



# ITU Regional Workshop on ICT Statistics

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**ICT prices**

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# ITU price data collection

- Price data collected (in advertised currency) for:
  - Fixed telephone
  - Mobile cellular (voice and SMS)
  - Fixed broadband
  - Mobile broadband (data) – **full data collection since 2012**
- Prices for each service are combined into a basket
- Monthly prices for each basket are presented in:
  - US\$
  - PPP\$
  - As a % of GNI p.c.

# Why a price basket approach?

- “Average revenue per minute/SMS/MB” not meaningful for international benchmarks:
  - With bundling, impossible to separate revenues per source
  - Each country different usage patterns
  - ⇒ Comparing apples and oranges

<b>USD 10</b>	?	<b>USD 15</b>
100 SMS		80 SMS
50 calls		Unl. calls
500 MB		400 MB

- Price basket approach
  - Ensures that the same services are compared across countries
  - Results are sensitive to the composition of the baskets

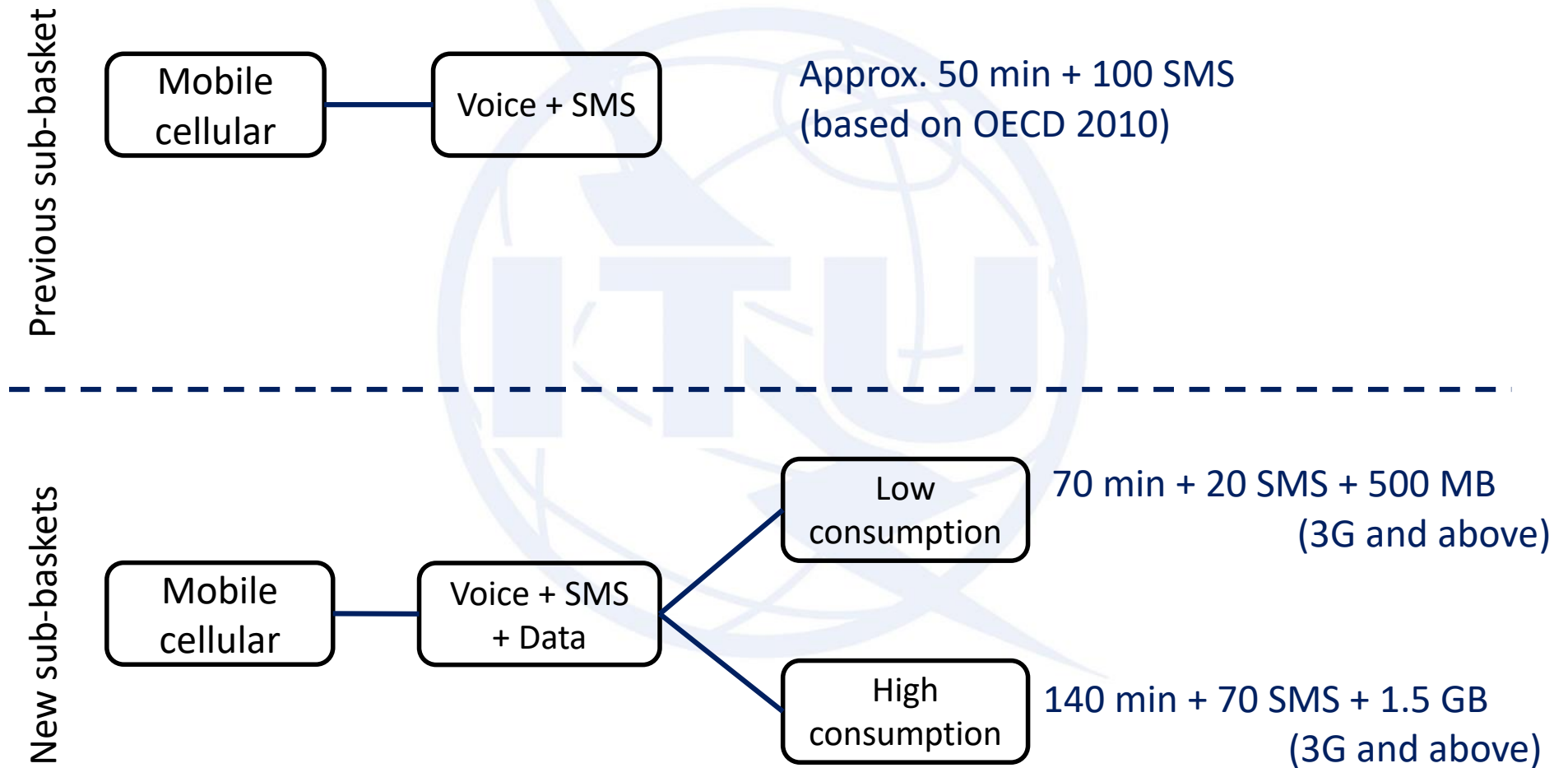
# Revision of the mobile baskets

		Voice (mins/month)	SMS (SMS/month)	Data (GB/month)	ITU Regions represented		
<b>Group 1</b>	Low income	Data points	13	16	2	Africa, Asia Pacific*	
		Mean	81	22	0.26		
		Median	56	12	0.26		
<b>Group 2</b>	Lower middle income	Data points	27	18	16	Africa, Asia Pacific,	
			Mean	156	68	1.7	Arab States, the
			Median	125	20	0.5	Americas, CIS
	Upper middle income	Data points	29	26	19	Africa, Asia Pacific,	
			Mean	159	56	1.27	Arab States, the
			Median	147	47	0.9	Americas, CIS, Europe
High income	Data points	40	36	29	Africa, Asia Pacific,		
		Mean	157	95	2.1	Arab States, the	
		Median	139	49	1.9	Americas, CIS, Europe	

\* No data for Comoros, Somalia & Haiti – the only economies from the Arab States and the Americas in this group



# Mobile Cellular – revised baskets



# Report data based on the most common contract type per country

	Previous ITU Basket	Revision	Rationale
<b>Type of subscription</b>	<p>Prepaid</p> <p>Exception: Postpaid if prepaid subscription base &lt; 2% (e.g. Japan)</p>	<p>Prepaid if prepaid subscription base &gt; 50%;</p> <p>Postpaid if postpaid subscription base &gt; 50%</p> <p>Exception: If no data are available on subscriptions, select prepaid by default</p>	<p>Countries ought to report on the type of service that <b>represents the majority</b> in their respective markets.</p> <p><b>Prepaid</b> is the predominant contract type worldwide (<b>default</b> selected if data are not available)</p>



# From one to two consumption baskets

	Current ITU Basket	Proposed revision	Rationale
<b>Voice</b>	30 calls equating to approximately 50.9 mins	Low consumption basket: 70 mins High consumption basket: 140 mins	The disparity in consumption patterns across countries was evident.
<b>SMS</b>	100 SMS	Low consumption basket: 20 SMS High consumption basket: 70 SMS	With the availability of data, the natural <b>trend from the evidence is a decline in SMS use.</b>

- A bundled offer may be selected if least-cost criteria is met.
- If bundles are selected the *minimum* consumption as above must be included.



