

# Telecommunications Retail Price Benchmarking for Arab Countries 2016



Report from the AREGNET Price Benchmarking Study

April 2017

**STRATEGYANALYTICS**  
TELIGEN TARIFF & BENCHMARKING



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## Teligen wishes to thank:

- The AREGNET members for feedback and support in the collection of tariff information and to TRA Bahrain for commissioning and coordinating the study on behalf of AREGNET
- The operators who have contributed with additional tariff information



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# BACKGROUND TO THE STUDY AND BASKET CONTEXT

- The benchmarking study was originally initiated by TRA Bahrain in 2008 and updated in 2009, 2010, 2011, 2012, 2013 and 2015. This update for 2016 was commissioned by TRA Bahrain.
- In increasingly competitive markets it is important for regulators to be able to track the evolution of prices and analyze the impact of price changes and competition on the effective prices paid by consumers.
- This study allows Arab countries to compare the price levels within and between countries, and also to compare with the OECD countries. To enable such comparisons, this study shows the cost of purchasing 'baskets' of telecommunications services. Additionally, time series data is presented, showing how the cost of such baskets has changed in each country over the period from 2011 to 2016.
- The benchmarking covers the following services:
  - Fixed voice (PSTN) (OECD basket equivalent)
  - Mobile telephony (OECD basket equivalent)
  - Leased Lines (OECD basket equivalent)
  - Broadband ADSL (OECD basket equivalent)
  - Mobile broadband (OECD basket equivalent)
  - Call cost for specific types of calls
- The basket methodologies used are identical to the OECD Price Benchmarking baskets from 2010, with minor changes. A separate document explaining the methodology used in this study is available.
  - The OECD adopted a new set of Mobile Broadband baskets in 2012, and a subset of these are used for the analysis of the mobile broadband services.
  - The mobile voice baskets were also extended to incorporate handset data, and results for these new baskets are covered in this report.
  - The OECD adopted a new set of Fixed Broadband baskets in 2014, and a subset of these are used for the analysis of the fixed broadband services.
- The data was collected in January 2016 by Teligen from public sources on the Internet, and was subsequently passed to national regulators for comments and checking.

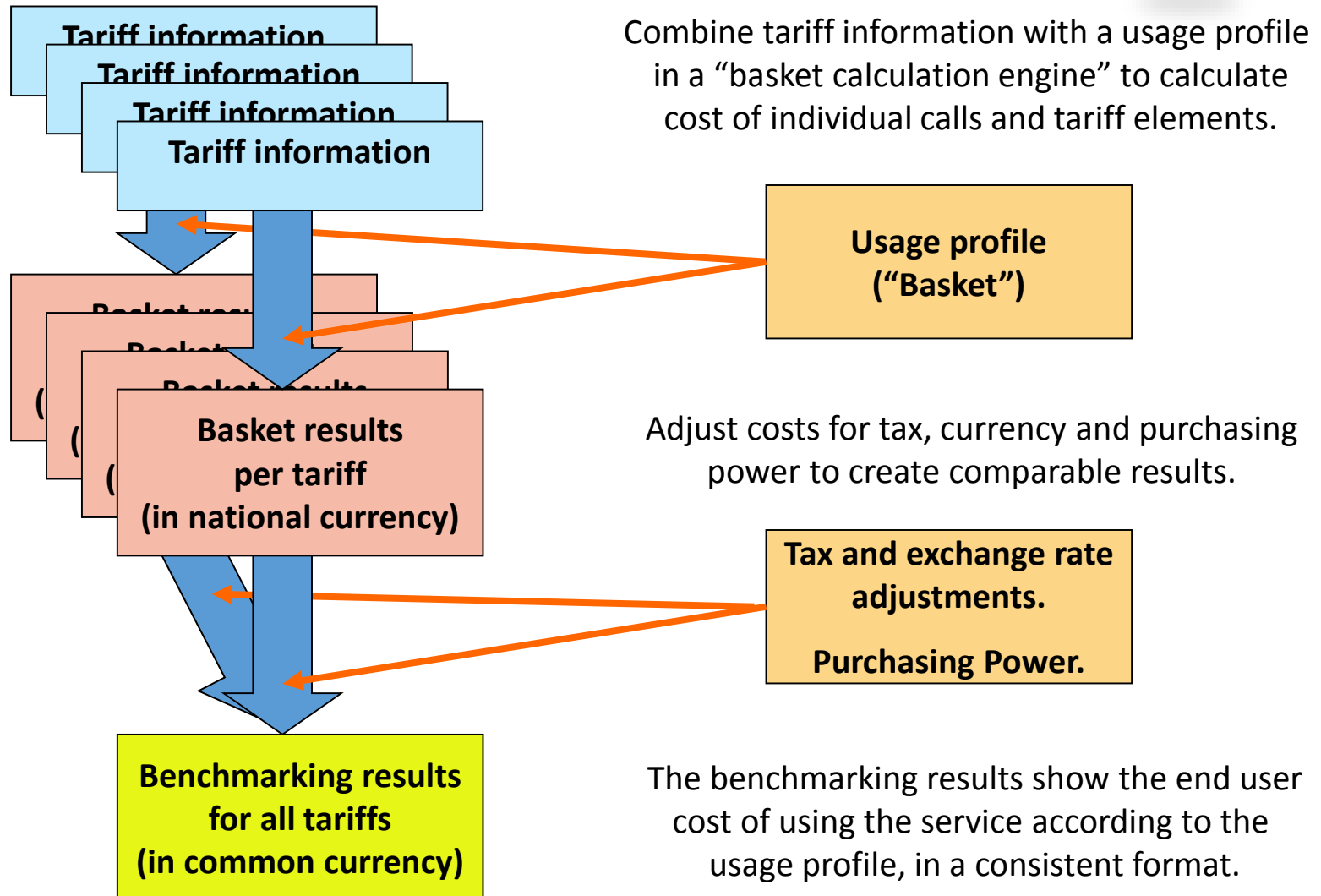
# COMPARATIVE PRICE LEVEL (CPL) AND PURCHASING POWER PARITY (PPP)



- The data presented in the report is presented using purchasing power parities (PPPs), which are used to incorporate both the financial differences between exchange rates, and the differences in the state of the economies as seen through the purchasing power of the citizens in each country.
- In order to create an up to date PPP conversion factor, published Comparative Price Level (CPL) data is used
  - This is described in more depth on pages 212 and 213, in the appendix of this report.
- The CPL data used for this study has been obtained from the World Bank, and is based on 2014 data. The 2013 and 2015 studies used data published in 2012. There have apparently been significant changes in CPL referred to the USA, and this is affecting the results. Please see the next couple of pages for a further explanation.
- The World Bank CPL data also contained some gaps i.e. data for some countries was not available, so assumptions were made as to the likely CPL values for these countries
- The PPP values have been applied retrospectively to any historic data presented in this report
  - This is to ensure that any changes observed in the time series are as a result of changes to tariffs and not to exchange rates and CPL values.
- The output from this report will not necessarily be comparable with previous reports due to the changes in CPL that have occurred.
- A separate Annex to this report shows the key results produced with the “old” CPL values, for easier comparison with the previous reports.  
Please note that although CPL values are kept the same in this appendix, the market exchange rates will have changed.



# PRICE BENCHMARKING WITH “BASKETS”





# PSTN BASKET RESULTS 2016



# FIXED VOICE (PSTN) DATA ISSUES

- Due to lack of published data, and lack of feedback, no data is available (and no results are included) for:
  - Comoros
  - Djibouti
  - Iraq
  - Libya
  - Kuwait
  - Somalia
  - Yemen
- Part of data is missing for:
  - Yemen (no prices for national calls and fixed line)
  - No business tariffs are available for PSTN in Qatar, Saudi Arabia and Sudan
- The Arab average does not include Mauritania as the costs here are significantly higher than the other countries.
- The analysis covers up to 95 tariffs from the incumbent operators in 15 countries





# FIXED VOICE (PSTN) BASKETS, OECD 2010 DEFINITIONS

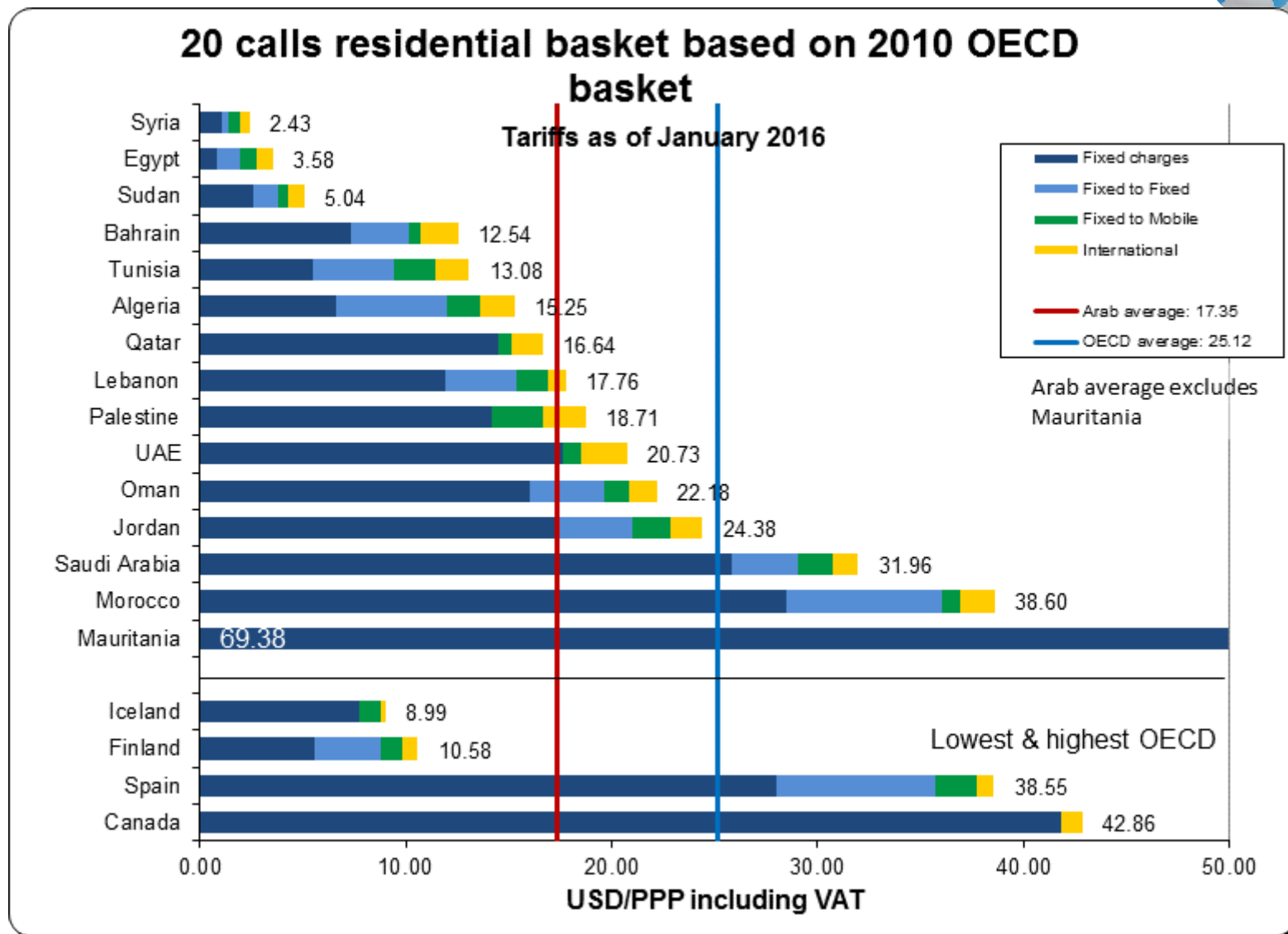
- Six different basket definitions:
  - Defined by number of calls per month
  - Residential: 20, 60, 140 and 420 calls per month
  - Business: 100 and 260 calls per month

		Call distribution			
Calls per month	Total calls	Fixed to fixed Local	Fixed to fixed National	Fixed to mobile	International
20 calls residential basket	20	61%	20%	17%	2%
60 calls residential basket	60	60%	15%	21%	4%
140 calls residential basket	140	58%	15%	23%	4%
420 calls residential basket	420	73%	17%	8%	2%
100 calls business basket	100	48%	19%	30%	3%
260 calls business basket	260	43%	23%	25%	9%

- Tariffs from the incumbent operator in each country
  - Several tariff packages can be covered for each operator
  - The results show the lowest cost option for each operator
- Tariff information included in basket calculation:
  - Fixed charges for installation and rental
  - Usage charges covering local through to national calls, calls to mobiles, and international calls to other AREGNET countries plus a few other destinations



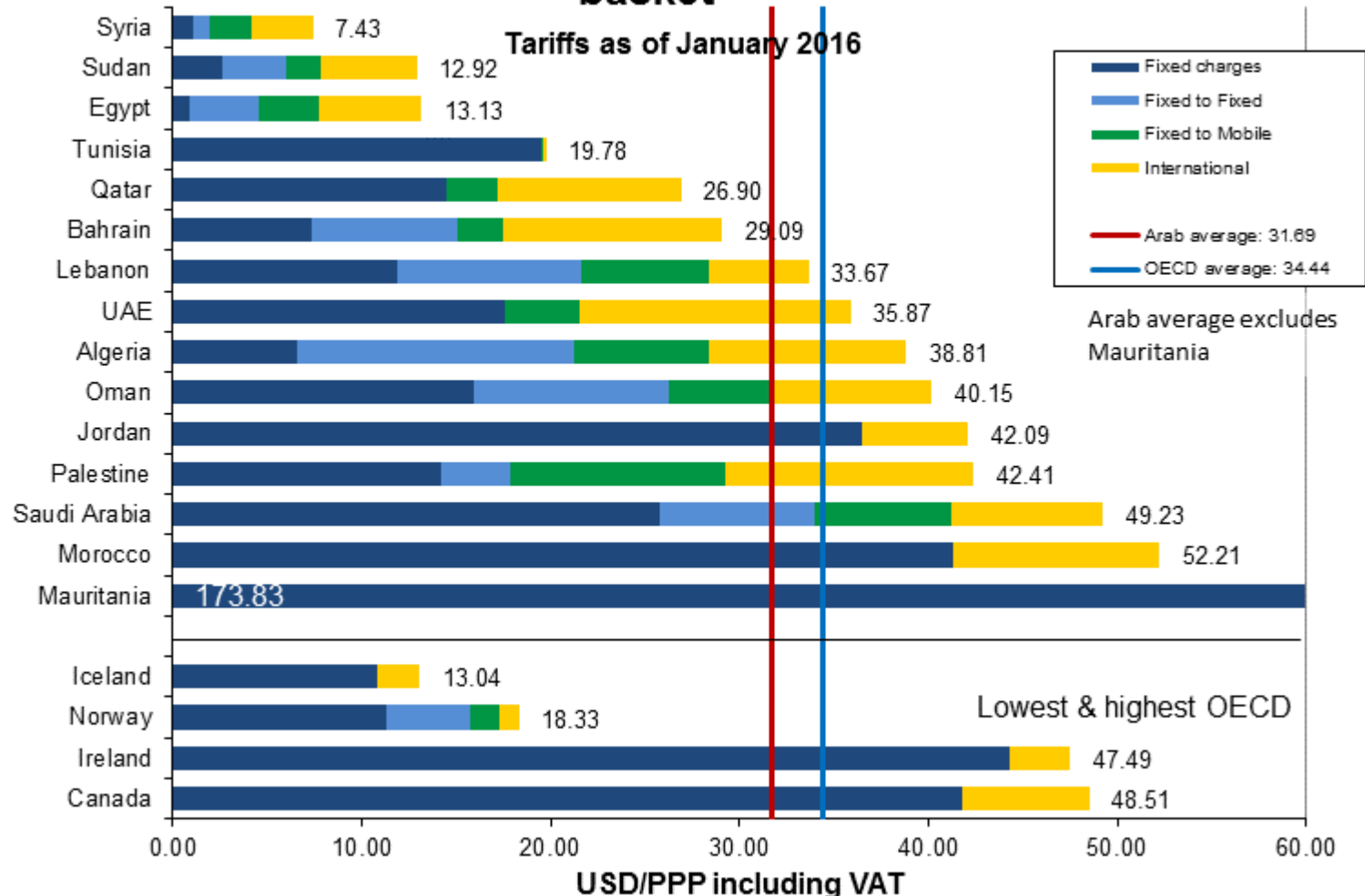
# 20 CALLS/MONTH, RESIDENTIAL BASED ON 2010 OECD PSTN BASKET



# 60 CALLS/MONTH, RESIDENTIAL BASED ON 2010 OECD PSTN BASKET



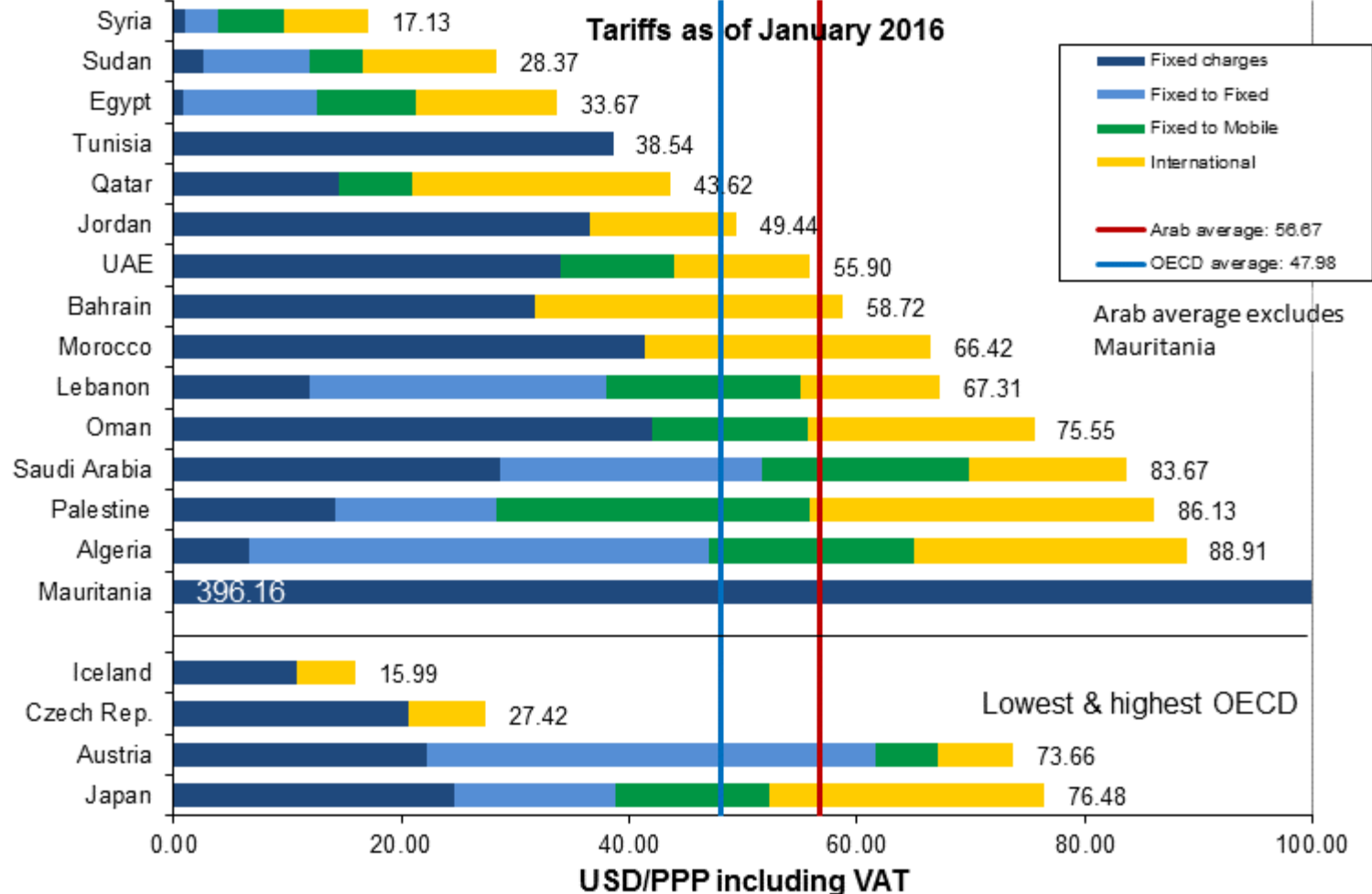
## 60 calls residential basket based on 2010 OECD basket



# 140 CALLS/MONTH, RESIDENTIAL BASED ON 2010 OECD PSTN BASKET



## 140 calls residential basket based on 2010 OECD basket

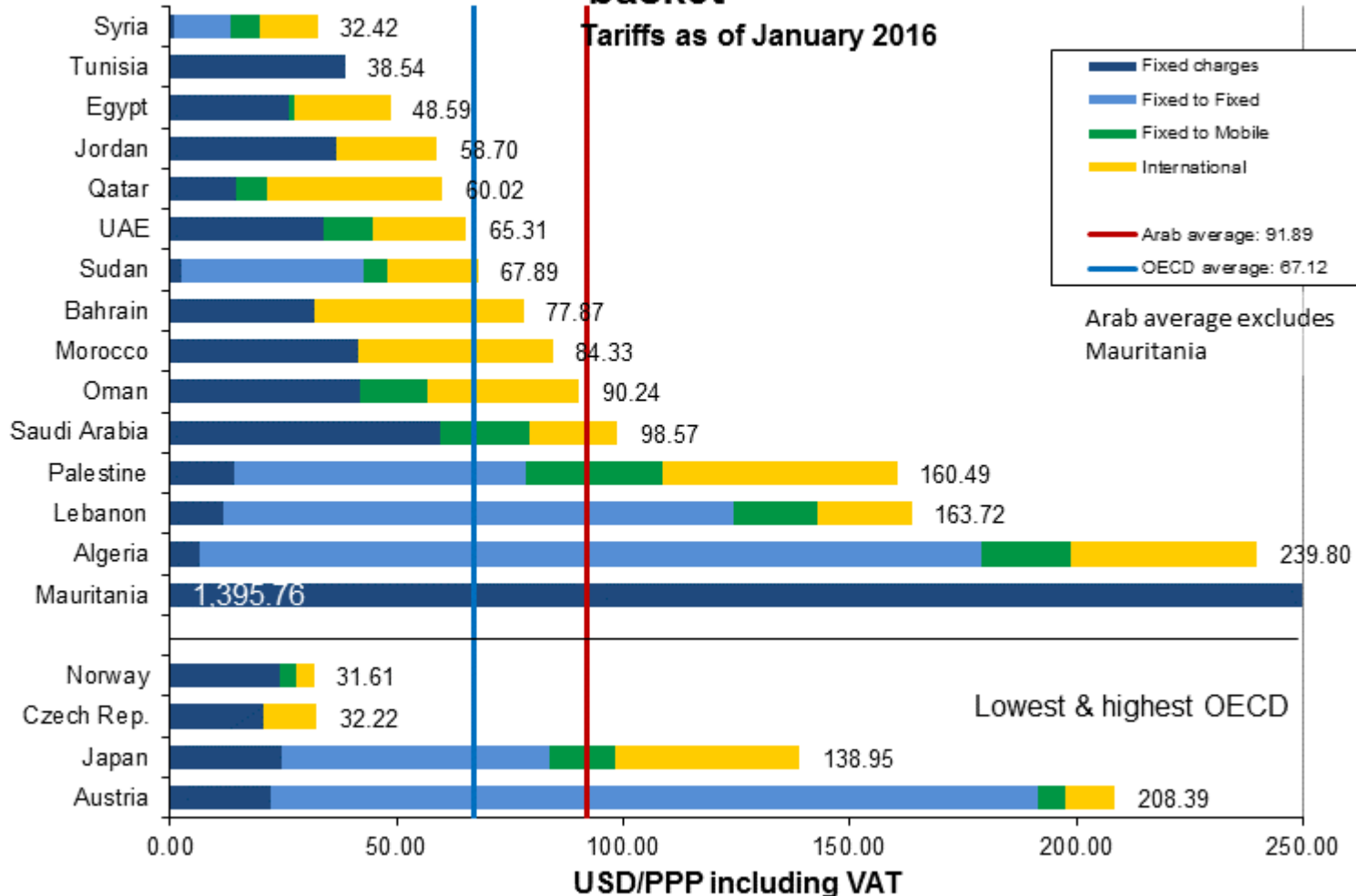


# 420 CALLS/MONTH, RESIDENTIAL BASED ON 2010 OECD PSTN BASKET



## 420 calls residential basket based on 2010 OECD basket

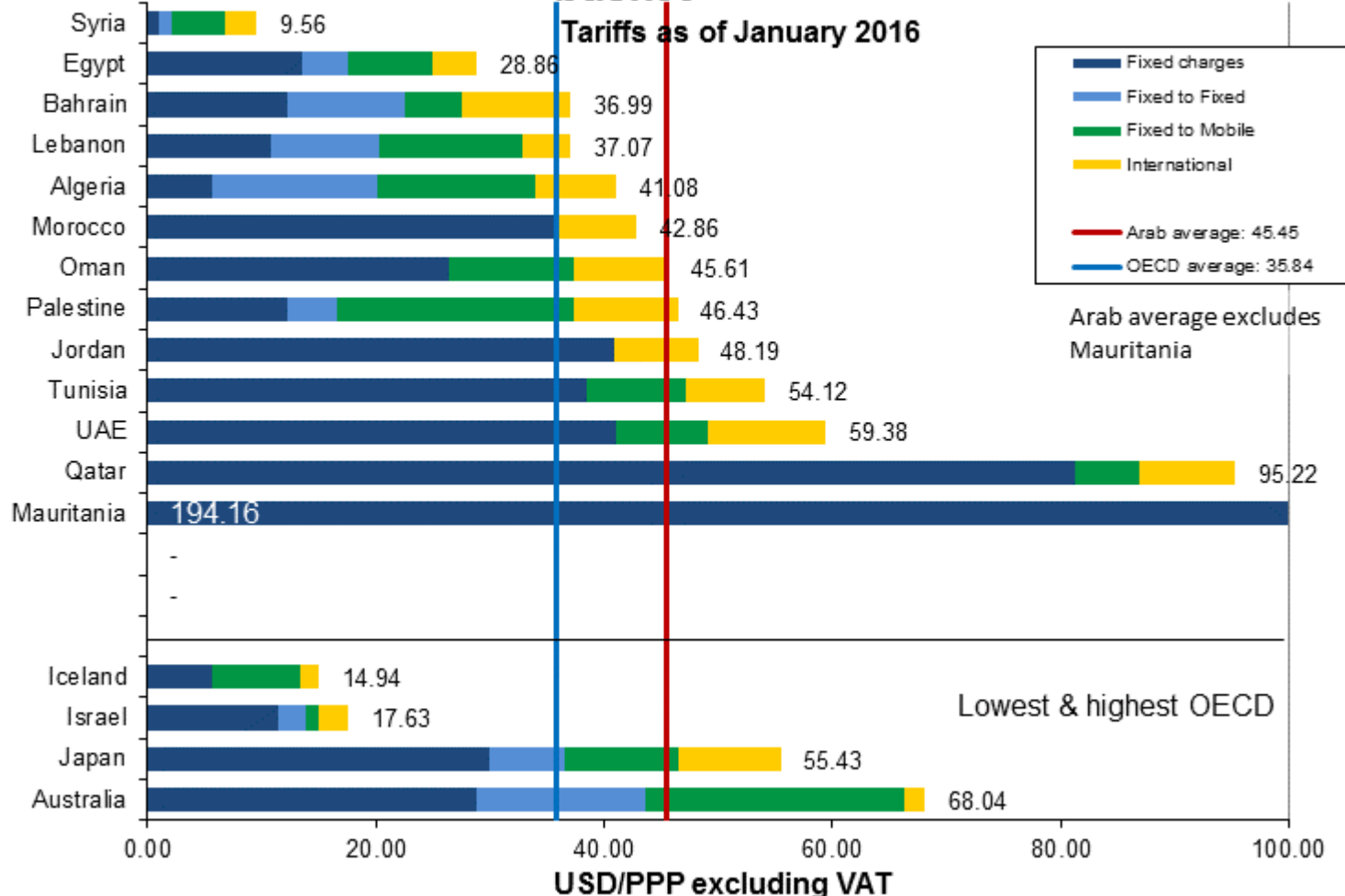
Tariffs as of January 2016



# 100 CALLS/MONTH, BUSINESS BASED ON 2010 OECD PSTN BASKET



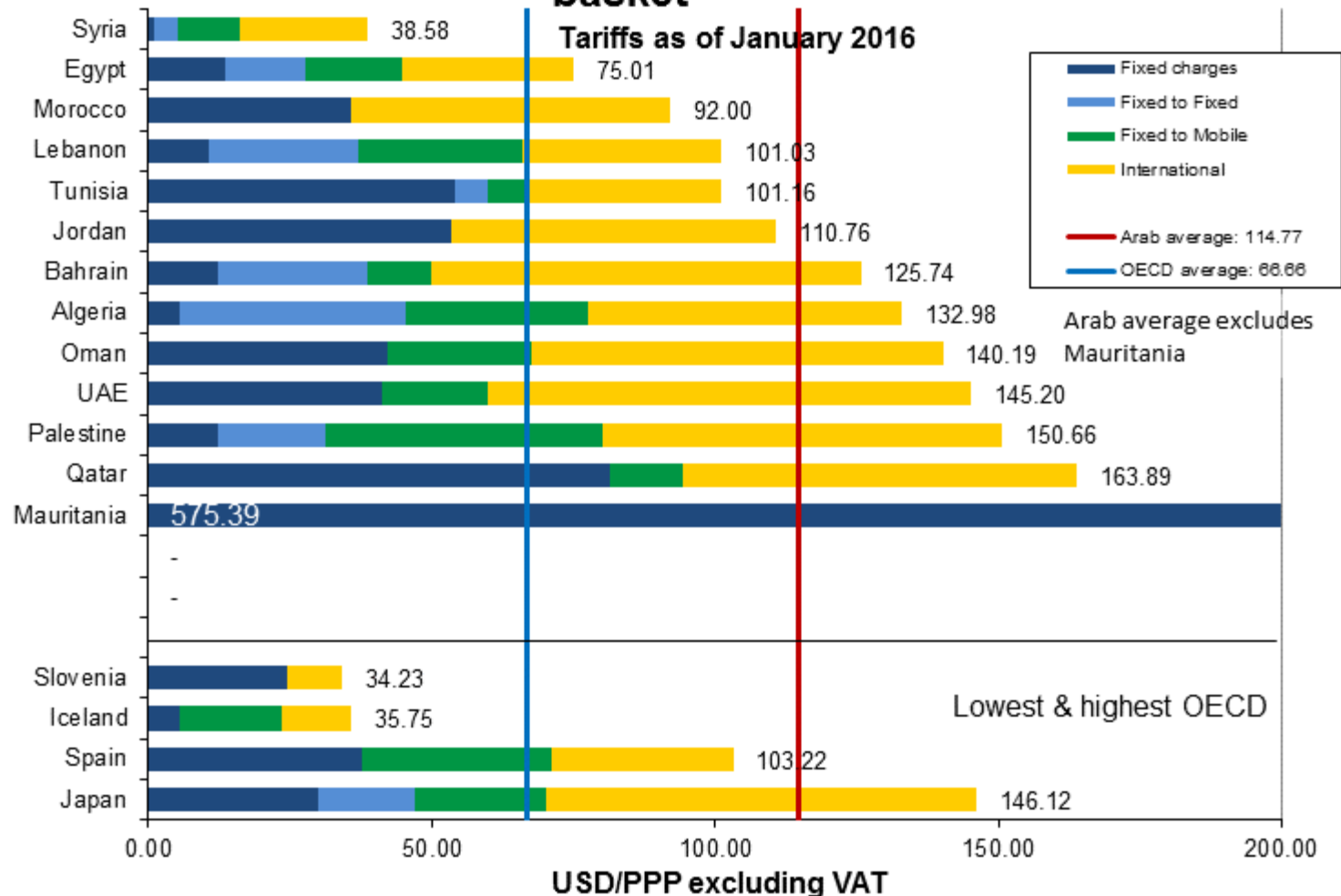
## 100 calls business basket based on 2010 OECD basket



# 260 CALLS/MONTH, BUSINESS BASED ON 2010 OECD PSTN BASKET



## 260 calls business basket based on 2010 OECD basket





# OBSERVATIONS FROM PSTN BASKET RESULTS

- The cheapest countries throughout are : (\*)
  - Syria, Egypt, Sudan, Tunisia and Bahrain
    - The exact order of these may vary with usage level,
    - Syria is consistently the cheapest across all baskets . Egypt also ranks as one of the cheapest countries, and is second to third cheapest across all the baskets, both residential and business. Sudan ranks second for both 60 and 140 residential calls baskets. Mauritania is consistently the most expensive, across all baskets. Saudi Arabia, Palestine, Oman and Algeria are also generally among the more expensive countries.
- Of these cheapest countries, most fall below the OECD average across all the residential baskets, often significantly, particularly for the smaller baskets. (20 and 60 calls)
- Costs for the business baskets in the Arab countries tend to be significantly above the OECD average, with the exception of Syria which is considerably cheaper. For the lower usage residential baskets, the Arab average is up to 31% below the OECD average while the Arab average is up to 72% above the OECD average for the higher usage business basket.
- Generally the Arab countries in North Africa are more expensive than the Arab countries in the Middle East with the exception of Egypt and to a lesser extent, Tunisia.
- As in previous years, the price range for the Arab countries (cheapest to most expensive) is wider than for the OECD countries
  - A vast majority ( 80%) of Arab countries are cheaper than the OECD average for the 20 calls basket where the Arab countries average is 18% lower than the OECD average. However the proportion drops significantly as usage increases as less than half of the Arab countries in the scope are cheaper than OECD average for baskets of 60 calls and above.
  - The most expensive Arab country is more expensive than the most expensive OECD country, and significantly so for higher usage baskets
- A number of Arab countries continue to have fixed costs well below the OECD countries, causing the usage element to dominate. This makes the overall cost grow quicker with increasing usage, something that will discourage growth in usage. In some Arab countries, however, both fixed and usage costs are much higher than OECD countries.
- Even where fixed costs are significantly lower, the overall cost of using the service is higher in the Arab countries than in the OECD countries except for the lowest 20 call basket.
- There remains a clear lack of rebalancing in several Arab countries, where the usage revenue covers a significant portion of the fixed line cost for the operators. Notably, some countries appear to have restructured their fixed line plans, with more focus on upfront charges with increased allowances or reduced/free local and national calls. Egypt, Bahrain, Qatar, and UAE are examples where this has happened, and as a result are much more in line, and at times cheaper than many OECD countries.
- International calls remain significantly more expensive than in OECD countries

**\* Countries with gaps in the tariff information are not considered.**



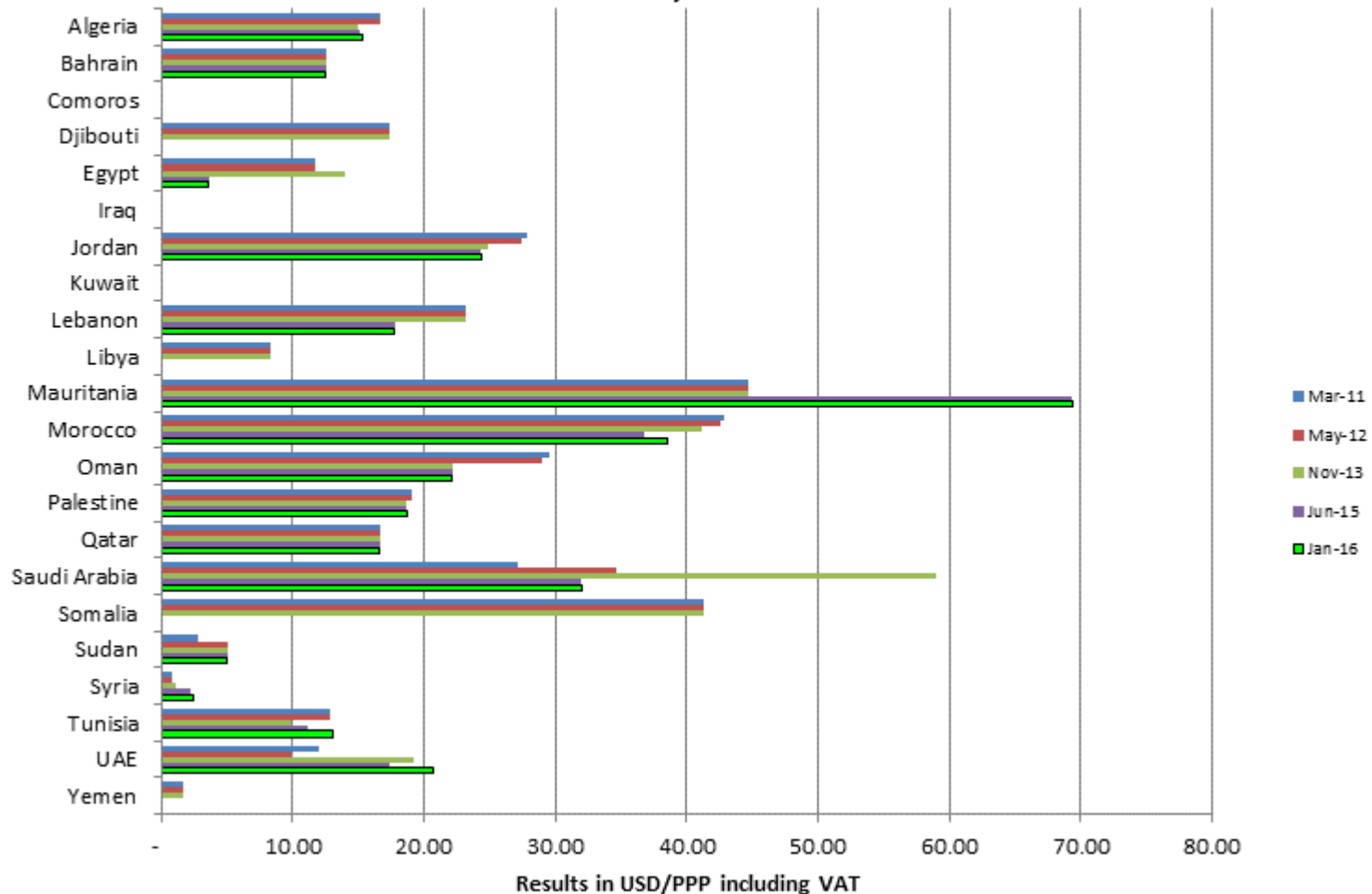


# PSTN TIME SERIES ANALYSIS 2011–2016

# 2010 OECD PSTN BASKETS TIME SERIES, 20 CALLS/MONTH, RESIDENTIAL



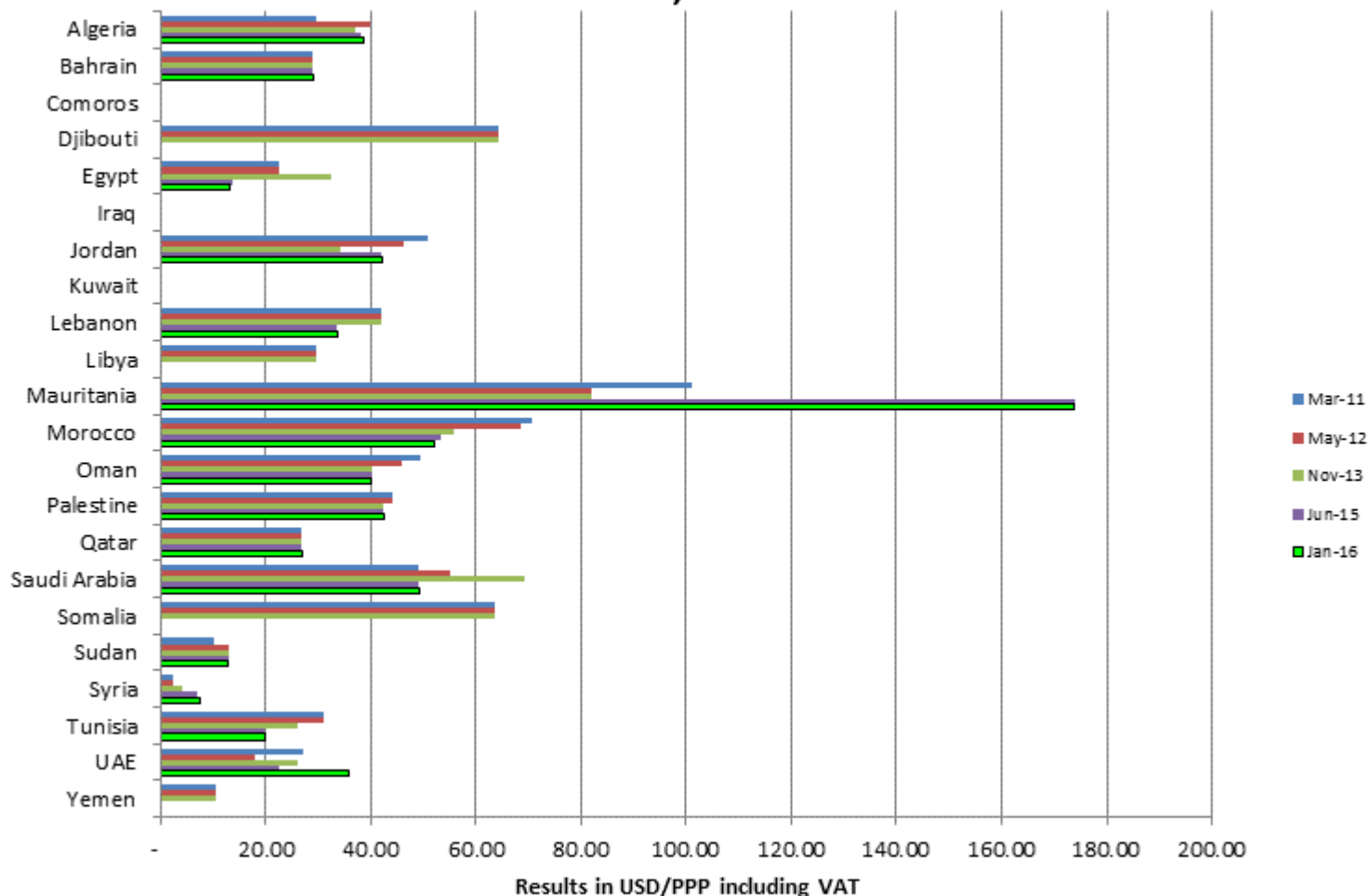
**Total results for PSTN - 20 calls residential basket based on  
2010 OECD basket, tariffs 2011-2016**



