1	28.2	70	20	1,126	5.0	1,820
158	Djibouti	12.4	22.5	39.7	240	100	500	10.0	2,180
159	Gambia	12.5	7.3	23.5	70	20	750	21.3	700
160	Afghanistan	13.5	6.2	21.0	70	20	1,024	0.0	550
161	Yemen	14.5	11.6		300	100	500	5.0	960
162	Haiti	15.0	10.0	21.4	70	20	6,000	10.0	800
163	Comoros	15.3	16.8		420	350	700	0.0	1,320
164	Tanzania	15.6	13.3	35.6	420	3,000	800	32.5	1,020
165	Zimbabwe	16.9	25.3		70	20	505	25.0	1,790
166	Papua New Guinea	17.2	36.3	44.1	70	20	2,400	10.0	2,530
167	Mali	20.4	14.1	36.1	70	20	500	18.0	830
168	Burkina Faso	20.9	11.5	30.0	480	480	500	18.0	660
169	Solomon Islands	22.6	37.6	38.8	70	20	3,277	10.0	2,000
170	Mozambique	22.6	8.3		1,750	500	500	17.0	440
171	Benin	24.8	18.0	46.3	120	120	800	18.0	870
172	Togo	24.9	13.5	33.2	300	150	1,050	18.0	650
173	Senegal	25.3	29.7	72.2	1,400	Unlimited	4,200	23.0	1,410
174	Uganda	26.0	13.4	40.1	900	1,000	1,024	18.0	620
175	Guinea-Bissau	26.3	16.5	37.8	70	20	600	17.0	750
176	Sierra Leone	28.2	11.8	30.6	70	20	600	15.0	500
177	Central African Rep.	31.5	12.6		560	1,400	1,400	19.0	480
178	Malawi	35.2	10.6	31.2	70	20	600	26.5	360
179	Burundi	38.8	9.1	22.1	70	60	500	2.0	280
180	Chad	43.4	24.2		70	20	1,024	18.0	670
181	Dem. Rep. of the Congo	49.0	20.0		120	25	600	26.0	490
182	Niger	56.8	18.0	44.8	75	60	1,024	22.6	380
183	Liberia	60.0	30.0	28.7	9,000	600	18,432	14.0	600
	Andorra**		18.5		200	100	500		
	Anguilla**		37.0		1,000	1,000	1,024	7.0	
	British Virgin Islands**		44.9		70	20	750	0.0	
	Cayman Islands**		56.9		Unlimited	20	6,144		
	Cuba**		24.7		70	20	600		

Annex Table 3.2: Low-consumption mobile-data-and-voice basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly voice call allowance (in minutes)	Monthly SMS allowance (in SMS)	Monthly data allowance (in MB)	Tax rate included (%)	GNI p.c., USD, 2018
	Gibraltar**		40.4		70	20	500	0.0	
	Liechtenstein**		29.8		70	3,000	1,000	7.7	
	Monaco**		59.0		Unlimited	Unlimited	50,000		
	San Marino**		9.9	11.0	70	20	1,000		
	Somalia**		8.7		70	20	2,000	10.0	
	Syrian Arab Republic**		13.0		70	25	600	5.0	
	Taiwan, Province of China**		20.5		70.0	70	20	5.0	

Note: Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference. * Data correspond to the GNI p.c. in 2017. ** Country not ranked because data on GNI p.c. are not available.

Source: ITU. GNI p.c. and PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

Annex Table 3.3: Mobile-voice basket, 2018

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Tax rate included (%)	GNI p.c., USD, 2018
1	Hong Kong, China	0.1	2.2	2.7	0.0	50,310
2	Macao, China	0.1	4.1	5.1	0.0	78,320
3	Luxembourg	0.1	5.9	5.1		77,820
4	Austria	0.1	4.1	4.2	20.0	49,250
5	United Arab Emirates	0.1	3.7	4.8	5.0	41,010
6	Norway	0.2	10.2	7.7	25.0	80,790
7	Bahrain	0.2	4.4	7.2	0.0	21,890
8	Qatar	0.2	12.7	16.7	0.0	61,190
9	Sri Lanka	0.3	0.9	2.8	37.7	4,060
10	France	0.3	9.4	9.4	20.0	41,070
11	Singapore	0.3	14.8	17.6	7.0	58,770
12	Russian Federation	0.3	2.6	6.2	18.0	10,230
13	Belgium	0.3	11.8	11.7	21.0	45,430
14	Lithuania	0.3	4.6	7.8		17,360
15	India	0.3	0.5	1.8	18.0	2,020
16	Brunei Darussalam	0.3	8.5	15.2	0.0	31,020
17	Croatia	0.3	3.8	6.2		13,830
18	Cyprus	0.3	7.3	8.9	19.0	26,300
19	Estonia	0.3	5.9	8.3	20.0	20,990
20	Iran (Islamic Republic of)*	0.3	1.6	5.1	9.0	5,470
21	Iceland*	0.4	18.4	12.8	24.0	60,740
22	China	0.4	3.0	5.2	0.0	9,470
23	Sudan	0.4	0.5		35.0	1,560
24	Netherlands	0.4	17.1	16.7		51,280
25	Finland	0.4	16.7	14.9	24.0	47,820
26	Egypt	0.4	1.0	5.2	23.0	2,800
27	Kazakhstan	0.4	2.8	8.2	12.0	7,830
28	Mauritius	0.4	4.4	7.6	15.0	12,050
29	Japan	0.5	16.0	16.3	8.0	41,340
30	New Zealand	0.5	15.9	14.3	15.0	40,820
31	Denmark	0.5	23.6	18.6		60,140
32	Tunisia	0.5	1.4	4.3	25.0	3,500
33	Costa Rica	0.5	5.0	7.7	13.0	11,510
34	Kuwait	0.5	14.6	22.4	0.0	33,690
35	Mexico	0.5	4.0	7.5	16.0	9,180
36	Malta	0.5	11.8	15.8	18.0	26,220
37	United Kingdom	0.5	18.7	17.7	20.0	41,330
38	Switzerland	0.6	39.1	27.8	7.7	83,580
39	Spain	0.6	14.1	16.7	21.0	29,450
40	Italy	0.6	16.3	17.7	22.0	33,560
41	Canada	0.6	21.8	21.1	13.0	44,860
42	Sweden	0.6	26.8	24.9	25.0	55,070
43	Portugal	0.6	10.6	13.5	23.0	21,680
44	Greece	0.6	10.0	12.9	24.0	19,540
45	United States	0.6	32.7	32.7	8.9	62,850