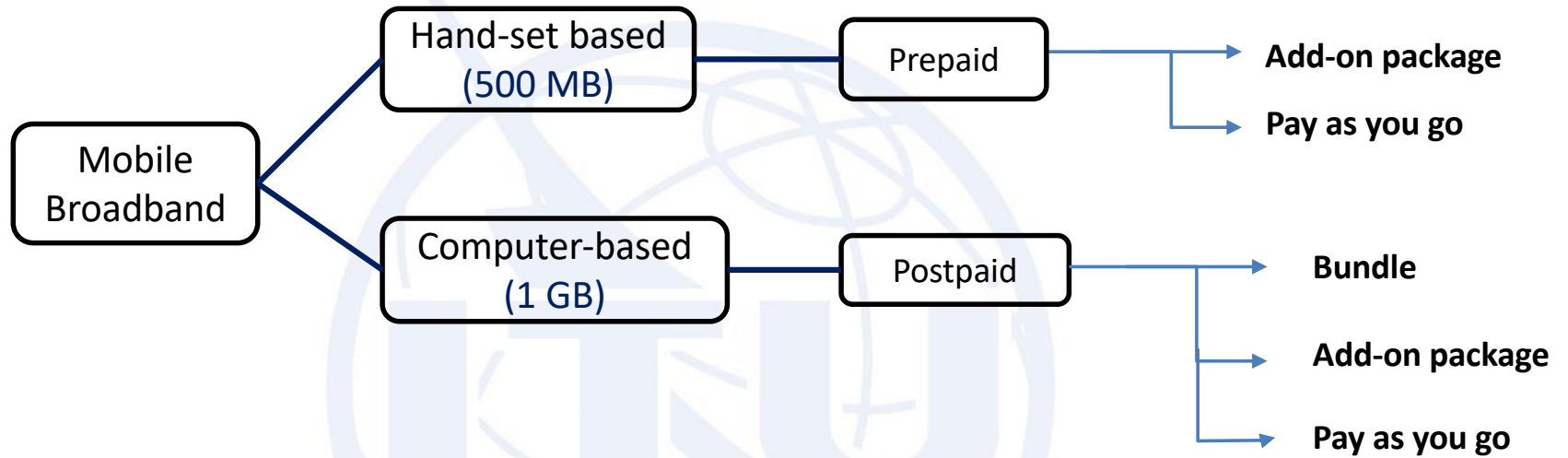
# Data added to voice and SMS

	Current ITU Basket	Proposed revision	Rationale
<b>Data</b>	N/A	<p>The least expensive data add-on with the following data caps at <i>minimum</i>:</p> <p>Low consumption basket: 500 MB</p> <p>High consumption basket: 1.5 GB</p> <p>Note: Access is to the open public Internet. Any zero-rated plans or those with geographic limitations must not be selected, even if cheaper.</p>	<p>As per the evidence gathered on data consumption it is recommended that data is included in the sub-basket. However, unlike voice and SMS it is a service that has a steep upward trend. As such the consumption baskets need to be revised periodically.</p>



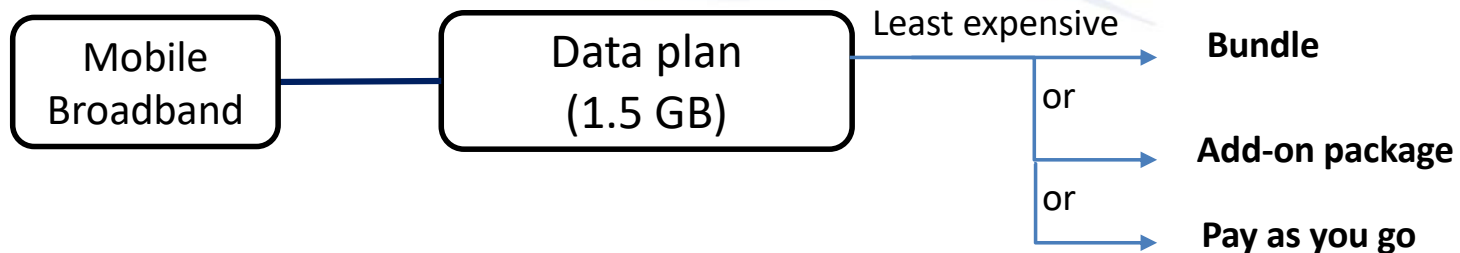
# Mobile broadband: from two to one baskets

Previous sub-basket



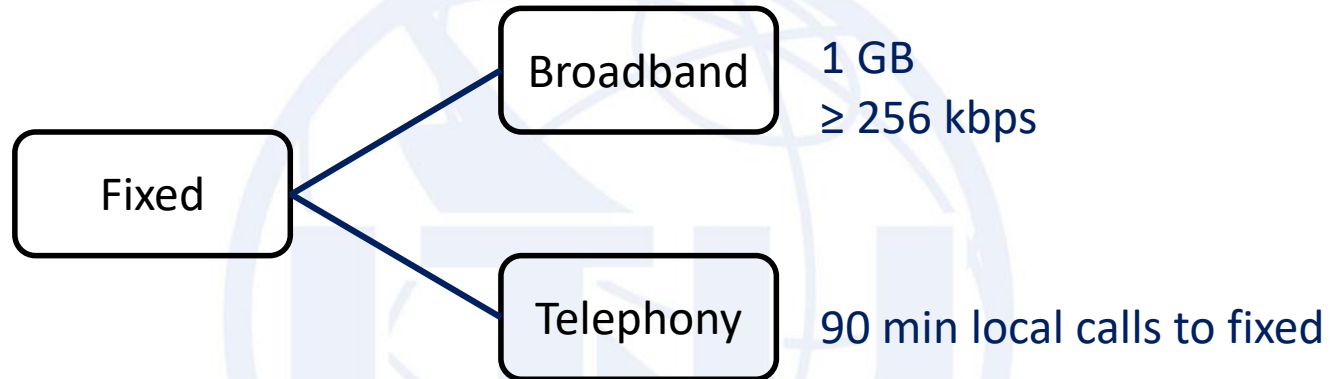
Source: ITU

New sub-basket



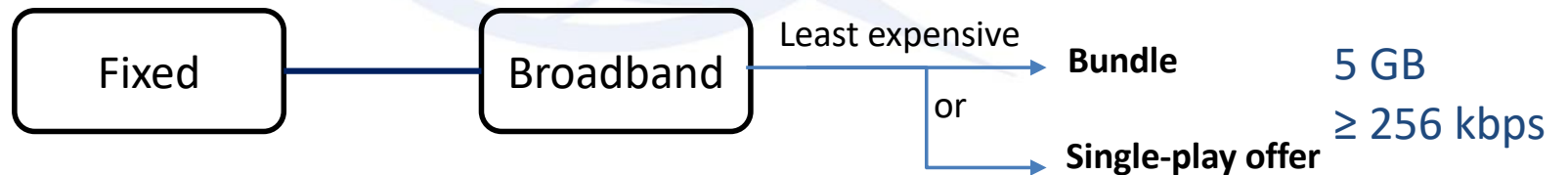
# Fixed broadband as a standalone basket but with increased data cap