# 2010 OECD PSTN BASKETS TIME SERIES, 60 CALLS/MONTH, RESIDENTIAL



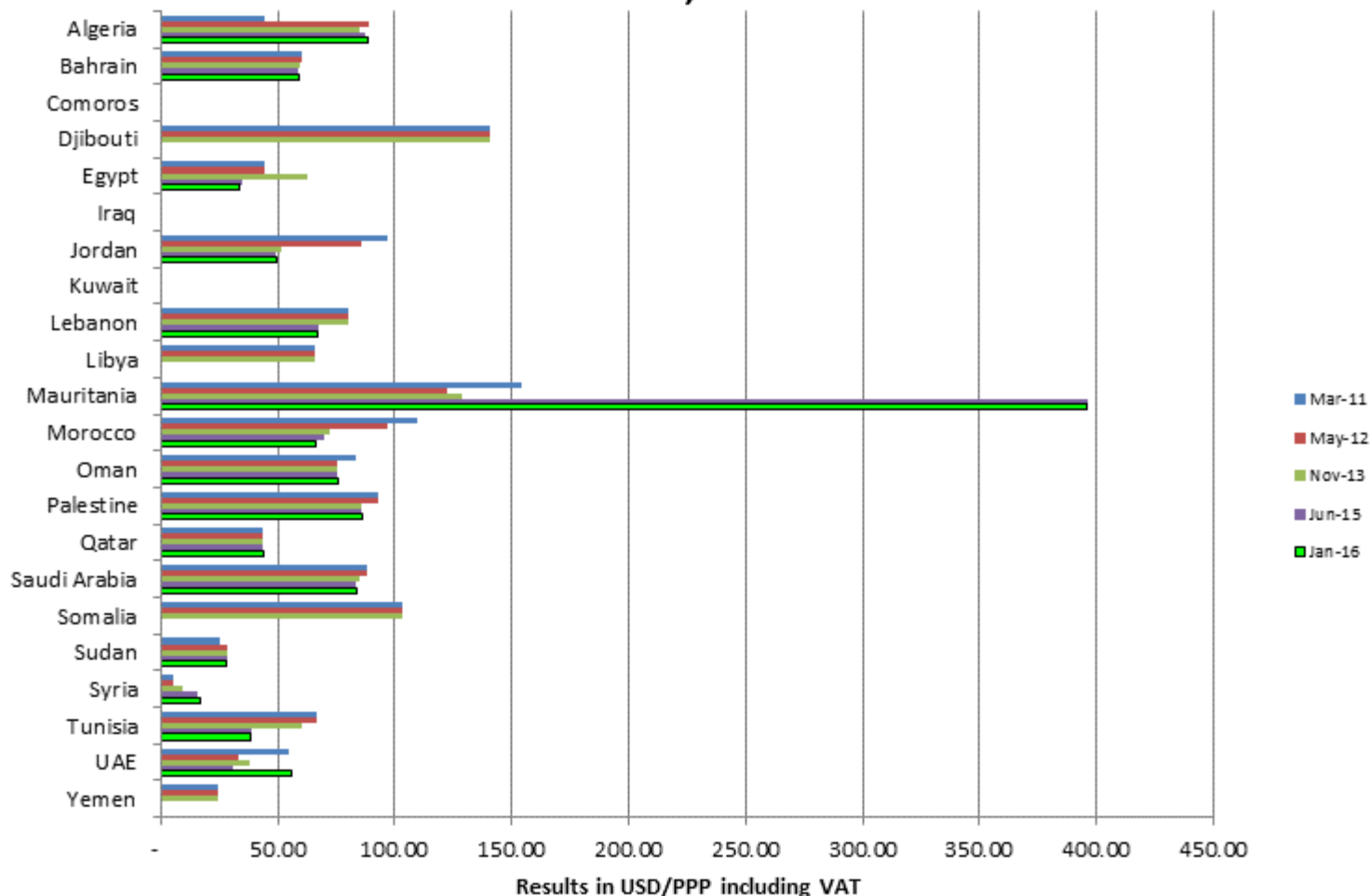
**Total results for PSTN - 60 calls residential basket based on  
2010 OECD basket, tariffs 2011-2016**



# 2010 OECD PSTN BASKETS TIME SERIES, 140 CALLS/MONTH, RESIDENTIAL



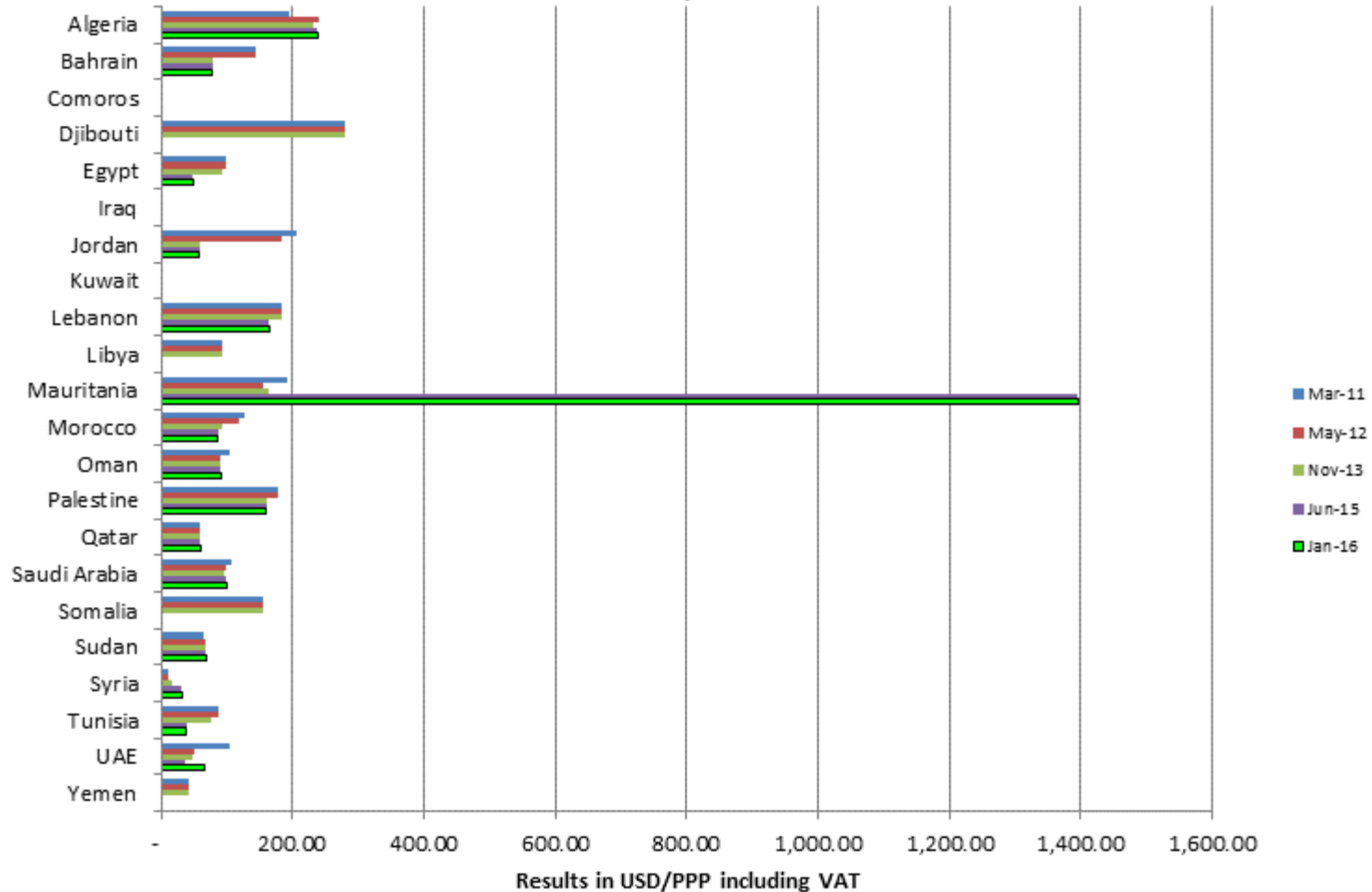
**Total results for PSTN - 140 calls residential basket based on  
2010 OECD basket, tariffs 2011-2016**



# 2010 OECD PSTN BASKETS TIME SERIES, 420 CALLS/MONTH, RESIDENTIAL



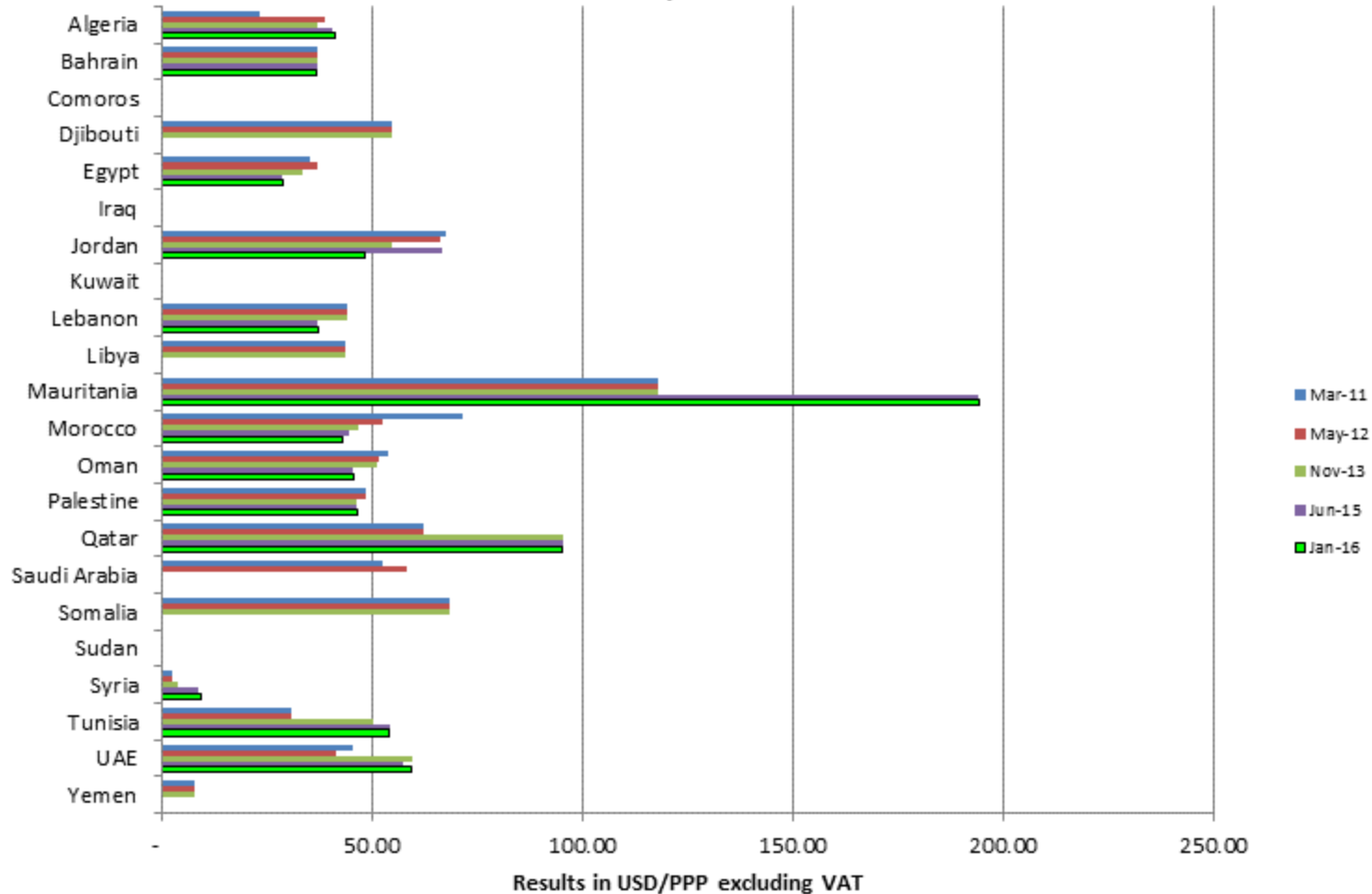
**Total results for PSTN - 420 calls residential basket based on  
2010 OECD basket, tariffs 2011-2016**



# 2010 OECD PSTN BASKETS TIME SERIES, 100 CALLS/MONTH, BUSINESS



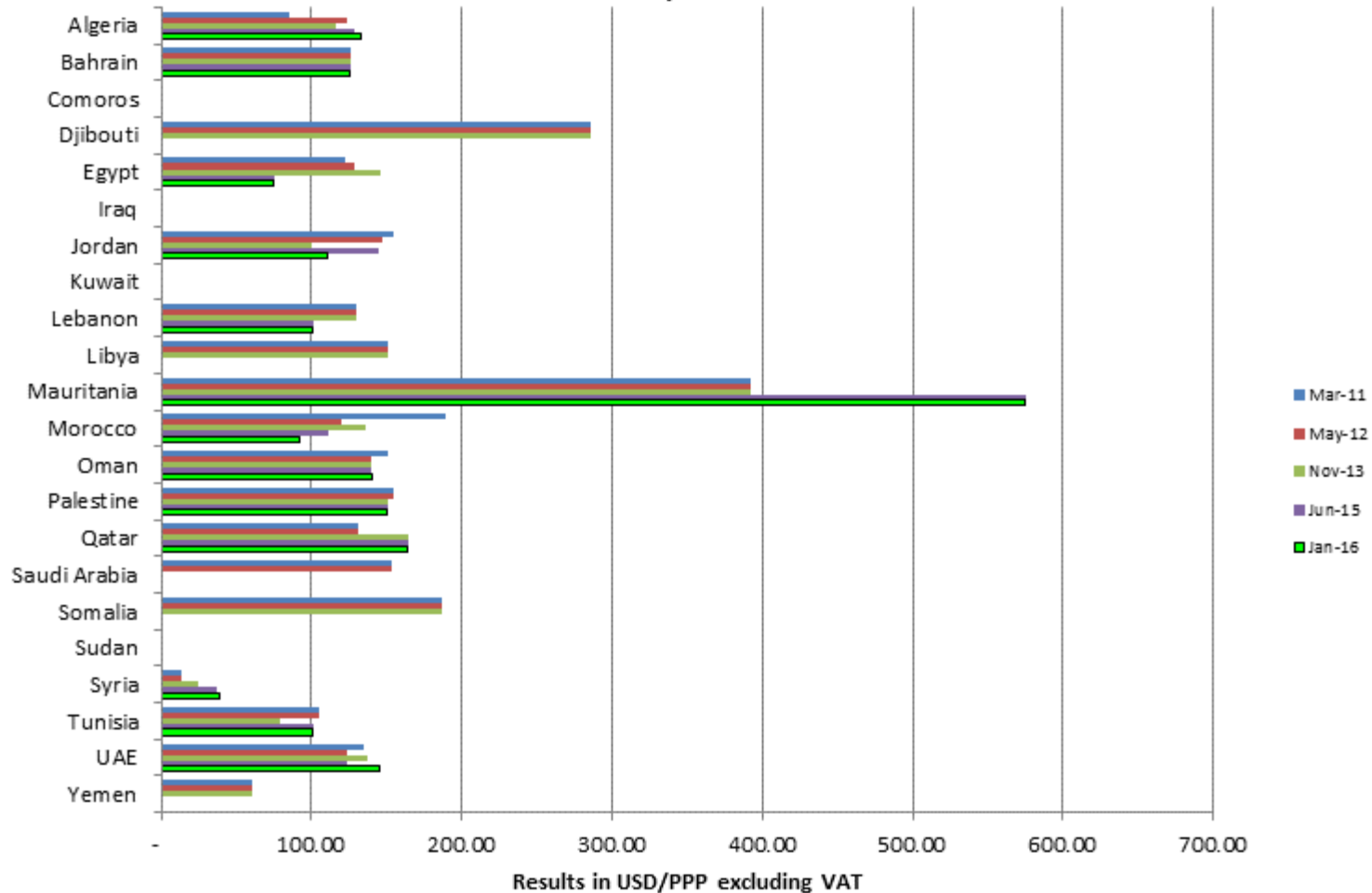
**Total results for PSTN - 100 calls business basket based on  
2010 OECD basket, tariffs 2011-2016**



# 2010 OECD PSTN BASKETS TIME SERIES, 260 CALLS/MONTH, BUSINESS



**Total results for PSTN - 260 calls business basket based on  
2010 OECD basket, tariffs 2011-2016**





# OBSERVATIONS FROM PSTN TIME SERIES RESULTS

- There were price changes in just over a half of the Arab countries since 2013, and while many were fairly modest, some had a substantial impact on some baskets.
  - Most notable changes were seen in UAE, Tunisia, Syria and Jordan (Business)
- Notable price changes 2015 - 2016:
  - Algeria: change in international call charges for a few select countries, resulting in a modest increase in costs across all baskets.
  - Egypt: New selective discount for 2 fixed line numbers is driving a small decrease across all residential baskets.
  - Morocco: international call charges for most Arab countries have reduced by 25% which has an impact on most baskets particularly higher ones.
  - Syria: An increase in connection fees as well as mobile call charges is driving a price increase across all baskets.
  - Tunisia: Call charges are aligned for local and national fixed lines in 2016 through an increase of local call charges and a small decrease in national call charges for the Basic plan of Tunisie Telecom. This leads to a small increase on the 20 calls basket.
  - Jordan: introduction of new business tariffs is driving substantial price decrease ( over -20%) for both business baskets , improving the country's ranking amongst Arab countries.
  - UAE: New PSTN offers have replaced 2015 plans. Price has increased significantly compared to the previous year mostly due to a substantial increase in international call charges but also to a lesser extent, the introduction of connection charges for the residential standard line plan as well as slight rental increase with introduction of new mid-range plan.
- Average costs across the baskets have increased slightly for residential baskets in the Arab countries, and fallen in the business baskets. By contrast, OECD averages have remained broadly static across all usage levels.

**\* Countries with gaps in the tariff information are not considered.**





# PSTN RANKING TABLES 2011–2016

# 2010 OECD PSTN BASKETS RANKING, 20 CALLS/MONTH, RESIDENTIAL



Total results for PSTN OECD 20 calls 2010 basket, tariffs 2011-2016  
Results in USD/PPP including VAT, residential results

	2011	2012	2013	2015	2016
Algeria	16.60	16.60	14.98	15.13	15.25
Bahrain	12.54	12.54	12.54	12.54	12.54
Comoros					
Djibouti	17.38	17.38	17.38		
Egypt	11.76	11.76	13.95	3.65	3.58
Iraq					
Jordan	27.84	27.40	24.83	24.38	24.38
Kuwait					
Lebanon	23.19	23.19	23.19	17.76	17.76
Libya	8.30	8.30	8.30		
Mauritania	44.68	44.68	44.68	69.38	69.38
Morocco	42.84	42.51	41.18	36.70	38.60
Oman	29.50	28.97	22.18	22.18	22.18
Palestine	19.09	19.09	18.71	18.71	18.71
Qatar	16.64	16.64	16.64	16.64	16.64
Saudi Arabia	27.12	34.60	58.95	31.96	31.96
Somalia	41.24	41.24	41.24		
Sudan	2.87	5.04	5.04	5.04	5.04
Syria	0.84	0.84	1.14	2.21	2.43
Tunisia	12.81	12.81	9.86	11.17	13.08
UAE	11.93	9.84	19.22	17.34	20.73
Yemen	1.66	1.66	1.66		

Arab average	19.41	19.74	20.82	20.32	20.82
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Below Arab average  
Above Arab average

Ranking for PSTN OECD 20 calls 2010 basket  
Residential results

	2011	2012	2013	2015	2016
Algeria	9	9	8	6	6
Bahrain	7	7	6	5	4
Comoros	-	-	-	-	-
Djibouti	11	11	10	-	-
Egypt	5	6	7	2	2
Iraq	-	-	-	-	-
Jordan	15	14	15	12	12
Kuwait	-	-	-	-	-
Lebanon	13	13	14	9	8
Libya	4	4	4	-	-
Mauritania	19	19	18	15	15
Morocco	18	18	16	14	14
Oman	16	15	13	11	11
Palestine	12	12	11	10	9
Qatar	10	10	9	7	7
Saudi Arabia	14	16	19	13	13
Somalia	17	17	17	-	-
Sudan	3	3	3	3	3
Syria	1	1	1	1	1
Tunisia	8	8	5	4	5
UAE	6	5	12	8	10
Yemen	2	2	2	-	-

Least expensive  
Most expensive



# 2010 OECD PSTN BASKETS RANKING, 60 CALLS/MONTH, RESIDENTIAL



Total results for PSTN OECD 60 calls 2010 basket, tariffs 2011-2016  
Results in USD/PPP including VAT, residential results

	2011	2012	2013	2015	2016
Algeria	29.49	39.79	37.04	38.00	38.81
Bahrain	29.09	29.09	29.09	29.09	29.09
Comoros					
Djibouti	64.30	64.30	64.30		
Egypt	22.48	22.48	32.54	13.85	13.13
Iraq					
Jordan	50.85	46.11	34.38	42.09	42.09
Kuwait					
Lebanon	42.02	42.02	42.02	33.67	33.67
Libya	29.59	29.59	29.59		
Mauritania	101.09	81.95	81.95	173.83	173.83
Morocco	70.64	68.60	55.79	53.41	52.21
Oman	49.57	46.07	40.15	40.15	40.15
Palestine	44.10	44.10	42.41	42.41	42.41
Qatar	26.90	26.90	26.90	26.90	26.90
Saudi Arabia	49.09	55.10	69.13	49.23	49.23
Somalia	63.46	63.46	63.46		
Sudan	10.32	12.92	12.92	12.92	12.92
Syria	2.51	2.51	4.18	6.89	7.43
Tunisia	31.15	31.15	25.97	19.80	19.78
UAE	27.08	18.10	26.25	22.47	34.84
Yemen	10.65	10.65	10.65		

Arab average	39.70	38.68	38.35	40.31	41.10
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Below Arab average  
Above Arab average

Ranking for PSTN OECD 60 calls 2010 basket  
Residential results

	2011	2012	2013	2015	2016
Algeria	8	10	11	9	9
Bahrain	7	7	7	7	6
Comoros	-	-	-	-	-
Djibouti	17	17	17	-	-
Egypt	4	5	9	3	3
Iraq	-	-	-	-	-
Jordan	15	14	10	11	11
Kuwait	-	-	-	-	-
Lebanon	11	11	13	8	7
Libya	9	8	8	-	-
Mauritania	19	19	19	15	15
Morocco	18	18	15	14	14
Oman	14	13	12	10	10
Palestine	12	12	14	12	12
Qatar	5	6	6	6	5
Saudi Arabia	13	15	18	13	13
Somalia	16	16	16	-	-
Sudan	2	3	3	2	2
Syria	1	1	1	1	1
Tunisia	10	9	4	4	4
UAE	6	4	5	5	8
Yemen	3	2	2	-	-

Least expensive  
Most expensive



# 2010 OECD PSTN BASKETS RANKING, 140 CALLS/MONTH, RESIDENTIAL



Total results for PSTN OECD 140 calls 2010 basket, tariffs 2011-2016  
Results in USD/PPP including VAT, residential results

	2011	2012	2013	2015	2016
Algeria	44.12	89.32	84.82	87.02	88.91
Bahrain	59.98	59.98	59.81	58.72	58.72
Comoros					
Djibouti	140.64	140.64	140.64		
Egypt	44.76	44.76	62.96	35.00	33.67
Iraq					
Jordan	97.16	85.76	51.68	49.44	49.44
Kuwait					
Lebanon	80.29	80.29	80.29	67.31	67.31
Libya	66.21	66.21	66.21		
Mauritania	154.35	122.50	128.66	396.16	396.16
Morocco	109.70	96.81	72.39	69.50	66.42
Oman	83.41	75.55	75.55	75.55	75.55
Palestine	92.66	92.66	86.13	86.13	86.13
Qatar	43.62	43.62	43.62	43.62	43.62
Saudi Arabia	88.57	88.04	85.38	83.67	83.67
Somalia	103.05	103.05	103.05		
Sudan	25.10	28.37	28.37	28.37	28.37
Syria	5.36	5.36	9.18	16.00	17.13
Tunisia	66.77	66.77	60.68	38.54	38.54
UAE	54.53	33.46	38.19	31.16	48.86
Yemen	24.59	24.59	24.59		

Arab average	72.89	70.93	68.54	77.75	78.83
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Below Arab average  
Above Arab average

Ranking for PSTN OECD 140 calls 2010 basket  
Residential results

	2011	2012	2013	2015	2016
Algeria	5	14	14	14	14
Bahrain	8	7	7	8	8
Comoros	-	-	-	-	-
Djibouti	18	19	19	-	-
Egypt	6	6	9	4	3
Iraq	-	-	-	-	-
Jordan	15	12	6	7	7
Kuwait	-	-	-	-	-
Lebanon	11	11	13	9	10
Libya	9	8	10	-	-
Mauritania	19	18	18	15	15
Morocco	17	16	11	10	9
Oman	12	10	12	11	11
Palestine	14	15	16	13	13
Qatar	4	5	5	6	5
Saudi Arabia	13	13	15	12	12
Somalia	16	17	17	-	-
Sudan	3	3	3	2	2
Syria	1	1	1	1	1
Tunisia	10	9	8	5	4
UAE	7	4	4	3	6
Yemen	2	2	2	-	-

Least expensive  
Most expensive



# 2010 OECD PSTN BASKETS RANKING, 420 CALLS/MONTH, RESIDENTIAL



Total results for PSTN OECD 420 calls 2010 basket, tariffs 2011-2016  
Results in USD/PPP including VAT, residential results

	2011	2012	2013	2015	2016
Algeria	194.30	239.49	232.80	236.58	239.80
Bahrain	142.31	142.31	79.44	77.87	77.87
Comoros					
Djibouti	278.74	278.74	278.74		
Egypt	97.67	97.67	93.43	48.81	48.59
Iraq					
Jordan	207.31	182.04	58.96	58.70	58.70
Kuwait					
Lebanon	182.32	182.32	182.32	163.72	163.72
Libya	91.62	91.62	91.62		
Mauritania	190.50	155.91	164.82	1395.76	1395.76
Morocco	127.39	116.95	92.90	86.81	84.33
Oman	104.08	90.24	90.24	90.24	90.24
Palestine	176.26	176.26	160.49	160.49	160.49
Qatar	60.02	60.02	60.02	60.02	60.02
Saudi Arabia	107.26	99.34	94.78	98.57	98.57
Somalia	155.47	155.47	155.47		
Sudan	63.78	67.89	67.89	67.89	67.89
Syria	10.73	10.73	17.20	31.21	32.42
Tunisia	87.32	87.32	76.88	38.54	38.54
UAE	103.60	50.55	46.65	35.70	57.42
Yemen	42.15	42.15	42.15		

Arab average	127.52	122.48	109.83	176.73	178.29
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Below Arab average  
Above Arab average

Ranking for PSTN OECD 420 calls 2010 basket  
Residential results

	2011	2012	2013	2015	2016
Algeria	17	18	18	14	14
Bahrain	12	12	8	8	8
Comoros	-	-	-	-	-
Djibouti	19	19	19	-	-
Egypt	7	9	12	4	3
Iraq	-	-	-	-	-
Jordan	18	16	4	5	5
Kuwait	-	-	-	-	-
Lebanon	15	17	17	13	13
Libya	6	8	10	-	-
Mauritania	16	14	16	15	15
Morocco	11	11	11	9	9
Oman	9	7	9	10	10
Palestine	14	15	15	12	12
Qatar	3	4	5	6	6
Saudi Arabia	10	10	13	11	11
Somalia	13	13	14	-	-
Sudan	4	5	6	7	7
Syria	1	1	1	1	1
Tunisia	5	6	7	3	2
UAE	8	3	3	2	4
Yemen	2	2	2	-	-

Least expensive  
Most expensive



# 2010 OECD PSTN BASKETS RANKING, 100 CALLS/MONTH, BUSINESS



Total results for PSTN OECD 100 calls business 2010 basket, tariffs 2011-2016  
Results in USD/PPP excluding VAT, residential results

	2011	2012	2013	2015	2016
Algeria	23.48	39.02	36.90	40.53	41.08
Bahrain	36.99	36.99	36.99	36.99	36.99
Comoros					
Djibouti	54.74	54.74	54.74		
Egypt	35.47	37.26	33.58	28.86	28.86
Iraq					
Jordan	67.55	66.15	54.85	66.62	48.19
Kuwait					
Lebanon	44.33	44.33	44.33	37.07	37.07
Libya	43.89	43.89	43.89		
Mauritania	118.00	118.00	118.00	194.16	194.16
Morocco	71.34	52.30	46.56	44.58	42.86
Oman	53.71	51.69	51.17	45.61	45.61
Palestine	48.36	48.36	46.43	46.43	46.43
Qatar	62.05	62.05	95.22	95.22	95.22
Saudi Arabia	52.61	58.37			
Somalia	68.40	68.40	68.40		
Sudan					
Syria	2.51	2.51	3.96	8.55	9.56
Tunisia	30.80	30.80	50.43	54.20	54.12
UAE	45.45	41.30	59.62	57.34	59.38
Yemen	7.73	7.73	7.73		

Arab average	48.19	47.99	50.16	58.17	56.89
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Below Arab average  
Above Arab average

Ranking for PSTN OECD 100 calls business 2010 basket  
Residential results

	2011	2012	2013	2015	2016
Algeria	3	6	4	5	5
Bahrain	6	4	5	3	3
Comoros	-	-	-	-	-
Djibouti	13	13	12	-	-
Egypt	5	5	3	2	2
Iraq	-	-	-	-	-
Jordan	15	16	13	11	9
Kuwait	-	-	-	-	-
Lebanon	8	9	7	4	4
Libya	7	8	6	-	-
Mauritania	18	18	17	13	13
Morocco	17	12	9	6	6
Oman	12	11	11	7	7
Palestine	10	10	8	8	8
Qatar	14	15	16	12	12
Saudi Arabia	11	14	-	-	-
Somalia	16	17	15	-	-
Sudan	-	-	-	-	-
Syria	1	1	1	1	1
Tunisia	4	3	10	9	10
UAE	9	7	14	10	11
Yemen	2	2	2	-	-

Least expensive  
Most expensive



# 2010 OECD PSTN BASKETS RANKING, 260 CALLS/MONTH, BUSINESS



Total results for PSTN OECD 260 calls business 2010 basket, tariffs 2011-2016  
Results in USD/PPP excluding VAT, residential results

	2011	2012	2013	2015	2016
Algeria	85.25	123.88	115.57	128.64	132.98
Bahrain	125.74	125.74	125.74	125.74	125.74
Comoros					
Djibouti	285.94	285.94	285.94		
Egypt	122.39	127.94	145.69	75.01	75.01
Iraq					
Jordan	154.83	147.36	99.89	144.76	110.76
Kuwait					
Lebanon	129.17	129.17	129.17	101.03	101.03
Libya	150.73	150.73	150.73		
Mauritania	392.20	392.20	392.20	575.39	575.39
Morocco	188.82	120.32	135.35	110.80	92.00
Oman	151.30	140.19	140.19	140.19	140.19
Palestine	154.54	154.54	150.66	150.66	150.66
Qatar	130.72	130.72	163.89	163.89	163.89
Saudi Arabia	153.26	153.26			
Somalia	186.87	186.87	186.87		
Sudan					
Syria	13.17	13.17	24.67	36.36	38.58
Tunisia	105.42	105.42	79.20	101.16	101.16
UAE	134.12	123.45	137.29	123.85	145.20
Yemen	60.29	60.29	60.29		

Arab average	151.38	148.40	148.43	152.11	150.20
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Below Arab average  
Above Arab average

Ranking for PSTN OECD 260 calls business 2010 basket  
Residential results

	2011	2012	2013	2015	2016
Algeria	3	6	5	8	8
Bahrain	6	7	6	7	7
Comoros	-	-	-	-	-
Djibouti	17	17	16	-	-
Egypt	5	8	11	2	2
Iraq	-	-	-	-	-
Jordan	14	12	4	10	6
Kuwait	-	-	-	-	-
Lebanon	7	9	7	3	4
Libya	10	13	13	-	-
Mauritania	18	18	17	13	13
Morocco	16	4	8	5	3
Oman	11	11	10	9	9
Palestine	13	15	12	11	11
Qatar	8	10	14	12	12
Saudi Arabia	12	14	-	-	-
Somalia	15	16	15	-	-
Sudan	-	-	-	-	-
Syria	1	1	1	1	1
Tunisia	4	3	3	4	5
UAE	9	5	9	6	10
Yemen	2	2	2	-	-

Least expensive  
Most expensive





# MOBILE BASKET RESULTS 2016



- No tariff information available for:
  - Djibouti, Somalia
  - Only pre-paid for Libya
  - One operator only for Comoros
- Otherwise two operators are covered for each country
- A total of 902 tariff packages covered for 39 operators in 19 countries





# OECD MOBILE BASKETS 2010 DEFINITIONS

- The OECD adopted the current baskets for mobile voice in March 2010, with additional data usage included from 2013. The key information about the basket definitions is shown below.
  - The following 11 pages show the results using the latest basket definitions
  - Pre- and Post-paid tariffs are included for all baskets
  - Handset data baskets included (introduced 2013 with an additional set of 5 baskets)

		Call distribution					
Basket	Calls/month	To fixed	Mobile On	Mobile Off	Voicemail	SMS	Data MB
30 calls basket	30	16%	55%	25%	4%	100	0
100 calls basket	100	17%	52%	28%	3%	140	0
300 calls basket	300	14%	46%	37%	3%	225	0
900 calls basket	900	14%	55%	28%	3%	350	0
40 calls prepaid basket	40	14%	64%	18%	4%	60	0
400 messages basket	8	8%	55%	25%	12%	400	0
30 calls + 100 MB	30	16%	55%	25%	4%	100	100
100 calls + 500 MB	100	17%	52%	28%	3%	140	500
300 calls + 1 GB	300	14%	46%	37%	3%	225	1000
900 calls + 2 GB	900	14%	55%	28%	3%	350	2000
100 calls + 2 GB	100	14%	52%	28%	3%	140	2000

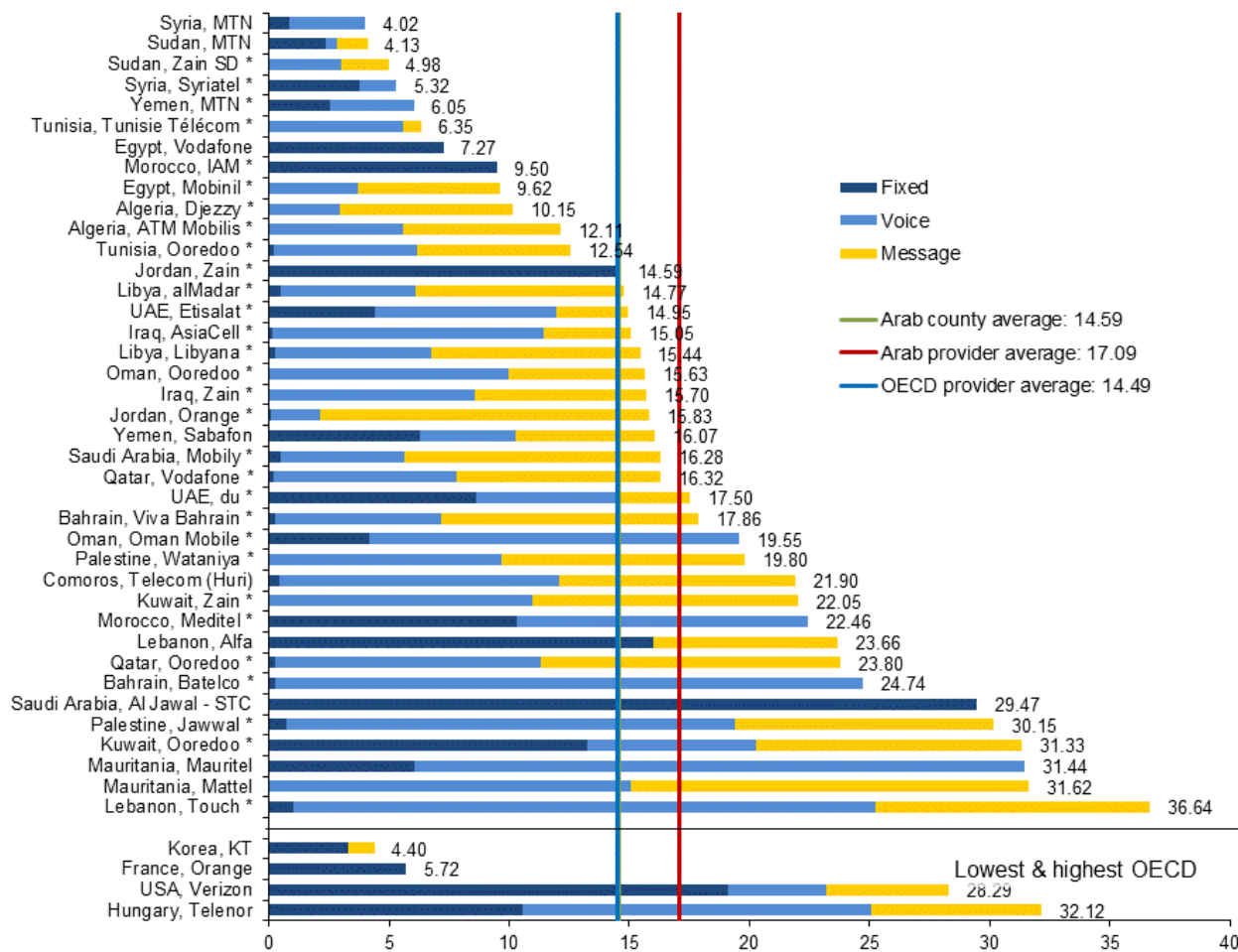


# 30 CALLS/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 30 calls basket based on 2010 OECD mobile basket

Tariffs as of January 2016



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

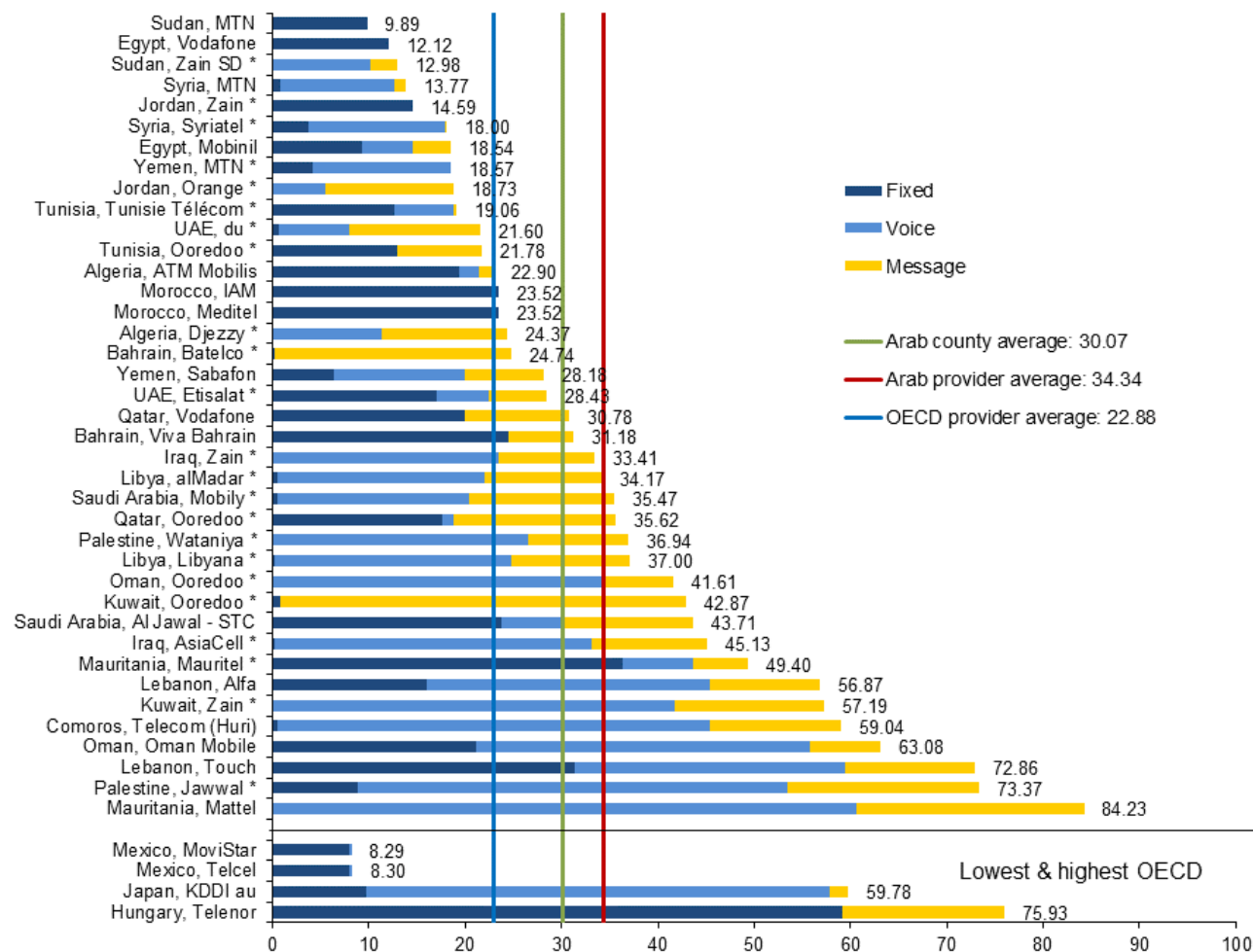


# 100 CALLS/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 100 calls basket based on 2010 OECD mobile basket

Tariffs as of January 2016



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

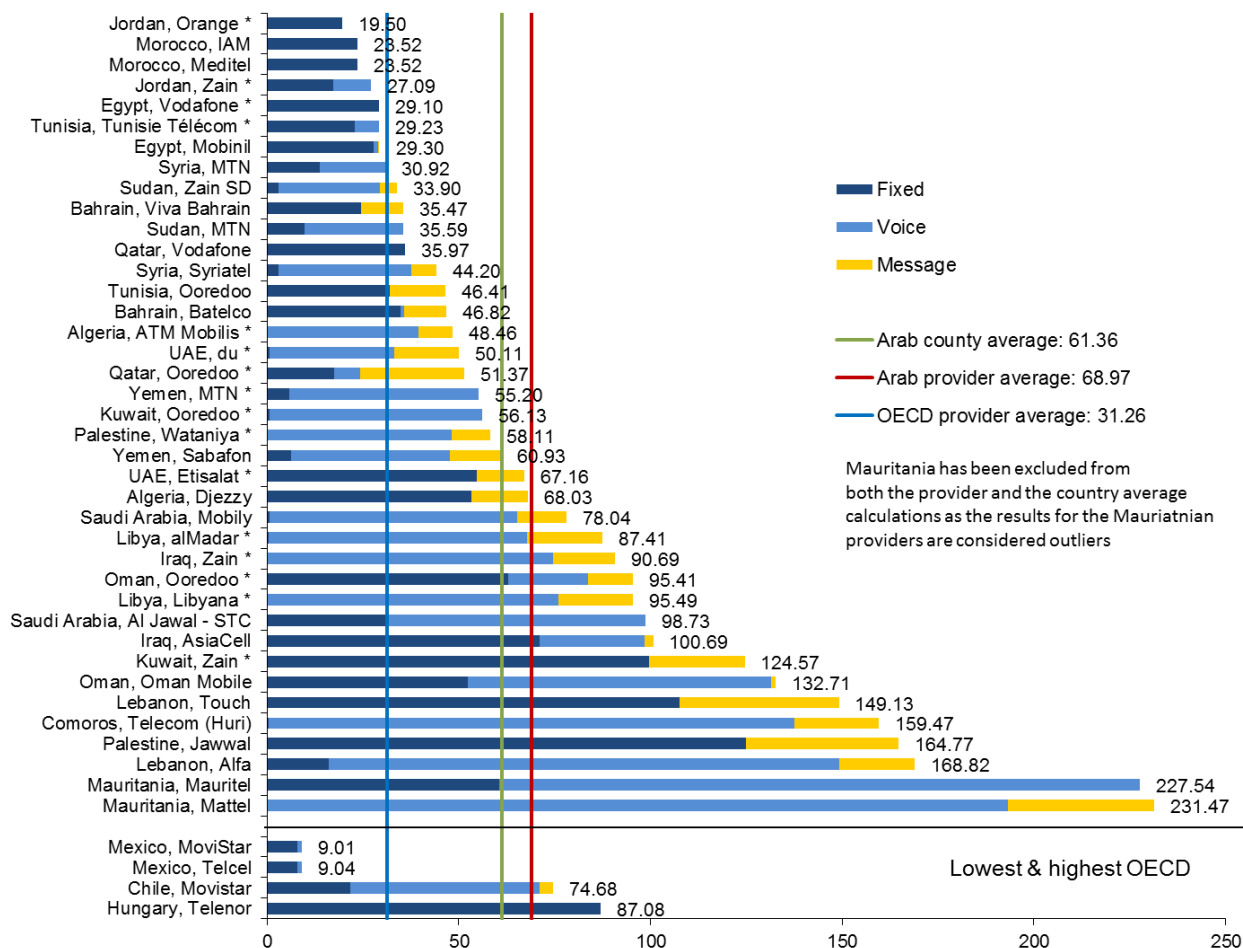


# 300 CALLS/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 300 calls basket based on 2010 OECD mobile basket

Tariffs as of January 2016



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

Mauritania has been excluded from  
both the provider and the country average  
calculations as the results for the Mauritanian  
providers are considered outliers