Annex Table 3.3: Mobile-voice basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Tax rate included (%)	GNI p.c., USD, 2018
46	Thailand	0.6	3.5	9.0	7.0	6,610
47	Saudi Arabia	0.6	11.6	23.8	5.0	21,540
48	Uzbekistan	0.7	1.1		20.0	2,020
49	Maldives	0.7	5.4	7.0	6.0	9,310
50	Turkey	0.7	6.0	17.3	43.0	10,380
51	Panama	0.7	8.4	14.6	7.0	14,370
52	Malaysia	0.7	6.2	15.0	0.0	10,460
53	Latvia	0.7	10.0	15.1	21.0	16,880
54	Ireland	0.7	35.4	30.5	23.0	59,360
55	Bhutan	0.7	1.9	5.6	5.0	3,080
56	Slovakia	0.7	11.3	17.8	20.0	18,330
57	Mongolia	0.7	2.2	6.2	0.0	3,580
58	Armenia	0.8	2.7	6.6	20.0	4,230
59	Oman	0.8	9.6	18.9	0.0	15,110
60	Israel	0.8	26.4	22.4	17.0	40,850
61	Bahamas*	0.8	19.9	17.6	12.0	30,210
62	Poland	0.8	9.4	18.1	23.0	14,150
63	Belarus	0.8	3.9	15.2	25.0	5,670
64	Libya	0.8	4.3		0.0	6,330
65	Australia	0.8	36.6	31.9	10.0	53,190
66	Morocco	0.8	2.1	4.8	20.0	3,090
67	Georgia	0.8	2.9		18.0	4,130
68	Czech Republic	0.8	14.3	22.4	21.0	20,250
69	Azerbaijan	0.9	3.1	12.6	18.0	4,050
70	Slovenia	0.9	18.9	24.7	22.0	24,670
71	Seychelles	1.0	12.5	19.7	15.0	15,600
72	Romania	1.0	9.5	20.1		11,290
73	Bangladesh	1.0	1.5	3.6	21.0	1,750
74	Germany	1.0	41.3	43.5	19.0	47,450
75	Hungary	1.0	12.7	22.8	27.0	14,590
76	Botswana	1.0	6.8	12.9	12.0	7,750
77	Jamaica	1.1	4.4	6.9	25.0	4,990
78	Trinidad and Tobago	1.1	14.7	17.6	12.5	16,240
79	Pakistan	1.2	1.5	5.6	0.0	1,580
80	Korea (Rep. of)	1.2	29.9	34.2	10.0	30,600
81	Chile	1.3	15.3	21.2		14,670
82	Aruba*	1.3	24.9	29.7		23,630
83	Ukraine	1.3	2.8	10.7	20.0	2,660
84	Jordan	1.3	4.6	9.5	46.2	4,210
85	Serbia	1.3	7.0	14.3	20.0	6,390
86	Uruguay	1.4	17.7	21.3		15,650
87	Colombia	1.5	7.6	15.9	23.0	6,190
88	Myanmar	1.5	1.6	6.3	5.0	1,310
89	Turkmenistan	1.5	8.6		15.0	6,740
90	South Africa	1.5	7.3	14.6	15.0	5,720

Annex Table 3.3: Mobile-voice basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Tax rate included (%)	GNI p.c., USD, 2018
91	North Macedonia	1.5	7.0	15.9	18.0	5,450
92	Saint Kitts and Nevis	1.6	24.7	32.8		18,640
93	Eswatini	1.6	5.2	12.4	14.0	3,850
94	Montenegro	1.7	11.6	22.9	21.0	8,400
95	Algeria	1.7	5.6	16.3	19.0	4,060
96	Nauru	1.7	16.3		15.0	11,240
97	Samoa	1.8	6.1	8.4	15.0	4,190
98	Brazil	1.8	13.7	22.2	40.2	9,140
99	Ecuador	1.8	9.2	15.8	12.0	6,120
100	Albania	1.8	7.4	15.5	20.0	4,860
101	Ethiopia	1.9	1.2	3.6	15.0	790
102	Bulgaria	1.9	13.9	30.6	20.0	8,860
103	Indonesia	1.9	6.0	16.8	10.0	3,840
104	Iraq	1.9	7.9	15.8	0.0	5,030
105	Puerto Rico	1.9	33.5		11.5	21,100
106	Tajikistan	1.9	1.6		23.0	1,010
107	Namibia	2.0	8.5	17.0	15.0	5,250
108	Antigua and Barbuda	2.0	26.3	32.4		15,810
109	Dominican Rep.	2.0	12.4	27.0	30.0	7,370
110	Peru	2.0	11.0	21.0		6,530
111	Barbados*	2.1	26.6	21.2		15,240
112	Curacao*	2.2	34.4	43.7	6.0	19,070
113	Nepal (Republic of)	2.4	1.9	5.6	26.0	960
114	Tonga	2.5	8.9	11.7	15.0	4,300
115	Bosnia and Herzegovina	2.5	12.0	25.3	17.0	5,690
116	Kyrgyzstan	2.6	2.6	8.6	17.0	1,220
117	Lebanon	2.6	16.5	25.9	10.0	7,690
118	Viet Nam	2.7	5.3	13.0	10.0	2,400
119	Grenada	2.7	22.3	30.3		9,780
120	Moldova	2.8	7.0	16.3	20.0	2,990
121	Gabon	2.9	16.5	24.1	18.0	6,800
122	Saint Lucia	2.9	23.0	30.0	12.5	9,460
123	Philippines	3.0	9.5	24.4	12.0	3,830
124	Fiji	3.0	14.8	23.4	9.0	5,860
125	Paraguay	3.1	14.4	31.0	10.0	5,680
126	Guyana	3.2	12.6	20.3	14.0	4,760
127	Suriname	3.2	13.4		8.0	4,990
128	El Salvador	3.3	10.5	20.8	18.0	3,820
129	Ghana	3.3	5.9	16.2	23.5	2,130
130	Argentina	3.3	34.3		26.3	12,370
131	Bolivia (Plurinational State of)	3.3	9.4	18.8	13.0	3,370
132	Angola	3.5	9.8	12.5	10.0	3,370
133	Dominica	3.7	22.2	31.0	15.0	7,210
134	Lao P.D.R.	3.7	7.6	20.3	10.0	2,460
135	Palestine	3.8	11.8	16.9	16.0	3,710