Previous sub-basket



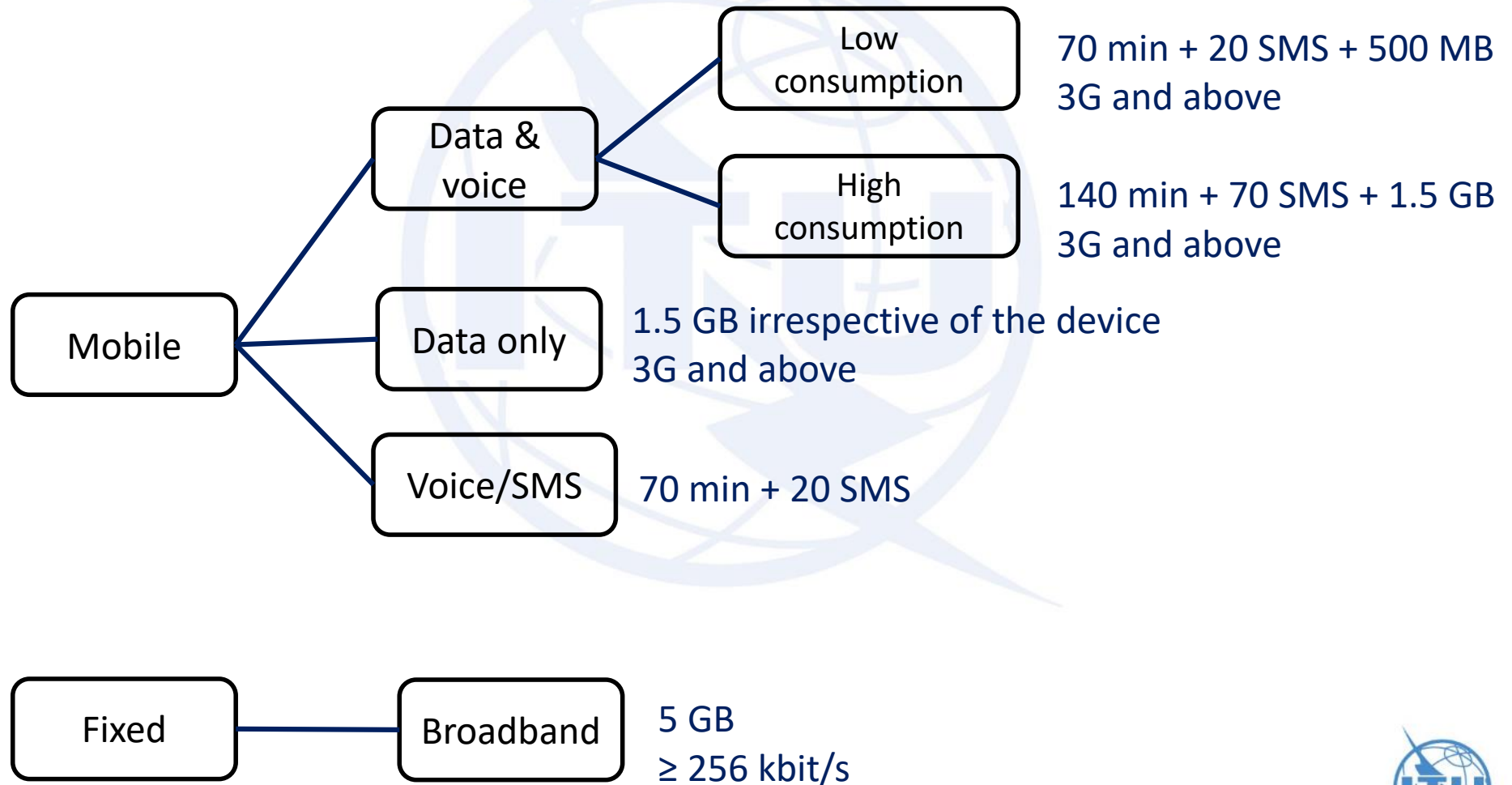
Collected but not reported.  
Is there value in continuing with this sub-basket?