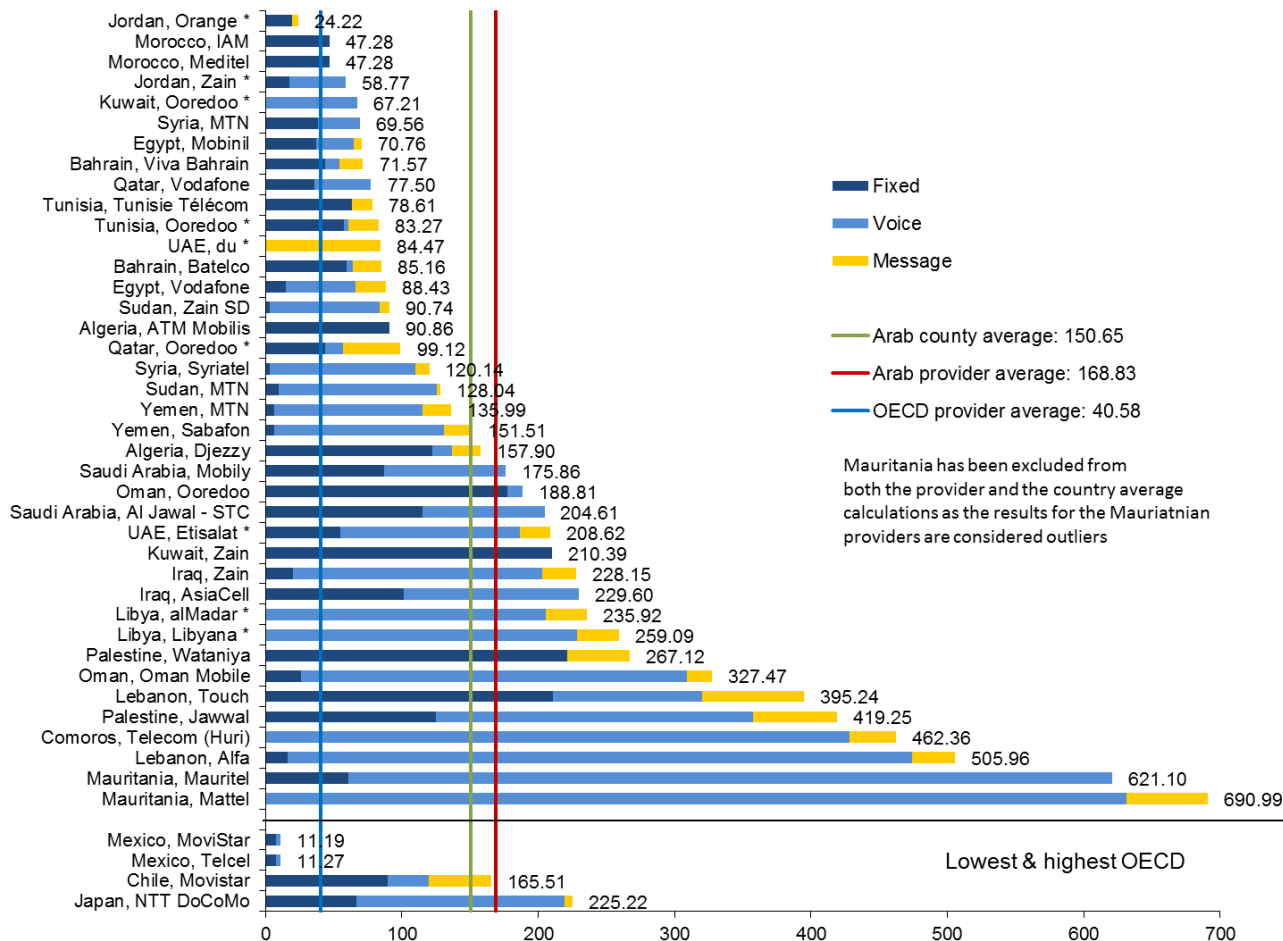


# 900 CALLS/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 900 calls basket based on 2010 OECD mobile basket

Tariffs as of January 2016



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

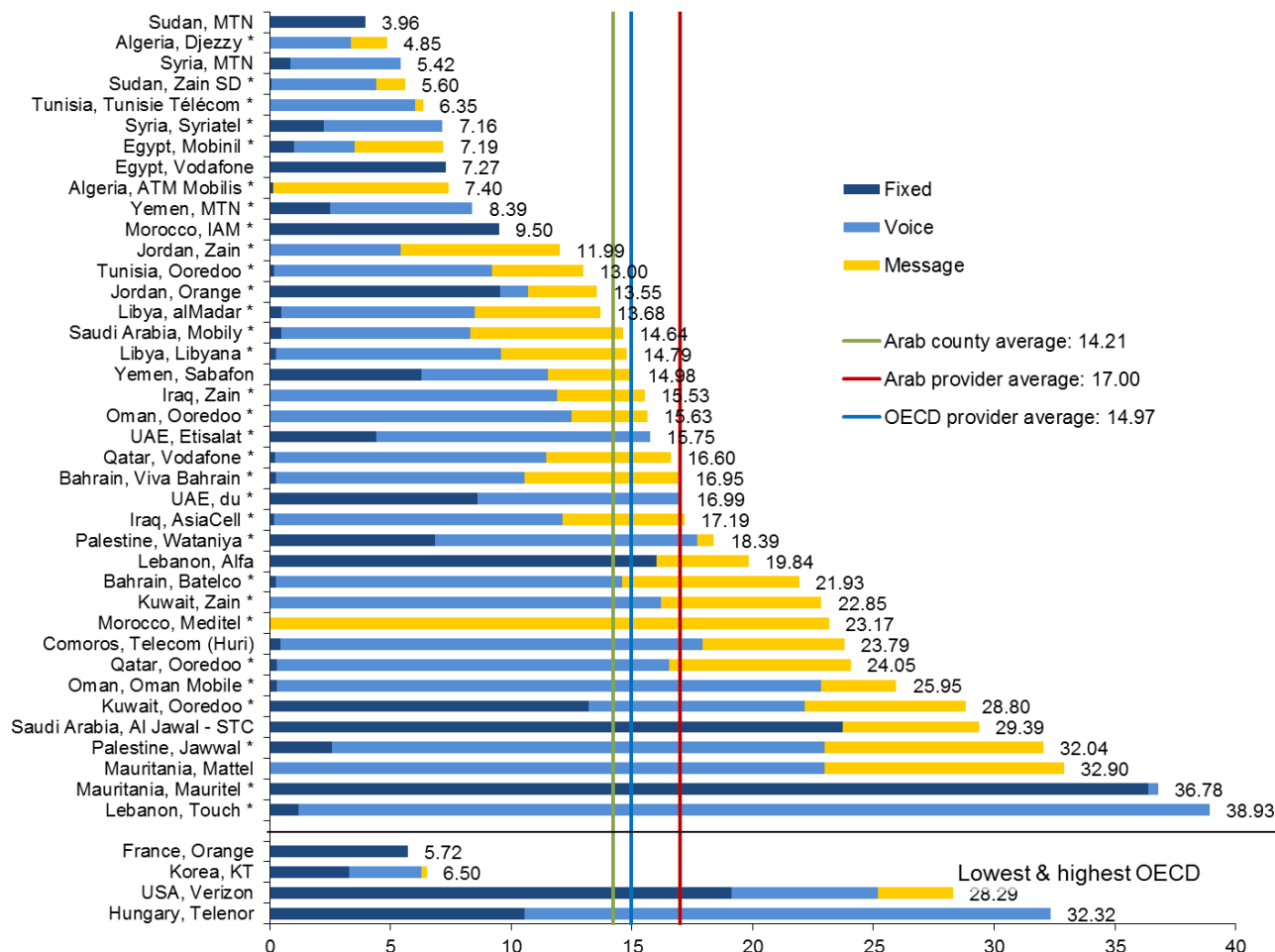


# 40 CALLS/MONTH PREPAID BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 40 calls prepaid basket based on 2010 OECD mobile basket

Tariffs as of January 2016



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

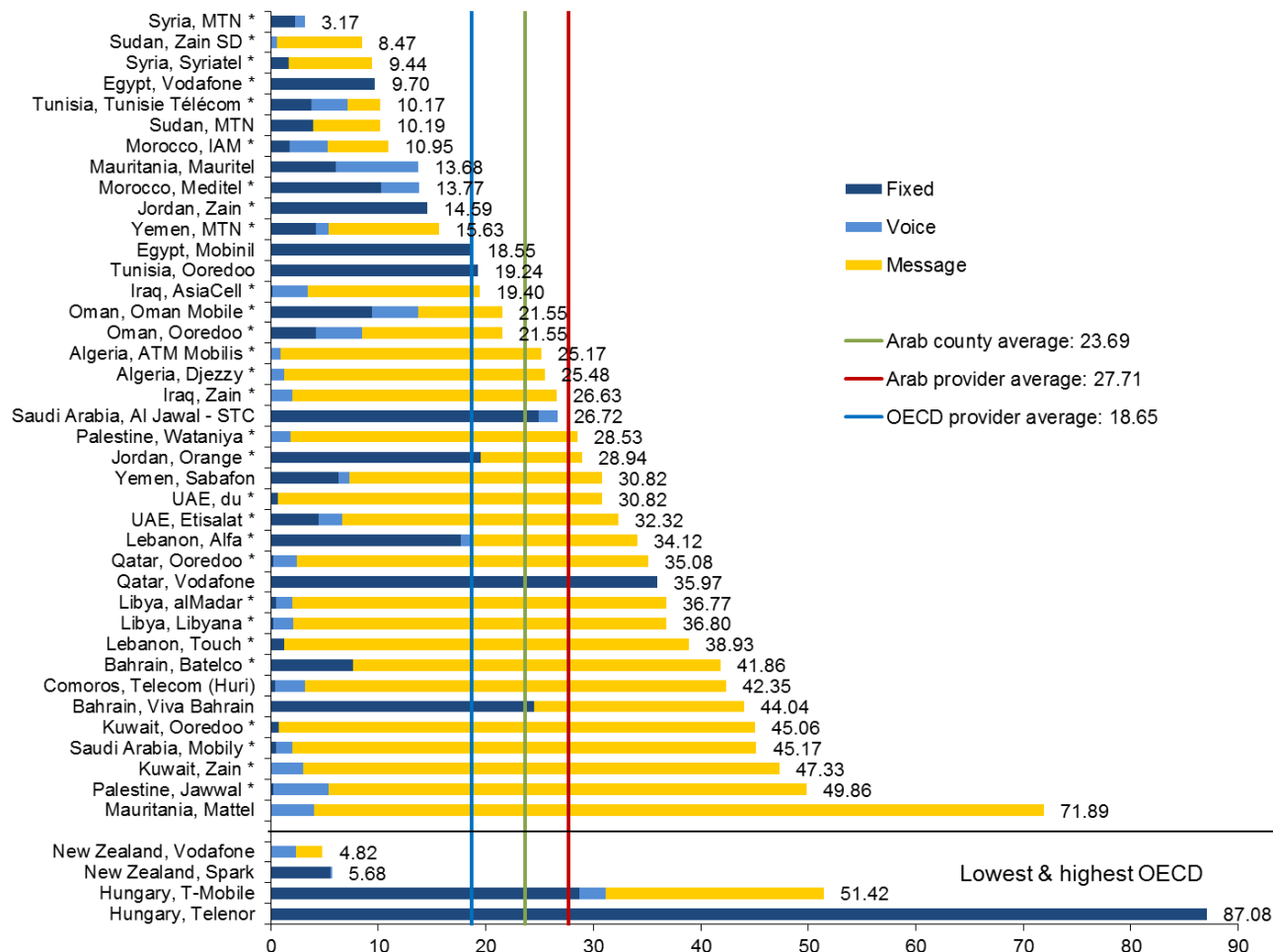


# 400 MESSAGES/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 400 messages basket based on 2010 OECD mobile basket

Tariffs as of January 2016



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

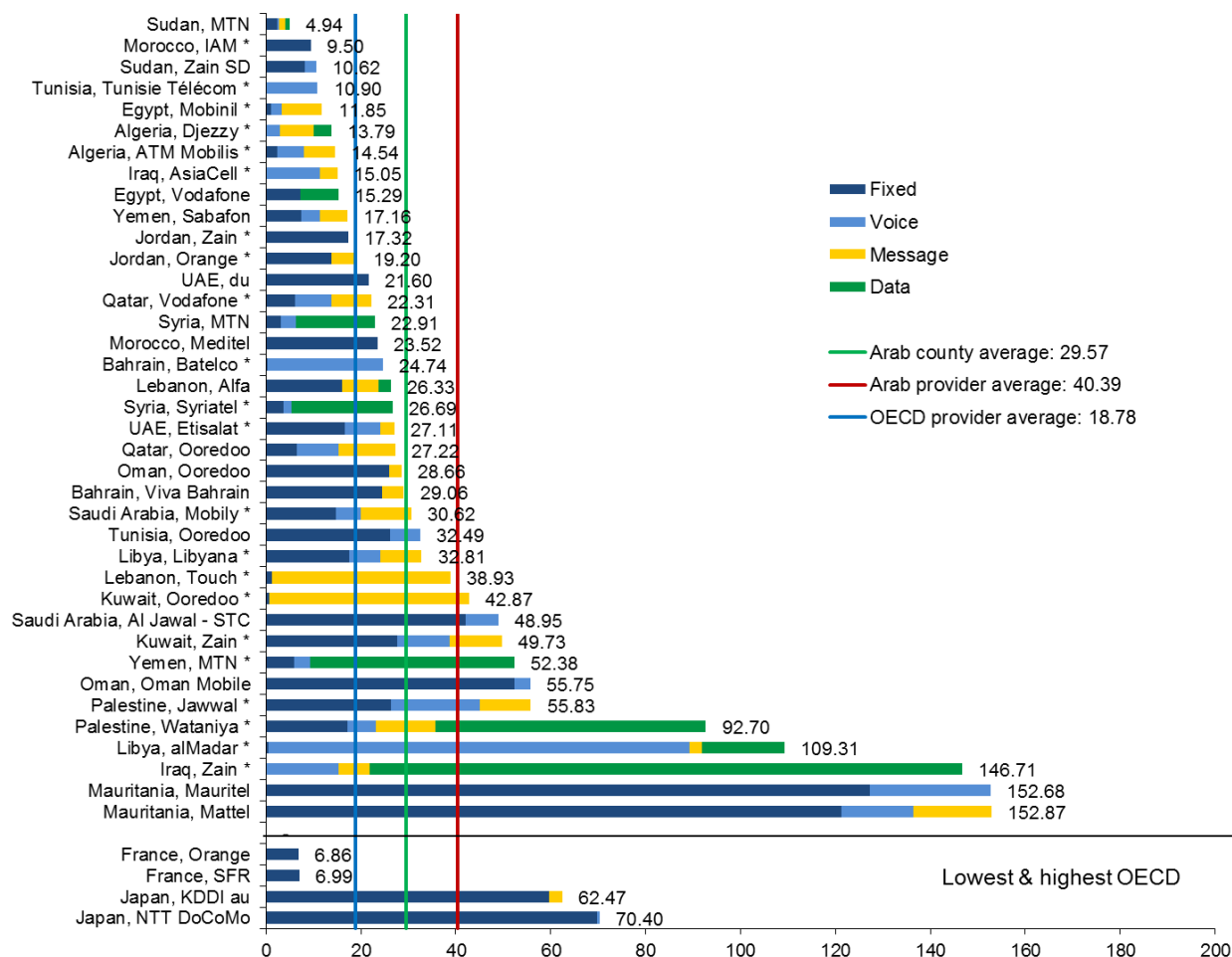


# 30 CALLS + 100 MB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 30 calls + 100 MB based on 2010 OECD mobile basket

Tariffs as of January 2016



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

The data charges  
shown on the  
graph refer to  
overage charges  
only. Fixed data  
charges may be  
embedded in the  
monthly fixed  
charges.

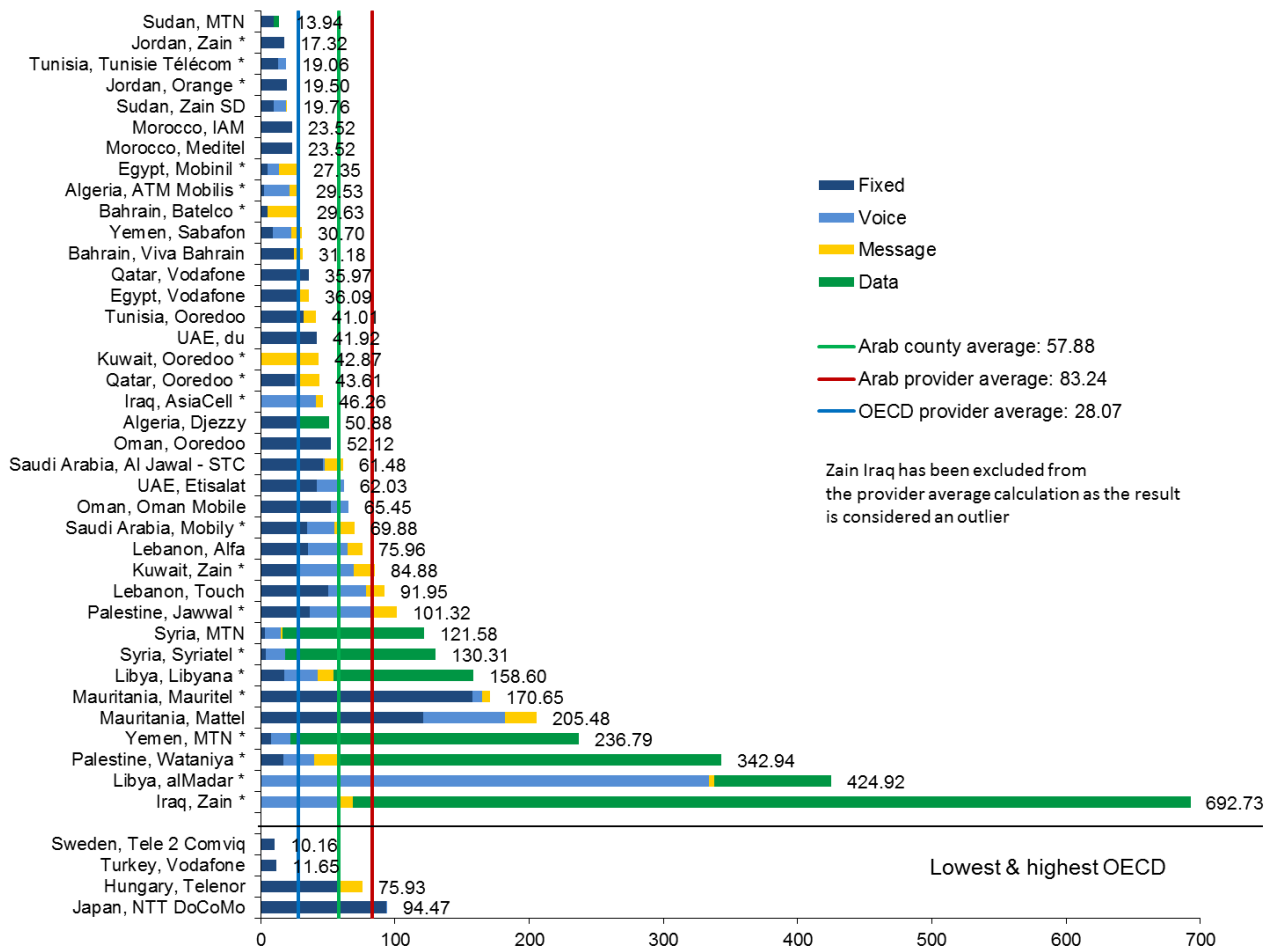


# 100 CALLS + 500 MB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 100 calls + 500 MB based on 2010 OECD mobile basket

Tariffs as of January 2016



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

The data charges  
shown on the  
graph refer to  
overage charges  
only. Fixed data  
charges may be  
embedded in the  
monthly fixed  
charges.

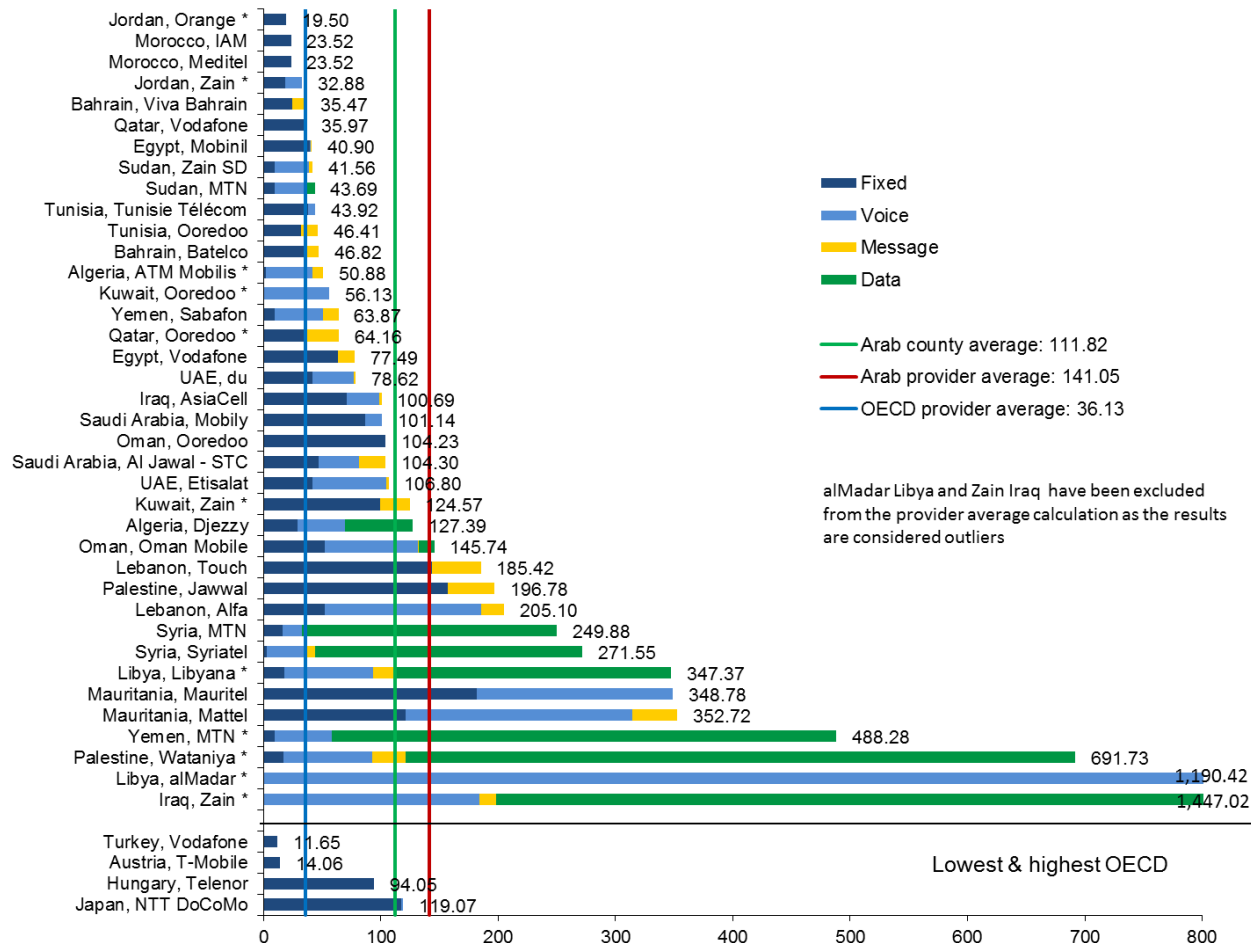


# 300 CALLS + 1 GB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 300 calls + 1 GB based on 2010 OECD mobile basket

Tariffs as of January 2016



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

The data charges  
shown on the  
graph refer to  
overage charges  
only. Fixed data  
charges may be  
embedded in the  
monthly fixed  
charges.

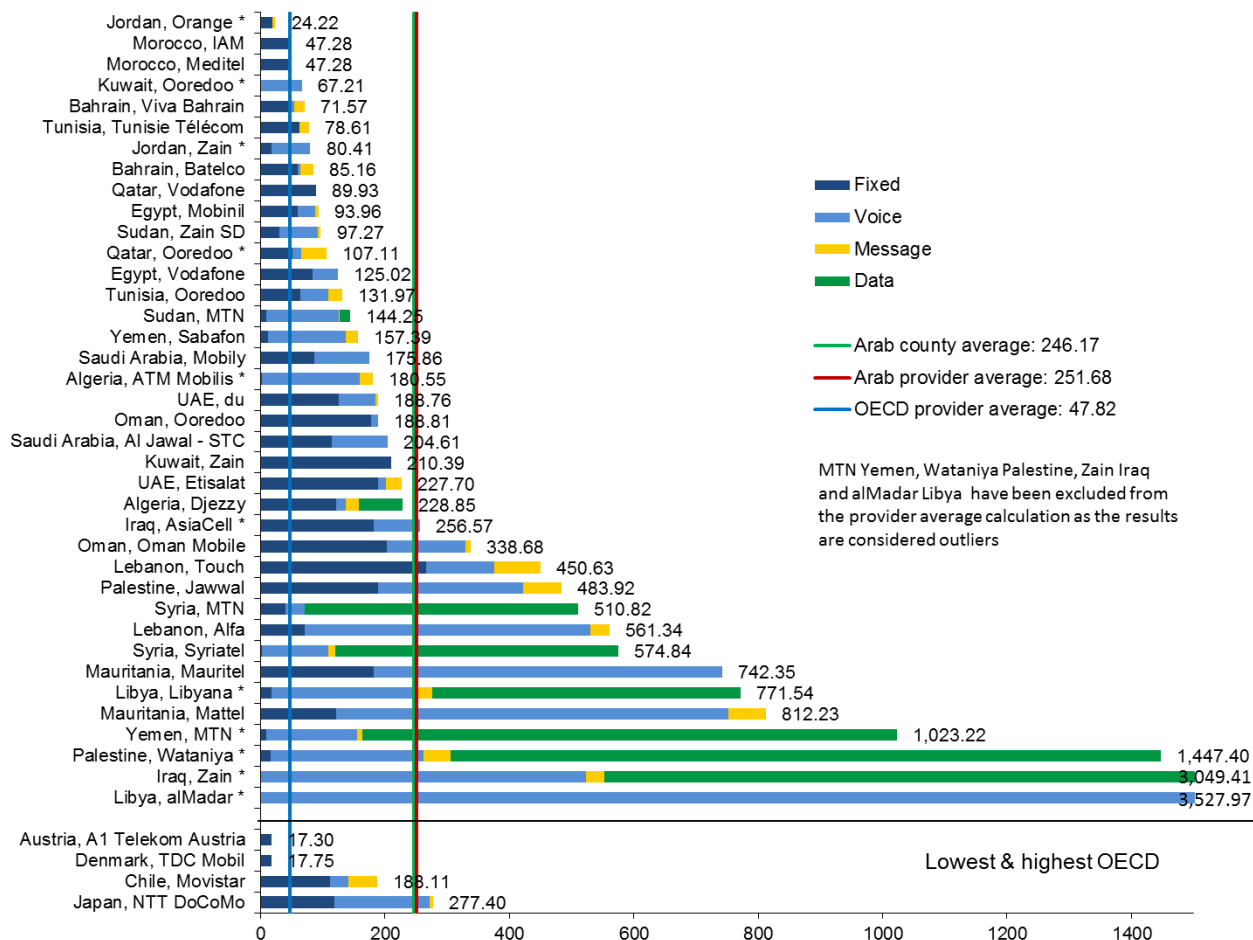


# 900 CALLS + 2 GB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 900 calls + 2 GB based on 2010 OECD mobile basket

Tariffs as of January 2016



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

The data charges  
shown on the  
graph refer to  
overage charges  
only. Fixed data  
charges may be  
embedded in the  
monthly fixed  
charges.

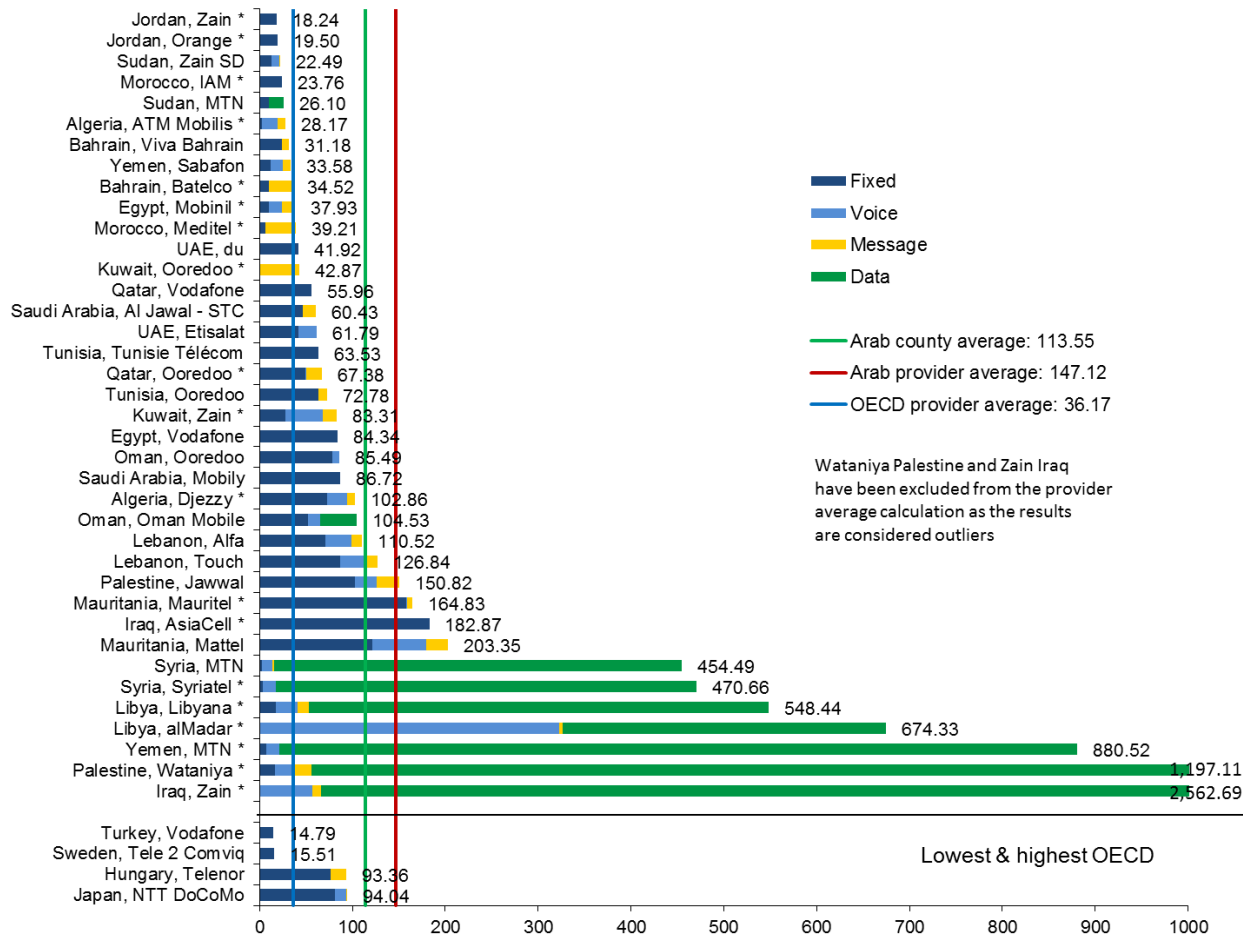


# 100 CALLS + 2 GB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 100 calls + 2 GB based on 2010 OECD mobile basket

Tariffs as of January 2016



Please note: No data for Djibouti and Somalia. Selective discounts included.

\* marks pre-paid tariffs.

The data charges shown on the graph refer to overage charges only. Fixed data charges may be embedded in the monthly fixed charges.





# OBSERVATIONS FROM MOBILE BASKET RESULTS

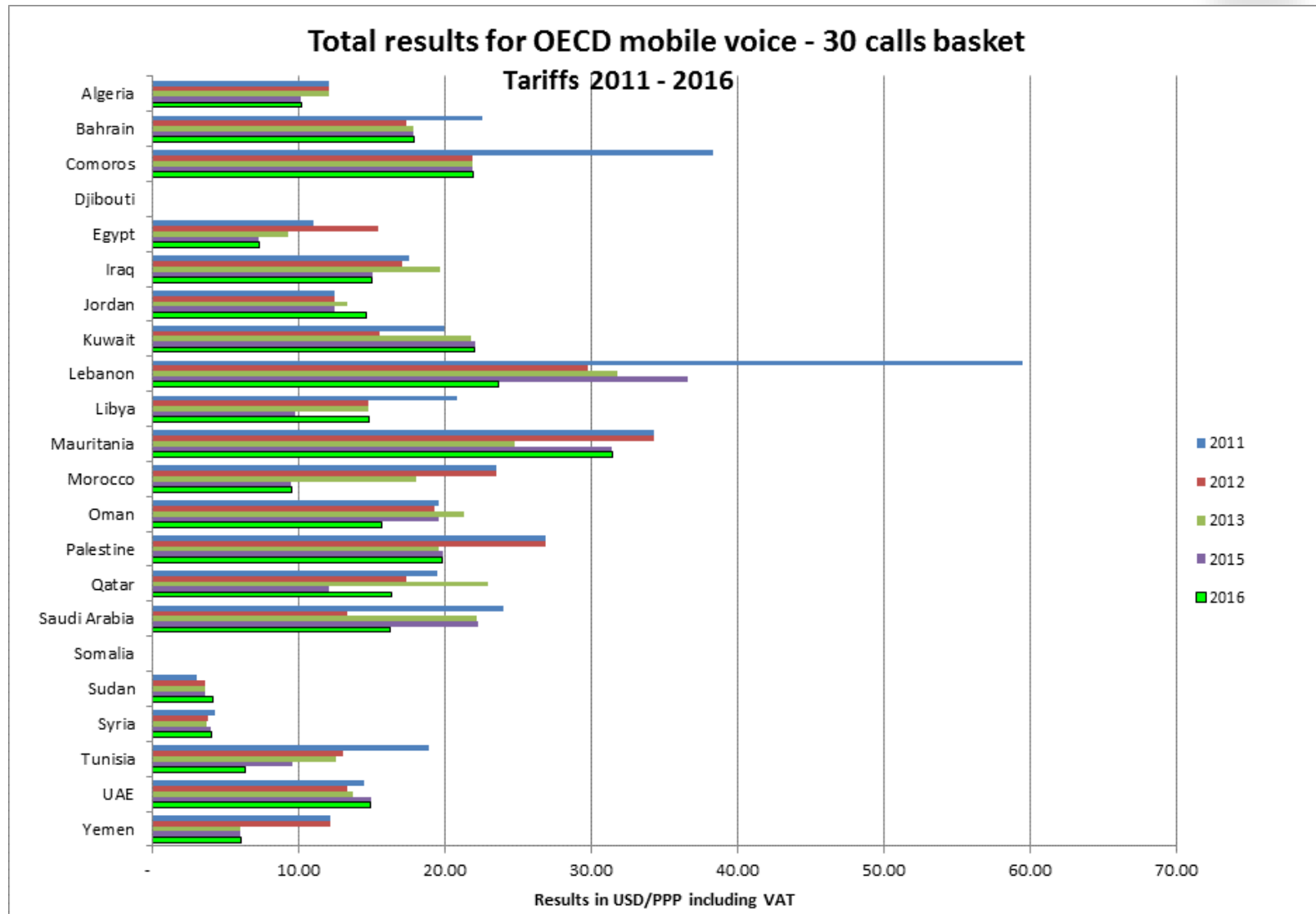
- The cheapest countries are :
  - Low usage voice: Syria, Sudan, Yemen, Tunisia and Egypt
  - High usage voice: Jordan, Morocco, Kuwait, Syria and Egypt
  - Low usage data & voice: Sudan, Morocco, Tunisia, Egypt and Algeria
  - High usage data & voice: Jordan, Morocco, Kuwait, Bahrain and Tunisia
    - The exact order of these may vary with usage level
- There is a clear correlation between the size of the basket (in terms of number of calls and volume of data), and the extent to which countries fall below the OECD average. For smaller baskets, more countries fall below the OECD average
  - For 30 calls, 100 calls, 40 calls prepaid, 400 message and 30 calls plus 100 MB baskets, between 7 and 10 Arab countries have price levels below the OECD average. This is notably much lower than 2015.
  - This number steadily declines as the number of calls and the data volume increases.
- The average result for the Arab providers is consistently higher than the OECD provider average across all mobile voice baskets, and the larger the basket the greater the variation.
- Baskets which incorporate handset data show a broad variation in price across the Arab providers – the difference becoming more marked for baskets with higher data requirements.
- Similar to the voice baskets, the Arab provider average for the data baskets is typically much higher than the OECD one, although this is skewed by particularly expensive countries at the upper end.
- Where data costs are shown on the graph, these refer to overage charges or data add-on packages, rather than data included in the basic voice tariff. Where overage charges are higher, this indicates a limited range of data options, and mobile handset data services are much less well established, and are geared only towards very modest use. Over time, these costs should fall significantly, as mobile data use becomes more commonplace, and operators offer more competitively priced tariffs with more data included.
- For both low and high data usage, there are an increasing number of countries that are below or on par with the OECD average, including; Sudan, Tunisia, Egypt, Jordan, Morocco, Bahrain and Kuwait (the last two on par with OECD averages for high data usage).
- The number of tariff packages offered by the Arab operators has remained relatively stable since 2015, at 23 per operator, on average.