Annex Table 3.3: Mobile-voice basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Tax rate included (%)	GNI p.c., USD, 2018
136	Nigeria	3.9	6.4	12.8	5.0	1,960
137	Micronesia	4.2	12.5	12.8	0.0	3,580
138	Saint Vincent and the Grenadines	4.2	28.1	39.0		7,940
139	Kenya	4.4	5.9	11.9	31.0	1,620
140	Rwanda	4.5	2.9	8.0	28.0	780
141	Cameroon	4.5	5.4	12.9	19.3	1,440
142	Tanzania	5.2	4.4	11.9	32.5	1,020
143	Haiti	5.4	3.6	7.7	10.0	800
144	Belize	5.5	21.7		12.5	4,720
145	Cambodia	5.5	6.4	15.5	10.0	1,380
146	Zambia	5.6	6.7	17.1	33.5	1,430
147	Kiribati	5.8	15.1		0.0	3,140
148	Sao Tome and Principe	6.0	9.5	13.4	5.0	1,890
149	Yemen	6.4	5.1		5.0	960
150	Guinea	6.5	4.5	8.9	11.0	830
151	Lesotho	6.7	7.7	20.9	9.0	1,380
152	Marshall Islands	6.7	26.7		0.0	4,740
153	Gambia	6.8	3.9	12.7	21.3	700
154	Solomon Islands	6.9	11.5	11.8	10.0	2,000
155	Honduras	7.0	13.6	26.6	15.0	2,330
156	Afghanistan	7.1	3.2	11.0	0.0	550
157	Timor-Leste	7.3	11.1	17.2	5.0	1,820
158	Guatemala	7.3	26.9	44.9	12.0	4,410
159	Madagascar	7.3	2.7	9.4	20.0	440
160	Vanuatu	7.9	19.6	18.4	15.0	2,970
161	Uganda	8.0	4.2	12.4	18.0	620
162	Papua New Guinea	8.2	17.3	21.0	10.0	2,530
163	Zimbabwe	8.2	12.3		25.0	1,790
164	Cabo Verde	8.4	24.2	50.7	15.0	3,450
165	Djibouti	9.3	16.9	29.8	10.0	2,180
166	Comoros	10.7	11.8		0.0	1,320
167	Côte d'Ivoire	10.9	14.7	35.9	18.0	1,610
168	Benin	11.1	8.1	20.7	18.0	870
169	Senegal	11.2	13.2	31.9	23.0	1,410
170	Sierra Leone	14.8	6.2	16.0	15.0	500
171	Mauritania	16.0	15.9	44.9	18.0	1,190
172	Togo	16.5	8.9	21.9	18.0	650
173	Mali	17.3	12.0	30.5	18.0	830
174	Nicaragua	17.8	30.1	80.9	15.0	2,030
175	Dem. Rep. of the Congo	18.4	7.5		26.0	490
176	Malawi	20.6	6.2	18.2	26.5	360
177	Mozambique	20.6	7.6		17.0	440
178	Burkina Faso	21.1	11.6	30.2	18.0	660
179	Guinea-Bissau	22.0	13.8	31.6	17.0	750
180	Central African Rep.	24.3	9.7		19.0	480

Annex Table 3.3: Mobile-voice basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Tax rate included (%)	GNI p.c., USD, 2018
181	Chad	31.6	17.6		18.0	670
182	Burundi	34.4	8.0	19.6	52.0	280
183	Liberia	34.8	17.4	16.6	14.0	600
184	Niger	48.6	15.4	38.3	22.6	380
	Andorra**		18.5			
	Anguilla**		21.2			
	British Virgin Islands**		23.0		0.0	
	Cayman Islands**		28.0			
	Cuba**		17.6		0.0	
	Gibraltar**		19.9		0.0	
	Liechtenstein**		25.8		7.7	
	Monaco**		29.5			
	San Marino**		9.9	11.0		
	Somalia**		3.7		10.0	
	Syrian Arab Republic**		2.4		5.0	
	Taiwan, Province of China**		9.9		5.0	

Note: Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference. * Data correspond to the GNI p.c. in 2017. ** Country not ranked because data on GNI p.c. are not available.

Source: ITU. GNI p.c. and PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

Annex Table 3.4: Mobile-data basket, 2018

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
1	Luxembourg	0.2	11.8	10.3	2.00	77820	77,820
2	Macao, China	0.2	12.1	15.1	2.00		78,320
3	Poland	0.2	2.8	5.4	10.00		14,150
4	Italy	0.3	7.1	7.7	8.00	22.0	33,560
5	Spain	0.3	7.1	8.4	1.50		29,450
6	Hong Kong, China	0.3	12.2	15.0	2.00	0.0	50,310
7	Qatar	0.3	16.5	21.6	3.57		61,190
8	Austria	0.3	13.8	14.0	10.00		49,250
9	France	0.3	11.8	11.8	2.00		41,070
10	Norway	0.4	24.5	18.5	5.00		80,790
11	Sweden	0.4	17.1	15.9	10.00		55,070
12	Denmark	0.4	18.8	14.9	15.00		60,140
13	New Zealand	0.4	13.1	11.8	1.75		40,820
14	Israel	0.4	13.6	11.6	5.00	17.0	40,850
15	United States	0.4	21.8	21.8	2.00		62,850
16	Germany	0.4	17.7	18.6	2.00	19.0	47,450
17	Singapore	0.5	22.2	26.4	5.00		58,770
18	Belgium	0.5	17.7	17.5	2.00	21.0	45,430
19	Australia	0.5	21.7	18.9	10.00	10.0	53,190
20	Latvia	0.5	7.1	10.6	10.00	21.0	16,880
21	United Kingdom	0.5	17.3	16.5	5.00		41,330
22	Ireland	0.5	26.0	22.4	15.00	23.0	59,360
23	Malta	0.5	11.8	15.8	2.00		26,220
24	Czech Republic	0.5	9.2	14.3	1.50	21.0	20,250
25	Iceland*	0.5	27.6	19.3	5.00	24.0	60,740
26	Brunei Darussalam	0.6	14.8	26.4	3.00	0.0	31,020
27	Bahamas*	0.6	14.6	12.8	2.00	12.0	30,210
28	Korea (Rep. of)	0.6	15.0	17.2	10.00	10.0	30,600
29	Sri Lanka	0.6	2.1	6.6	2.00		4,060
30	Lithuania	0.7	9.4	16.0	30.00		17,360
31	Kazakhstan	0.7	4.3	12.4	5.00	12.0	7,830
32	Estonia	0.7	11.8	16.6	1.00	20.0	20,990
33	Canada	0.7	26.2	25.3	2.00	13.0	44,860
34	Kuwait	0.7	19.9	30.5	500.00	0.0	33,690
35	Switzerland	0.7	50.1	35.6	30.00		83,580
36	Costa Rica	0.7	6.9	10.8	2.00	13.0	11,510
37	Slovenia	0.7	15.3	20.0	5.00		24,670
38	Iran (Islamic Republic of)*	0.7	3.4	10.9	2.00	9.0	5,470
39	Indonesia	0.7	2.4	6.7	2.00	10.0	3,840
40	Algeria	0.8	2.6	7.4	2.00	19.0	4,060
41	Slovakia	0.8	11.8	18.5	1.50		18,330
42	Tunisia	0.8	2.3	6.8	5.00		3,500
43	Georgia	0.8	2.8		1.90	18.0	4,130
44	Montenegro	0.8	5.8	11.3	1.00		8,400