New sub-basket

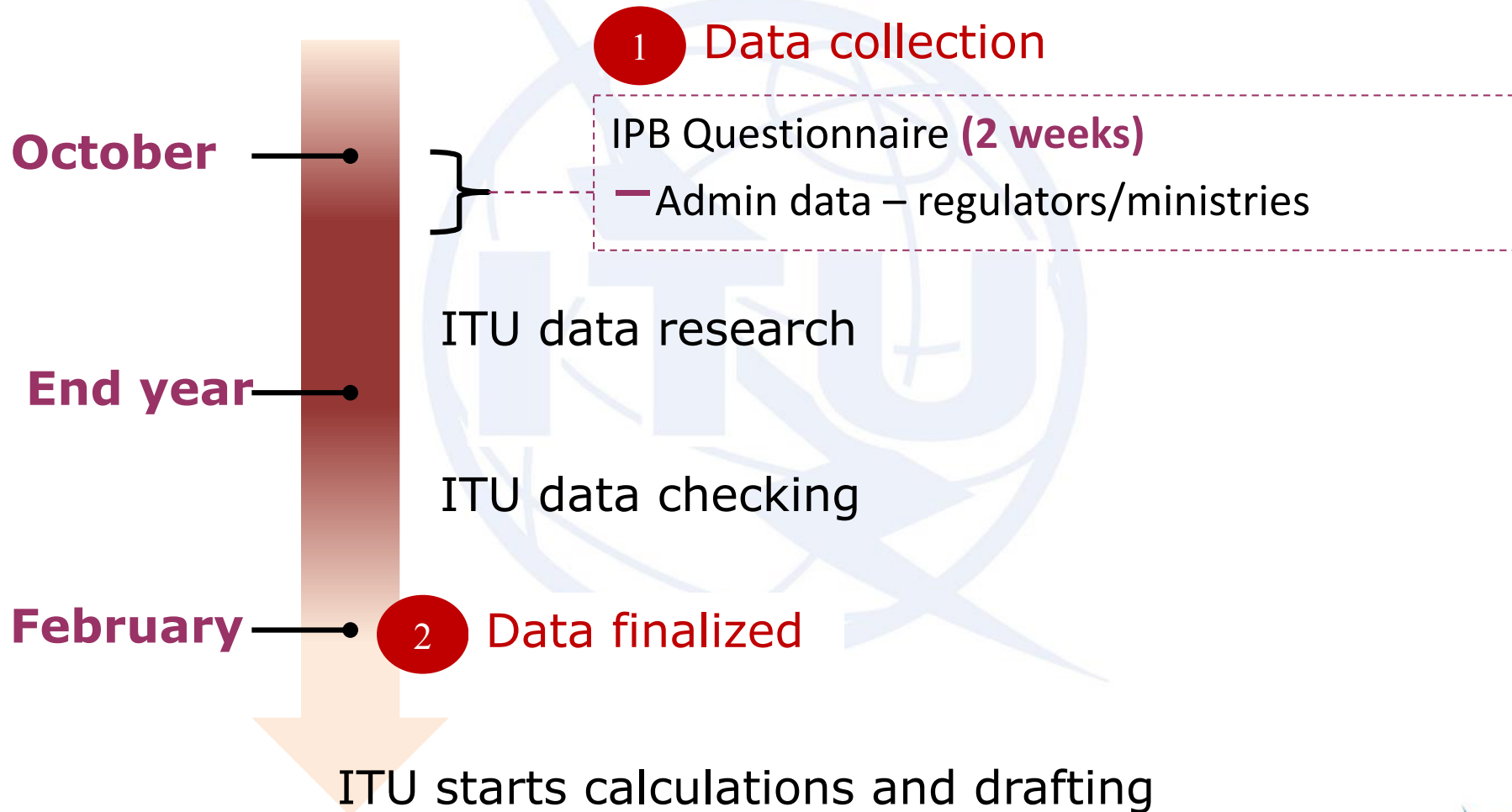


# Summary: new price baskets

From October 2018

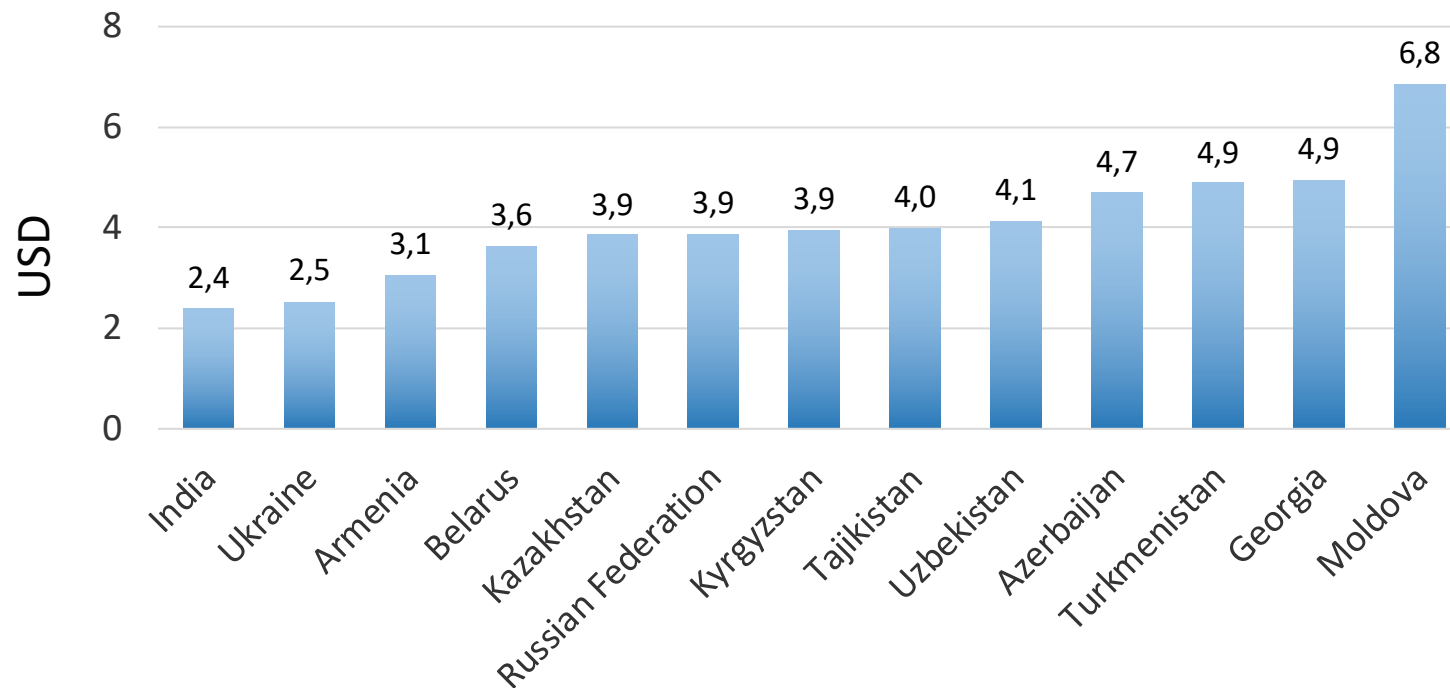


# IPB data collection



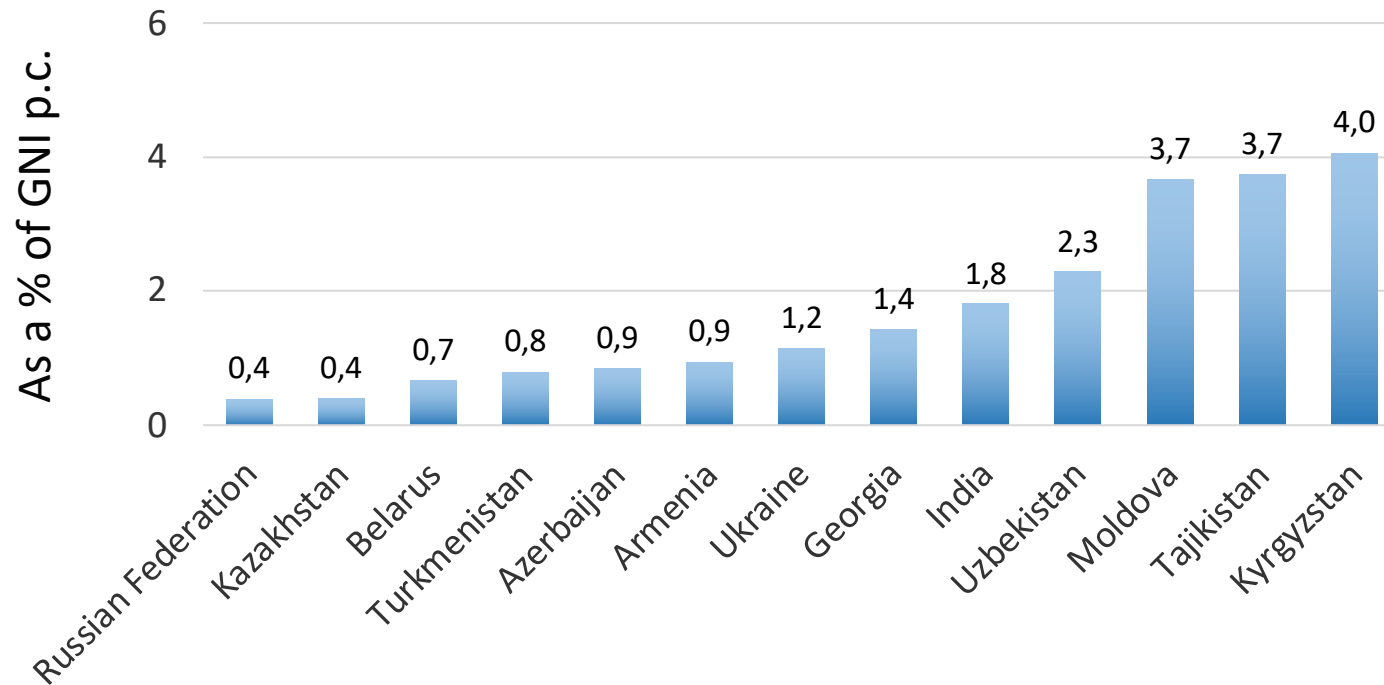
# Mobile-cellular prices

Prepaid mobile-cellular prices, end 2016



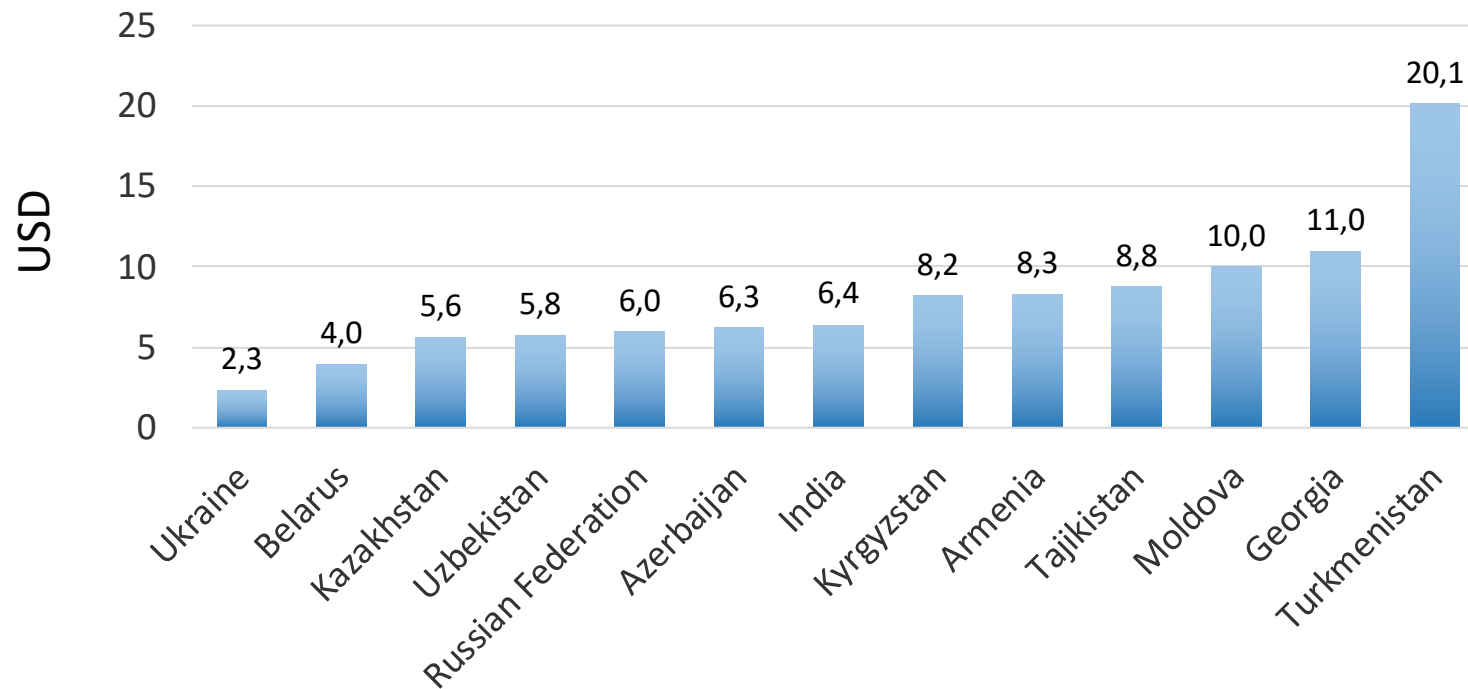
# Mobile-cellular prices

Prepaid mobile-cellular prices, end 2016

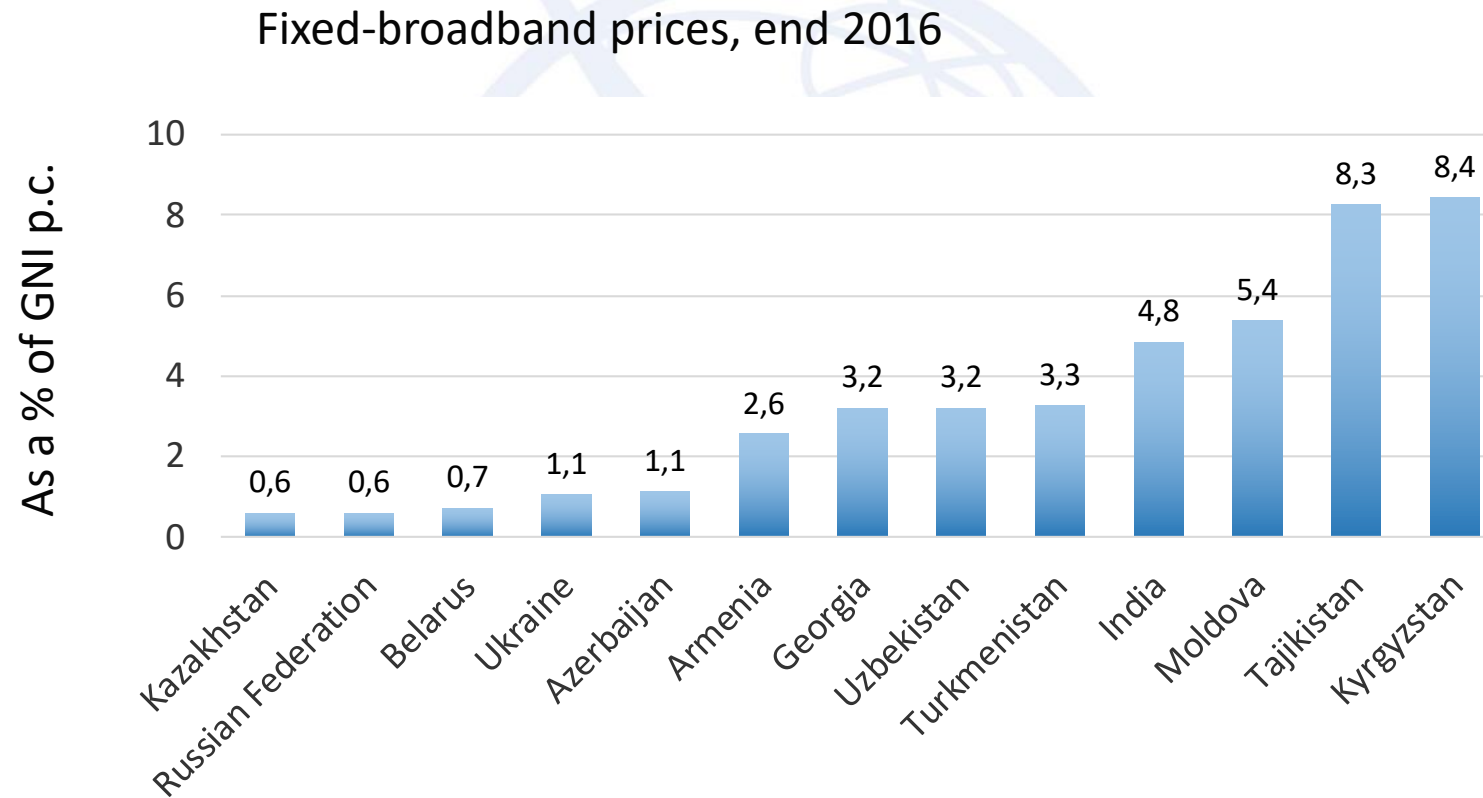


# Fixed-broadband prices

Fixed-broadband prices, end 2016



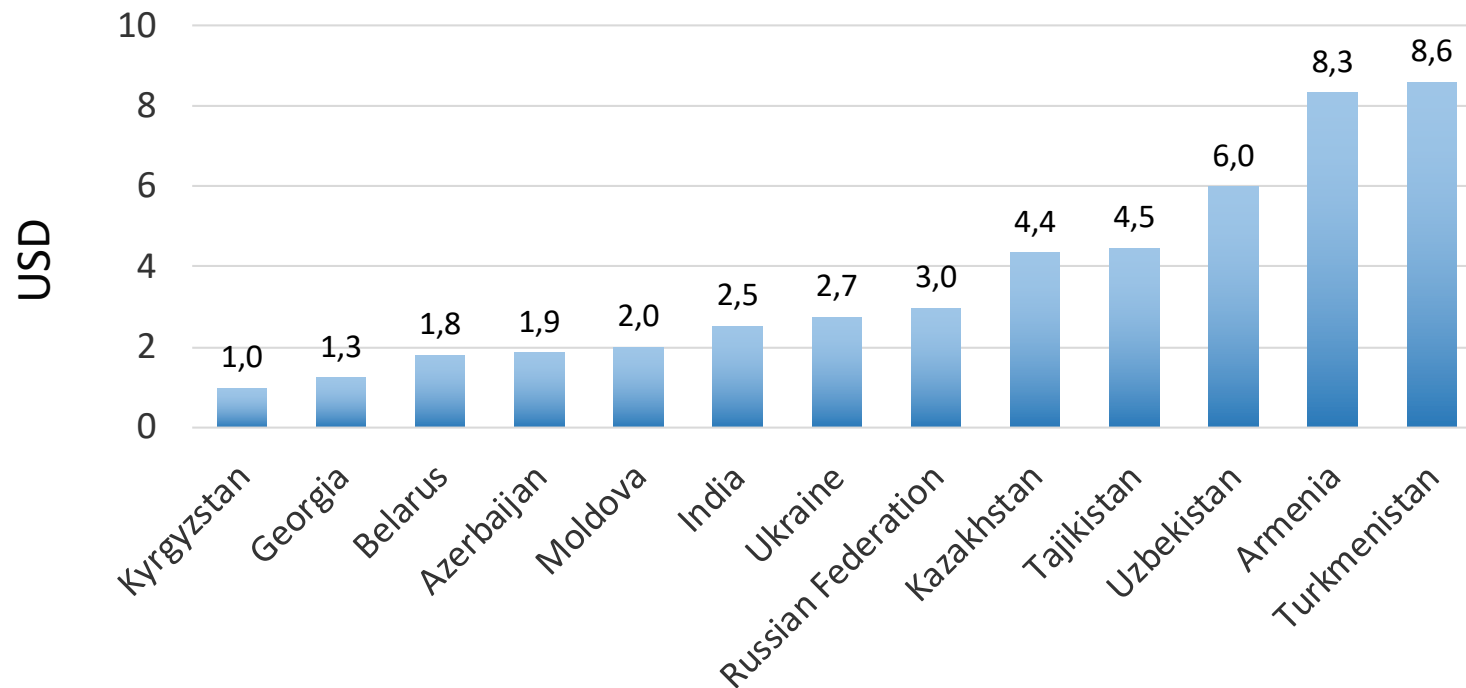
# Fixed-broadband prices





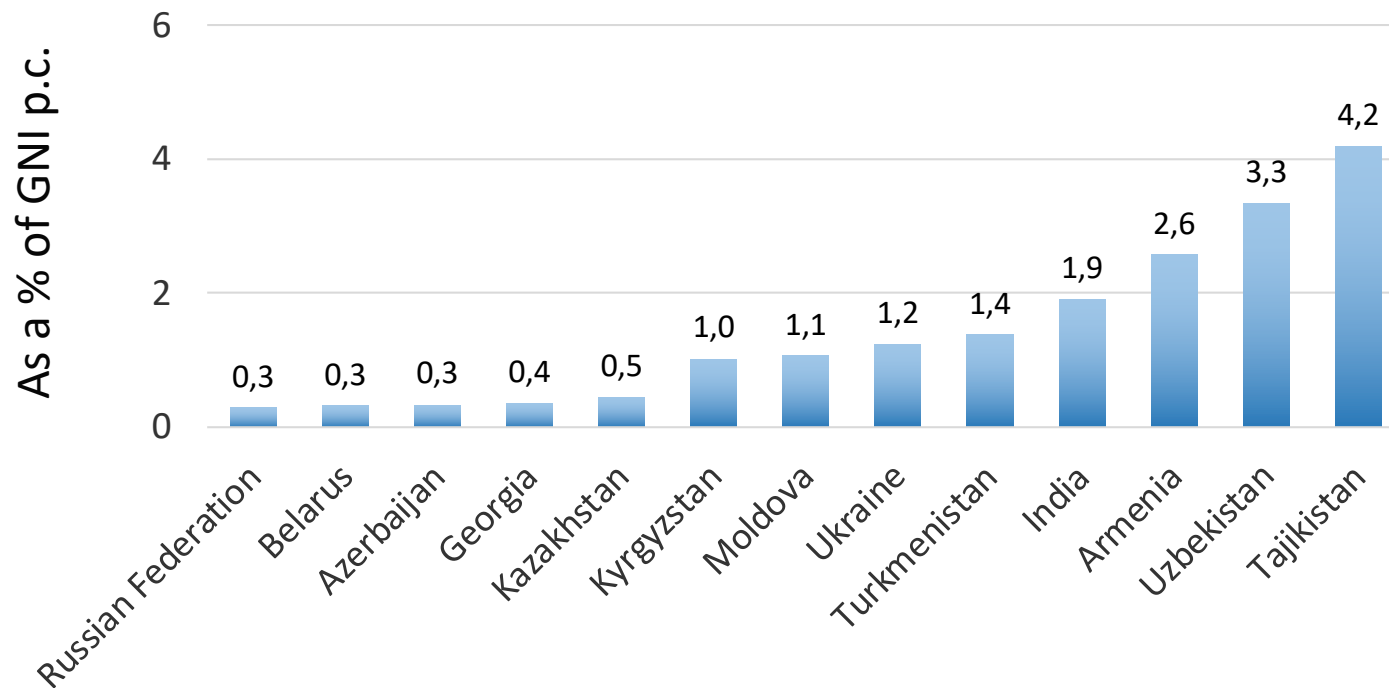
# Mobile-broadband prices

Mobile-broadband prices, handset-based,  
500 MB, prepaid, end 2016



# Mobile-broadband prices

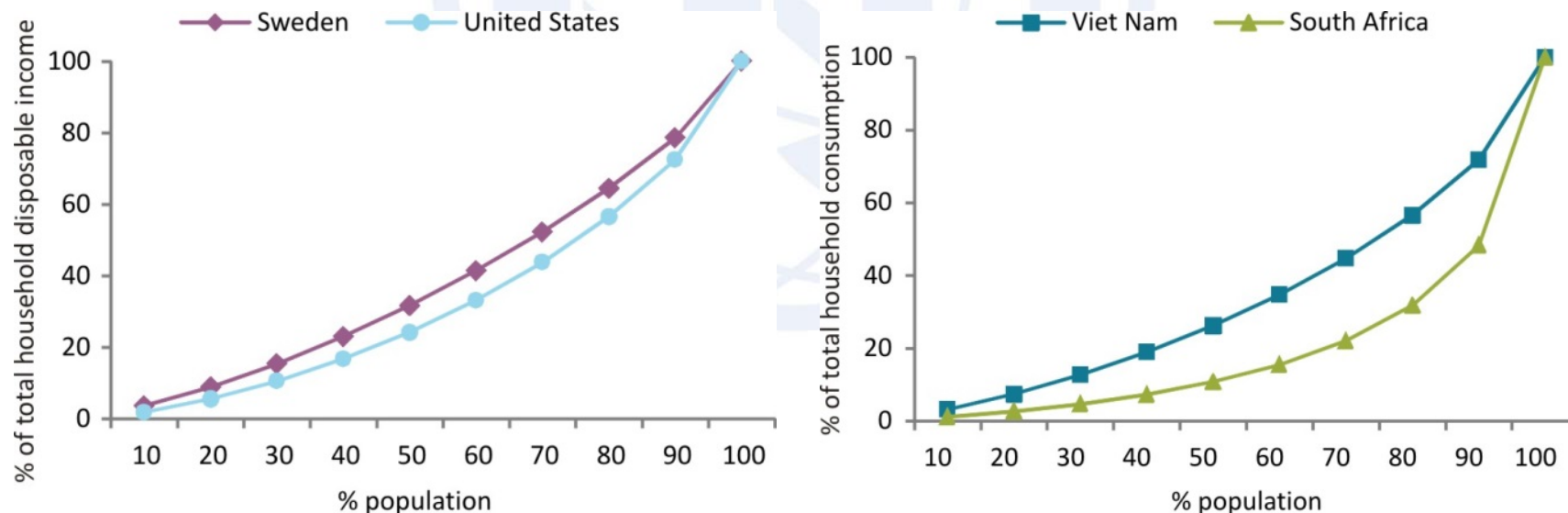
Mobile-broadband prices, handset-based,  