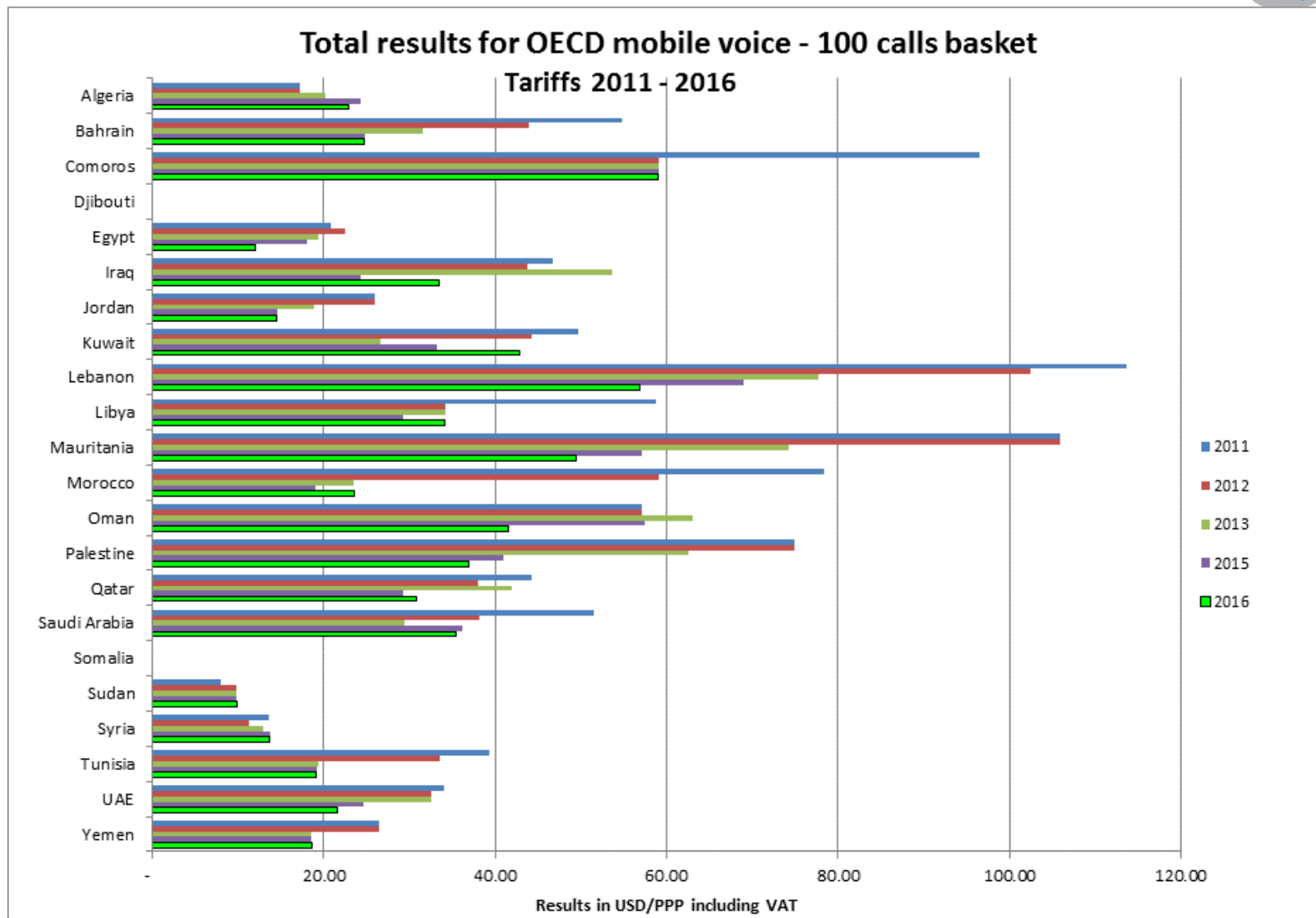


# MOBILE TIME SERIES ANALYSIS 2011–2016

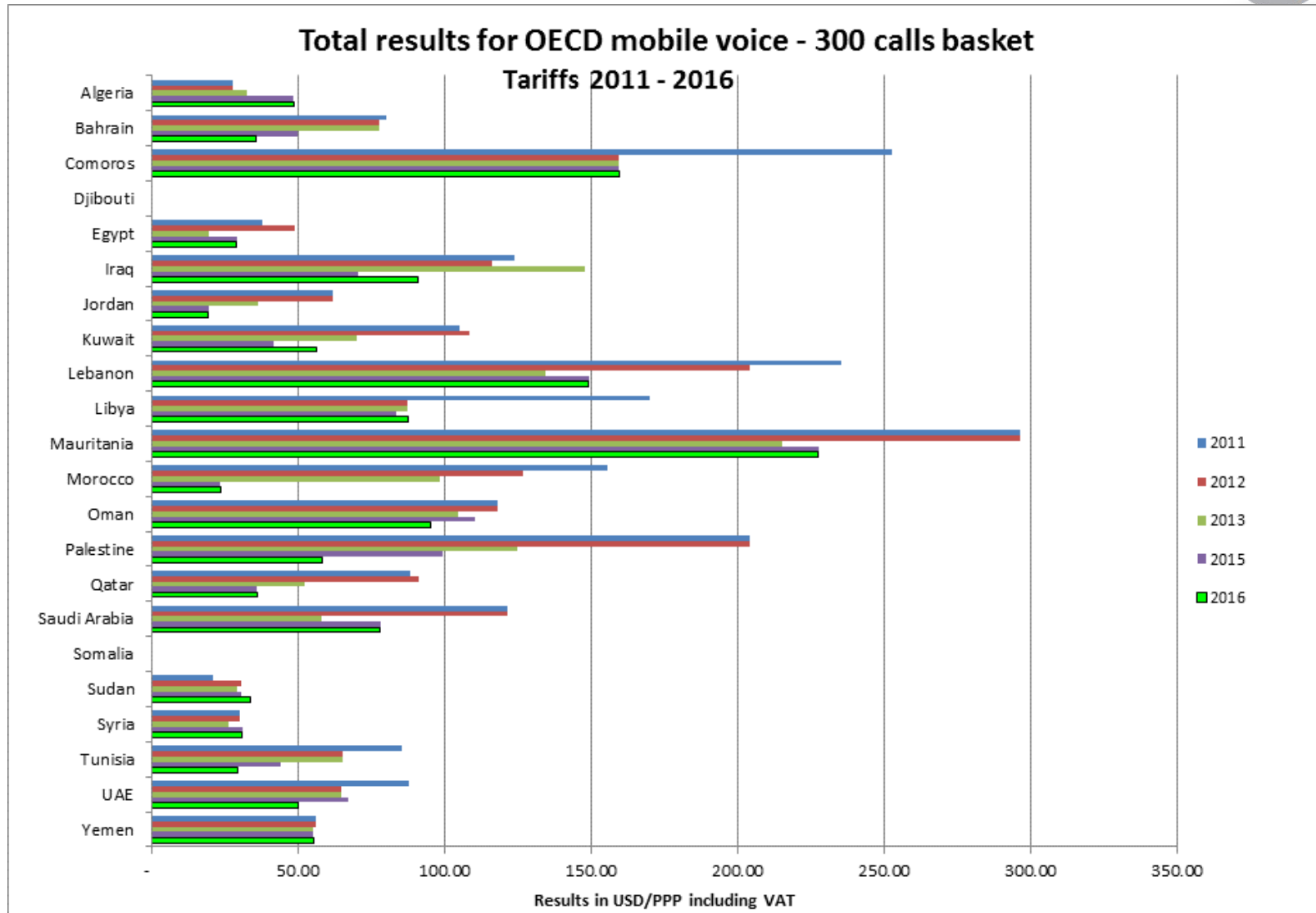
# 2010 OECD MOBILE BASKETS TIME SERIES, 30 CALLS/MONTH



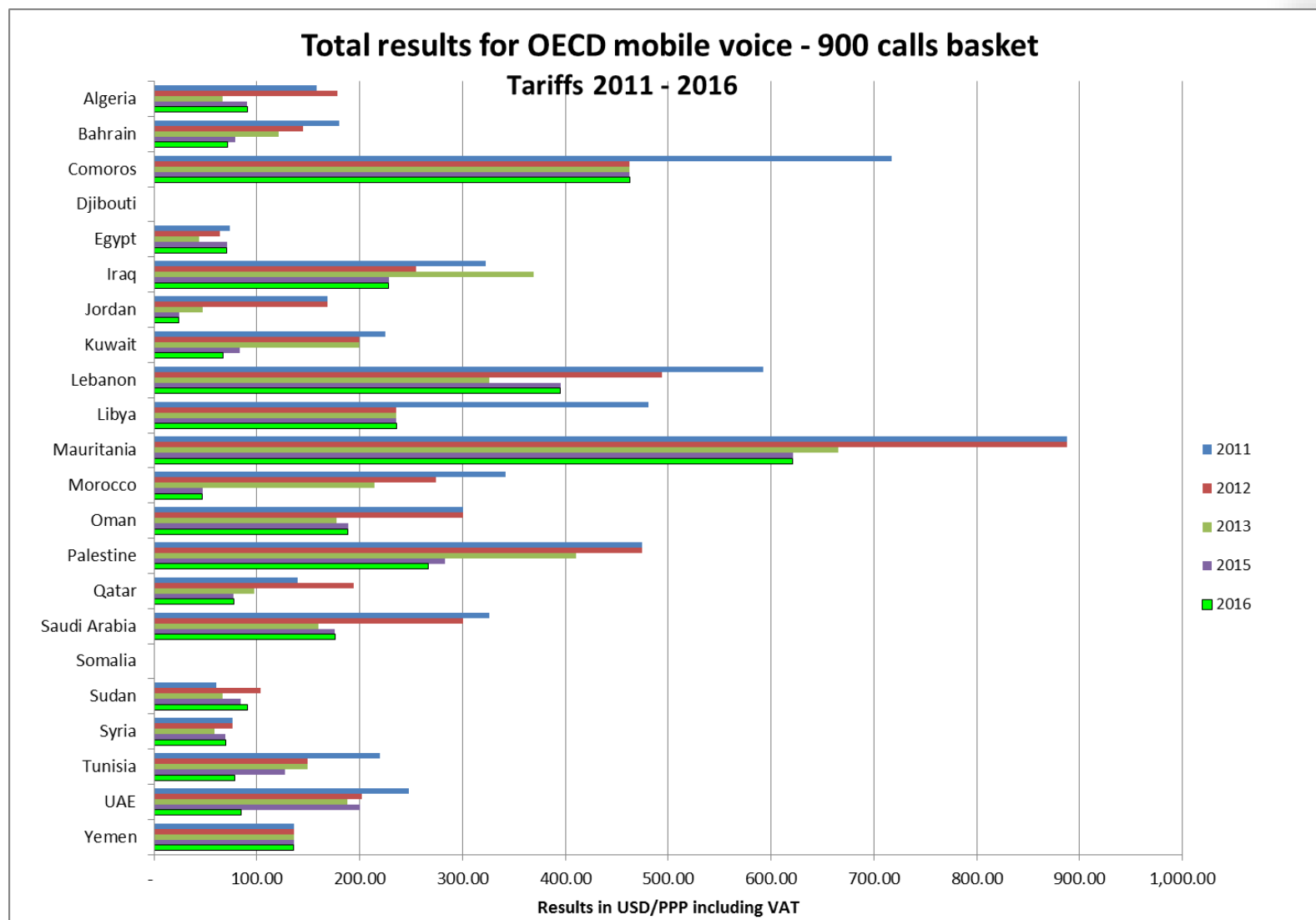
# 2010 OECD MOBILE BASKETS TIME SERIES, 100 CALLS/MONTH



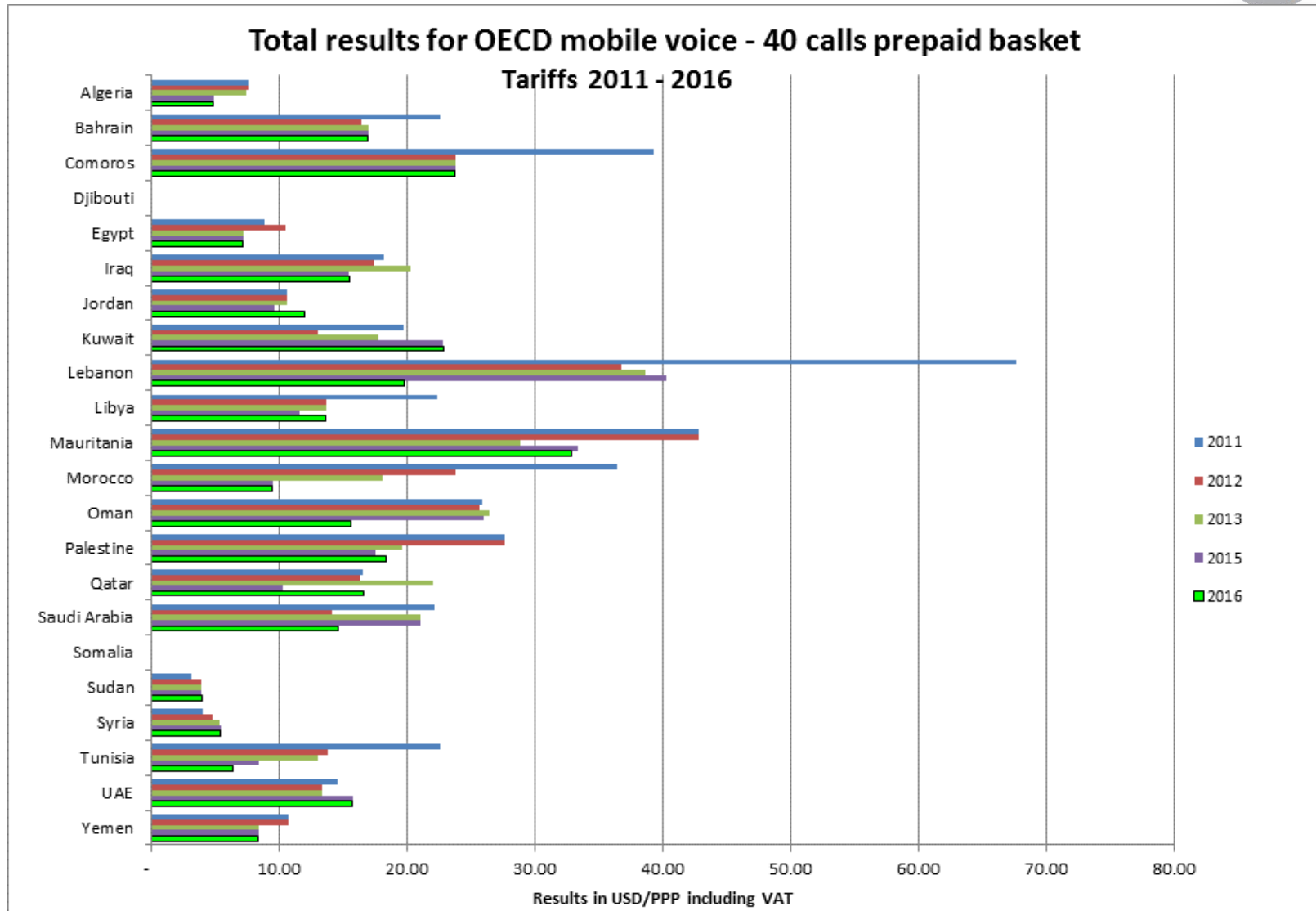
# 2010 OECD MOBILE BASKETS TIME SERIES, 300 CALLS/MONTH



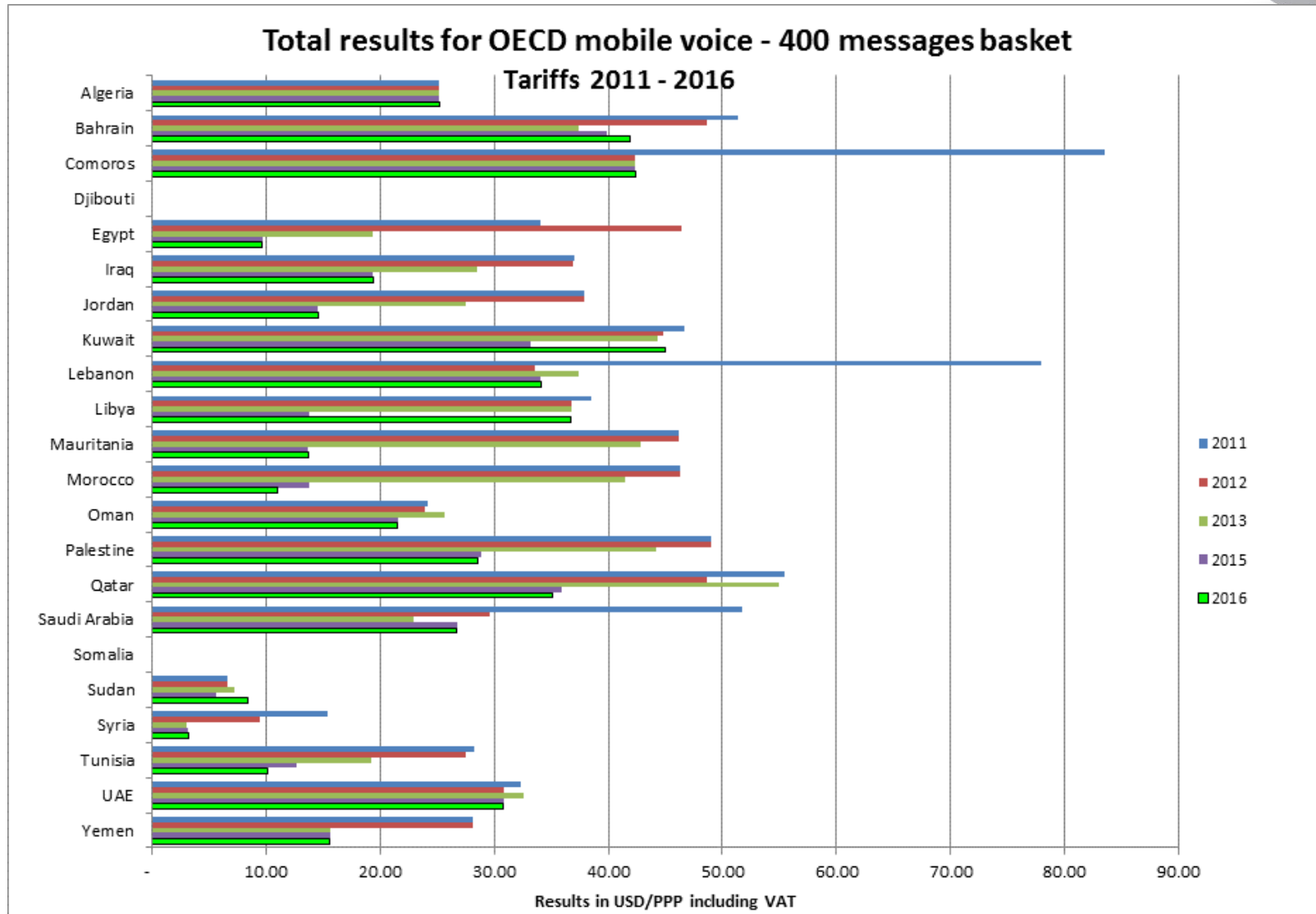
# 2010 OECD MOBILE BASKETS TIME SERIES, 900 CALLS/MONTH



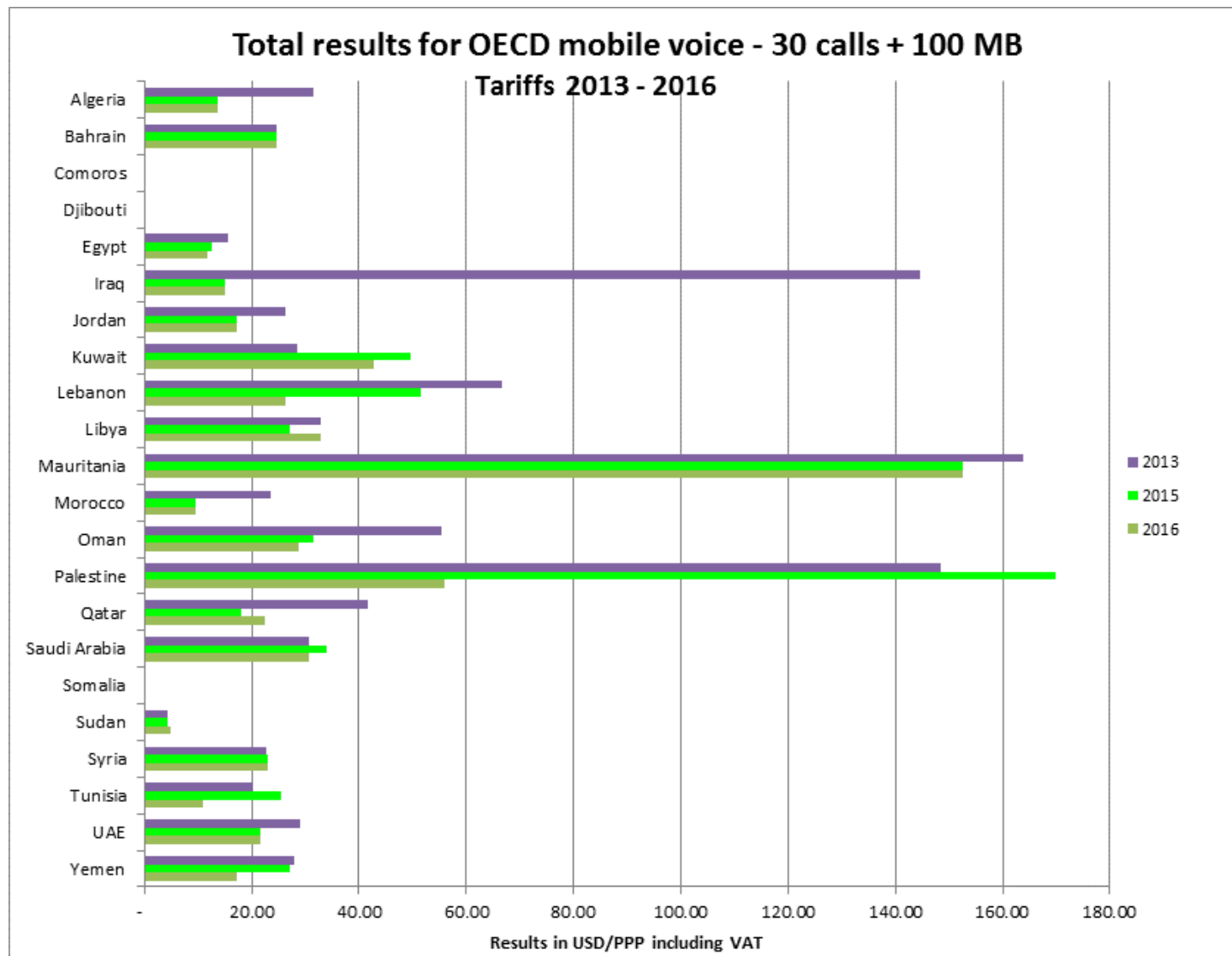
# 2010 OECD MOBILE BASKETS TIME SERIES, 40 CALLS/MONTH PREPAID



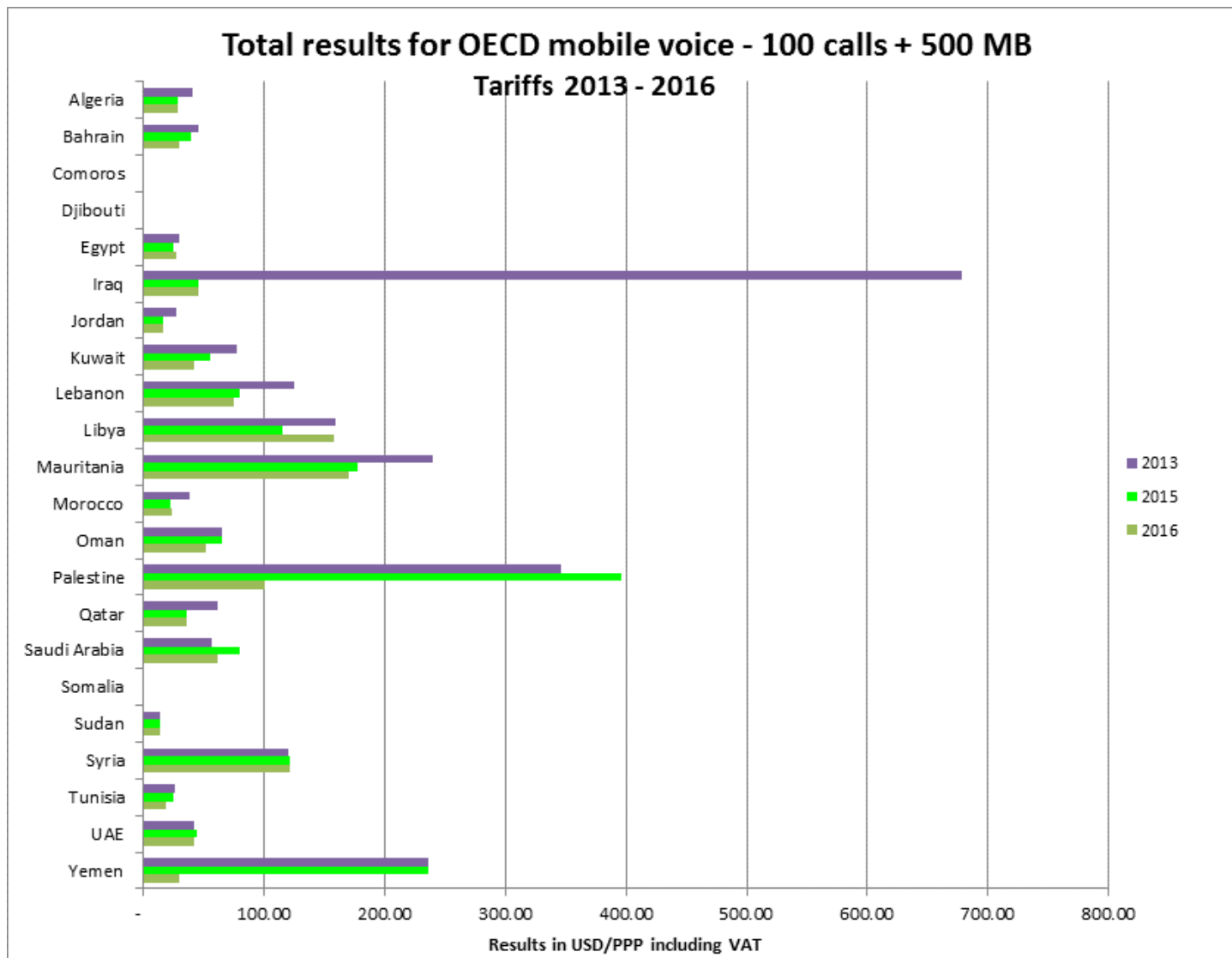
# 2010 OECD MOBILE BASKETS TIME SERIES, 40 MESSAGES/MONTH



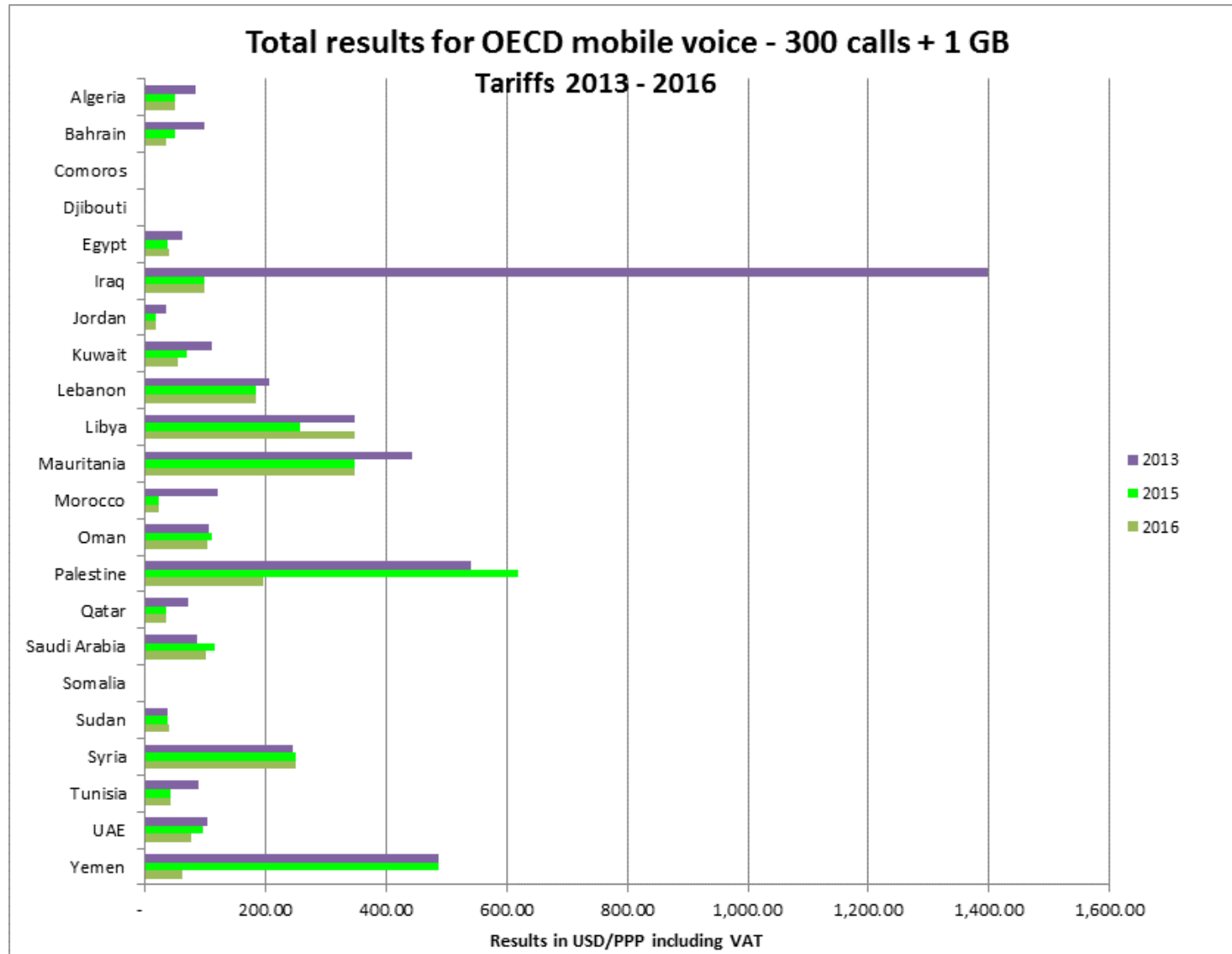
# 2010 OECD MOBILE BASKETS TIME SERIES, 30 CALLS + 100 MB/MONTH



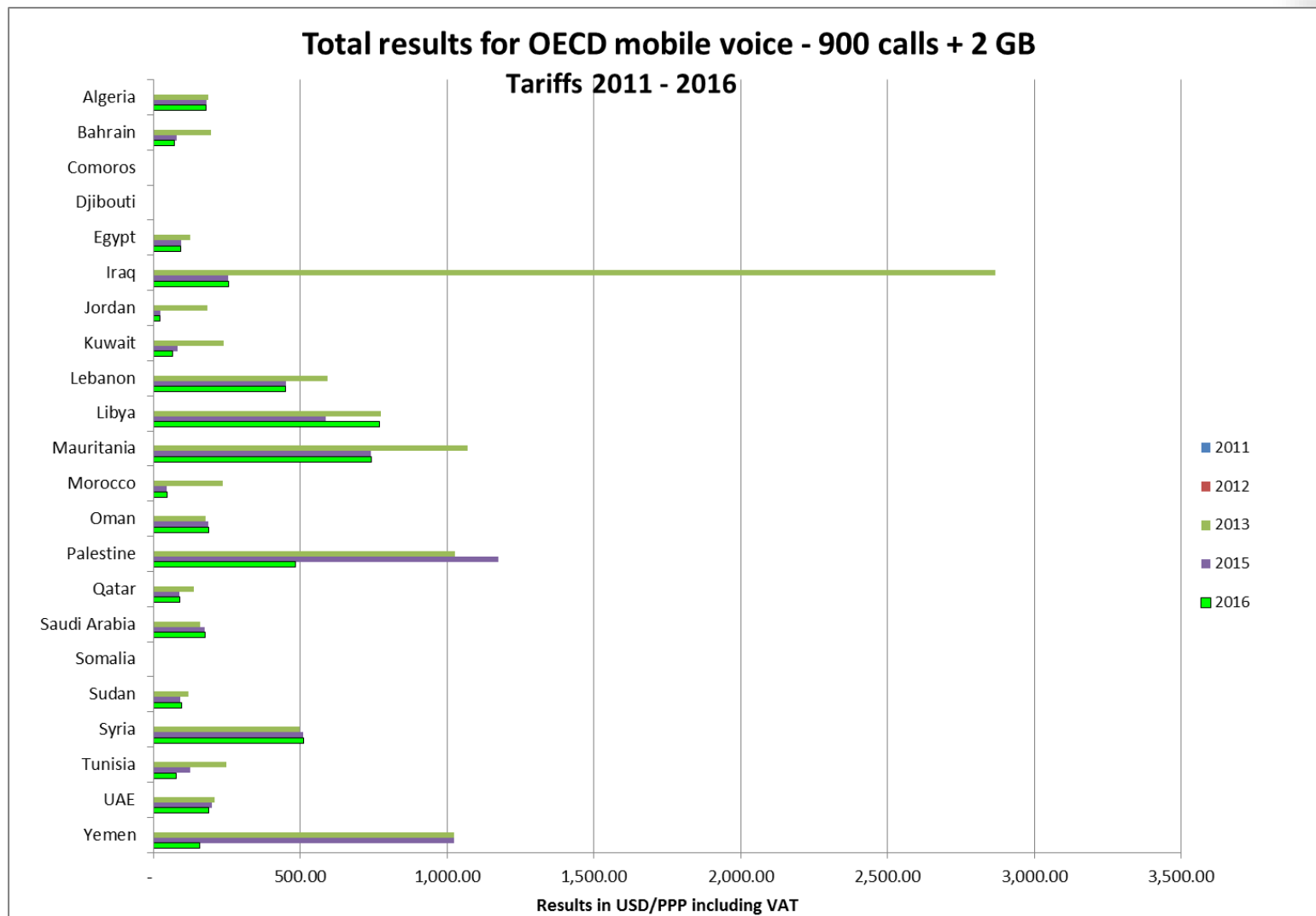
# 2010 OECD MOBILE BASKETS TIME SERIES, 100 CALLS + 500 MB/MONTH



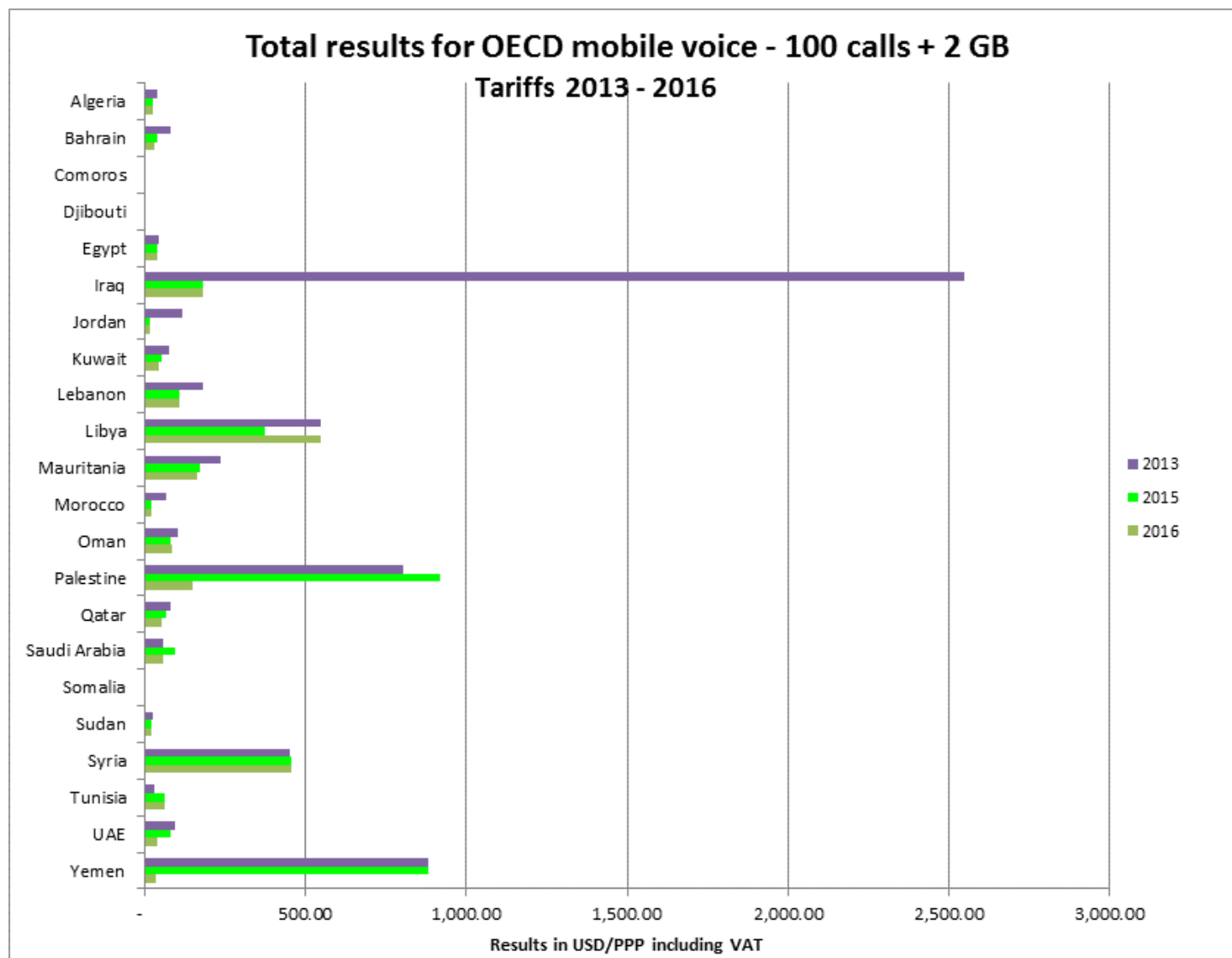
# 2010 OECD MOBILE BASKETS TIME SERIES, 300 CALLS + 1 GB/MONTH



# 2010 OECD MOBILE BASKETS TIME SERIES, 900 CALLS + 2 GB/MONTH



# 2010 OECD MOBILE BASKETS TIME SERIES, 100 CALLS + 2 GB/MONTH





# OBSERVATIONS FROM MOBILE TIME SERIES RESULTS

- The main trend observed is one of stability, with fewer and less dramatic changes than in previous years. Please note that changes in the basket results may come from price changes, but also from removal or other changes to the range of tariffs offered by each provider.
- Many operators across the Arab countries have made some changes to their mobile tariff offerings since 2015, however, unlike in previous years, the average number of packages per operator has remained broadly stable, and the changes, by comparison are relatively modest.
- Prepaid plans account for just under half of all plans, while 60% of plans now include some data allowance
- Shared data plans are increasingly offered – a trend seen also with mobile broadband offerings
  - This is resulting in plans emerging with very large data allowances
- Although there were decreases across almost all the baskets (apart from the 400 messages basket, which increased very slightly), unless the basket included handset data, the decreases were generally very modest, with a number of countries remaining static over the previous year.
- Baskets which include handset data saw much more dramatic decreases, however this was driven by deep cost reductions in a handful of countries only, rather than decreases across the board
- Many countries experienced little or no change to the basket cost, for most of the baskets that include data.