Annex Table 3.4: Mobile-data basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
45	Netherlands	0.8	35.4	34.6	10.00		51,280
46	Ukraine	0.8	1.8	7.0	1.90		2,660
47	United Arab Emirates	0.8	28.6	37.2	1.50		41,010
48	Malaysia	0.9	7.4	18.1	5.00		10,460
49	Belarus	0.9	4.1	16.2	4.00	25.0	5,670
50	Mauritius	0.9	8.8	15.0	2.00		12,050
51	Finland	0.9	35.2	31.5	Unlimited	24.0	47,820
52	Chile	0.9	10.9	15.2	4.00		14,670
53	Bulgaria	0.9	6.6	14.6	1.50	20.0	8,860
54	China	1.0	7.6	13.1	3.00	0.0	9,470
55	Saudi Arabia	1.0	17.3	35.6	2.00		21,540
56	Cyprus	1.0	21.3	26.0	1.00	19.0	26,300
57	Japan	1.0	34.2	34.8	2.00	8.0	41,340
58	Romania	1.0	9.5	20.1	8.00		11,290
59	Mexico	1.0	7.8	14.7	1.50		9,180
60	Russian Federation	1.0	8.8	21.0	10.00		10,230
61	Hungary	1.0	12.5	22.5	6.00	5.0	14,590
62	Oman	1.0	13.0	25.6	2.00		15,110
63	Egypt	1.0	2.4	12.3	1.80	23.0	2,800
64	Portugal	1.1	19.5	24.8	5.00		21,680
65	Greece	1.1	17.9	23.0	0.70	24.0	19,540
66	Viet Nam	1.1	2.2	5.4	3.00		2,400
67	Bhutan	1.1	2.9	8.8	1.73	5.0	3,080
68	Myanmar	1.2	1.3	4.9	1.50		1,310
69	Argentina	1.2	12.1		4.00		12,370
70	Saint Lucia	1.2	9.3	12.1	1.50		9,460
71	Barbados*	1.2	15.0	11.9	1.50		15,240
72	India	1.3	2.2	7.2	42.00	18.0	2,020
73	Serbia	1.3	7.0	14.3	5.00		6,390
74	Turkey	1.3	11.4	32.7	8.00		10,380
75	Croatia	1.4	15.8	25.4	10.00	25.0	13,830
76	Aruba*	1.4	27.4	32.7	4.00		23,630
77	Azerbaijan	1.4	4.7	19.2	1.50	18.0	4,050
78	Thailand	1.4	7.9	20.5	2.00		6,610
79	Bahrain	1.5	26.6	43.9	20.00	0.0	21,890
80	Armenia	1.5	5.2	12.8	1.95	20.0	4,230
81	Uruguay	1.5	19.4	23.2	15.00		15,650
82	Bosnia and Herzegovina	1.5	7.1	14.9	2.00	17.0	5,690
83	Peru	1.6	8.5	16.2	6.00		6,530
84	Saint Kitts and Nevis	1.6	24.4	32.4	2.00		18,640
85	North Macedonia	1.6	7.3	16.6	3.00		5,450
86	Panama	1.7	20.0	34.9	6.00		14,370
87	Albania	1.7	6.9	14.5	2.00	20.0	4,860
88	Cambodia	1.7	2.0	4.9	1.50	10.0	1,380

Annex Table 3.4: Mobile-data basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
89	Palau	1.8	25.0	26.9	2.00		16,910
90	Bangladesh	1.9	2.7	6.7	1.50	21.0	1,750
91	Gabon	1.9	10.8	15.8	2.00	18.0	6,800
92	Maldives	1.9	14.9	19.6	2.50		9,310
93	Suriname	1.9	8.0		3.00		4,990
94	Curacao*	2.0	31.3	39.8	3.50	6.0	19,070
95	Morocco	2.1	5.3	12.1	5.00		3,090
96	Moldova	2.1	5.4	12.5	1.50		2,990
97	Ecuador	2.2	11.2	19.3	2.00	12.0	6,120
98	Seychelles	2.2	28.7	45.3	2.00		15,600
99	Libya	2.2	11.7		2.00	0.0	6,330
100	Mongolia	2.2	6.7	18.4	3.00		3,580
101	Antigua and Barbuda	2.2	29.6	36.5	3.00		15,810
102	Fiji	2.4	11.5	18.1	6.00	9.0	5,860
103	Philippines	2.4	7.5	19.4	6.00		3,830
104	Nigeria	2.4	3.9	7.8	1.50		1,960
105	Nauru	2.5	23.2		1.80		11,240
106	Tonga	2.5	8.9	11.7	2.00		4,300
107	Puerto Rico	2.5	44.6		8.00		21,100
108	Bolivia (Plurinational State of)	2.6	7.2	14.5	2.00	16.0	3,370
109	Trinidad and Tobago	2.7	36.9	44.2	3.00		16,240
110	Colombia	2.7	14.1	29.6	2.00	19.0	6,190
111	Pakistan	2.7	3.6	13.1	7.60		1,580
112	Kyrgyzstan	2.9	2.9	9.6	4.08	17.0	1,220
113	Botswana	2.9	18.5	35.4	5.00	12.0	7,750
114	Uzbekistan	3.0	5.1		2.00		2,020
115	Senegal	3.1	3.6	8.7	2.50		1,410
116	Palestine	3.1	9.7	13.9	2.50		3,710
117	Lao P.D.R.	3.2	6.5	17.2	1.50	10.0	2,460
118	Cabo Verde	3.2	9.1	19.1	2.93	15.0	3,450
119	Lebanon	3.3	20.9	32.8	1.75	10.0	7,690
120	Dominica	3.4	20.4	28.4	1.50		7,210
121	Dominican Rep.	3.4	21.0	45.6	3.00	30.0	7,370
122	Grenada	3.5	28.1	38.3	4.00		9,780
123	Guatemala	3.6	13.2	22.0	2.50	12.0	4,410
124	Kenya	3.7	4.9	10.0	2.00	31.0	1,620
125	Vanuatu	3.7	9.1	8.5	2.50		2,970
126	Jordan	3.7	12.9	26.8	4.00	16.0	4,210
127	South Africa	3.9	18.8	37.7	1.50		5,720
128	Zambia	4.0	4.8	12.2	1.50		1,430
129	Namibia	4.1	17.8	35.3	1.50		5,250
130	El Salvador	4.4	14.0	27.9	3.00		3,820
131	Guinea	4.4	3.0	6.0	1.50	20.0	830
132	Samoa	4.4	15.5	21.2	8.00		4,190