500 MB, prepaid, end 2016



# Affordability of broadband services in view of income inequalities

- Data on household disposable income and expenditure:
  - ▣ Reflect people's economic welfare
  - ▣ Provide insights into differences in affordability within countries

Distribution of household disposable income (left) and household consumption (right)

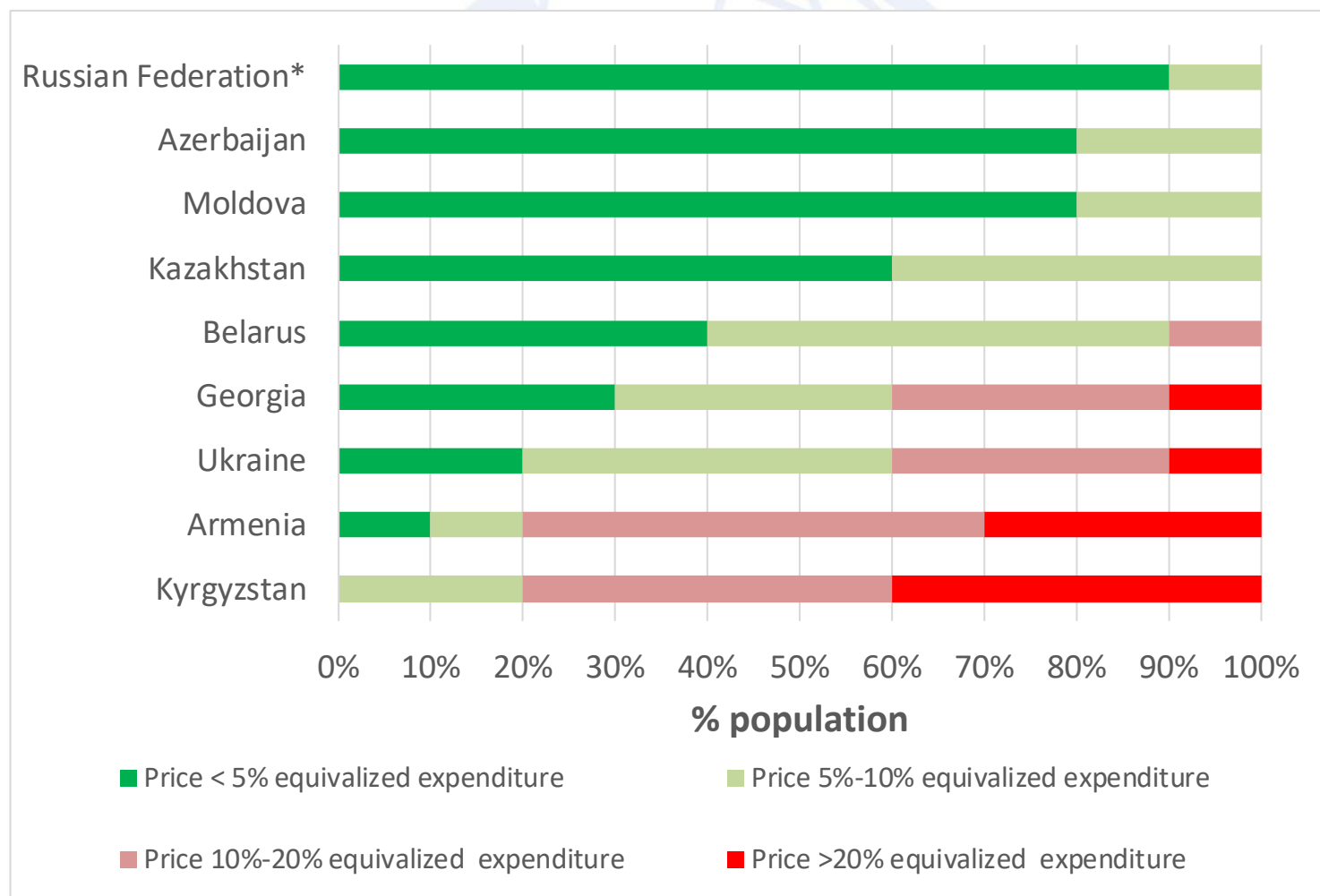


Source: Data for the United States and Sweden are sourced from the OECD Database on Income Distribution and refer to 2011. Data for South Africa and Viet Nam are sourced from the World Bank's PovcalNet and refer to 2008.



# Households income inequalities greatly influence the affordability of mobile broadband

Prepaid handset-based mobile-broadband prices, 500MB/month, as % of household expenditure (2013)