# MOBILE RANKING TABLES 2011–2016

# 2010 OECD MOBILE BASKETS RANKING, 30 CALLS/MONTH



Total results for OECD mobile voice - 30 calls basket  
Results in USD/PPP including VAT

	2010	2011	2012	2013	2015	2016
Algeria	12.11	12.11	12.11	12.11	10.15	10.15
Bahrain	22.95	22.54	17.39	17.86	17.86	17.86
Comoros	38.30	38.30	21.90	21.90	21.90	21.90
Djibouti						
Egypt	11.90	10.98	15.43	9.29	7.27	7.27
Iraq	14.35	17.57	17.06	19.66	15.05	15.05
Jordan	6.27	12.43	12.43	13.34	12.48	14.59
Kuwait	21.35	19.93	15.52	21.81	22.05	22.05
Lebanon	63.39	59.42	29.80	31.79	36.59	23.66
Libya	24.79	20.82	14.77	14.77	9.80	14.77
Mauritania	41.99	34.33	34.33	24.79	31.44	31.44
Morocco	62.05	23.52	23.52	18.07	9.50	9.50
Oman	19.54	19.54	19.25	21.31	19.55	15.63
Palestine	38.25	26.85	26.85	19.60	19.87	19.80
Qatar	21.14	19.49	17.35	22.91	12.12	16.32
Saudi Arabia	31.24	23.98	13.33	22.19	22.27	16.28
Somalia						
Sudan	6.65	3.02	3.59	3.59	3.59	4.13
Syria	4.52	4.24	3.76	3.76	4.02	4.02
Tunisia	18.93	18.93	13.08	12.54	9.62	6.35
UAE	12.92	14.49	13.33	13.71	14.95	14.95
Yemen	11.88	12.16	12.16	6.05	6.05	6.05

Arab average	24.23	20.73	16.85	16.55	15.31	14.59
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Below Arab average  
Above Arab average

Ranking for OECD mobile 30 calls basket

	2010	2011	2012	2013	2015	2016
Algeria	6	4	3	5	8	7
Bahrain	13	14	14	10	13	15
Comoros	17	19	16	16	16	17
Djibouti	-	-	-	-	-	-
Egypt	5	3	10	4	4	5
Iraq	8	8	12	13	12	11
Jordan	2	6	5	7	10	8
Kuwait	12	12	11	15	17	18
Lebanon	20	20	19	20	20	19
Libya	14	13	9	9	7	9
Mauritania	18	18	20	19	19	20
Morocco	19	15	17	11	5	6
Oman	10	11	15	14	14	12
Palestine	16	17	18	12	15	16
Qatar	11	10	13	18	9	14
Saudi Arabia	15	16	7	17	18	13
Somalia	-	-	-	-	-	-
Sudan	3	1	1	1	1	2
Syria	1	2	2	2	2	1
Tunisia	9	9	6	6	6	4
UAE	7	7	8	8	11	10
Yemen	4	5	4	3	3	3

Least expensive  
Most expensive

Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries



# 2010 OECD MOBILE BASKETS RANKING, 100 CALLS/MONTH



Total results for OECD mobile voice - 100 calls basket  
Results in USD/PPP including VAT

	2010	2011	2012	2013	2015	2016
Algeria	17.30	17.30	17.30	20.29	24.37	22.90
Bahrain	54.79	54.79	43.87	31.59	24.74	24.74
Comoros	96.53	96.53	59.04	59.04	59.04	59.04
Djibouti						
Egypt	25.06	20.92	22.53	19.40	18.07	12.12
Iraq	37.48	46.79	43.75	53.64	24.31	33.41
Jordan	25.62	25.97	25.97	18.88	14.59	14.59
Kuwait	49.70	49.70	44.34	26.58	33.22	42.87
Lebanon	113.59	113.59	102.49	77.71	69.02	56.87
Libya	64.65	58.69	34.17	34.17	29.25	34.17
Mauritania	108.42	105.82	105.82	74.25	57.12	49.40
Morocco	99.51	78.43	59.14	23.52	19.01	23.52
Oman	57.24	57.10	57.10	63.08	57.53	41.61
Palestine	85.96	74.89	74.89	62.62	40.95	36.94
Qatar	44.25	44.25	37.94	41.97	29.24	30.78
Saudi Arabia	80.52	51.46	38.23	29.47	36.27	35.47
Somalia						
Sudan	17.63	7.94	9.89	9.89	9.89	9.89
Syria	13.92	13.56	11.23	12.98	13.77	13.77
Tunisia	39.36	39.36	33.61	19.41	19.24	19.06
UAE	33.06	34.04	32.58	32.58	24.62	21.60
Yemen	24.71	26.44	26.44	18.57	18.57	18.57

Arab average	54.46	50.88	44.02	36.48	31.14	30.07
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Below Arab average  
Above Arab average

Ranking for OECD mobile 100 calls basket

	2010	2011	2012	2013	2015	2016
Algeria	2	3	3	7	9	8
Bahrain	12	13	13	11	11	10
Comoros	17	18	16	16	19	20
Djibouti	-	-	-	-	-	-
Egypt	5	4	4	5	4	2
Iraq	8	10	12	15	8	12
Jordan	6	5	5	4	3	4
Kuwait	11	11	14	9	14	17
Lebanon	20	20	19	20	20	19
Libya	14	15	9	13	13	13
Mauritania	19	19	20	19	17	18
Morocco	18	17	17	8	6	9
Oman	13	14	15	18	18	16
Palestine	16	16	18	17	16	15
Qatar	10	9	10	14	12	11
Saudi Arabia	15	12	11	10	15	14
Somalia	-	-	-	-	-	-
Sudan	3	1	1	1	1	1
Syria	1	2	2	2	2	3
Tunisia	9	8	8	6	7	6
UAE	7	7	7	12	10	7
Yemen	4	6	6	3	5	5

Least expensive  
Most expensive

Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries



# 2010 OECD MOBILE BASKETS RANKING, 300 CALLS/MONTH



Total results for OECD mobile voice - 300 calls basket  
Results in USD/PPP including VAT

	2010	2011	2012	2013	2015	2016
Algeria	27.60	27.60	27.60	32.71	48.46	48.46
Bahrain	109.66	80.20	77.68	77.55	49.61	35.47
Comoros	252.62	252.62	159.47	159.47	159.47	159.47
Djibouti						
Egypt	60.17	37.97	48.60	19.40	29.10	29.10
Iraq	98.81	123.72	116.16	147.71	70.50	90.69
Jordan	61.60	61.94	61.94	36.20	19.50	19.50
Kuwait	113.01	105.19	108.55	69.78	41.77	56.13
Lebanon	235.53	235.53	203.93	134.33	149.13	149.13
Libya	179.96	170.19	87.41	87.41	83.29	87.41
Mauritania	314.00	296.24	296.24	215.11	227.54	227.54
Morocco	192.47	155.58	126.56	98.13	23.52	23.52
Oman	118.26	118.11	118.11	104.62	110.51	95.41
Palestine	219.50	204.04	204.04	124.99	99.36	58.11
Qatar	98.04	88.21	91.20	52.16	35.97	35.97
Saudi Arabia	158.98	121.48	121.48	58.13	78.04	78.04
Somalia						
Sudan	46.57	21.17	30.45	29.35	30.45	33.90
Syria	30.10	30.00	30.00	26.06	30.92	30.92
Tunisia	85.48	85.48	65.12	65.12	43.92	29.23
UAE	86.62	87.59	64.69	64.69	67.16	50.11
Yemen	49.45	55.83	55.83	55.20	55.20	55.20

Arab average	126.92	117.93	104.75	82.91	72.67	69.67
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Below Arab average  
Above Arab average

Ranking for OECD mobile 300 calls basket

	2010	2011	2012	2013	2015	2016
Algeria	1	2	1	4	9	9
Bahrain	11	7	9	12	10	7
Comoros	19	19	17	19	19	19
Djibouti	-	-	-	-	-	-
Egypt	5	4	4	1	3	3
Iraq	10	14	13	18	13	16
Jordan	6	6	6	5	1	1
Kuwait	12	11	12	11	7	12
Lebanon	18	18	18	17	18	18
Libya	15	16	10	13	15	15
Mauritania	20	20	20	20	20	20
Morocco	16	15	16	14	2	2
Oman	13	12	14	15	17	17
Palestine	17	17	19	16	16	13
Qatar	9	10	11	6	6	8
Saudi Arabia	14	13	15	8	14	14
Somalia	-	-	-	-	-	-
Sudan	3	1	3	3	4	6
Syria	2	3	2	2	5	5
Tunisia	7	8	8	10	8	4
UAE	8	9	7	9	12	10
Yemen	4	5	5	7	11	11

Least expensive  
Most expensive

Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries



# 2010 OECD MOBILE BASKETS RANKING, 900 CALLS/MONTH



Total results for OECD mobile voice - 900 calls basket  
Results in USD/PPP including VAT

	2010	2011	2012	2013	2015	2016
Algeria	178.12	158.20	178.12	66.63	90.86	90.86
Bahrain	177.37	180.28	145.14	121.71	78.97	71.57
Comoros	717.61	717.61	462.36	462.36	462.36	462.36
Djibouti						
Egypt	123.75	73.92	63.89	43.65	70.76	70.76
Iraq	270.03	322.21	254.94	369.13	228.15	228.15
Jordan	167.99	168.34	168.34	47.16	24.22	24.22
Kuwait	224.95	224.95	199.32	199.32	83.82	67.21
Lebanon	592.04	592.04	493.68	326.46	395.24	395.24
Libya	495.71	480.51	235.92	235.92	235.92	235.92
Mauritania	930.51	887.62	887.62	665.53	621.10	621.10
Morocco	496.85	341.94	274.17	214.33	47.28	47.28
Oman	301.07	300.92	300.92	177.48	188.81	188.81
Palestine	492.19	474.82	474.82	410.53	283.00	267.12
Qatar	245.67	139.81	193.90	97.93	77.50	77.50
Saudi Arabia	397.93	326.44	301.01	160.15	175.38	175.86
Somalia						
Sudan	124.52	60.92	103.80	66.91	84.41	90.74
Syria	76.48	76.37	76.37	58.43	69.56	69.56
Tunisia	220.08	220.08	149.30	149.30	127.07	78.61
UAE	207.07	247.67	202.16	187.70	200.10	84.47
Yemen	107.89	135.99	135.99	135.99	135.99	135.99

Arab average	327.39	306.53	265.09	209.83	184.03	174.17
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Below Arab average



Above Arab average

Ranking for OECD mobile 900 calls basket

	2010	2011	2012	2013	2015	2016
Algeria	7	6	8	4	9	11
Bahrain	6	8	5	7	6	6
Comoros	19	19	17	19	19	19
Djibouti	-	-	-	-	-	-
Egypt	3	2	1	1	4	5
Iraq	12	13	13	17	15	15
Jordan	5	7	7	2	1	1
Kuwait	10	10	10	13	7	3
Lebanon	18	18	19	16	18	18
Libya	16	17	12	15	16	16
Mauritania	20	20	20	20	20	20
Morocco	17	15	14	14	2	2
Oman	13	12	15	11	13	14
Palestine	15	16	18	18	17	17
Qatar	11	5	9	6	5	7
Saudi Arabia	14	14	16	10	12	13
Somalia	-	-	-	-	-	-
Sudan	4	1	3	5	8	10
Syria	1	3	2	3	3	4
Tunisia	9	9	6	9	10	8
UAE	8	11	11	12	14	9
Yemen	2	4	4	8	11	12



Least expensive



Most expensive

Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries



# 2010 OECD MOBILE BASKETS RANKING, 40 CALLS/MONTH PREPAID



Total results for OECD mobile voice - 40 calls prepaid basket  
Results in USD/PPP including VAT

	2010	2011	2012	2013	2015	2016
Algeria	7.61	7.61	7.61	7.40	4.85	4.85
Bahrain	23.20	22.62	16.44	16.95	16.95	16.95
Comoros	39.24	39.24	23.79	23.79	23.79	23.79
Djibouti						
Egypt	9.85	8.84	10.54	7.19	7.19	7.19
Iraq	14.50	18.17	17.39	20.26	15.45	15.53
Jordan	8.33	10.66	10.66	10.60	9.66	11.99
Kuwait	20.49	19.75	13.07	17.72	22.85	22.85
Lebanon	67.67	67.67	36.78	38.65	40.25	19.84
Libya	24.87	22.42	13.68	13.68	11.56	13.68
Mauritania	47.13	42.76	42.76	28.80	33.32	32.90
Morocco	55.32	36.48	23.76	18.07	9.50	9.50
Oman	25.92	25.92	25.63	26.47	25.95	15.63
Palestine	42.22	27.64	27.64	19.60	17.56	18.39
Qatar	19.15	16.59	16.28	22.01	10.27	16.60
Saudi Arabia	33.49	22.17	14.13	21.02	21.10	14.64
Somalia						
Sudan	7.49	3.15	3.96	3.96	3.96	3.96
Syria	5.24	4.06	4.83	5.32	5.42	5.42
Tunisia	22.54	22.54	13.80	13.00	8.45	6.35
UAE	13.04	14.61	13.34	13.34	15.75	15.75
Yemen	11.82	10.68	10.68	8.39	8.39	8.39

Arab average	24.95	22.18	17.34	16.81	15.61	14.21
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Below Arab average  
Above Arab average

Ranking for OECD mobile 40 calls prepaid basket

	2010	2011	2012	2013	2015	2016
Algeria	3	3	3	4	2	2
Bahrain	12	14	13	10	13	15
Comoros	16	18	16	17	17	19
Djibouti	-	-	-	-	-	-
Egypt	5	4	4	3	4	5
Iraq	8	9	14	14	11	11
Jordan	4	5	5	6	8	8
Kuwait	10	10	7	11	16	18
Lebanon	20	20	19	20	20	17
Libya	13	12	9	9	10	9
Mauritania	18	19	20	19	19	20
Morocco	19	17	15	12	7	7
Oman	14	15	17	18	18	12
Palestine	17	16	18	13	14	16
Qatar	9	8	12	16	9	14
Saudi Arabia	15	11	11	15	15	10
Somalia	-	-	-	-	-	-
Sudan	2	1	1	1	1	1
Syria	1	2	2	2	3	3
Tunisia	11	13	10	7	6	4
UAE	7	7	8	8	12	13
Yemen	6	6	6	5	5	6

Least expensive  
Most expensive

Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries



# 2010 OECD MOBILE BASKETS RANKING, 400 MESSAGES/MONTH



Total results for OECD mobile voice - 400 messages basket  
Results in USD/PPP including VAT

	2010	2011	2012	2013	2015	2016
Algeria	25.17	25.17	25.17	25.17	25.17	25.17
Bahrain	51.72	51.31	48.66	37.38	39.82	41.86
Comoros	83.48	83.48	42.35	42.35	42.35	42.35
Djibouti						
Egypt	34.32	34.12	46.39	19.40	9.70	9.70
Iraq	26.23	37.05	36.93	28.47	19.40	19.40
Jordan	29.92	37.89	37.89	27.51	14.59	14.59
Kuwait	47.09	46.68	44.84	44.29	33.22	45.06
Lebanon	84.14	77.99	33.58	37.41	34.12	34.12
Libya	39.54	38.47	36.77	36.77	13.84	36.77
Mauritania	70.43	46.16	46.16	42.79	13.68	13.68
Morocco	99.68	46.33	46.33	41.54	13.80	10.95
Oman	24.17	24.17	23.88	25.65	21.55	21.55
Palestine	57.56	48.96	48.96	44.24	28.85	28.53
Qatar	57.34	55.50	48.70	54.96	35.97	35.08
Saudi Arabia	63.25	51.75	29.56	22.95	26.72	26.72
Somalia						
Sudan	10.75	6.65	6.67	7.25	5.65	8.47
Syria	9.74	15.42	9.45	3.08	3.17	3.17
Tunisia	28.21	28.21	27.54	19.24	12.71	10.17
UAE	31.35	32.32	30.88	32.53	30.82	30.82
Yemen	21.23	28.12	28.12	15.63	15.63	15.63

Arab average	44.77	40.79	34.94	30.43	22.04	23.69
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Below Arab average  
Above Arab average

Ranking for OECD mobile 400 messages basket

	2010	2011	2012	2013	2015	2016
Algeria	5	4	4	7	12	11
Bahrain	13	16	18	13	19	18
Comoros	18	20	13	16	20	19
Djibouti	-	-	-	-	-	-
Egypt	10	8	17	5	3	3
Iraq	6	9	11	10	10	9
Jordan	8	10	12	9	8	7
Kuwait	12	14	14	19	16	20
Lebanon	19	19	9	14	17	15
Libya	11	11	10	12	7	17
Mauritania	17	12	15	17	5	6
Morocco	20	13	16	15	6	5
Oman	4	3	3	8	11	10
Palestine	15	15	20	18	14	13
Qatar	14	18	19	20	18	16
Saudi Arabia	16	17	7	6	13	12
Somalia	-	-	-	-	-	-
Sudan	2	1	1	2	2	2
Syria	1	2	2	1	1	1
Tunisia	7	6	5	4	4	4
UAE	9	7	8	11	15	14
Yemen	3	5	6	3	9	8

Least expensive  
Most expensive

Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries



# 2010 OECD MOBILE BASKETS RANKING, 30 CALLS + 100 MB/MONTH



Total results for OECD mobile voice - 30 calls + 100 MB basket  
Results in USD/PPP including VAT

	2013	2015	2016
Algeria	31.50	13.79	13.79
Bahrain	24.74	24.74	24.74
Comoros			
Djibouti			
Egypt	15.52	12.46	11.85
Iraq	144.49	15.05	15.05
Jordan	26.26	17.32	17.32
Kuwait	28.45	49.73	42.87
Lebanon	66.52	51.55	26.33
Libya	32.99	27.17	32.81
Mauritania	163.93	152.68	152.68
Morocco	23.52	9.50	9.50
Oman	55.49	31.56	28.66
Palestine	148.36	169.87	55.83
Qatar	41.62	18.11	22.31
Saudi Arabia	30.79	34.03	30.62
Somalia			
Sudan	4.40	4.40	4.94
Syria	22.65	22.91	22.91
Tunisia	20.17	25.41	10.90
UAE	29.14	21.60	21.60
Yemen	28.03	26.98	17.16

Arab average	49.40	38.36	29.57
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Below Arab average  
Above Arab average

Ranking for OECD mobile 30 calls + 100 MB basket

	2013	2015	2016
Algeria	12	4	5
Bahrain	6	10	12
Comoros	-	-	-
Djibouti	-	-	-
Egypt	2	3	4
Iraq	17	5	6
Jordan	7	6	8
Kuwait	9	16	17
Lebanon	16	17	13
Libya	13	13	16
Mauritania	19	18	19
Morocco	5	2	2
Oman	15	14	14
Palestine	18	19	18
Qatar	14	7	10
Saudi Arabia	11	15	15
Somalia	-	-	-
Sudan	1	1	1
Syria	4	9	11
Tunisia	3	11	3
UAE	10	8	9
Yemen	8	12	7

Least expensive  
Most expensive

Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries



# 2010 OECD MOBILE BASKETS RANKING, 100 CALLS + 500 MB/MONTH



Total results for OECD mobile voice - 100 calls + 500 MB basket  
Results in USD/PPP including VAT

	2013	2015	2016
Algeria	41.19	29.08	29.53
Bahrain	46.27	39.42	29.63
Comoros			
Djibouti			
Egypt	30.43	25.51	27.35
Iraq	677.84	46.26	46.26
Jordan	27.51	17.32	17.32
Kuwait	78.09	55.37	42.87
Lebanon	125.55	80.48	75.96
Libya	159.09	116.10	158.60
Mauritania	239.72	178.36	170.65
Morocco	39.17	23.17	23.52
Oman	65.45	65.45	52.12
Palestine	346.33	396.55	101.32
Qatar	61.95	35.97	35.97
Saudi Arabia	57.25	79.83	61.48
Somalia			
Sudan	13.94	13.94	13.94
Syria	120.79	121.58	121.58
Tunisia	27.04	25.41	19.06
UAE	41.92	44.93	41.92
Yemen	236.79	236.79	30.70

<b>Arab average</b>	128.23	85.87	57.88
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Below Arab average  
Above Arab average

Ranking for OECD mobile 100 calls + 500 MB basket

	2013	2015	2016
Algeria	6	6	6
Bahrain	8	8	7
Comoros	-	-	-
Djibouti	-	-	-
Egypt	4	5	5
Iraq	19	10	12
Jordan	3	2	2
Kuwait	12	11	11
Lebanon	14	14	15
Libya	15	15	18
Mauritania	17	17	19
Morocco	5	3	4
Oman	11	12	13
Palestine	18	19	16
Qatar	10	7	9
Saudi Arabia	9	13	14
Somalia	-	-	-
Sudan	1	1	1
Syria	13	16	17
Tunisia	2	4	3
UAE	7	9	10
Yemen	16	18	8

Least expensive  
Most expensive

Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries



# 2010 OECD MOBILE BASKETS RANKING, 300 CALLS + 1 GB/MONTH



Total results for OECD mobile voice - 300 calls + 1 GB basket  
Results in USD/PPP including VAT

	2013	2015	2016
Algeria	84.80	50.88	50.88
Bahrain	98.72	49.61	35.47
Comoros			
Djibouti			
Egypt	63.21	38.58	40.90
Iraq	1397.39	100.69	100.69
Jordan	36.20	19.50	19.50
Kuwait	111.66	70.05	56.13
Lebanon	206.98	185.42	185.42
Libya	348.84	257.00	347.37
Mauritania	444.13	348.78	348.78
Morocco	121.18	23.52	23.52
Oman	105.82	110.51	104.23
Palestine	540.95	619.39	196.78
Qatar	72.15	35.97	35.97
Saudi Arabia	87.33	115.83	101.14
Somalia			
Sudan	38.55	37.50	41.56
Syria	245.02	249.88	249.88
Tunisia	90.29	43.92	43.92
UAE	104.79	95.92	78.62
Yemen	488.28	488.28	63.87

<b>Arab average</b>	246.65	154.80	111.82
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Below Arab average  
Above Arab average

Ranking for OECD mobile 300 calls + 1 GB basket

	2013	2015	2016
Algeria	5	8	8
Bahrain	8	7	3
Comoros	-	-	-
Djibouti	-	-	-
Egypt	3	5	5
Iraq	19	11	12
Jordan	1	1	1
Kuwait	11	9	9
Lebanon	13	14	15
Libya	15	16	18
Mauritania	16	17	19
Morocco	12	2	2
Oman	10	12	14
Palestine	18	19	16
Qatar	4	3	4
Saudi Arabia	6	13	13
Somalia	-	-	-
Sudan	2	4	6
Syria	14	15	17
Tunisia	7	6	7
UAE	9	10	11
Yemen	17	18	10

Least expensive  
Most expensive

Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries



# 2010 OECD MOBILE BASKETS RANKING, 900 CALLS + 2 GB/MONTH



Total results for OECD mobile voice - 900 calls + 2 GB basket  
Results in USD/PPP including VAT

	2013	2015	2016
Algeria	189.11	180.55	180.55
Bahrain	196.43	78.97	71.57
Comoros			
Djibouti			
Egypt	126.51	93.96	93.96
Iraq	2865.91	256.57	256.57
Jordan	184.48	24.22	24.22
Kuwait	238.84	83.82	67.21
Lebanon	594.19	450.63	450.63
Libya	776.36	588.53	771.54
Mauritania	1069.10	742.35	742.35
Morocco	238.09	47.28	47.28
Oman	177.48	188.81	188.81
Palestine	1027.59	1176.59	483.92
Qatar	137.90	89.93	89.93
Saudi Arabia	160.15	175.38	175.86
Somalia			
Sudan	120.62	90.74	97.27
Syria	499.69	510.82	510.82
Tunisia	248.96	127.07	78.61
UAE	209.58	200.10	188.76
Yemen	1023.22	1023.22	157.39

Arab average	530.75	322.61	246.17
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Below Arab average  
 Above Arab average

Ranking for OECD mobile 900 calls + 2 GB basket

	2013	2015	2016
Algeria	7	10	11
Bahrain	8	3	4
Comoros	-	-	-
Djibouti	-	-	-
Egypt	2	7	7
Iraq	19	13	14
Jordan	6	1	1
Kuwait	11	4	3
Lebanon	14	14	15
Libya	15	16	19
Mauritania	18	17	18
Morocco	10	2	2
Oman	5	11	13
Palestine	17	19	16
Qatar	3	5	6
Saudi Arabia	4	9	10
Somalia	-	-	-
Sudan	1	6	8
Syria	13	15	17
Tunisia	12	8	5
UAE	9	12	12
Yemen	16	18	9

Least expensive  
 Most expensive

Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries



# 2010 OECD MOBILE BASKETS RANKING, 100 CALLS + 2 GB/MONTH



Total results for OECD mobile voice - 100 calls + 2 GB basket  
Results in USD/PPP including VAT

	2013	2015	2016
Algeria	41.19	28.17	28.17
Bahrain	80.52	40.96	31.18
Comoros			
Djibouti			
Egypt	42.62	41.26	37.93
Iraq	2548.53	182.87	182.87
Jordan	119.27	18.24	18.24
Kuwait	76.58	55.37	42.87
Lebanon	182.84	106.58	110.52
Libya	548.93	375.67	548.44
Mauritania	236.61	172.96	164.83
Morocco	66.15	23.76	23.76
Oman	104.53	82.40	85.49
Palestine	803.07	919.51	150.82
Qatar	81.94	67.50	55.96
Saudi Arabia	56.26	95.53	60.43
Somalia			
Sudan	26.10	20.11	22.49
Syria	453.85	454.49	454.49
Tunisia	32.12	63.53	63.53
UAE	95.04	83.30	41.92
Yemen	880.52	880.52	33.58

Arab average	340.88	195.41	113.55
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Below Arab average  
Above Arab average

Ranking for OECD mobile 100 calls + 2 GB basket

	2013	2015	2016
Algeria	3	4	4
Bahrain	8	5	5
Comoros	-	-	-
Djibouti	-	-	-
Egypt	4	6	7
Iraq	19	15	17
Jordan	12	1	1
Kuwait	7	7	9
Lebanon	13	13	14
Libya	16	16	19
Mauritania	14	14	16
Morocco	6	3	3
Oman	11	10	13
Palestine	17	19	15
Qatar	9	9	10
Saudi Arabia	5	12	11
Somalia	-	-	-
Sudan	1	2	2
Syria	15	17	18
Tunisia	2	8	12
UAE	10	11	8
Yemen	18	18	6

Least expensive  
Most expensive

Note: The year on year results and averages are based on lowest cost per country, and will not be the same as the average across all carriers and countries





# LEASED LINE BASKET RESULTS 2016



# OECD LEASED LINE BASKET, 2010 DEFINITIONS

- Prices for 2 Mb/s and 34 Mb/s national circuits
- 6 specific distances are used:
  - 2 km, 20 km, 50 km, 100 km, 200 km and 500 km
- Each distance is weighted in order to calculate a **weighted average price for one circuit** as follows:

National Distance	2km	20km	50km	100km	200km	500km	Total
64 kb/s	50%	18%	6%	8%	10%	8%	100%
2 Mb/s	50%	18%	6%	8%	10%	8%	100%
34 Mb/s	42%	18%	15%	9%	8%	8%	100%

- The 2 bitrates are calculated and reported separately.
- Where the distances in the basket go beyond the country borders, the weights of those distances are attributed to the longest available tariff zone.
  - For example: In Bahrain a 2 Mb/s circuit costs BD 890 regardless of distance. The longest possible circuit distance in Bahrain is approximately 50 km. But the weights for 100 km (8%), 200 km (10%) and 500 km (8%) are still applied to this price as the price for the longest possible circuit in order to cover 100%.
  - This may bias the results for small countries with distance-sensitive prices in the sense that a relatively higher proportion of the circuits will be at maximum cost
  - Small countries with no distance pricing will be favoured by this scheme.
- For the Arab country price benchmarking three more bitrates are added, to the extent they are offered in the countries concerned:
  - 64 kb/s (formerly used in the OECD 2006 baskets) and 256 kb/s in order to cover a wider range of services relevant for the region, and 155 Mb/s to show the potential for future development.
    - The calculations for these speeds use the same weighted average price as for 2 Mb/s and 34 Mb/s respectively

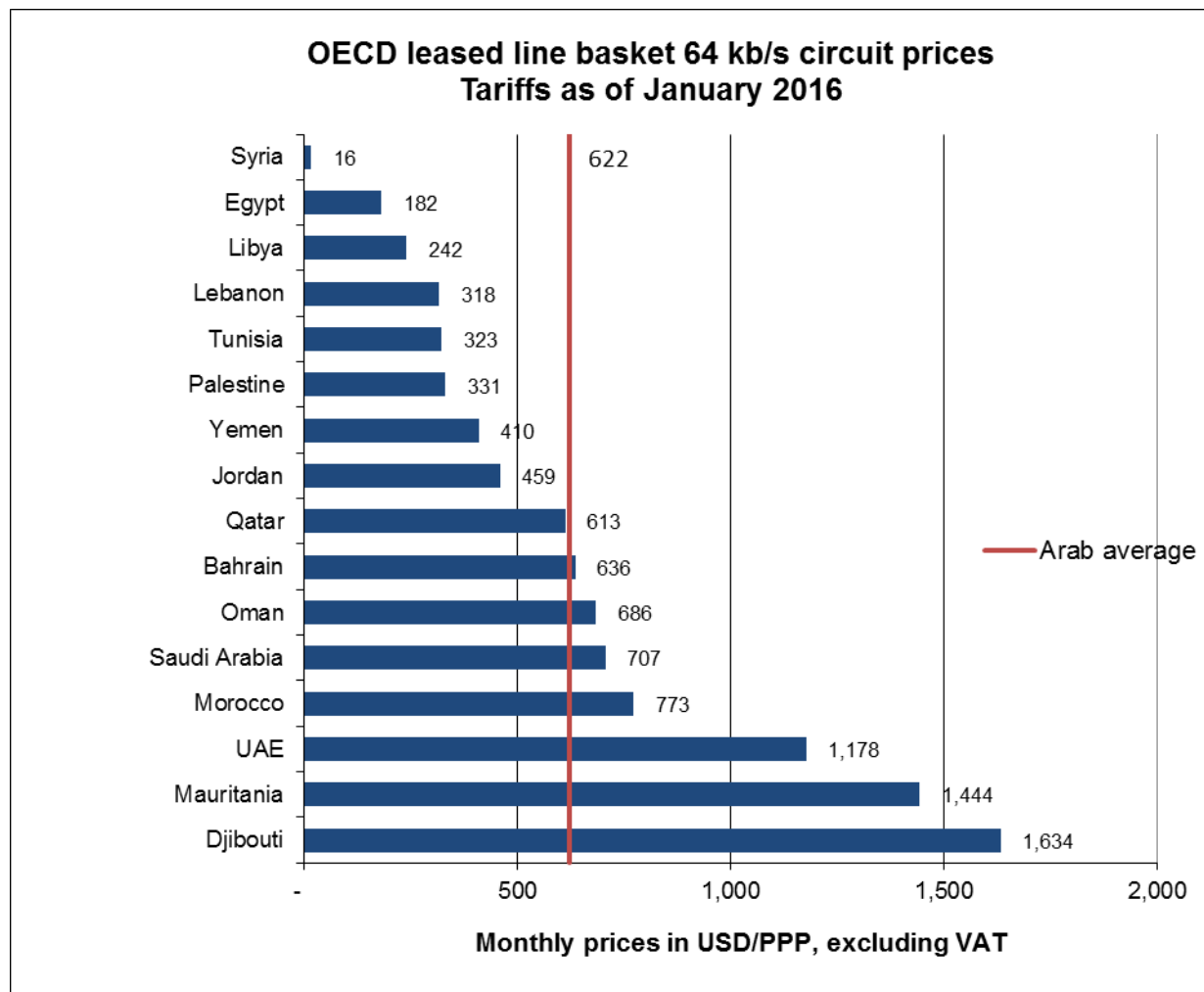




- No price data available for:
  - Comoros
  - Iraq
  - Kuwait
  - Somalia
- Other countries may have data missing for specific bitrates



# 64 KB/S OECD LEASED LINE BASKET RESULTS

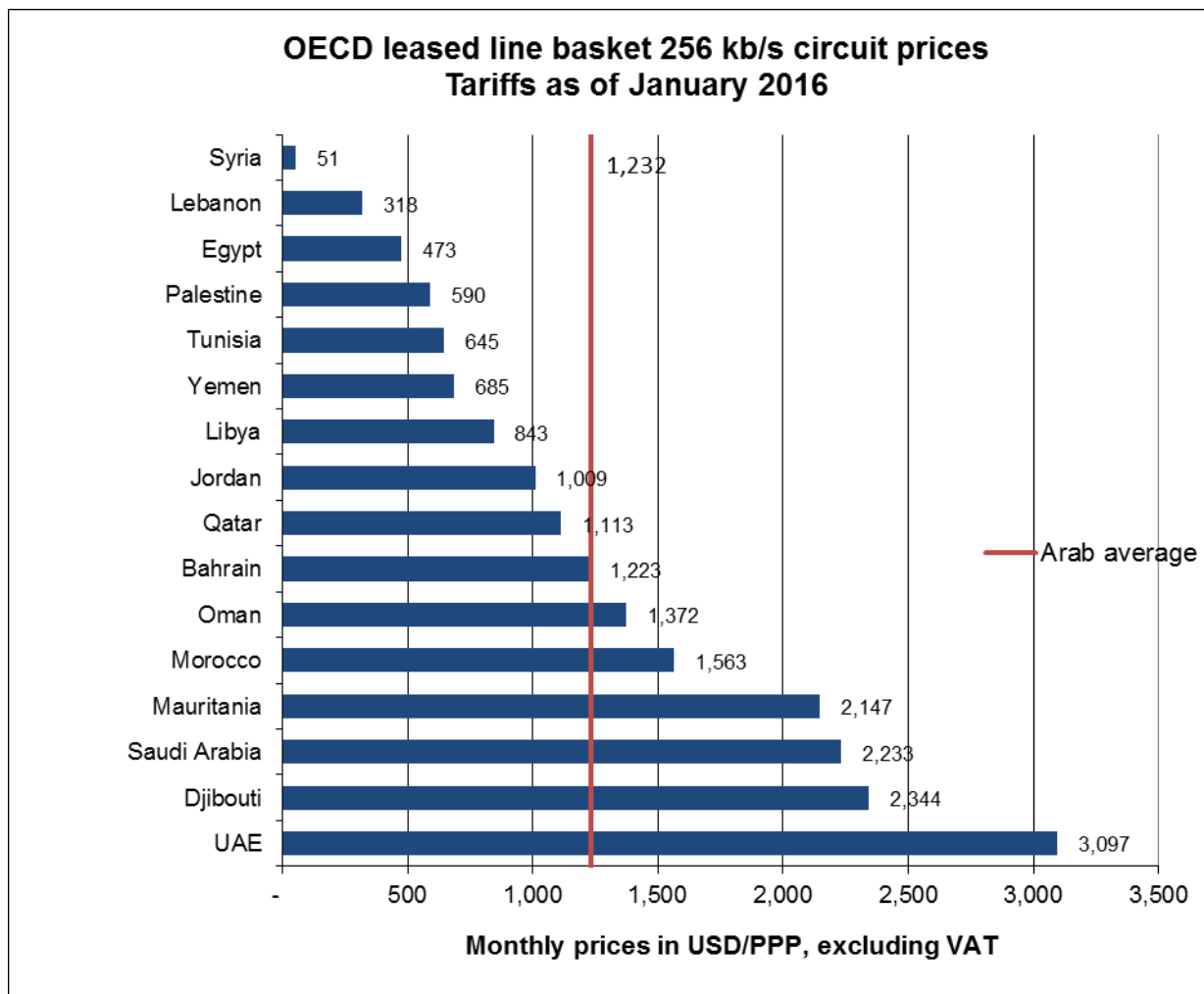


The 64 kb/s basket is no longer covered within the OECD baskets, however the standard 2010 methodology has been applied to 64 kb/s circuits for the Arab countries

Note: No equivalent OECD data exists.



# 256KB/S OECD LEASED LINE BASKET RESULTS

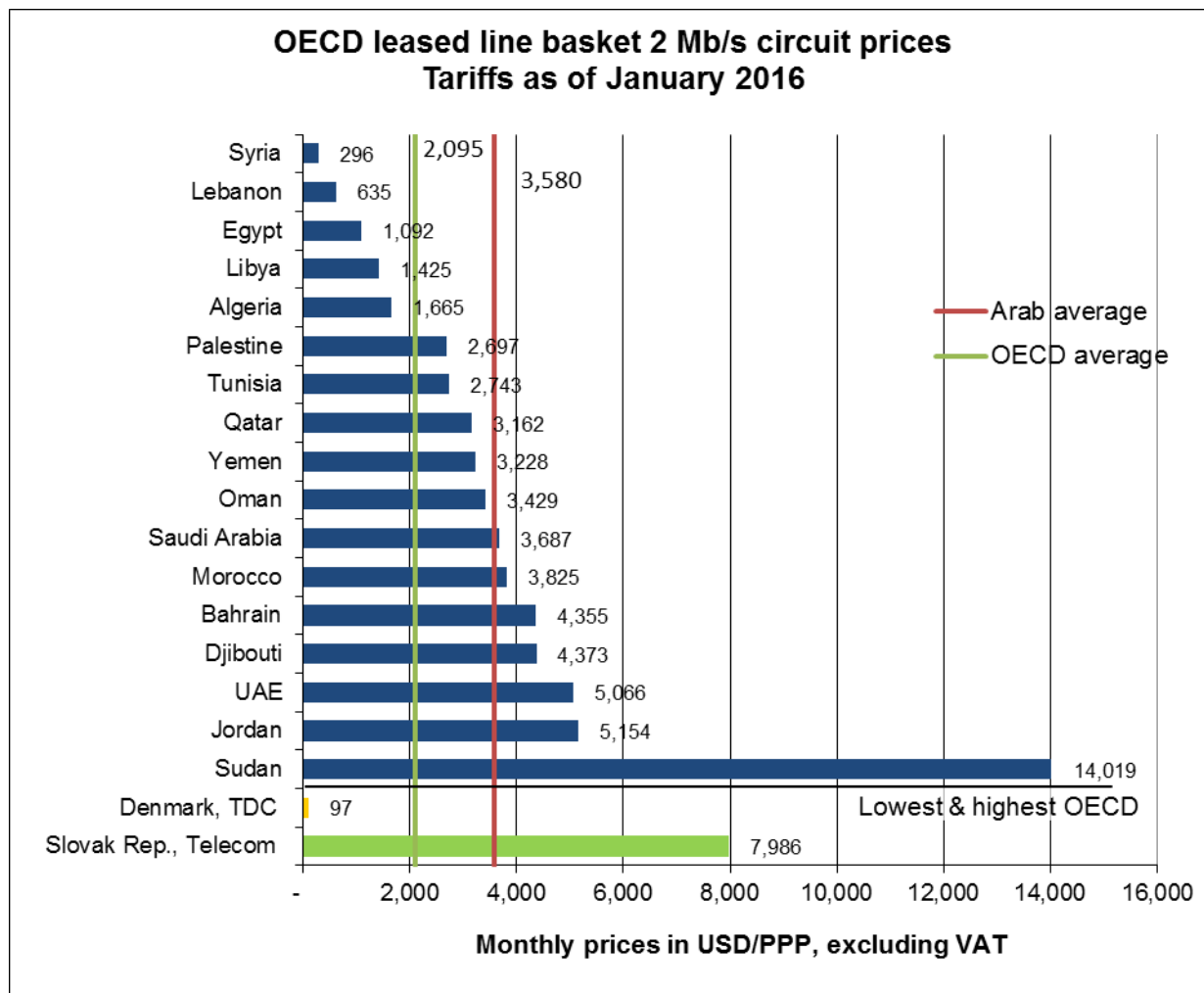


The OECD basket does not cover 256 kb/s, however the standard 2010 methodology has been applied to 256 kb/s circuits for the Arab countries

Note: No equivalent OECD data exists.



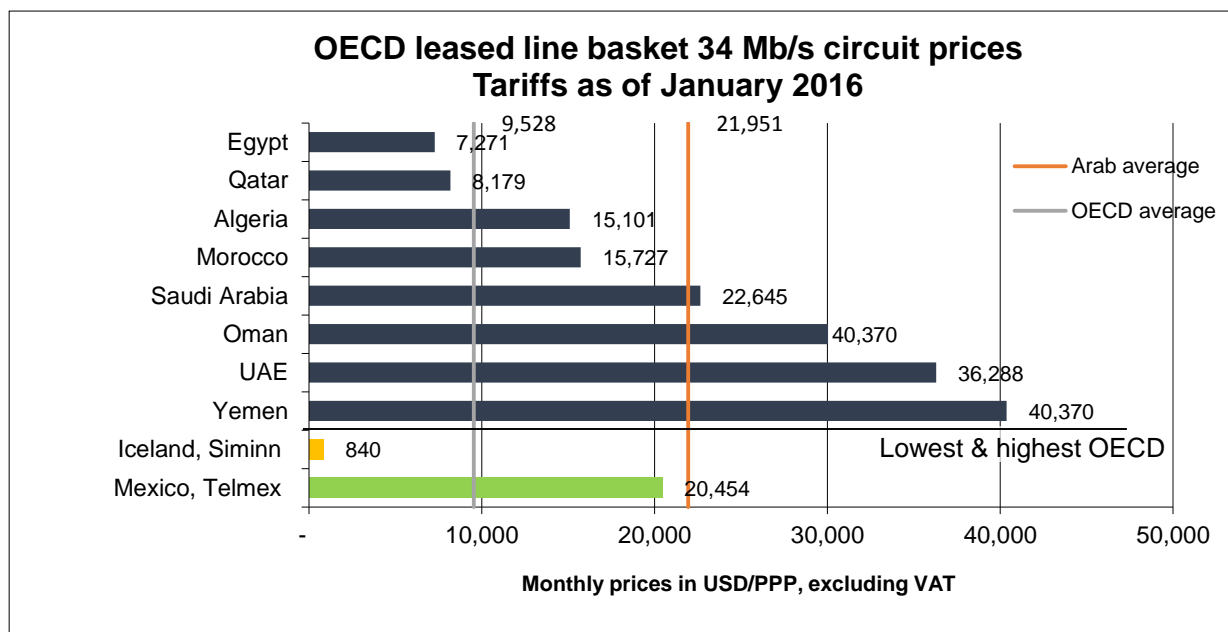
# 2 MB/S OECD LEASED LINE BASKET RESULTS



The OECD data shown represents the lowest and highest prices found in OECD countries, and the average price across all 34 OECD countries.



# 34 MB/S OECD LEASED LINE BASKET RESULTS

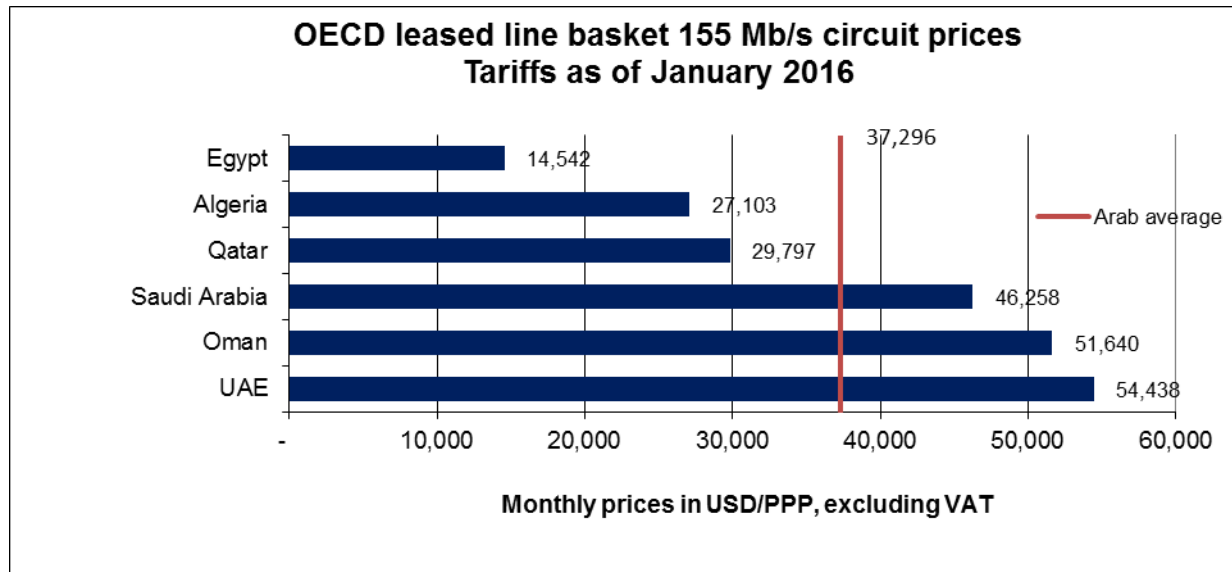


The OECD data shown represents the lowest and highest prices found in OECD countries, and the average price across all 34 OECD countries.

Only a few of the Arab countries publish these prices. The service may still be offered, though.



# 155 MB/S OECD LEASED LINE BASKET RESULTS



Only a few of the Arab countries publish these prices. The service may still be offered, though.

The OECD basket does not cover 155 Mb/s, however the standard 2010 methodology has been applied to 155 Mb/s circuits for the Arab countries

Note: No equivalent OECD data exists.