Annex Table 3.4: Mobile-data basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
133	Belize	4.4	17.5		5.50	12.5	4,720
134	Tajikistan	4.5	3.8		1.50		1,010
135	Saint Vincent and the Grenadines	4.6	30.4	42.2	3.00		7,940
136	Guyana	4.6	18.3	29.4	3.50	14.0	4,760
137	Cameroon	4.7	5.6	13.4	1.45	19.3	1,440
138	Brazil	4.7	35.6	57.8	8.00	40.2	9,140
139	Ghana	4.9	8.7	24.2	2.50	23.5	2,130
140	Iraq	5.0	21.1	42.1	2.00	0.0	5,030
141	Paraguay	5.2	24.4	52.3	2.00		5,680
142	Nepal (Republic of)	5.2	4.2	12.2	4.00		960
143	Côte d'Ivoire	5.4	7.2	17.6	1.56	18.0	1,610
144	Eswatini	5.4	17.4	41.4	1.50	14.0	3,850
145	Turkmenistan	5.6	31.4		1.00		6,740
146	Jamaica	5.6	23.3	36.3	1.50	25.0	4,990
147	Angola	5.6	15.8	20.3	2.00	10.0	3,370
148	Kiribati	5.7	14.9		2.73	0.0	3,140
149	Sao Tome and Principe	6.1	9.6	13.5	3.00		1,890
150	Timor-Leste	6.6	10.0	15.6	2.20		1,820
151	Rwanda	7.1	4.6	12.8	2.00		780
152	Mozambique	7.2	2.7		1.50		440
153	Benin	7.4	5.4	13.9	1.50	18.0	870
154	Tanzania	7.8	6.6	17.8	2.00		1,020
155	Lesotho	7.9	9.1	24.5	2.00	9.0	1,380
156	Mauritania	8.5	8.4	23.8	3.00		1,190
157	Honduras	8.6	16.7	32.8	3.20	15.0	2,330
158	Djibouti	8.7	15.8	27.8	2.72	10.0	2,180
159	Nicaragua	9.0	15.3	41.2	2.00		2,030
160	Afghanistan	9.1	4.2	14.2	2.00	0.0	550
161	Gambia	9.2	5.4	17.4	1.50	21.3	700
162	Liberia	10.0	5.0	4.8	2.00	15.0	600
163	Micronesia	10.1	30.0	30.7	2.00		3,580
164	Uganda	10.4	5.4	16.1	2.00		620
165	Papua New Guinea	10.4	22.0	26.7	2.32		2,530
166	Ethiopia	10.5	6.9	20.4	2.00	15.0	790
167	Haiti	11.0	7.3	15.7	6.00	10.0	800
168	Mali	13.0	9.0	22.9	2.00		830
169	Congo (Rep. of the)	13.2	18.0	31.0	2.00	18.0	1,640
170	Solomon Islands	16.6	27.7	28.5	3.20		2,000
171	Togo	16.6	9.0	22.1	1.50		650
172	Comoros	17.5	19.2		8.00	0.0	1,320
173	Burkina Faso	19.6	10.8	28.1	3.00	18.0	660
174	Madagascar	20.4	7.5	26.3	2.00		440
175	Sierra Leone	20.6	8.6	22.3	1.50		500

Annex Table 3.4: Mobile-data basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Monthly data allowance (in GB)	Tax rate included (%)	GNI p.c., USD, 2018
176	Niger	22.7	7.2	17.9	2.00		380
177	Malawi	22.8	6.8	20.1	2.00		360
178	Zimbabwe	23.5	35.0		1.50		1,790
179	Yemen	26.2	20.9		3.00		960
180	Burundi	26.4	6.2	15.1	1.80	2.0	280
181	Guinea-Bissau	28.8	18.0	41.3	5.00	17.0	750
182	Chad	32.2	18.0		4.00	18.0	670
183	Central African Rep.	45.0	18.0		2.50	19.0	480
184	Dem. Rep. of the Congo	85.7	35.0		1.50	26.0	490
	Andorra**		21.0		2.00		
	Anguilla**		34.8		1.00	7.0	
	British Virgin Islands**		30.0		1.50	0.0	
	Cayman Islands**		30.0		2.00		
	Cuba**		20.0		1.50		
	Gibraltar**		40.0		2.00	0.0	
	Liechtenstein**		24.5		20.00	7.7	
	Monaco**		47.2		20.00		
	San Marino**		16.5	18.3	2.00		
	Somalia**		5.0		2.00		
	Syrian Arab Republic**		29.0		1.60		
	Taiwan, Province of China**		9.9		1.70		

Note: Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference. * Data correspond to the GNI p.c. in 2017. ** Country not ranked because data on GNI p.c. are not available.

Source: ITU. GNI p.c. and PPP\$ values are based on World Bank data. USD exchange rates are from the IMF or UN.