# ITU IPB questionnaire (online)

The screenshot shows a web browser window displaying the ITU IPB questionnaire for Jamaica. The browser address bar shows the URL: [http://dotnetweb/ITU-D/bdt\\_migration/bdt\\_admin/Survey/CompletedSurveyView.aspx?completedSurveyId=85625&countryId=122&pageId=378447#2056734](http://dotnetweb/ITU-D/bdt_migration/bdt_admin/Survey/CompletedSurveyView.aspx?completedSurveyId=85625&countryId=122&pageId=378447#2056734). The page title is "International Telecommunication Union BDT Administration Site - ITU\_USERS\magpanta". The page content includes the following sections:

- Page 2** (dropdown menu)
- ITU ICT Price Basket Questionnaire 2013**
- Jamaica**  
Fiscal Year: Beginning 01.04  
National Currency: JMD Dollar
- Fixed postpaid local telephone service**
- Please provide the postpaid tariffs in national currency of the operator with the largest market share (as measured by the total number of subscriptions). If prices vary between regions of the country, provide the tariffs that apply to the largest city. Taxes should be included. Special offers and plans with limited availability cannot be used.*
- i151\_OPf Fixed-telephone operator**  
What is the name of the fixed local telephone operator providing these tariffs?  
2011: LIME 2012: LIME 2013:
- i151Plan Fixed-telephone tariff plan**  
What is the name of the fixed local telephone  
2011:  2012: Standard postpaid plan 2013:

The Windows taskbar at the bottom shows the system tray with the date 26/02/2014 and time 14:54. The taskbar includes icons for Internet Explorer, File Explorer, Windows Media Center, Microsoft Word, Microsoft PowerPoint, Microsoft Outlook, and Microsoft Excel.