# OBSERVATIONS FROM LEASED LINE RESULTS

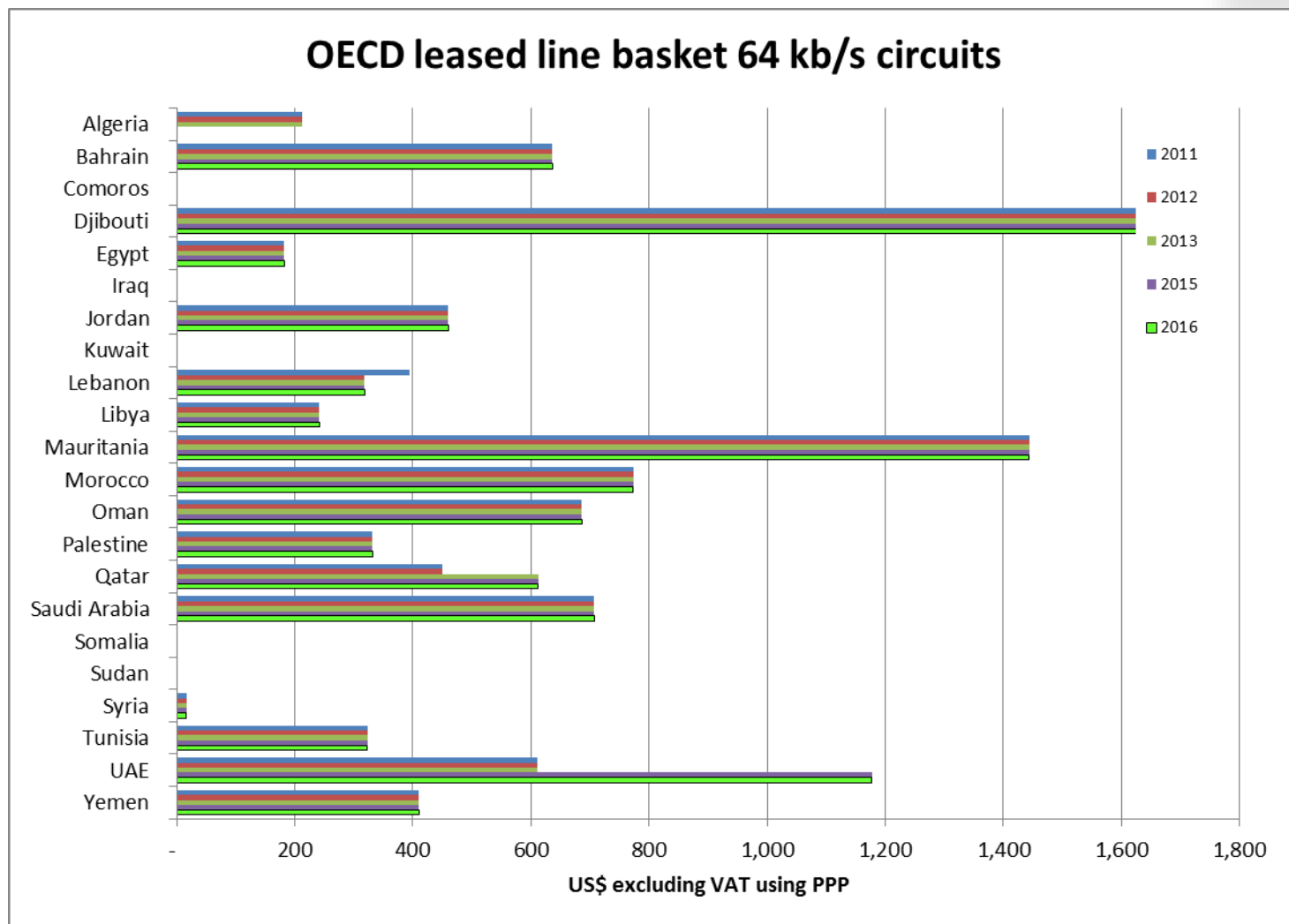
- Egypt, Libya, Lebanon, and Syria have the lowest prices for National Leased Lines.
  - The price ranking may vary with product
- For 34 Mb/s and 155 Mb/s a lot of the prices are not available in the public domain, and have not been included.
  - For 34 Mb/s, prices are only available from 8 countries, and for 155 Mb/s, from 6 countries.
- The prices in Djibouti, UAE and Mauritania for 64 kb/s and 256 kb/s, remain very high.
- For 2 Mb/s, most of the Arab countries have prices below the most expensive OECD country
  - However, all Arab countries are significantly more expensive than the OECD “best-in-class” (Denmark) at this speed
  - 5 of the 17 Arab countries are below the OECD average.
- Although the 34 Mb/s average for the Arab countries is considerably higher than the OECD average at this speed, - more than double – this is as a result of particularly high circuit costs in Oman, UAE and Yemen
  - 2 of the 6 Arab countries analysed - Egypt and Qatar – fall below the OECD average cost
  - All are considerably more expensive than the OECD “best-in-class” at this speed, however
- Many of the Arab countries are quite small in size and this price comparison may give advantage to the tariff structure used in these small countries.
  - i.e. the reality may be not be as favourable as shown here.



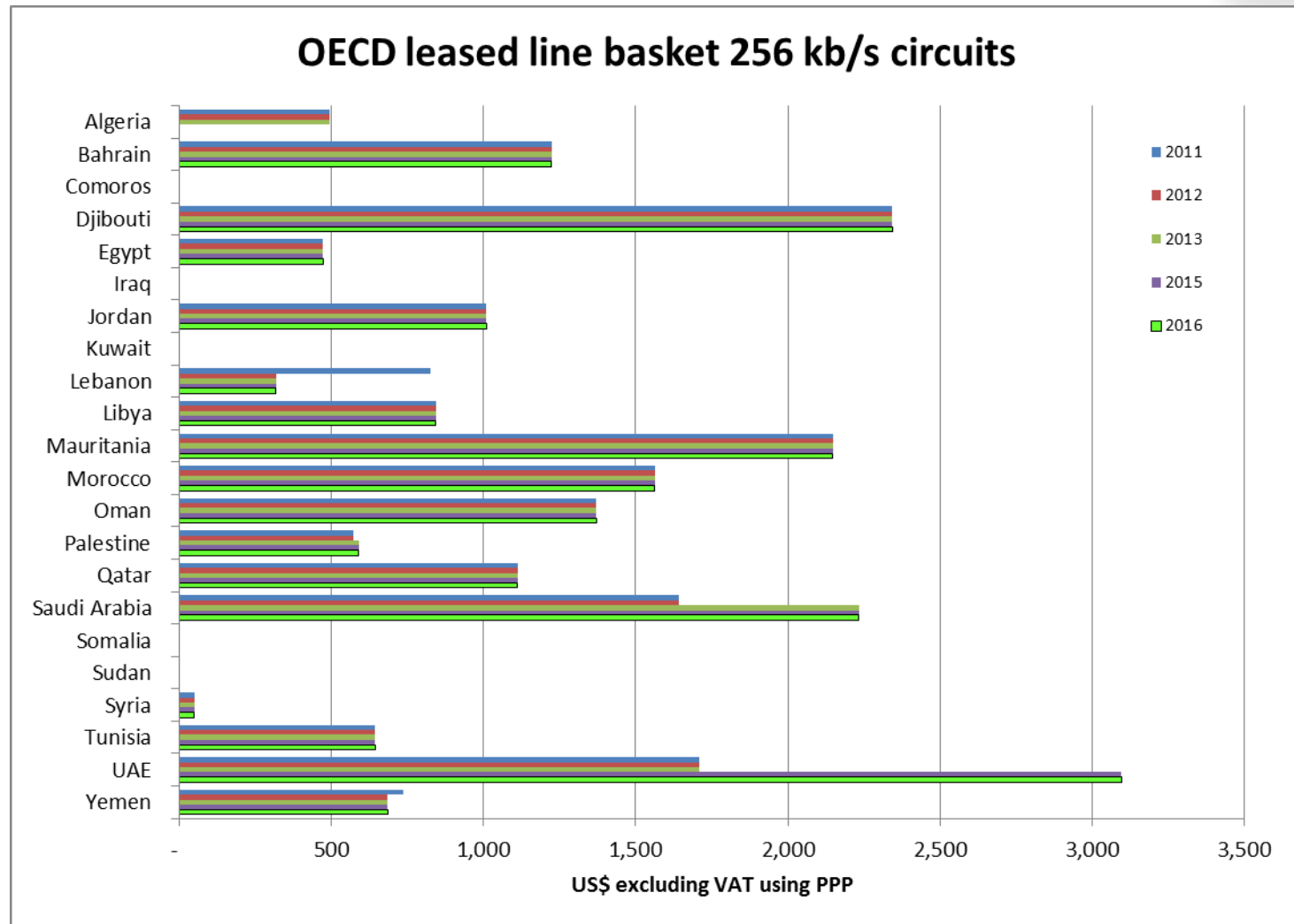


# OECD LEASED LINE TIME SERIES ANALYSIS 2011–2016

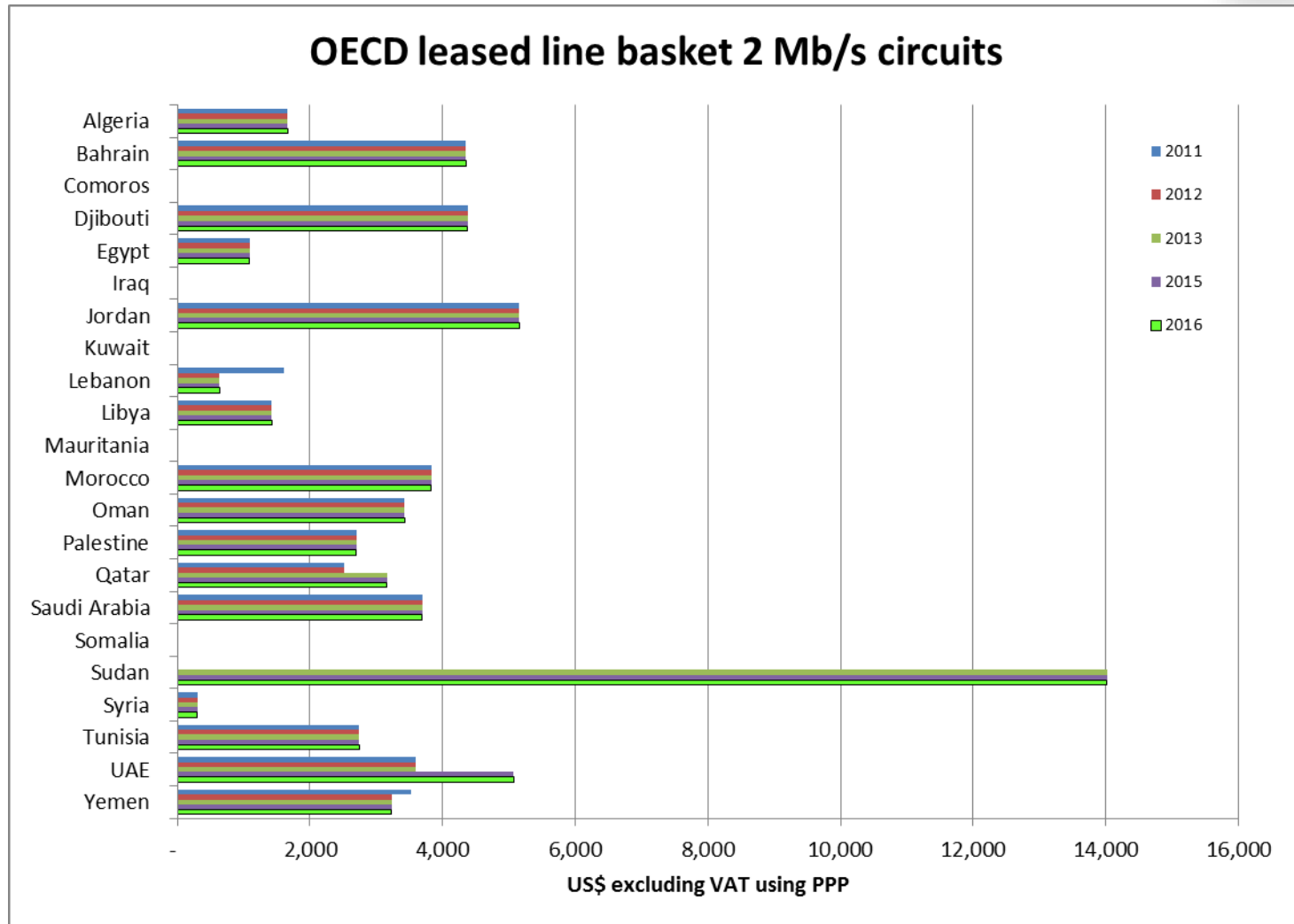
# 2010 OECD LEASED LINE TIME SERIES, 64 KB/S



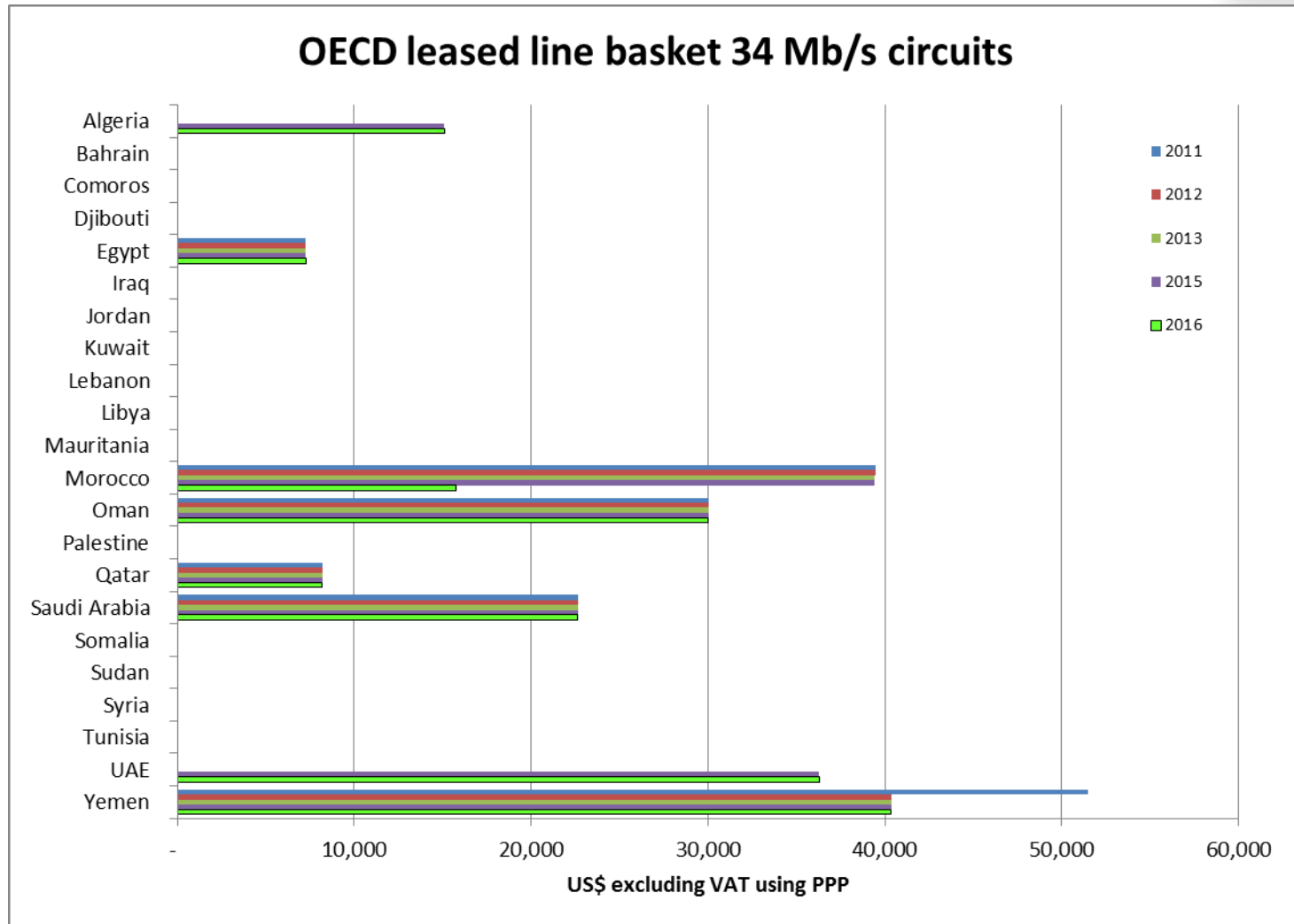
# 2010 OECD LEASED LINE TIME SERIES, 256 KB/S



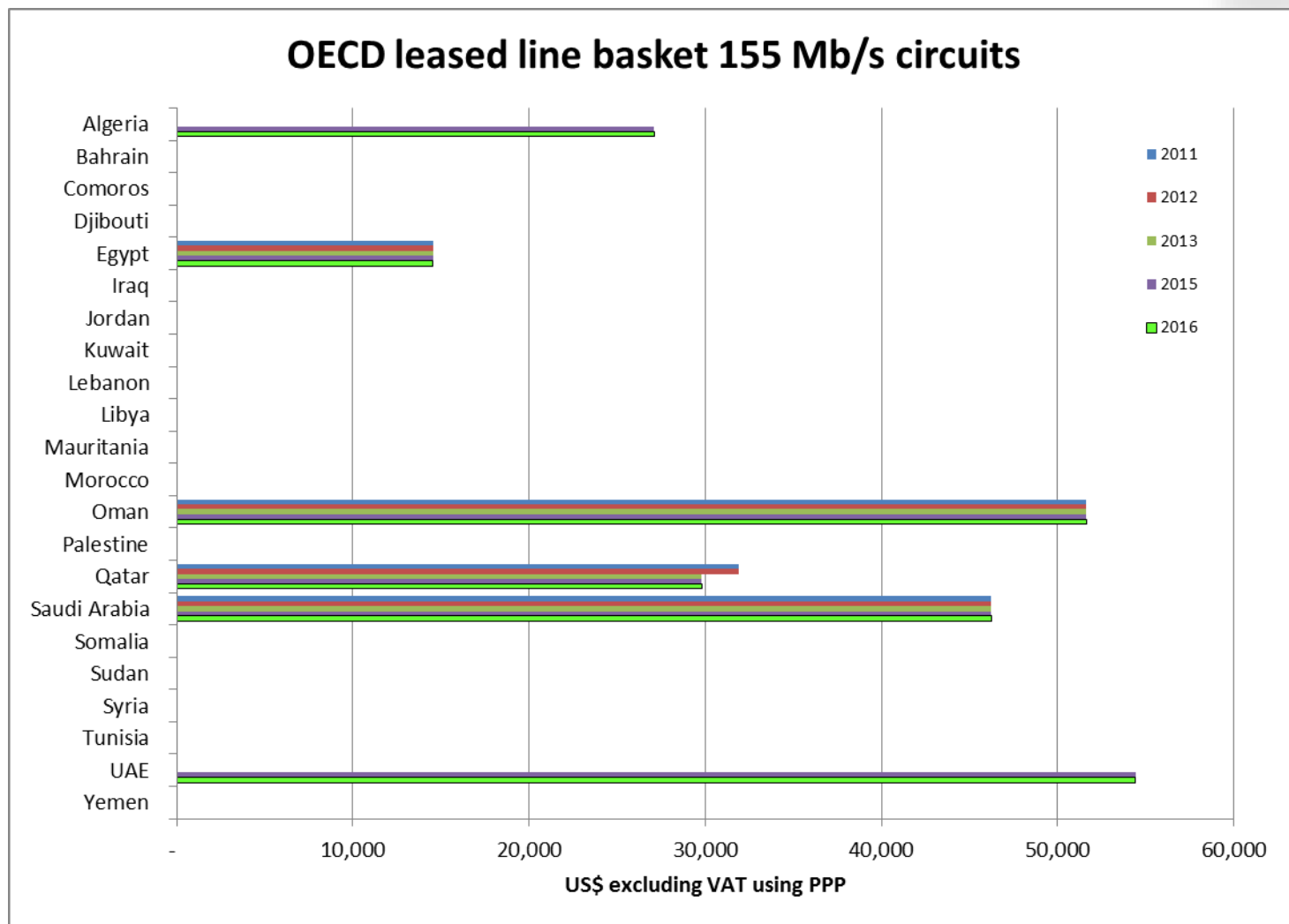
# 2010 OECD LEASED LINE TIME SERIES, 2 MB/S



# 2010 OECD LEASED LINE TIME SERIES, 34 MB/S



# 2010 OECD LEASED LINE TIME SERIES, 155 MB/S





# OBSERVATIONS FROM LEASED LINE TIME SERIES RESULTS

- Leased line prices have been generally stable since 2011, with no change to most of the operator prices.
- Price changes between 2015 and 2016 only occurred in Morocco :
  - 34 Mb/s circuit costs were reduced by 60%.
- The Arab average has remained static for most circuit types, apart from the 34 Mb/s basket, as a result of the price reduction in Morocco
- The average price changes for each basket between 2013/2015 and 2015/2016 are shown in the table below

Percentage change 2013/15 and 2015/16

	2013-2015	2015-2016
64 kb/s	10%	0%
256 kb/s	11%	0%
2 Mb/s	2%	0%
34 Mb/s	1%	-12%
155 Mb/s	5%	0%





# LEASED LINE RANKING TABLES 2011-2016

# 2010 OECD LEASED LINE BASKETS RANKING, 64 KB/S



Total results for OECD 64 kb/s leased line basket  
Results in US\$PPP excluding VAT

	2011	2012	2013	2015	2016
Algeria	212	212	212		
Bahrain	636	636	636	636	636
Comoros					
Djibouti	1,634	1,634	1,634	1,634	1,634
Egypt	182	182	182	182	182
Iraq					
Jordan	459	459	459	459	459
Kuwait					
Lebanon	394	318	318	318	318
Libya	242	242	242	242	242
Mauritania	1,444	1,444	1,444	1,444	1,444
Morocco	773	773	773	773	773
Oman	686	686	686	686	686
Palestine	331	331	331	331	331
Qatar	449	449	613	613	613
Saudi Arabia	707	707	707	707	707
Somalia					
Sudan					
Syria	16	16	16	16	16
Tunisia	323	323	323	323	323
UAE	611	611	611	1,178	1,178
Yemen	410	410	410	410	410

Arab average	559	555	564	622	622
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Below Arab average  
Above Arab average

Ranking for OECD 64 kb/s leased line basket

	2011	2012	2013	2015	2016
Algeria	3	3	3	-	-
Bahrain	12	12	12	10	10
Comoros	-	-	-	-	-
Djibouti	17	17	17	16	16
Egypt	2	2	2	2	2
Iraq	-	-	-	-	-
Jordan	10	10	9	8	8
Kuwait	-	-	-	-	-
Lebanon	7	5	5	4	4
Libya	4	4	4	3	3
Mauritania	16	16	16	15	15
Morocco	15	15	15	13	13
Oman	13	13	13	11	11
Palestine	6	7	7	6	6
Qatar	9	9	11	9	9
Saudi Arabia	14	14	14	12	12
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	1	1	1	1	1
Tunisia	5	6	6	5	5
UAE	11	11	10	14	14
Yemen	8	8	8	7	7

Least expensive  
Most expensive



# 2010 OECD LEASED LINE BASKETS RANKING, 256 KB/S



Total results for OECD 256 kb/s leased line basket  
Results in US\$PPP excluding VAT

	2011	2012	2013	2015	2016
Algeria	495	495	495		
Bahrain	1,223	1,223	1,223	1,223	1,223
Comoros					
Djibouti	2,344	2,344	2,344	2,344	2,344
Egypt	473	473	473	473	473
Iraq					
Jordan	1,009	1,009	1,009	1,009	1,009
Kuwait					
Lebanon	827	318	318	318	318
Libya	843	843	843	843	843
Mauritania	2,147	2,147	2,147	2,147	2,147
Morocco	1,563	1,563	1,563	1,563	1,563
Oman	1,372	1,372	1,372	1,372	1,372
Palestine	573	573	590	590	590
Qatar	1,113	1,113	1,113	1,113	1,113
Saudi Arabia	1,642	1,642	2,233	2,233	2,233
Somalia					
Sudan					
Syria	51	51	51	51	51
Tunisia	645	645	645	645	645
UAE	1,711	1,711	1,711	3,097	3,097
Yemen	737	685	685	685	685
Arab average	1,104	1,071	1,107	1,232	1,232

Below Arab average  
Above Arab average

Ranking for OECD 256 kb/s leased line basket

	2011	2012	2013	2015	2016
Algeria	3	4	4	-	-
Bahrain	11	11	11	10	10
Comoros	-	-	-	-	-
Djibouti	17	17	17	15	15
Egypt	2	3	3	3	3
Iraq	-	-	-	-	-
Jordan	9	9	9	8	8
Kuwait	-	-	-	-	-
Lebanon	7	2	2	2	2
Libya	8	8	8	7	7
Mauritania	16	16	15	13	13
Morocco	13	13	13	12	12
Oman	12	12	12	11	11
Palestine	4	5	5	4	4
Qatar	10	10	10	9	9
Saudi Arabia	14	14	16	14	14
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	1	1	1	1	1
Tunisia	5	6	6	5	5
UAE	15	15	14	16	16
Yemen	6	7	7	6	6

Least expensive  
Most expensive





# 2010 OECD LEASED LINE BASKETS RANKING, 2 MB/S

Total results for OECD 2 Mb/s leased line basket  
Results in US\$PPP excluding VAT

	2011	2012	2013	2015	2016
Algeria	1,665	1,665	1,665	1,665	1,665
Bahrain	4,355	4,355	4,355	4,355	4,355
Comoros					
Djibouti	4,373	4,373	4,373	4,373	4,373
Egypt	1,092	1,092	1,092	1,092	1,092
Iraq					
Jordan	5,154	5,154	5,154	5,154	5,154
Kuwait					
Lebanon	1,615	635	635	635	635
Libya	1,425	1,425	1,425	1,425	1,425
Mauritania					
Morocco	3,825	3,825	3,825	3,825	3,825
Oman	3,429	3,429	3,429	3,429	3,429
Palestine	2,697	2,697	2,697	2,697	2,697
Qatar	2,515	2,515	3,162	3,162	3,162
Saudi Arabia	3,687	3,687	3,687	3,687	3,687
Somalia					
Sudan			14,019	14,019	14,019
Syria	296	296	296	296	296
Tunisia	2,743	2,743	2,743	2,743	2,743
UAE	3,593	3,593	3,593	5,066	5,066
Yemen	3,523	3,228	3,228	3,228	3,228

Arab average	2,874	2,795	3,493	3,580	3,580
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Below Arab average  
Above Arab average

Ranking for OECD 2 Mb/s leased line basket

	2011	2012	2013	2015	2016
Algeria	5	5	5	5	5
Bahrain	14	14	14	13	13
Comoros	-	-	-	-	-
Djibouti	15	15	15	14	14
Egypt	2	3	3	3	3
Iraq	-	-	-	-	-
Jordan	16	16	16	16	16
Kuwait	-	-	-	-	-
Lebanon	4	2	2	2	2
Libya	3	4	4	4	4
Mauritania	-	-	-	-	-
Morocco	13	13	13	12	12
Oman	9	10	10	10	10
Palestine	7	7	6	6	6
Qatar	6	6	8	8	8
Saudi Arabia	12	12	12	11	11
Somalia	-	-	-	-	-
Sudan	-	-	17	17	17
Syria	1	1	1	1	1
Tunisia	8	8	7	7	7
UAE	11	11	11	15	15
Yemen	10	9	9	9	9

Least expensive  
Most expensive



# 2010 OECD LEASED LINE BASKETS RANKING, 34 MB/S



Total results for OECD 34 Mb/s leased line basket  
Results in US\$PPP excluding VAT

	2011	2012	2013	2015	2016
Algeria				15,101	15,101
Bahrain					
Comoros					
Djibouti					
Egypt	7,271	7,271	7,271	7,271	7,271
Iraq					
Jordan					
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco	39,484	39,484	39,427	39,427	15,727
Oman	30,030	30,030	30,030	30,030	30,030
Palestine					
Qatar	8,179	8,179	8,179	8,179	8,179
Saudi Arabia	22,645	22,645	22,645	22,645	22,645
Somalia					
Sudan					
Syria					
Tunisia					
UAE				36,288	36,288
Yemen	51,511	40,370	40,370	40,370	40,370

Arab average	26,520	24,663	24,654	24,914	21,951
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Below Arab average  
Above Arab average

Ranking for OECD 34 Mb/s leased line basket

	2011	2012	2013	2015	2016
Algeria	-	-	-	3	3
Bahrain	-	-	-	-	-
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	1	1	1	1	1
Iraq	-	-	-	-	-
Jordan	-	-	-	-	-
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	5	5	5	7	4
Oman	4	4	4	5	6
Palestine	-	-	-	-	-
Qatar	2	2	2	2	2
Saudi Arabia	3	3	3	4	5
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	-	-	-	6	7
Yemen	6	6	6	8	8

Least expensive  
Most expensive



# 2010 OECD LEASED LINE BASKETS RANKING, 155 MB/S



Total results for OECD 155 Mb/s leased line basket  
Results in US\$PPP excluding VAT

	2011	2012	2013	2015	2016
Algeria				27,103	27,103
Bahrain					
Comoros					
Djibouti					
Egypt	14,542	14,542	14,542	14,542	14,542
Iraq					
Jordan					
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					
Oman	51,640	51,640	51,640	51,640	51,640
Palestine					
Qatar	31,904	31,904	29,797	29,797	29,797
Saudi Arabia	46,258	46,258	46,258	46,258	46,258
Somalia					
Sudan					
Syria					
Tunisia					
UAE				54,438	54,438
Yemen					

Arab average	36,086	36,086	35,559	37,296	37,296
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Below Arab average  
Above Arab average

Ranking for OECD 155 Mb/s leased line basket

	2011	2012	2013	2015	2016
Algeria	-	-	-	2	2
Bahrain	-	-	-	-	-
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	1	1	1	1	1
Iraq	-	-	-	-	-
Jordan	-	-	-	-	-
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	-
Oman	4	4	4	5	5
Palestine	-	-	-	-	-
Qatar	2	2	2	3	3
Saudi Arabia	3	3	3	4	4
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	-	-	-	6	6
Yemen	-	-	-	-	-

Least expensive  
Most expensive





# FIXED BROADBAND BASKET RESULTS 2016



# FIXED BROADBAND BASKET METHODOLOGY

- Research covering 273 fixed broadband service offerings from the incumbent ISP\* in 19 Arab countries
- Costs are derived using the OECD broadband basket methodology, and are based on the new baskets that were defined by OECD in 2014, which consider a number of speed ranges and usage levels (18 in total). The new baskets are shown in the table below. As most ISPs in the Arab countries do not offer services in the highest two speed categories (greyed out in the table), results for these have not been included.
  - As of January 2016, only five of the Arab countries had broadband services >100 Mb/s; Bahrain, Oman, Qatar, Saudi Arabia and UAE
  - Costs are shown separately for both residential and business services
- Total monthly cost calculated based on usage profiles, which are dependent on the speed of service, as shown below (12 of the total 18) :

Service speeds		Usage volume (GB/month)		
Download speed (Mb/s)	Minimum upload speed (Mb/s)	Low	Medium	High
≤1.5/2.0	0.256	5	10	20
>1.5/2.0 – 10	0.512	5	15	50
>10 – 25/30	0.768	10	25	100
>25/30 – 100	1	15	50	200
>100 – 1000	3	25	100	400
>1000	10	100	250	1000

The OECD data shown refer to the incumbent ISP\* fixed broadband services in the 34 OECD countries

- Tariff data cover the cheapest form of installation, amortized over three years, modem cost (if applicable), monthly rental, usage allowances and any usage charges. Additional information on speed, web-space, email addresses, penalties with excess usage, and contract term duration is also included in the basic data and presented along with the cost results.
  - To the extent this information is published by the provider

**\* Incumbent ISP will normally mean the ISP owned by the incumbent operator in the country.**





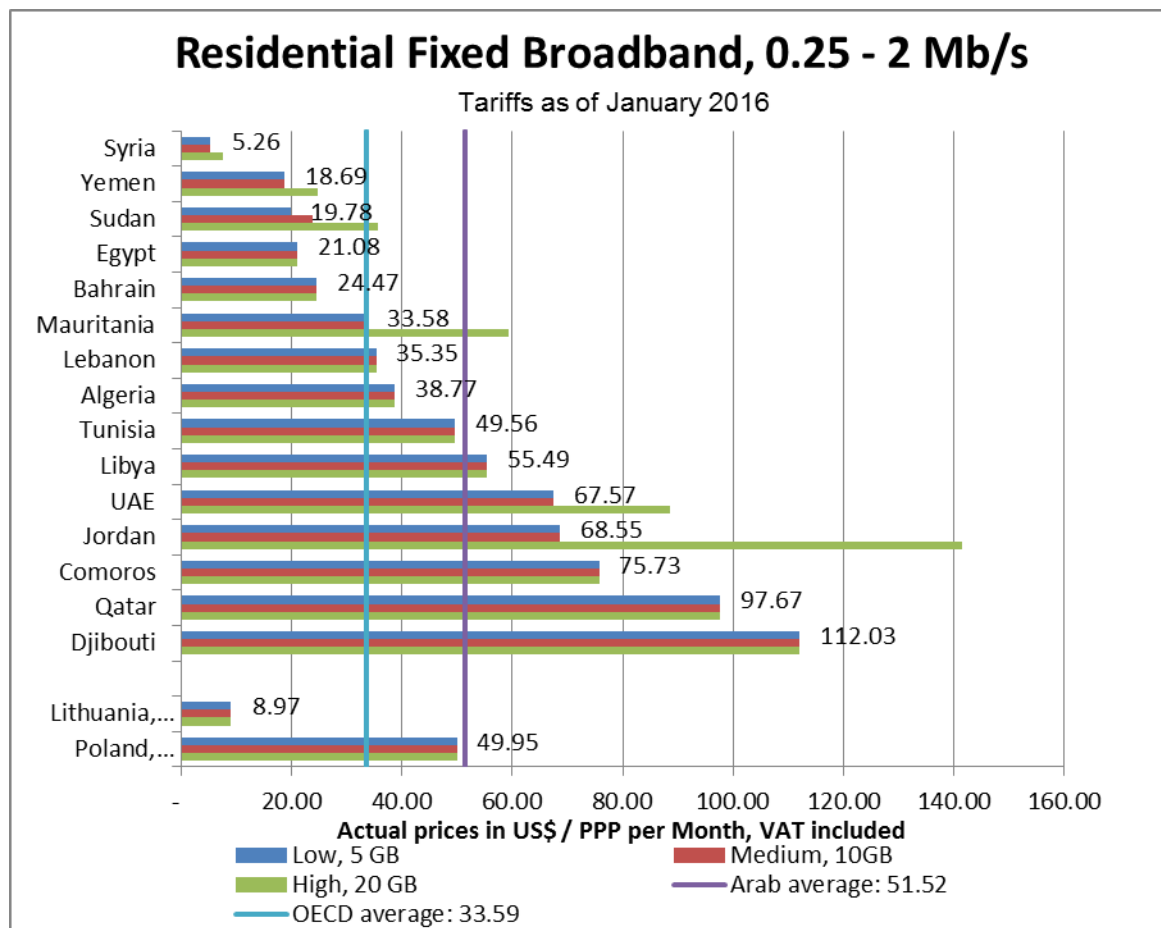
# FIXED BROADBAND DATA ISSUES

- Price data is not available for broadband services in:
  - Iraq
  - Kuwait
  - Somalia
- Speeds have continued to increase, with no ISPs having offerings below 256 kb/s. Maximum speeds have increased dramatically.
  - Speeds above 2 Mb/s are available in 18 of the 19 countries. Only Libya has broadband speeds not exceeding 2 Mb/s (only 512kb/s is available which is an improvement on the 256Kb/s speed in 2015)
  - Advertised maximum download speeds of 8 Mb/s, 16 Mb/s and even 40 Mb/s are much more commonplace.
  - Average speed across the Arab countries up from 23.7 Mb/s in 2015 to 23.9 Mb/s in 2016

Note: the average speed is a simple average across the packages, and does not take into account the distribution of customers across available plans. Information on customer distribution is not available, and hence a weighted average is not possible.



# RESIDENTIAL FIXED BROADBAND VERY LOW SPEED OECD 2014 BASKET > 256 KB/S UP TO 2 MB/S



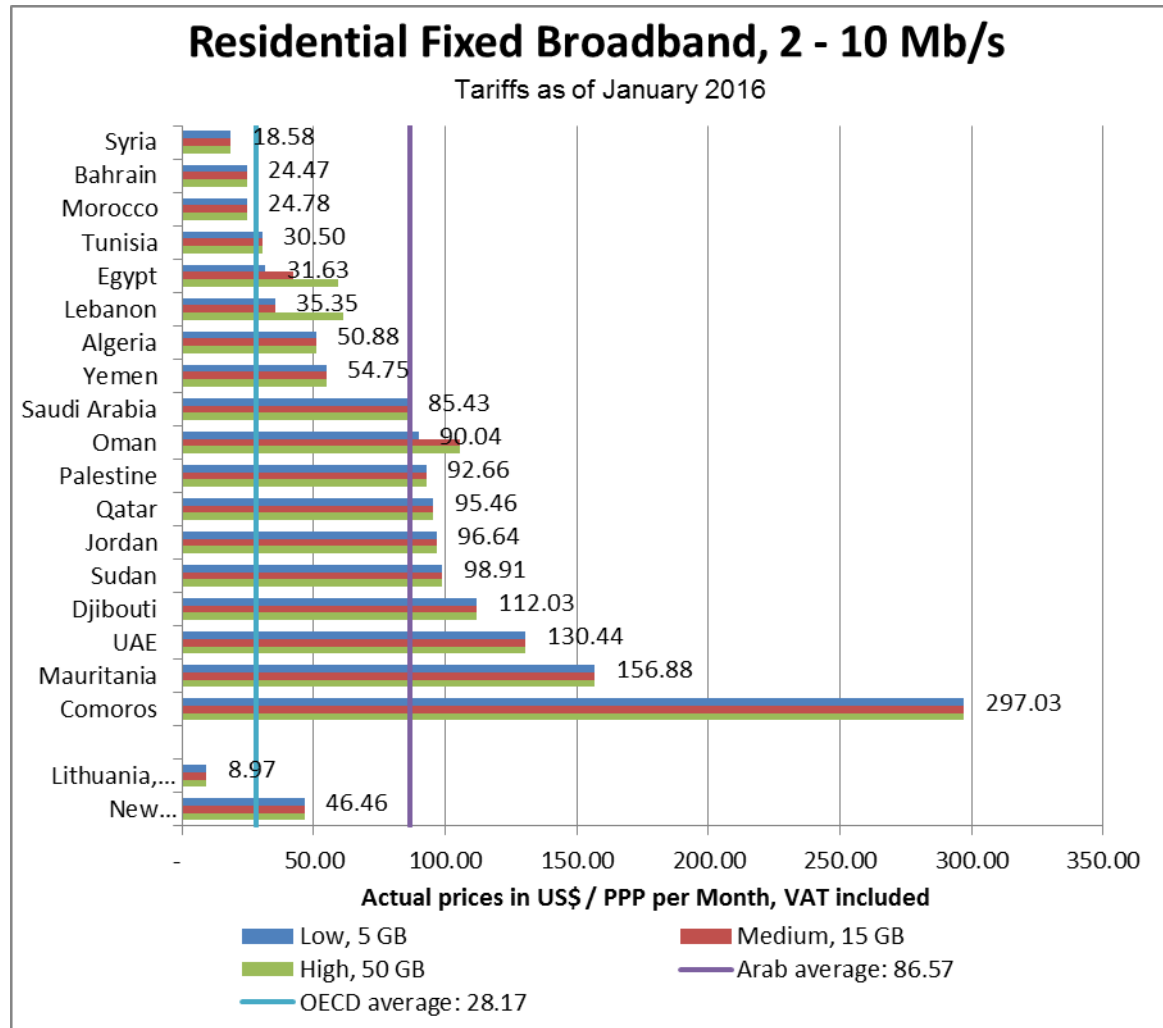
Total monthly cost  
calculated based on  
three usage baskets:

Low usage: 5 GB  
Medium usage: 10 GB  
High usage: 20 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.



# RESIDENTIAL FIXED BROADBAND LOW SPEED OECD 2014 BASKET > 2 MB/S UP TO 10 MB/S



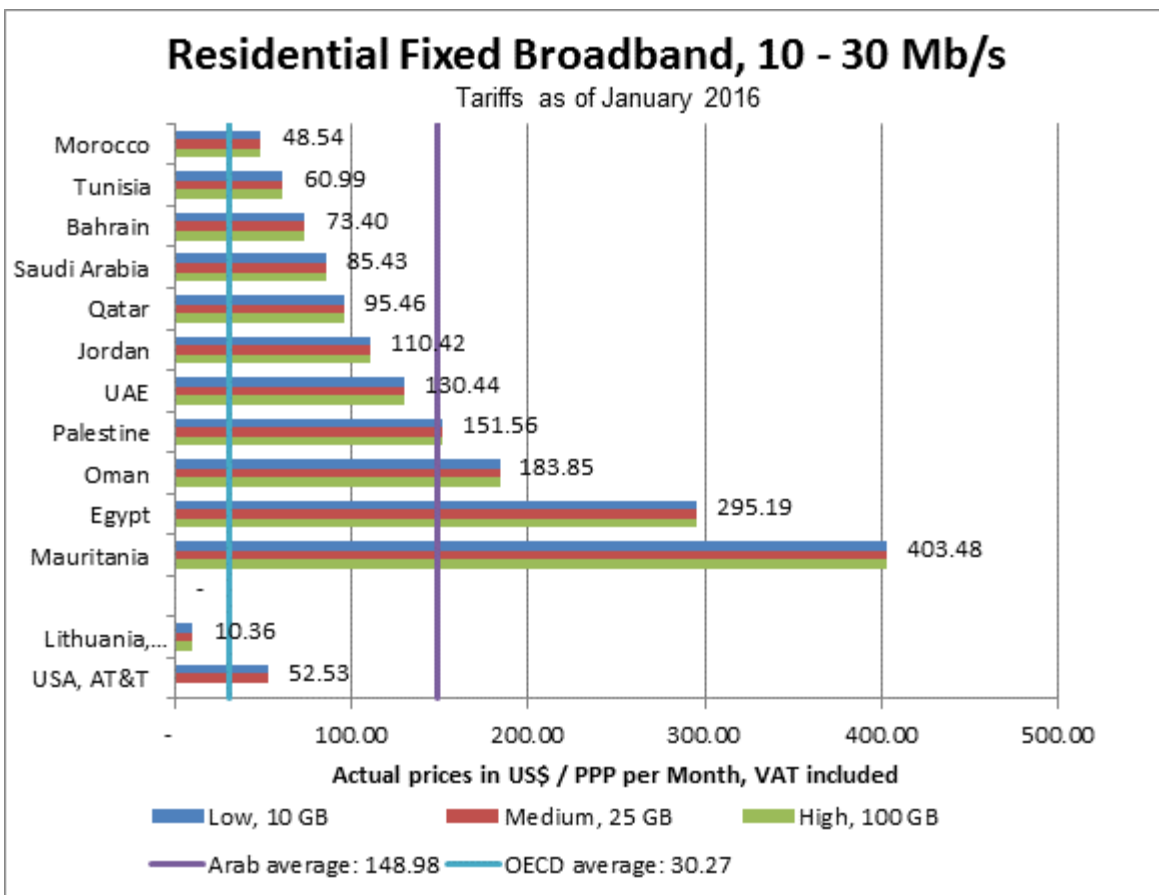
Total monthly cost  
calculated based on  
three usage baskets:

Low usage: 5 GB  
Medium usage: 15 GB  
High usage: 50 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.