Annex Table 3.5: Fixed-broadband basket, 2018

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Speed, in Mbit/s	Cap per month, in GB	Most value for money (PPP\$ per Mbit/s)	Tax rate included (%)	GNI p.c., USD, 2018
1	Macao, China	0.1	7.8	9.7	3.00	Unlimited	3.2	0.0	78,320
2	Kuwait	0.3	9.4	14.4	1.00	Unlimited	14.4	0.0	33,690
3	Hong Kong, China	0.4	17.6	21.5	500.00	Unlimited	0.0	0.0	50,310
4	China	0.6	4.5	7.9	20.00	Unlimited	0.4	0.0	9,470
5	United Arab Emirates	0.6	19.7	25.7	0.26	Unlimited	98.9	5.0	41,010
6	Norway	0.7	44.1	33.3	0.26	Unlimited	125.6		80,790
7	Brunei Darussalam	0.7	18.5	33.0	10.00	50	3.3	0.0	31,020
8	Luxembourg	0.7	48.4	42.1	20.00	Unlimited	2.1		77,820
9	Singapore	0.8	37.0	44.0	1024.00	Unlimited	0.0	7.0	58,770
10	Romania	0.8	7.6	16.1	300.00	Unlimited	0.1		11,290
11	Israel	0.8	27.6	23.4	15.00	Unlimited	1.6	17.0	40,850
12	Austria	0.8	33.9	34.2	20.00	Unlimited	1.7		49,250
13	United States	0.8	43.5	43.5	60.00	1024	0.7	8.9	62,850
14	Iceland*	0.8	42.5	29.7	50.00	50	0.6	24.0	60,740
15	Russian Federation	0.8	7.2	17.1	100.00	Unlimited	0.2	18.0	10,230
16	Belgium	0.9	32.5	32.1	50.00	100	0.6	21.0	45,430
17	Cyprus	0.9	18.9	23.2	5.00	Unlimited	4.6	19.0	26,300
18	Denmark	0.9	44.2	34.9	50.00	Unlimited	0.7	25.0	60,140
19	Canada	0.9	34.8	33.7	3.00	20	11.2	13.0	44,860
20	Lithuania	0.9	13.7	23.2	0.70	Unlimited	33.1		17,360
21	Switzerland	1.0	66.5	47.3	50.00	Unlimited	0.9	7.7	83,580
22	Finland	1.0	38.9	34.7	50.00	Unlimited	0.7	24.0	47,820
23	Sweden	1.0	44.8	41.6	60.00	Unlimited	0.7	25.0	55,070
24	Belarus	1.0	4.7	18.4		10		25.0	5,670
25	Japan	1.0	35.2	35.8	1024.00	Unlimited	0.0	8.0	41,340
26	Kazakhstan	1.0	6.7	19.2	1.00	10	19.2	12.0	7,830
27	Germany	1.0	41.3	43.4	16.00	Unlimited	2.7	19.0	47,450
28	Italy	1.1	29.4	31.9		Unlimited		22.0	33,560
29	Iran (Islamic Republic of)*	1.1	4.9	15.6	0.25	8	62.5	9.0	5,470
30	Estonia	1.1	18.9	26.5	5.00	Unlimited	5.3	20.0	20,990
31	Malta	1.1	23.6	31.6	30.00	Unlimited	1.1	18.0	26,220
32	Sri Lanka	1.1	3.7	11.2	21.00	7	0.5	19.7	4,060
33	Malaysia	1.1	10.0	24.2	1.00	1	24.2	6.0	10,460
34	Netherlands	1.1	49.0	47.9	50.00	Unlimited	1.0		51,280
35	Slovakia	1.2	17.7	27.8	4.00	300	6.9	20.0	18,330
36	Australia	1.2	51.6	44.9	20.00	100	2.2	10.0	53,190
37	Bahamas*	1.2	30.0	26.5	1.00	Unlimited	26.5	12.0	30,210
38	Korea (Rep. of)	1.2	31.5	36.0	100.00	Unlimited	0.4	10.0	30,600
39	Saudi Arabia	1.2	22.4	46.0	2.00	20	23.0	5.0	21,540
40	Ireland	1.3	62.6	53.9	100.00	Unlimited	0.5	23.0	59,360
41	France	1.3	43.7	43.7	15.00	Unlimited	2.9	20.0	41,070
42	United Kingdom	1.3	44.0	41.8	10.00	Unlimited	4.2	20.0	41,330
43	New Zealand	1.3	45.0	40.5	50.00	60	0.8	15.0	40,820
44	Greece	1.3	22.0	28.1	4.00	Unlimited	7.0	30.2	19,540
45	Czech Republic	1.4	23.0	35.9	20.00	Unlimited	1.8	21.0	20,250
46	Seychelles	1.4	18.5	29.3	1.00	4	29.3	15.0	15,600
47	Brazil	1.4	10.9	17.7	2.00	Unlimited	8.9	40.2	9,140