## Information collected

- Name of the operator/ISP
- Name of price plan used
- Website/link of the plan
- Tax rate applied
- Price data

# Fixed-broadband prices

- Fixed-broadband connection charge
- Fixed-broadband monthly subscription charge
- Fixed-broadband speed, in Mbit/s
- Fixed-broadband cap, in GB
- Fixed-broadband - price of excess usage

# Rules applied in collecting fixed-broadband Internet prices (i)

1. Prices of the largest operator (in terms of fixed-broadband subscriptions).
2. Prices in advertised currency, including taxes.
3. Only residential, single user prices should be collected.
4. If prices vary in regions, prices of largest city (in population) should be provided.



# Rules applied in collecting fixed-broadband Internet prices (ii)

5. Cheapest plan based on a 5GB monthly usage and an advertised download speed of at least 256 kbit/s
6. 12-month plan (or the one closest to this commitment period)
7. Most subscriptions in the country (DSL, cable, fixed WiMAX, etc.).
8. Same price plan for monthly subscription, to the price of the excess charge, the volume of data that can be downloaded, etc.

# Rules applied in collecting fixed-broadband Internet prices (iii)

9. Prices should be collected for a regular (non-promotional) plan. If there is a discount for the first months of contract, the price after the discount period should be selected
10. Bundled services - preferable to use prices for a specific service; otherwise, note the additional services
11. Plans with limited hours of use will not be considered

# Example fixed-broadband prices



Tariff plan	Data transfer speed	Threshold of traffic to external resources	Monthly fee, in tenge
<input type="radio"/> Megaline Turbo Plus <small>Hit</small>	8 Mbps	unlimited	4600
<input type="radio"/> Megaline Hit	4Mbps	unlimited	3830
<input type="radio"/> Megaline Start	1Mbps	10 GB	1930



# Mobile-cellular indicators – rules

(i)

1. **Operator with the largest market share** [...] If prices vary between different regions of the country, **prices refer to those applied in the largest city** [...]
2. Collected in advertised currency, **including taxes**
3. Prices refer to **prepaid plans** [...] the one that comes closest to each usage (e.g. 70 min and 20 SMS) [...]
4. If per-minute prices are only advertised in internal units [...] the price of the [**cheapest & closest to 30 day validity**] top-up/refill charge is used

# Mobile-cellular indicators – rules

## (ii)

5. regular (**non-promotional**) plans and exclude special or promotional offers, limited discounts
6. “**favourite**” numbers (for family, friends, etc.) with a special price [...] will not be taken into consideration
7. Prices refer to **outgoing local calls**
8. If prices vary between minutes (1<sup>st</sup> minute = price A, 2<sup>nd</sup> minute = price B, 3<sup>rd</sup> minute = price C) [...] price per minute =  $(A+B+C)/3$

# Mobile-cellular indicators – rules

## (iii)

10. If there is a **connection cost per call**, then this is taken into consideration based on the total number of calls
11. [...] off-peak prices [...] cheapest before midnight is used
12. [...] peak prices, the most expensive one during the daytime is used
13. [...] weekend prices, the price that applies Sundays during the daytime is used

# Mobile-cellular indicators – rules

## (iv)

14. If [...] **no weekend price, the average peak and off-peak** price valid during the week is used
15. If peak and off-peak SMS prices exist, the average of both is used
16. If calls are charged by call or by hour (and not by the minute) [...] formula will be calculated on the basis of the total number of calls and minutes
17. Where monthly, recurring charges exist, they are added

# Example mobile-cellular prices



## "FRESH" tariff

All prices include VAT.

Tariffing

Terms of the tariff

<b>Daily subscriber fee</b>	<b>210.5 sum</b>
<b>Price per minute of airtime</b>	
All incoming calls	0 sum
Outgoing calls within network (Day-time 7:00-00:00a.m)	63.15 sum
*Outgoing calls within network (Night-time 00:00-7:00a.m.)	21.05 sum
Outgoing calls to Ucell "Favorite number"	21.05 sum
Outgoing calls to Russia "Favorite number"	926.2 sum
Outgoing calls within Uzbekistan	126.3 sum
<b>Price per SMS</b>	
Outgoing SMS within network and Uzbekistan (Day-time 7:00-00:00a.m)	63.15 sum
Outgoing SMS within network and Uzbekistan (Night-time 00:00-7:00a.m.)	21.05 sum
Outgoing International SMS	505.2 sum





# Mobile-broadband indicators – rules (i)

1. technologies: **UMTS, HSPA family, LTE family, CDMA EV-DO family and mobile WiMAX**. Prices applying to WiFi or hotspots excluded
2. Collected in advertised currency, **including taxes**
3. residential, single-user prices [...] If prices vary between regions, prices applying to the largest city

# Mobile-broadband indicators – rules (ii)

5. from the operator with **the largest number of mobile-broadband subscriptions**. If not available, from the mobile-cellular operator with the largest market share
8. commitment period (postapid): the closest to 12 months

# Mobile-broadband indicators – rules (iii)

9. The selected plan should not be the one with the cap closest to 1.5 GB, but the cheapest for that monthly consumption  
E.g. if an operator offers a 1 GB and a 3 GB plan, the cheapest taken: 3 GB plan or twice the 1 GB plan
10. Price data should be collected for a **validity period of 30 days**
11. packages (including a certain data volume) or Pay-as-you-go offers should be used when they are the cheapest option for a given basket or the only option available

# Mobile-broadband indicators – rules (iv)

12. Careful read of the fine print: ‘unlimited’ seldom so
13. **non-recurrent fees**, such as installation/set-up fees, **not considered**
14. Preference given to **cheapest packages, even if bundled**. If bundled, indicate in a note

# Mobile-broadband indicators – rules (v)

15. **non-promotional plans** and exclude promotional offers and limited discounts or special user groups (e.g. existing clients)

excl. prices that apply to a certain type of device  
(iPhone/Blackberry, iPad)

excl. allowances during the night

# Example mobile-broadband prices



Usage period: 30 days

## PRICES

Pack/Volume	Keyword	Prepaid	Postpaid
50 MB	50	1 AZN	0.8 AZN
500 MB	500	3 AZN	2.4 AZN
1 GB	1000	5 AZN	4 AZN
5 GB	5	10 AZN	8 AZN
10 GB	10	15 AZN	12 AZN
Unlimited/50 GB	U	30 AZN	24 AZN

1. Renew the existing pack
2. Order a new pack
3. Continue to use the service without pack (1 MB – 0.05 AZN)

All prices VAT inclusive





More information:

<http://www.itu.int/ict>  
[indicators@itu.int](mailto:indicators@itu.int)