# RESIDENTIAL FIXED BROADBAND MEDIUM SPEED OECD 2014 BASKET > 10 MB/S UP TO 30 MB/S



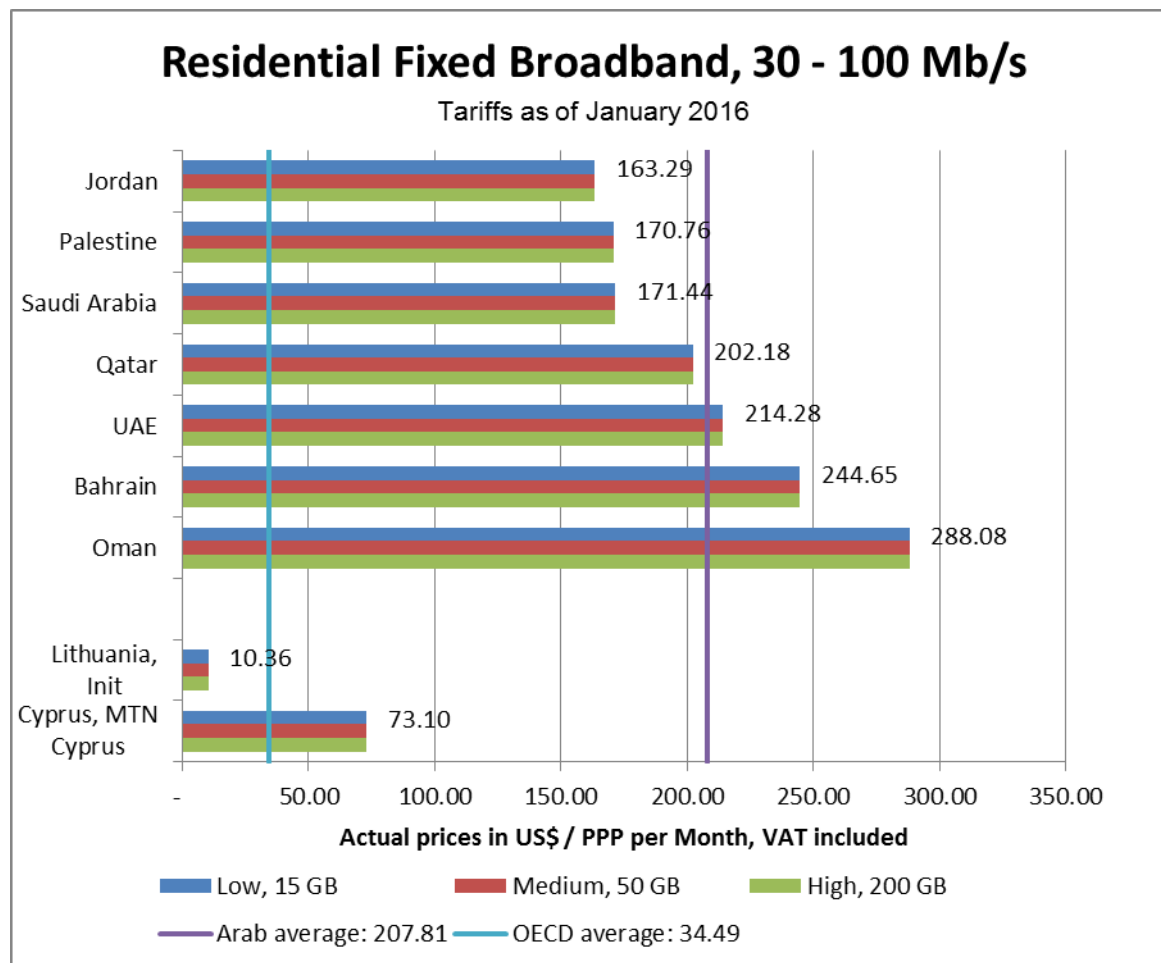
Total monthly cost  
calculated based on  
three usage baskets:

Low usage: 10 GB  
Medium usage: 25 GB  
High usage: 100 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.



# RESIDENTIAL FIXED BROADBAND HIGH SPEED OECD 2014 BASKET > 30 MB/S UP TO 100 MB/S



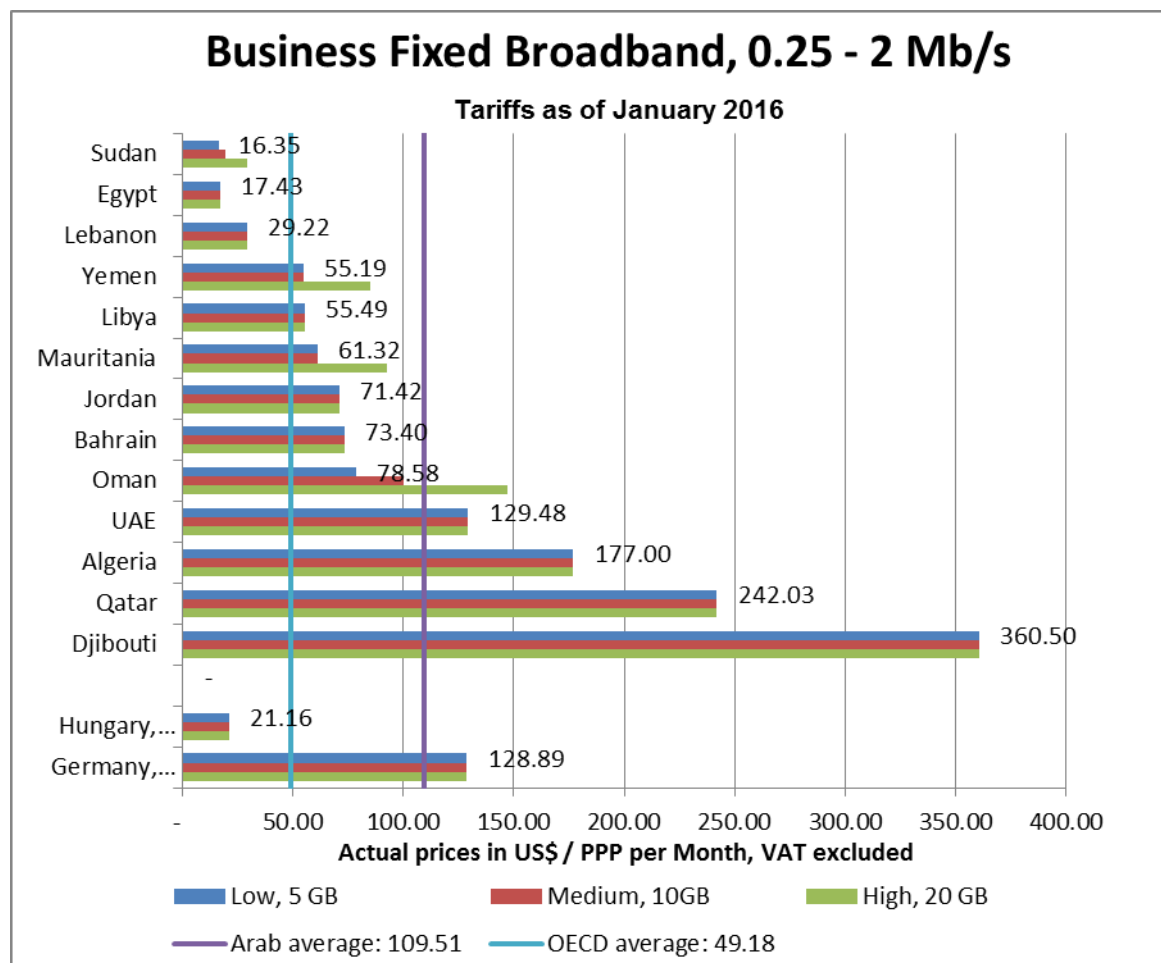
Total monthly cost  
calculated based on  
three usage baskets:

Low usage: 15 GB  
Medium usage: 50 GB  
High usage: 200 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.



# BUSINESS FIXED BROADBAND VERY LOW SPEED OECD 2014 BASKET > 256 KB/S UP TO 2 MB/S



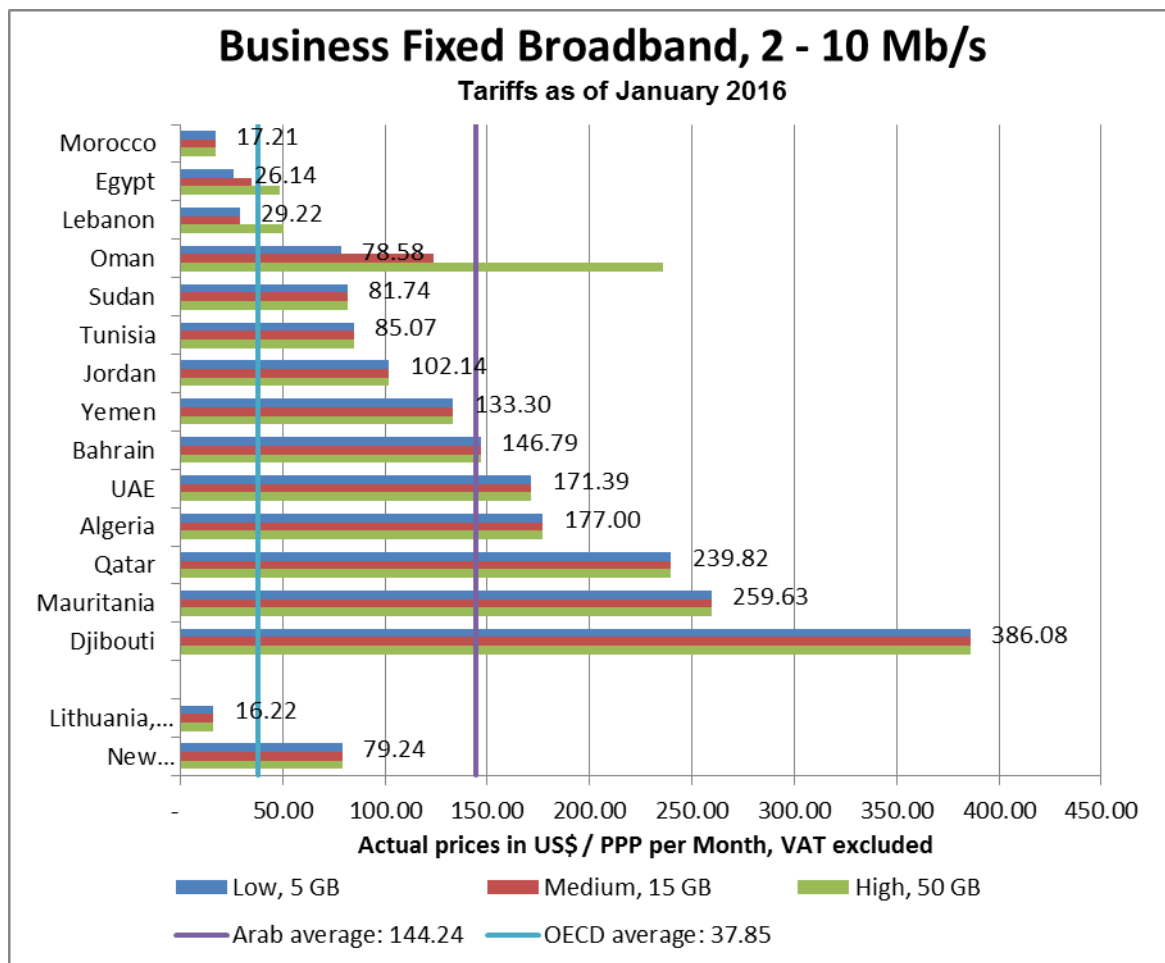
Total monthly cost  
calculated based on  
three usage baskets:

Low usage: 5 GB  
Medium usage: 10 GB  
High usage: 20 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.



# BUSINESS FIXED BROADBAND LOW SPEED OECD 2014 BASKET > 2 MB/S UP TO 10 MB/S



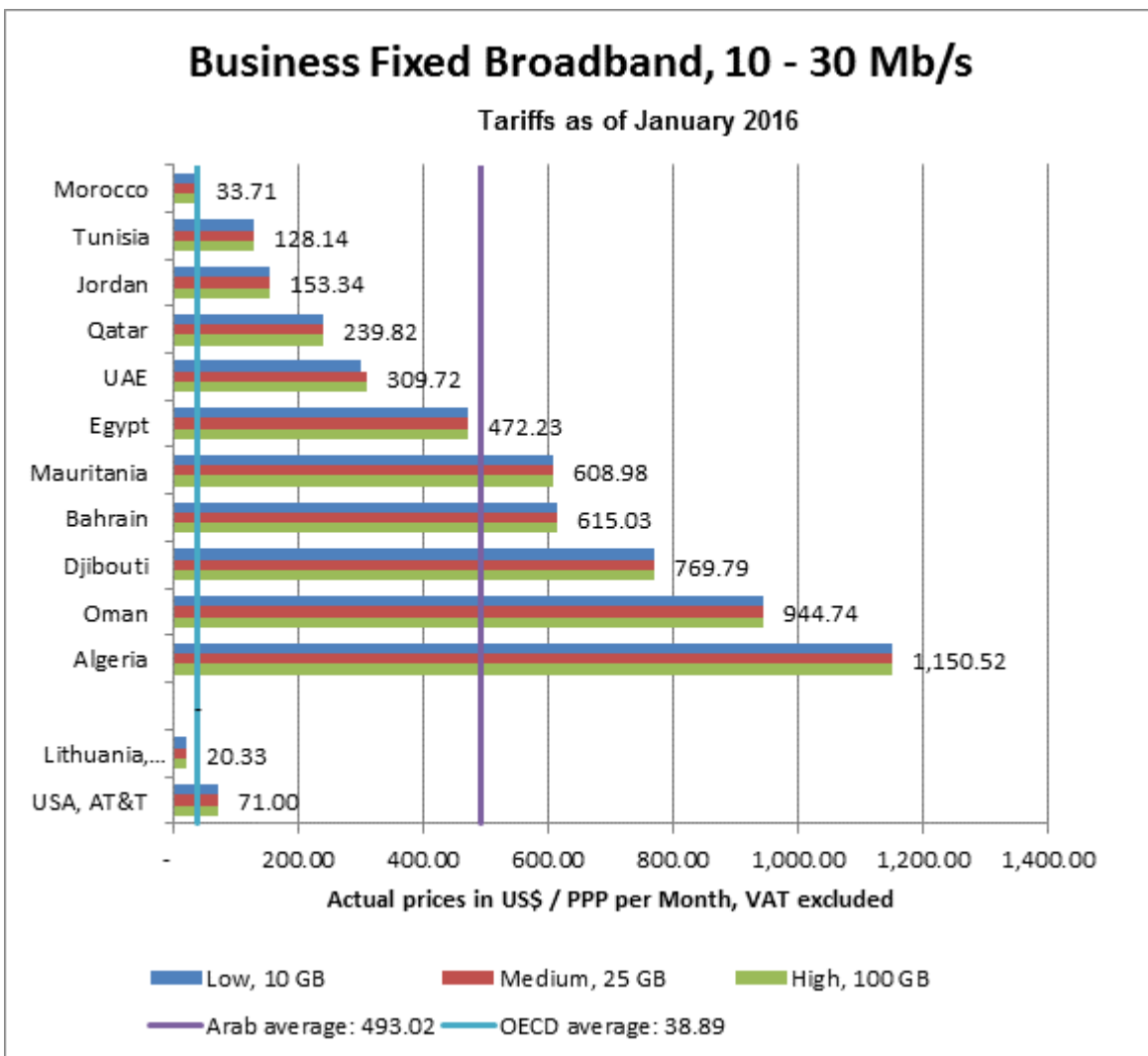
Total monthly cost  
calculated based on  
three usage baskets:

Low usage: 5 GB  
Medium usage: 15 GB  
High usage: 50 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.



# BUSINESS FIXED BROADBAND MEDIUM SPEED OECD 2014 BASKET > 10 MB/S UP TO 30 MB/S



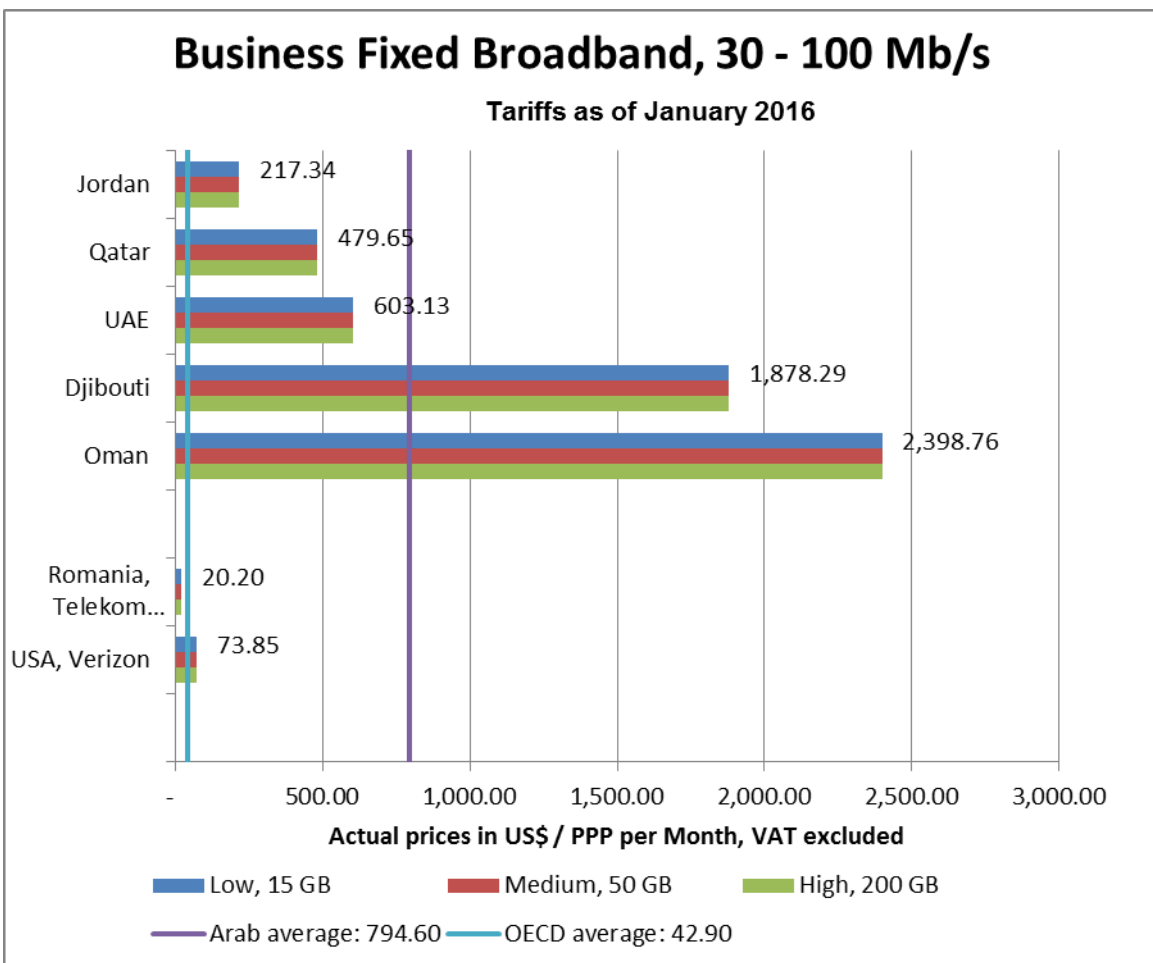
Total monthly cost  
calculated based on  
three usage baskets:

Low usage: 10 GB  
Medium usage: 25 GB  
High usage: 100 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.



# BUSINESS FIXED BROADBAND HIGH SPEED OECD 2014 BASKET > 30 MB/S UP TO 100 MB/S



Total monthly cost  
calculated based on  
three usage baskets:

Low usage: 15 GB  
Medium usage: 50 GB  
High usage: 200 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.



# OBSERVATIONS FROM FIXED BROADBAND BASKET RESULTS



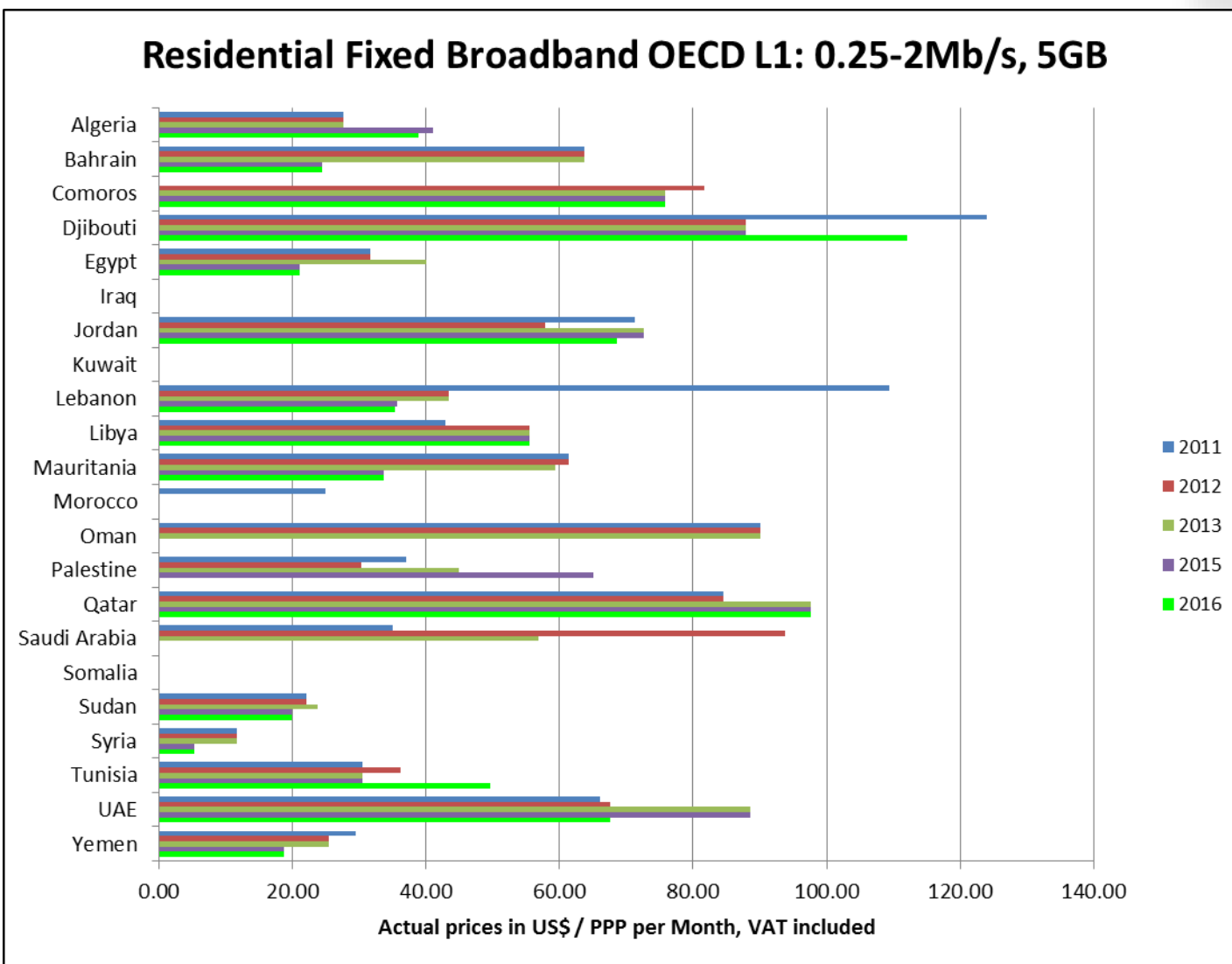
- There is a large variation in ranking according to the speed of service. For lower speed residential services (up to 10 Mb/s), Syria, Yemen, Sudan, Bahrain, Morocco and Egypt are among the cheapest, while for higher speed services (10 to 30Mb/s), Morocco, Tunisia, Bahrain and Saudi Arabia are more prominent. Jordan, Palestine and Saudi Arabia are the best ranking countries for the highest speed services.
- For lower speed business services, it is a similar picture (although there are no business offers for Syria). Only Jordan, Qatar, Oman, UAE and Djibouti offer business services above 30 Mb/s.
- Speeds of 4 Mb/s and above are now offered in 18 of the countries:
  - Algerian, Bahrain, Comoros, Djibouti, Egypt, Jordan, Lebanon, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, UAE and Yemen.
  - For higher speed services, above 30 Mb/s only 7 of the 19 countries have residential offerings in this speed category, and only 4 have business offerings
  - There continues to be a wide variation in prices between countries
- The number of Arab countries that are below the OECD average depends on the speed of service, and, for some countries, on the usage level.
  - For the lowest speed category, 7 Arab countries are cheaper than the OECD average which is less than the previous year when 8 countries were cheaper than average.
  - For speeds above 10 Mb/s, no Arab country is cheaper than the OECD average.
  - Business services show a similar trend, although notably Morocco has very competitively priced business offers up to 30 Mb/s
- The Arab average residential cost is up to 5 times higher than the average OECD cost which is a significant increase against the 3.1 times ratio in 2015. For business services, the average is up to 18 times higher.
  - The residential figure continues to be skewed by particularly high costs in a number of countries, in particular, Djibouti, Mauritania, Egypt and Comoros. For business services, the Arab average is heavily skewed by the Djibouti and Tunisian costs.
- Usage based charges are still prevalent, and appear in offers across 8 of the Arab countries, however, they have had limited impact on the basket results, and flat rate services have featured as the cheapest. In many OECD countries, usage-based charges often only apply for a very few ISPs.



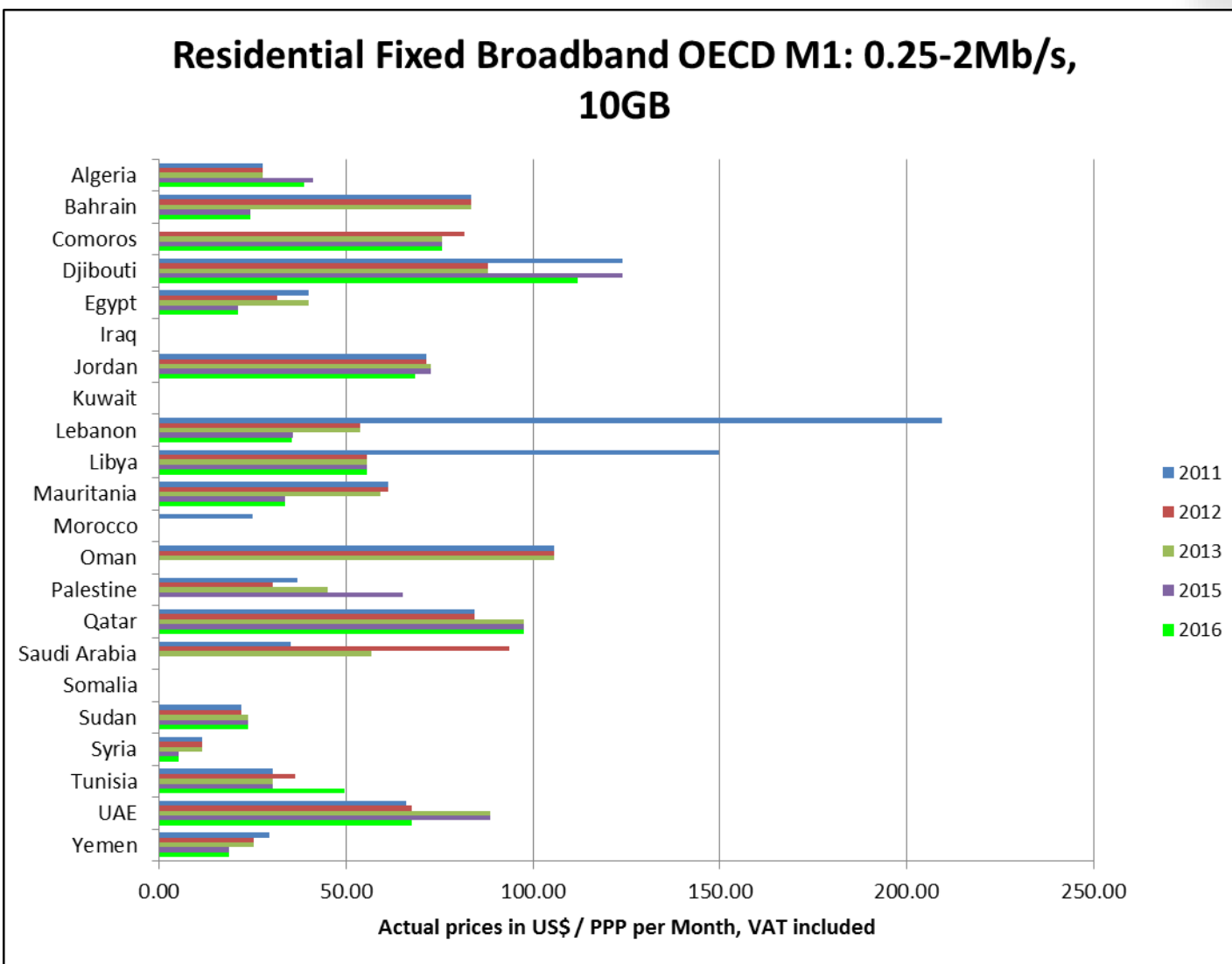


# FIXED BROADBAND TIME SERIES ANALYSIS 2011–2016

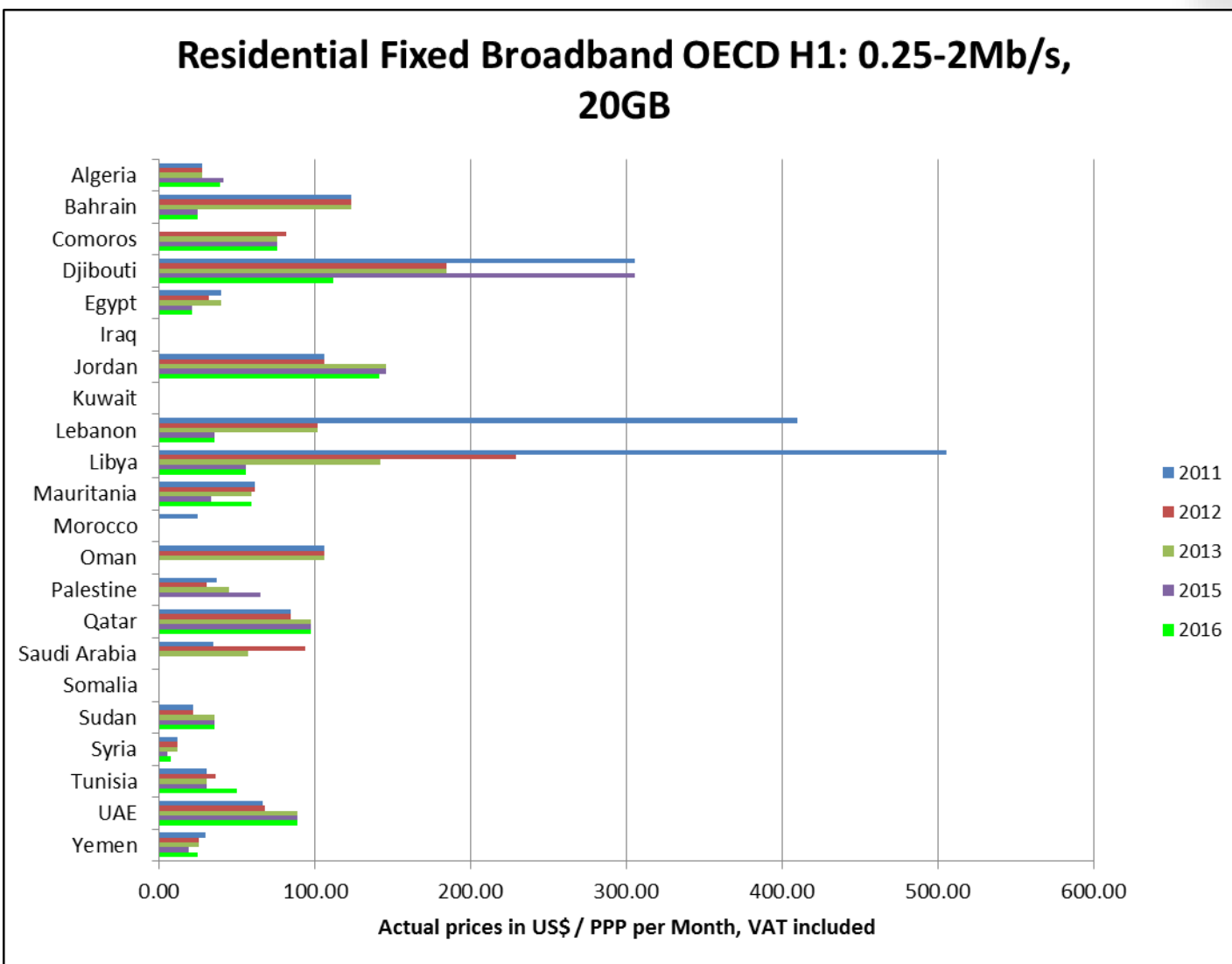
# 2014 OECD RESIDENTIAL FIXED BROADBAND TIME SERIES, >256 KB/S UP TO 2 MB/S, LOW USAGE



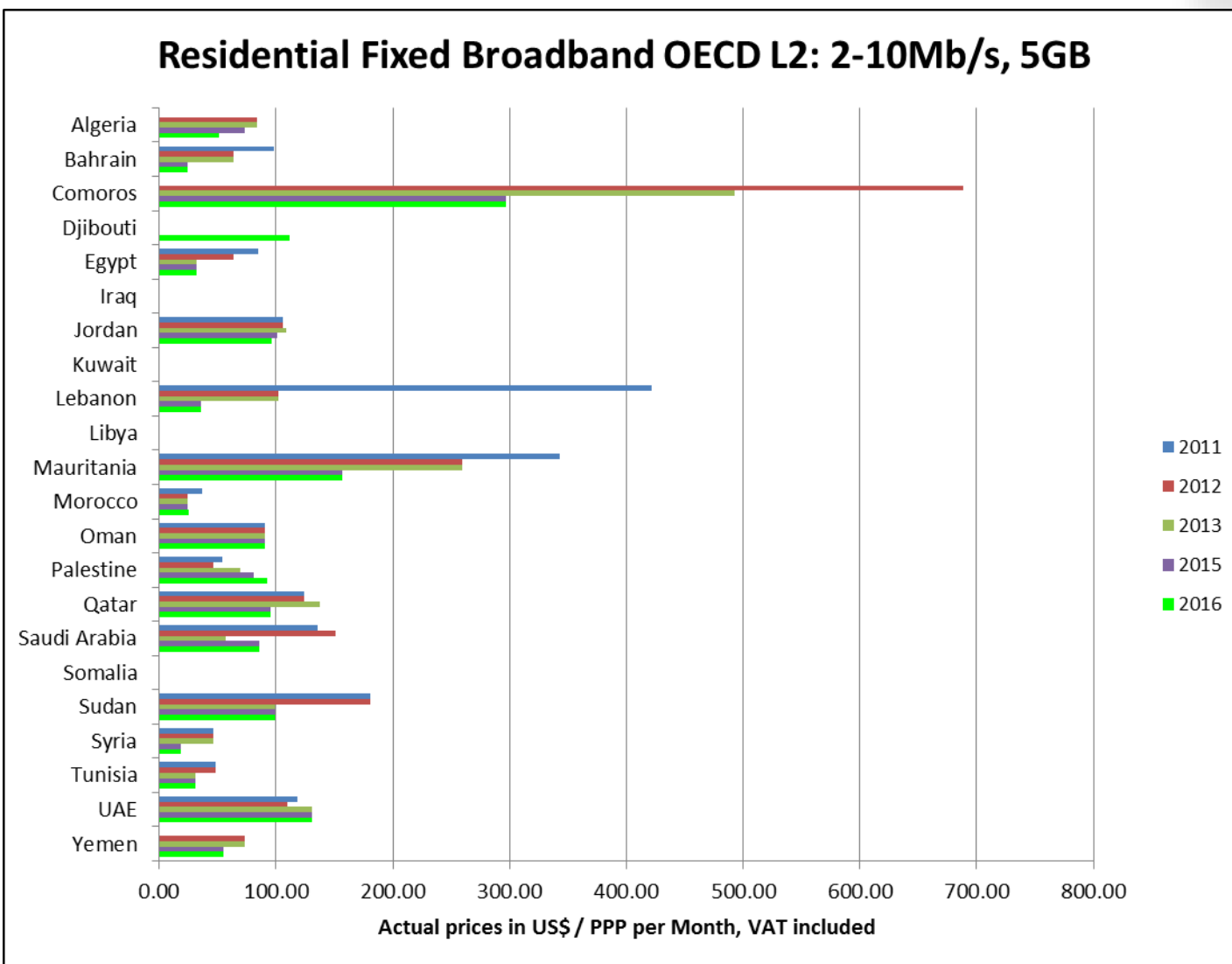
# 2014 OECD RESIDENTIAL FIXED BROADBAND TIME SERIES, >256 KB/S UP TO 2 MB/S, MEDIUM USAGE



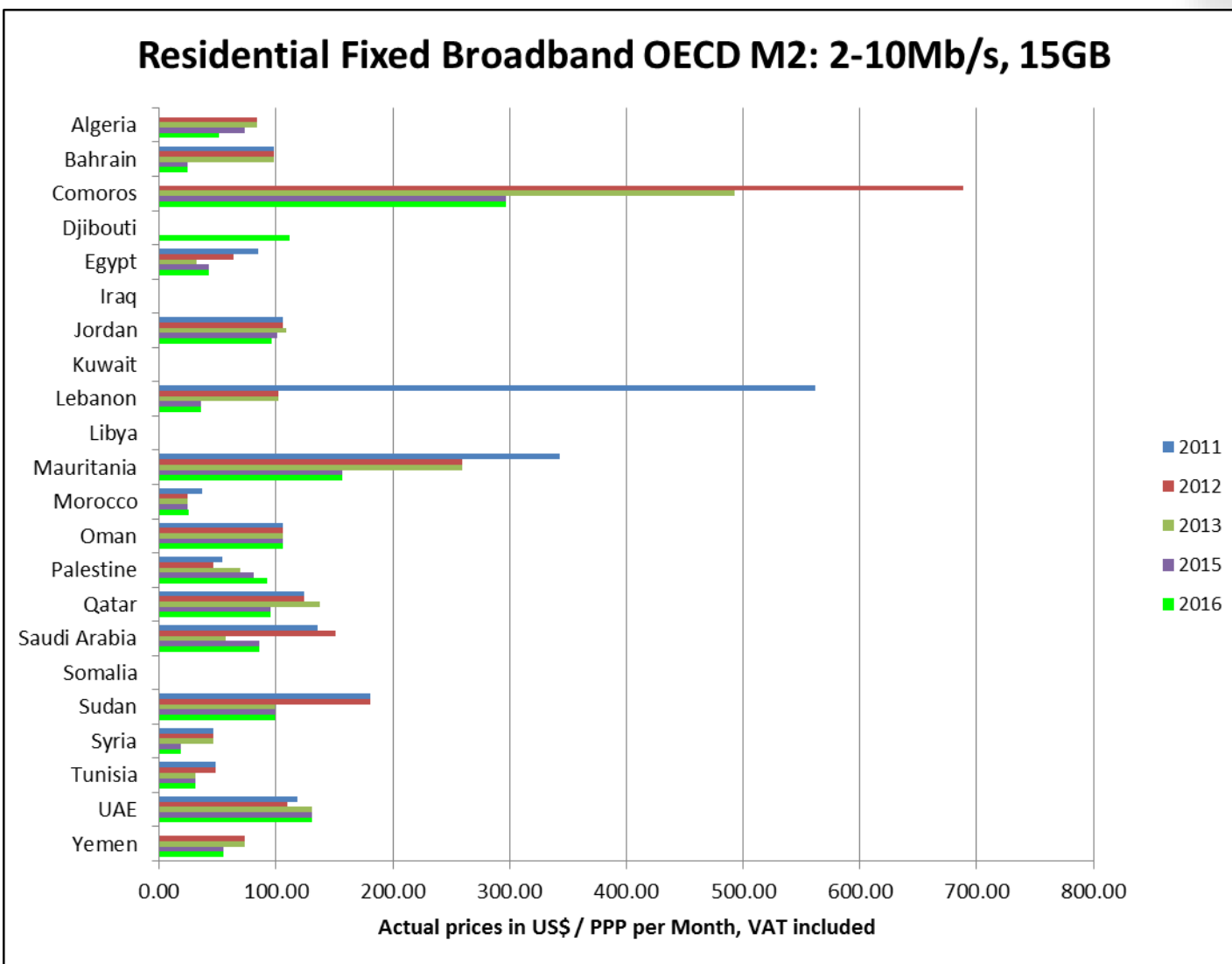
# 2014 OECD RESIDENTIAL FIXED BROADBAND TIME SERIES, >256 KB/S UP TO 2 MB/S, HIGH USAGE