Annex Table 3.5: Fixed-broadband basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Speed, in Mbit/s	Cap per month, in GB	Most value for money (PPP\$ per Mbit/s)	Tax rate included (%)	GNI p.c., USD, 2018
48	Portugal	1.4	26.0	33.1	30.00	Unlimited	1.1	23.0	21,680
49	Puerto Rico	1.5	25.5		3.00	Unlimited		11.5	21,100
50	Bahrain	1.5	26.6	43.9	10.00	70	4.4	0.0	21,890
51	Latvia	1.5	20.7	31.1	100.00	Unlimited	0.3	21.0	16,880
52	Trinidad and Tobago	1.5	21.0	25.1	5.00	Unlimited	5.0	12.5	16,240
53	Ukraine	1.6	3.5	13.2	20.00	Unlimited	0.7	20.0	2,660
54	Albania	1.6	6.5	13.5	1.00	Unlimited	13.5	20.0	4,860
55	Qatar	1.6	82.4	108.1	15.00	Unlimited	7.2	0.0	61,190
56	Bulgaria	1.6	11.9	26.4	30.00	Unlimited	0.9	20.0	8,860
57	Poland	1.6	19.4	37.5	100.00	Unlimited	0.4	23.0	14,150
58	Mauritius	1.7	16.9	28.8	10.00	15	2.9	15.0	12,050
59	Hungary	1.7	20.7	37.2	150.00	Unlimited	0.2	5.0	14,590
60	Azerbaijan	1.7	5.9	24.0	1.00	Unlimited	24.0	18.0	4,050
61	Costa Rica	1.8	17.2	26.7	1.00	Unlimited	26.7	13.0	11,510
62	Slovenia	1.9	39.0	50.9	10.00	Unlimited	5.1	22.0	24,670
63	Mongolia	1.9	5.8	15.9	1.00	Unlimited	15.9	10.0	3,580
64	Montenegro	2.0	13.8	27.1	2.00	Unlimited	13.6	21.0	8,400
65	Curacao*	2.0	32.4	41.2	8.00	Unlimited	5.1	6.0	19,070
66	Croatia	2.2	24.8	40.1	4.00	15	10.0	25.0	13,830
67	Spain	2.2	53.1	62.9	100.00	Unlimited	0.6	21.0	29,450
68	Uzbekistan	2.2	3.7		2.00	6		20.0	2,020
69	Saint Kitts and Nevis	2.3	35.2	46.7	2.00	Unlimited	23.3		18,640
70	Nepal (Republic of)	2.3	1.8	5.4	5.00	15	1.1	13.0	960
71	Mexico	2.4	18.1	34.3	10.00	Unlimited	3.4	16.0	9,180
72	Uruguay	2.4	31.1	37.3	3.00	350	12.4		15,650
73	Bosnia and Herzegovina	2.5	12.0	25.3	5.00	Unlimited	5.1	17.0	5,690
74	India	2.6	4.3	14.2	8.00	Unlimited	1.8	18.0	2,020
75	Turkey	2.7	23.0	66.0	4.00	20	16.5	23.0	10,380
76	Panama	2.7	32.0	55.7	10.00	Unlimited	5.6		14,370
77	Chile	2.7	32.7	45.5	30.00	Unlimited	1.5		14,670
78	Lebanon	2.7	17.5	27.5	4.00	40	6.9	10.0	7,690
79	Bangladesh	2.8	4.1	10.1	0.25	Unlimited	40.6	15.0	1,750
80	Bhutan	2.8	7.3	22.0	2.00	8	11.0	5.0	3,080
81	Serbia	2.9	15.5	31.8	10.00	Unlimited	3.2	20.0	6,390
82	Aruba*	2.9	57.2	68.3	100.00	Unlimited	0.7	3.5	23,630
83	Armenia	2.9	10.3	25.6	5.00	Unlimited	5.1	20.0	4,230
84	Egypt	3.0	7.1	36.1	5.00	100	7.2	14.0	2,800
85	Georgia	3.1	10.7		10.00	Unlimited		18.0	4,130
86	Oman	3.1	39.0	76.8	4.00	20	19.2	0.0	15,110
87	Maldives	3.1	24.1	31.7	5.00	30	6.3	6.0	9,310
88	Dominican Rep.	3.2	19.7	42.8	2.00	Unlimited	21.4	30.0	7,370
89	Barbados*	3.3	42.5	33.8	40.00	Unlimited	0.8		15,240
90	Peru	3.3	18.2	34.7	10.00	Unlimited	3.5		6,530
91	Thailand	3.6	19.8	51.4	30.00	Unlimited	1.7	7.0	6,610
92	Viet Nam	3.7	7.3	17.8	2.50	Unlimited	7.1	10.0	2,400
93	Antigua and Barbuda	3.7	48.1	59.2	10.00	Unlimited	5.9		15,810

Annex Table 3.5: Fixed-broadband basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Speed, in Mbit/s	Cap per month, in GB	Most value for money (PPP\$ per Mbit/s)	Tax rate included (%)	GNI p.c., USD, 2018
94	Cabo Verde	3.7	10.6	22.2	12.00	5	1.9	15.0	3,450
95	North Macedonia	3.8	17.3	39.4	8.00	50	4.9	18.0	5,450
96	Fiji	3.8	18.7	29.5	20.00	150	1.5	9.0	5,860
97	Tunisia	3.9	11.3	34.0	4.00	Unlimited	8.5	19.0	3,500
98	Colombia	3.9	20.3	42.4	5.00	Unlimited	8.5	0.0	6,190
99	Algeria	4.1	13.7	39.6	1.00	Unlimited	39.6	0.0	4,060
100	Morocco	4.1	10.5	24.0	4.00	Unlimited	6.0	20.0	3,090
101	Philippines	4.2	13.3	34.2	3.00	30	11.4	12.0	3,830
102	Saint Lucia	4.2	33.0	43.1	2.00	Unlimited	21.6	12.5	9,460
103	Botswana	4.4	28.4	54.3	0.50	Unlimited	108.6	12.0	7,750
104	Grenada	4.5	36.7	49.9	15.00	Unlimited	3.3		9,780
105	Ecuador	4.6	23.4	40.3	5.00	Unlimited	8.1	12.0	6,120
106	Argentina	4.7	48.2		25.00	250		21.0	12,370
107	Moldova	4.8	11.9	27.8	100.00	Unlimited	0.3	20.0	2,990
108	Paraguay	4.9	23.4	50.1	60.00	Unlimited	0.8	10.0	5,680
109	Iraq	5.0	21.1	42.1	0.26	Unlimited	164.5	0.0	5,030
110	Guatemala	5.4	19.8	33.1	2.00	Unlimited	16.5	12.0	4,410
111	Dominica	5.9	35.2	49.1	15.00	Unlimited	3.3	15.0	7,210
112	Jamaica	6.0	24.9	38.8	1.00	Unlimited	38.8	16.5	4,990
113	Indonesia	6.0	19.3	53.9	10.00	Unlimited	5.4	10.0	3,840
114	Saint Vincent and the Grenadines	6.1	40.5	56.2	3.00	Unlimited	18.7	16.0	7,940
115	Lesotho	6.5	7.5	20.2	256.00	5	0.1	9.0	1,380
116	South Africa	6.5	31.2	62.5	2.00	20	31.3	15.0	5,720
117	Micronesia	6.7	20.0	20.5	0.50	Unlimited	40.9	0.0	3,580
118	Suriname	6.8	28.1		3.00	Unlimited		8.0	4,990
119	Bolivia (Plurinational State of)	7.6	21.3	42.6	3.00	Unlimited	14.2	13.0	3,370
120	Guyana	7.6	30.3	48.7	1.50	Unlimited	32.4	14.0	4,760
121	Tajikistan	7.8	6.6		2.00	15		18.0	1,010
122	El Salvador	7.9	25.0	49.7	5.00	Unlimited	9.9		3,820
123	Gabon	7.9	45.0	65.7	10.00	Unlimited	6.6	18.0	6,800
124	Tonga	8.5	30.3	39.6		5		15.0	4,300
125	Djibouti	8.5	15.5	27.3	1.00	30	27.3	10.0	2,180
126	Namibia	8.6	37.7	74.9	1.00	Unlimited	74.9	15.0	5,250
127	Belize	8.8	34.5		5.00	Unlimited		12.5	4,720
128	Lao P.D.R.	8.8	18.1	48.2	3.00	Unlimited	16.1	10.0	2,460
129	Samoa	8.9	30.9	42.5		6		15.0	4,190
130	Angola	9.3	26.1	33.6	1.00	30	33.6	10.0	3,370
131	Jordan	9.6	33.8	70.1	4.00	Unlimited	17.5	16.0	4,210
132	Palestine	9.7	29.9	42.9	8.00	100	5.4	16.0	3,710
133	Turkmenistan	9.7	54.3		0.25	Unlimited		15.0	6,740
134	Zimbabwe	10.1	15.0		2.00	8		25.0	1,790
135	Cambodia	10.4	12.0	29.4	4.00	Unlimited	7.3	10.0	1,380
136	Ghana	10.4	18.5	51.3	12.00	20	4.3	23.5	2,130
137	Kyrgyzstan	11.1	11.3	37.3	5.00	Unlimited	7.5	17.0	1,220
138	Yemen	12.2	9.8		0.50	6		5.0	960
139	Marshall Islands	12.6	50.0		0.25	Unlimited		0.0	4,740

Annex Table 3.5: Fixed-broadband basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Speed, in Mbit/s	Cap per month, in GB	Most value for money (PPP\$ per Mbit/s)	Tax rate included (%)	GNI p.c., USD, 2018
140	Myanmar	12.8	14.0	55.0	1.00	Unlimited	55.0	5.0	1,310
141	Eswatini	14.8	47.4	112.8	0.25	6	451.2	14.0	3,850
142	Afghanistan	15.1	6.9	23.6	0.25	Unlimited	94.4	0.0	550
143	Guinea	16.8	11.7	23.0		5		18.0	830
144	Pakistan	17.3	22.8	82.6	6.00	Unlimited	13.8	32.0	1,580
145	Honduras	17.5	34.0	66.7	5.00	Unlimited	13.3	15.0	2,330
146	Kenya	18.3	24.7	49.7	30.00	Unlimited	1.7	31.0	1,620
147	Sao Tome and Principe	18.7	29.5	41.4	1.00	12	41.4	5.0	1,890
148	Nicaragua	19.0	32.2	86.6	1.00	Unlimited	86.6	15.0	2,030
149	Congo (Rep. of the)	19.8	27.0	46.5	0.50	Unlimited	93.0	16.0	1,640
150	Senegal	19.8	23.2	56.4	1.00	Unlimited	56.4	23.0	1,410
151	Zambia	20.1	23.9	61.0	2.00	10	30.5	33.5	1,430
152	Tanzania	21.8	18.6	49.8	1.00	Unlimited	49.8	32.5	1,020
153	Vanuatu	22.3	55.2	51.8	0.50	Unlimited	103.6	15.0	2,970
154	Cameroon	22.3	26.8	64.2	1.00	Unlimited	64.2	19.3	1,440
155	Nigeria	25.2	41.2	81.6	8.00	Unlimited	10.2	5.0	1,960
156	Côte d'Ivoire	25.5	34.2	83.6	1.00	Unlimited	83.6	18.0	1,610
157	Mali	25.8	17.8	45.4	1.00	Unlimited	45.4	18.0	830
158	Mozambique	29.4	10.8		1.00	Unlimited		17.0	440
159	Ethiopia	30.5	20.1	59.0	2.00	6	29.5	15.0	790
160	Papua New Guinea	30.7	64.7	78.5	24.00	5	3.3	10.0	2,530
161	Mauritania	32.2	32.0	90.3	2.00	Unlimited	45.2	14.0	1,190
162	Timor-Leste	32.3	49.0	76.2	2.00	6	38.1	5.0	1,820
163	Comoros	32.7	36.0		0.50	Unlimited		0.0	1,320
164	Benin	37.2	27.0	69.5	0.50	Unlimited	138.9	18.0	870
165	Burkina Faso	40.9	22.5	58.6	0.50	Unlimited	117.2	18.0	660
166	Togo	41.5	22.5	55.3	2.00	Unlimited	27.6	18.0	650
167	Uganda	41.5	21.5	64.2	0.50	5	128.5	18.0	620
168	Guinea-Bissau	72.6	45.4	104.1	0.25	Unlimited	416.6	17.0	750
169	Haiti	82.5	55.0	117.6	1.00	Unlimited	117.6	10.0	800
170	Malawi	120.4	36.1	106.5	5.00	20	21.3	26.5	360
171	Rwanda	125.1	81.3	223.3	10.00	Unlimited	22.3	18.0	780
172	Niger	142.1	45.0	112.0	0.25	Unlimited	448.1	19.0	380
173	Solomon Islands	164.3	273.9	282.4	0.25	6	1129.5	10.0	2,000
174	Madagascar	203.6	74.7	261.5	100.00	Unlimited	2.6	20.0	440
175	Burundi	964.3	225.0	549.2	1.00	Unlimited	549.2	18.0	280
	Andorra**		18.5		1.00	7		4.5	
	Anguilla**		55.2		10.00	Unlimited			
	British Virgin Islands**		89.0		10.00	Unlimited		0.0	
	Cayman Islands**		87.6		8.00	Unlimited			
	Cuba**		180.0		1.00	Unlimited		0.0	
	Gibraltar**		32.0		16.00	Unlimited		0.0	
	Liechtenstein**		61.4		40.00	Unlimited		7.7	
	Monaco**		59.0		200.00	Unlimited			
	San Marino**		19.7	21.8	20.00	Unlimited	1.1		
	Somalia**		10.0		0.50	6		10.0	

Annex Table 3.5: Fixed-broadband basket, 2018 (continued)

Rank	Economy	as % of GNI p.c.	USD	PPP\$	Speed, in Mbit/s	Cap per month, in GB	Most value for money (PPP\$ per Mbit/s)	Tax rate included (%)	GNI p.c., USD, 2018
	Syrian Arab Republic**		2.9		0.25	Unlimited		5.0	
	Taiwan, Province of China**		10.4		16.00	Unlimited		5.0	

Note: Palestine is not an ITU Member State; the status of Palestine in ITU is the subject of Resolution 99 (Rev. Dubai, 2018) of the ITU Plenipotentiary Conference. * Data correspond to the GNI p.c. in 2017. ** Country not ranked because data on GNI p.c. are not available.

Source: ITU. GNI p.c. and PPP\$ conversion factors are from the World Bank. USD exchange rates are from the IMF or UN.

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