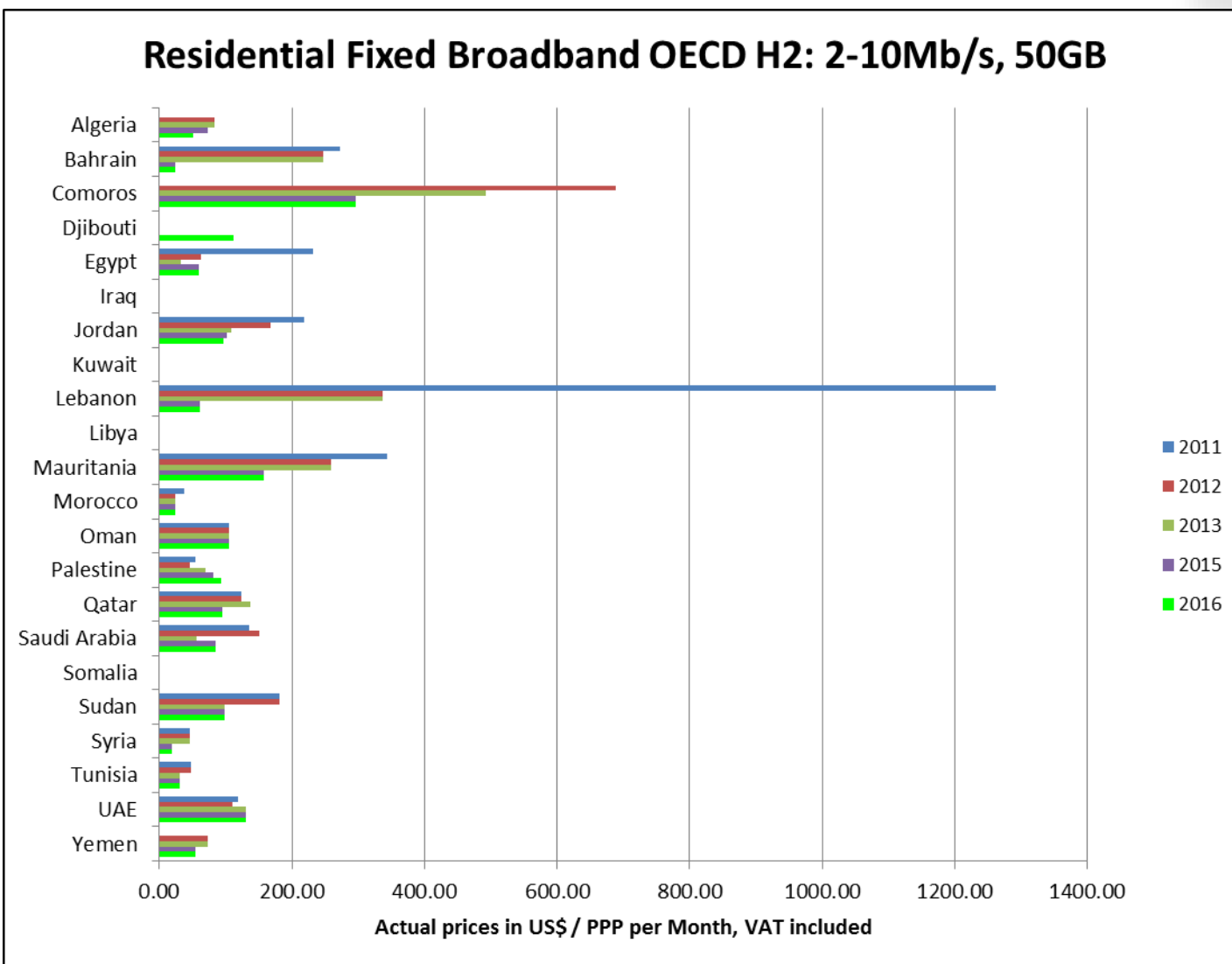
# 2014 OECD RESIDENTIAL FIXED BROADBAND TIME SERIES, >2 MB/S UP TO 10 MB/S, LOW USAGE



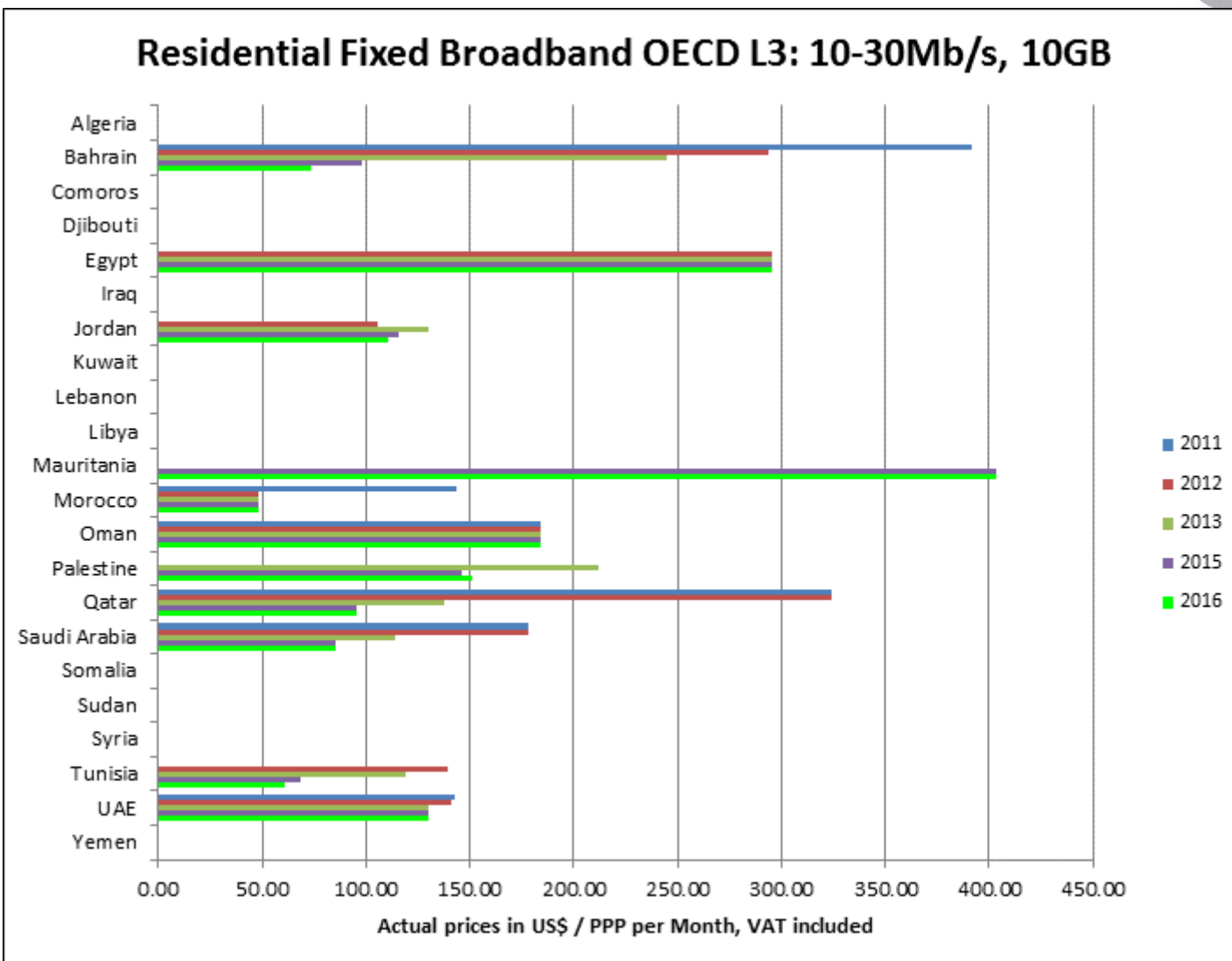
# 2014 OECD RESIDENTIAL FIXED BROADBAND TIME SERIES, >2 MB/S UP TO 10 MB/S, MEDIUM USAGE



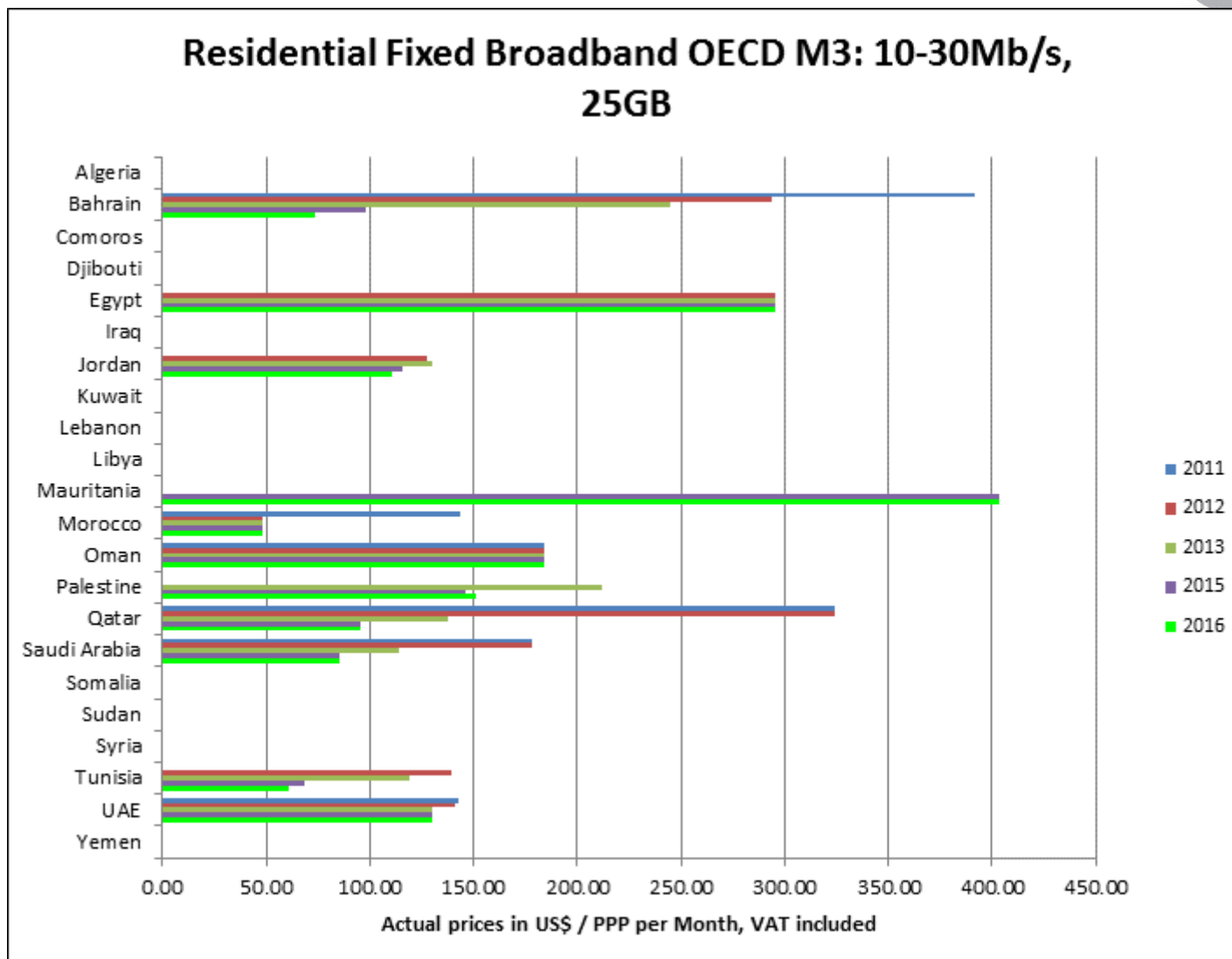
# 2014 OECD RESIDENTIAL FIXED BROADBAND TIME SERIES, >2 MB/S UP TO 10 MB/S, HIGH USAGE



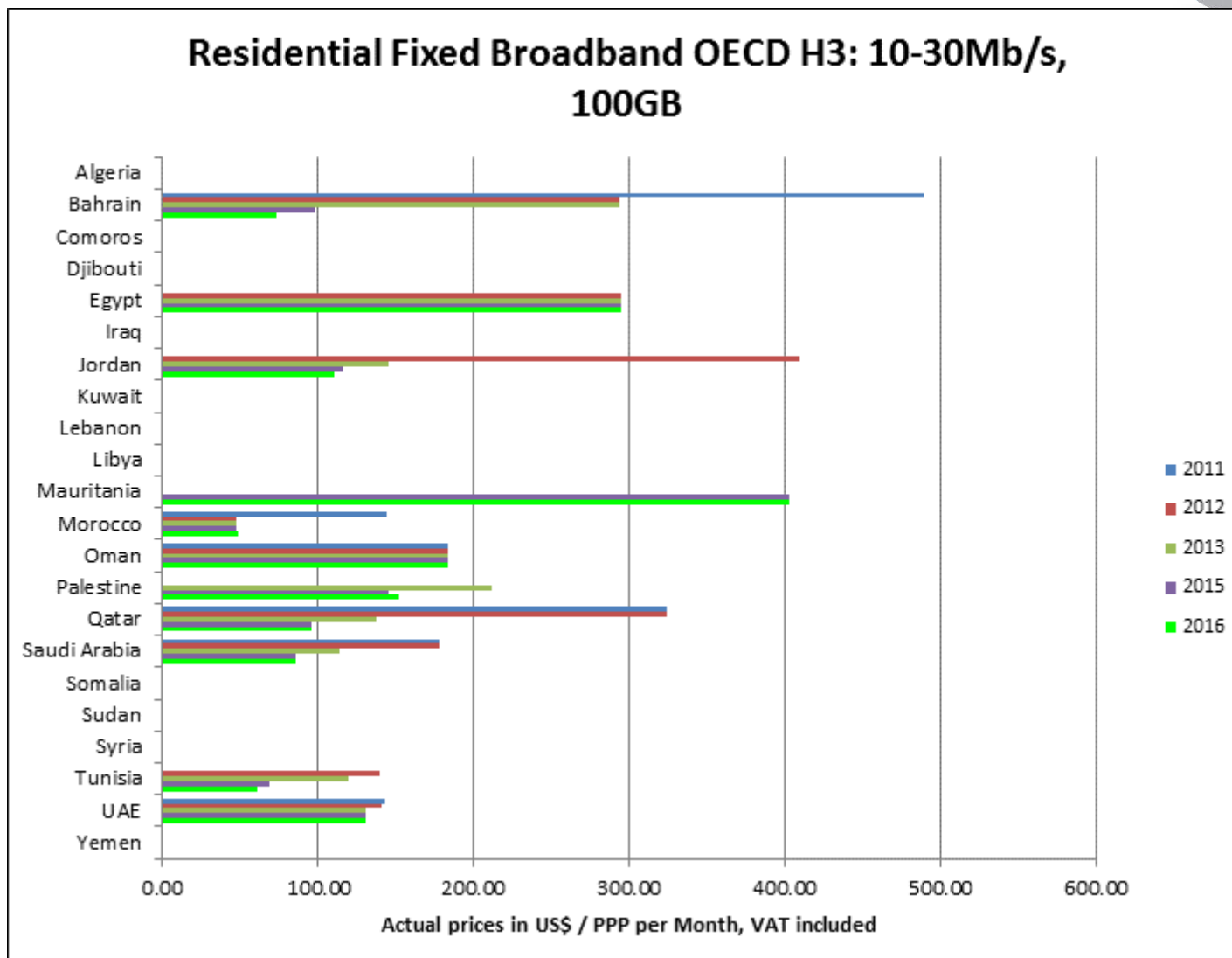
# 2014 OECD RESIDENTIAL FIXED BROADBAND TIME SERIES, >10 MB/S UP TO 30 MB/S, LOW USAGE



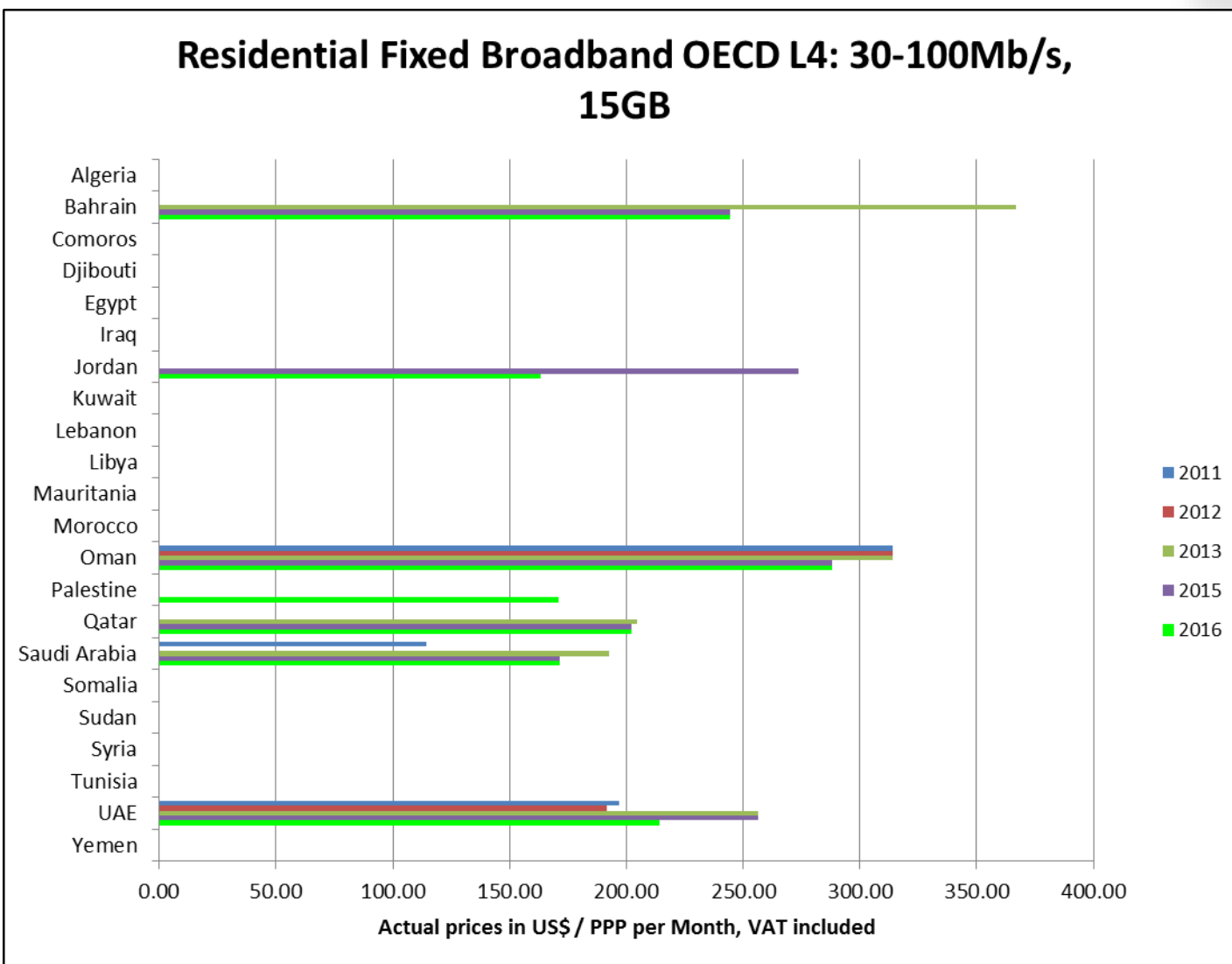
# 2014 OECD RESIDENTIAL FIXED BROADBAND TIME SERIES, >10 MB/S UP TO 30 MB/S, MEDIUM USAGE



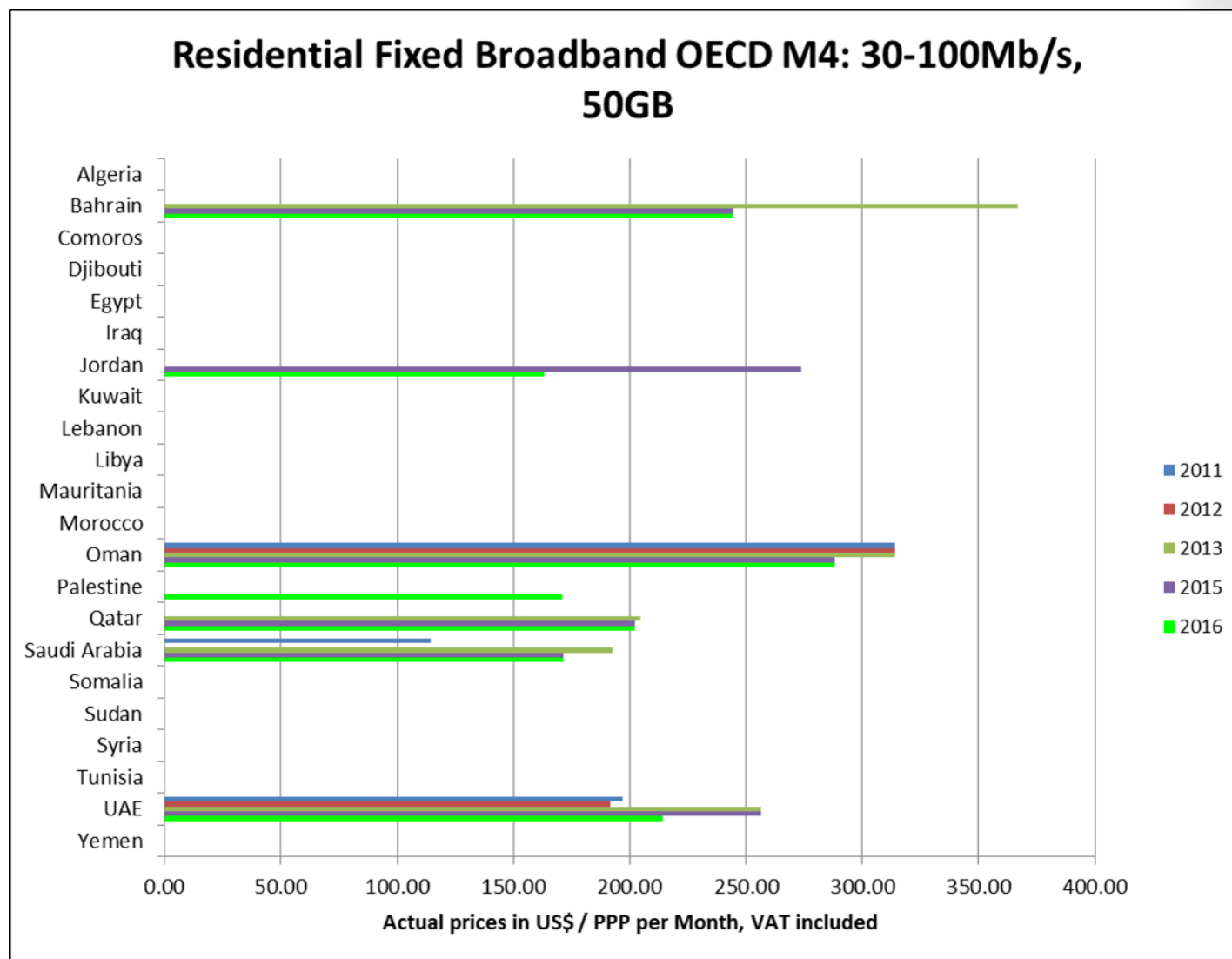
# 2014 OECD RESIDENTIAL FIXED BROADBAND TIME SERIES, >10 MB/S UP TO 30 MB/S, HIGH USAGE



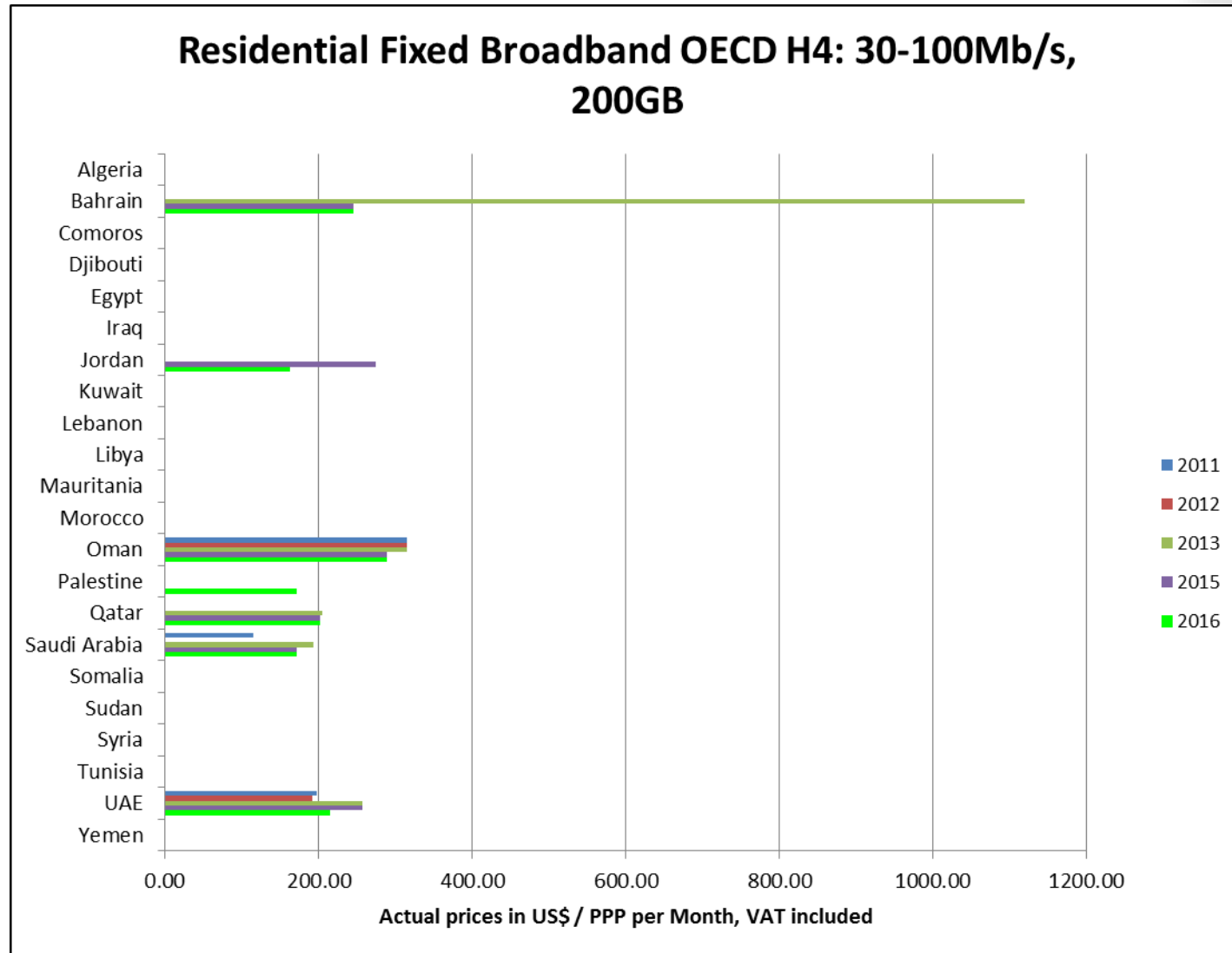
# 2014 OECD RESIDENTIAL FIXED BROADBAND TIME SERIES, >30 MB/S UP TO 100 MB/S, LOW USAGE



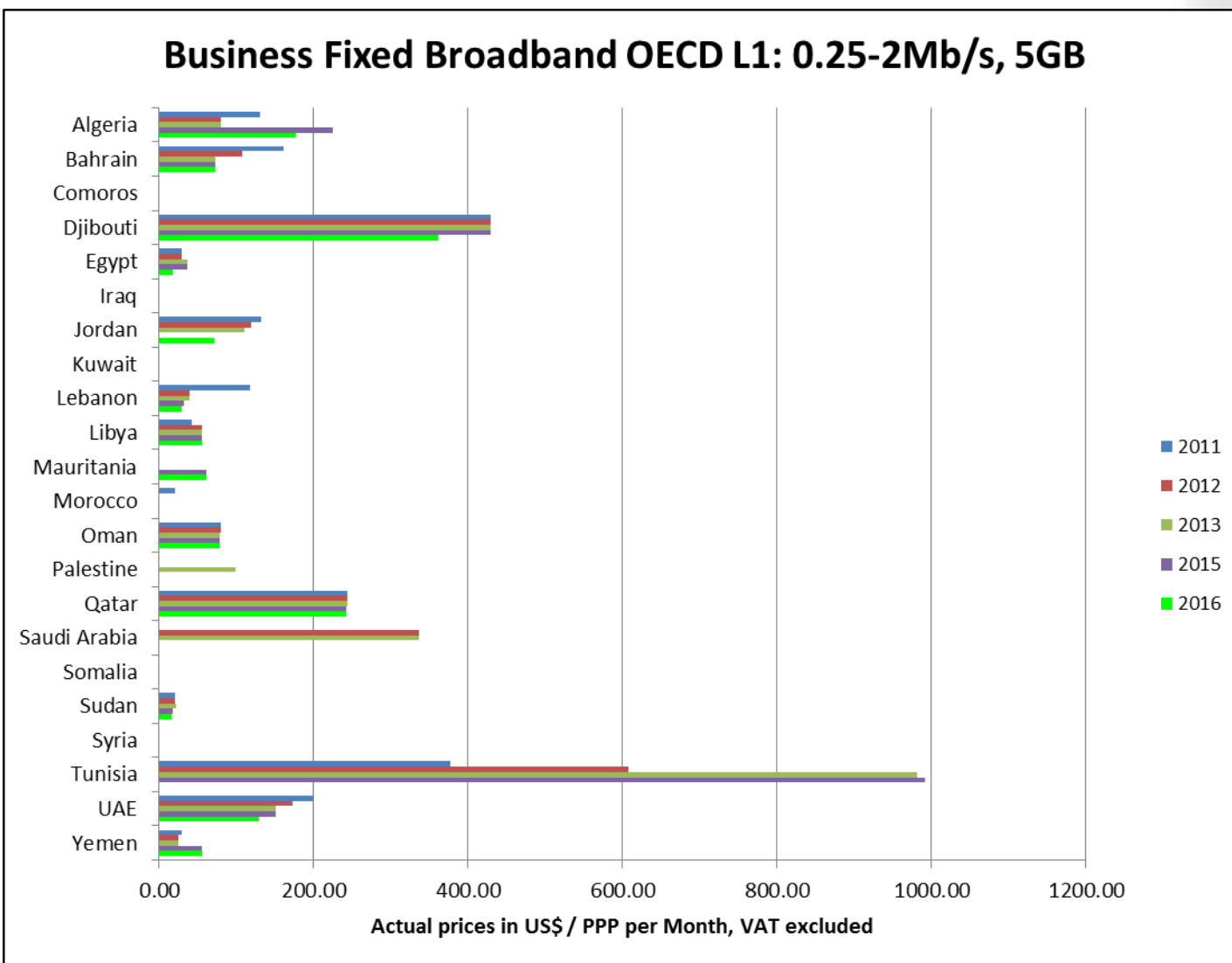
# 2014 OECD RESIDENTIAL FIXED BROADBAND TIME SERIES, >30 MB/S UP TO 100 MB/S, MEDIUM USAGE



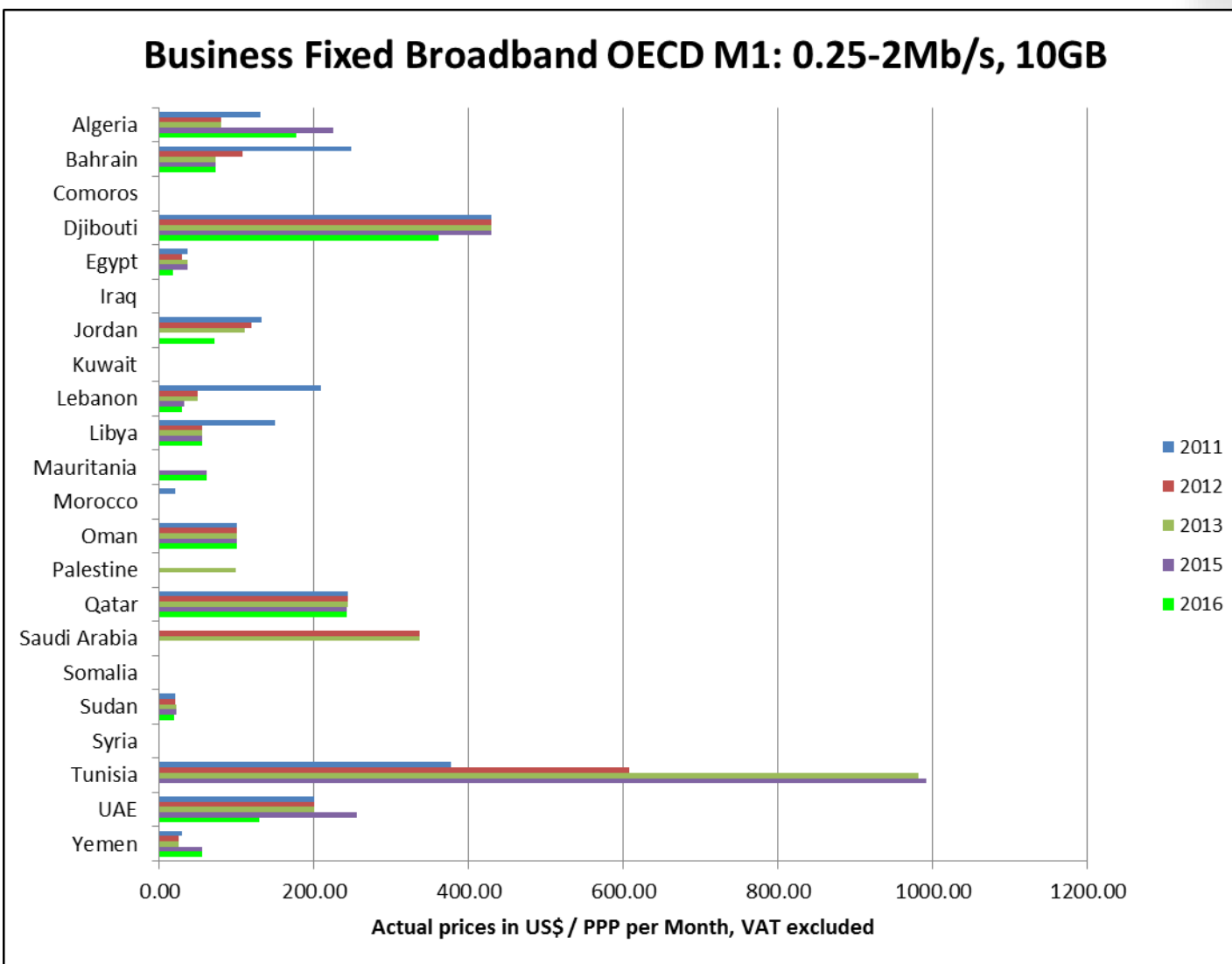
# 2014 OECD RESIDENTIAL FIXED BROADBAND TIME SERIES, >30 MB/S UP TO 100 MB/S, HIGH USAGE



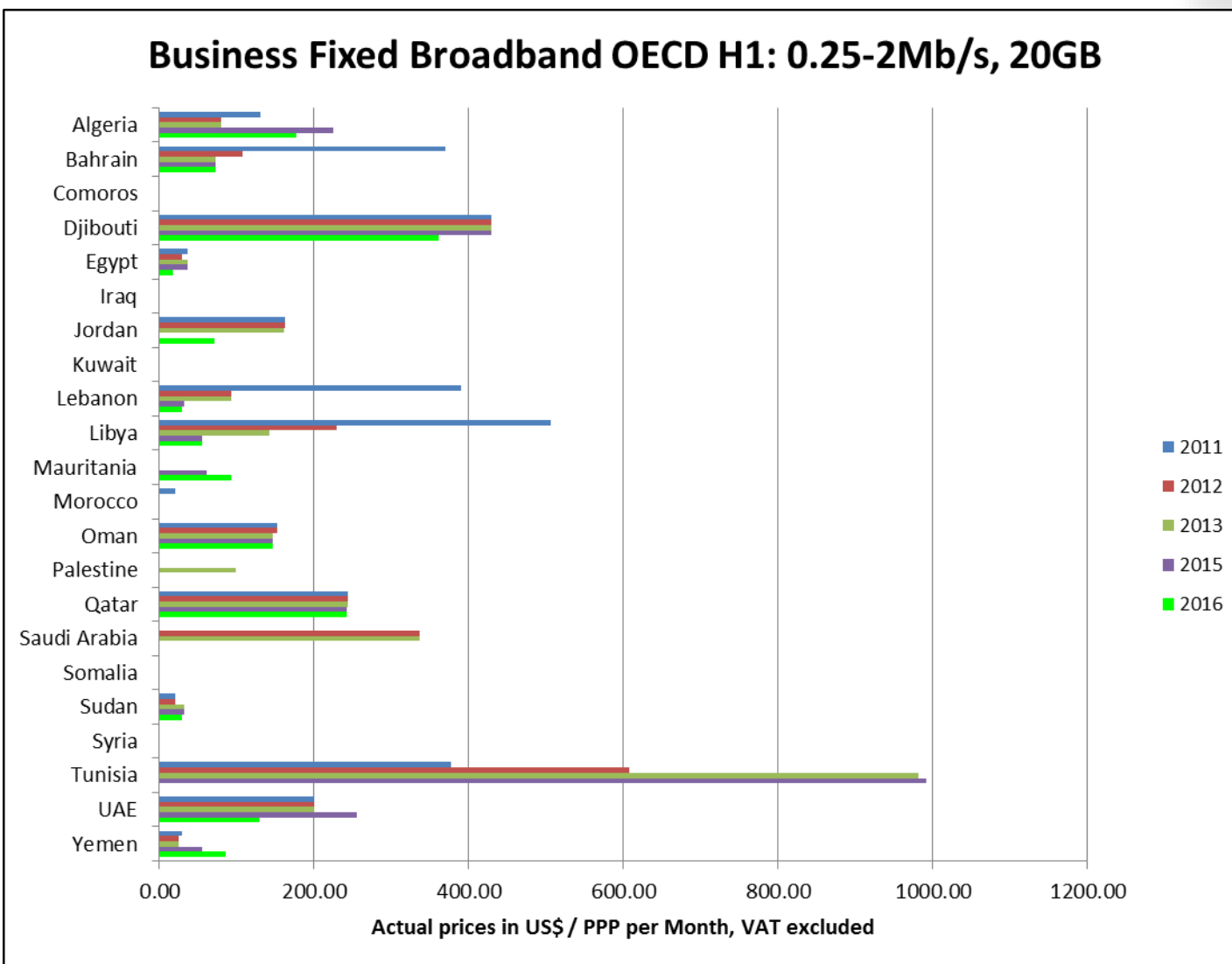
# 2014 OECD BUSINESS FIXED BROADBAND TIME SERIES, >256 KB/S UP TO 2 MB/S, LOW USAGE



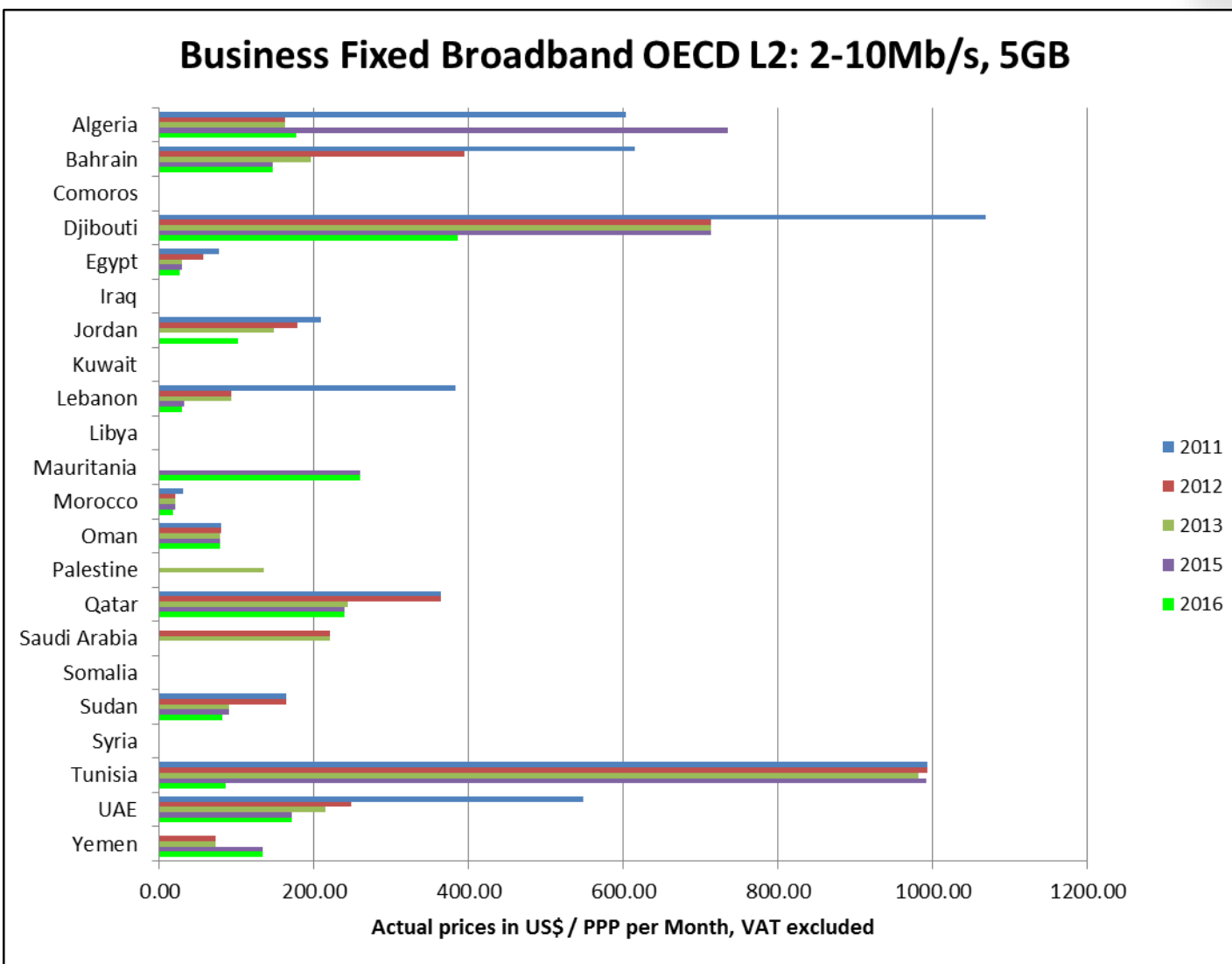
# 2014 OECD BUSINESS FIXED BROADBAND TIME SERIES, >256 KB/S UP TO 2 MB/S, MEDIUM USAGE



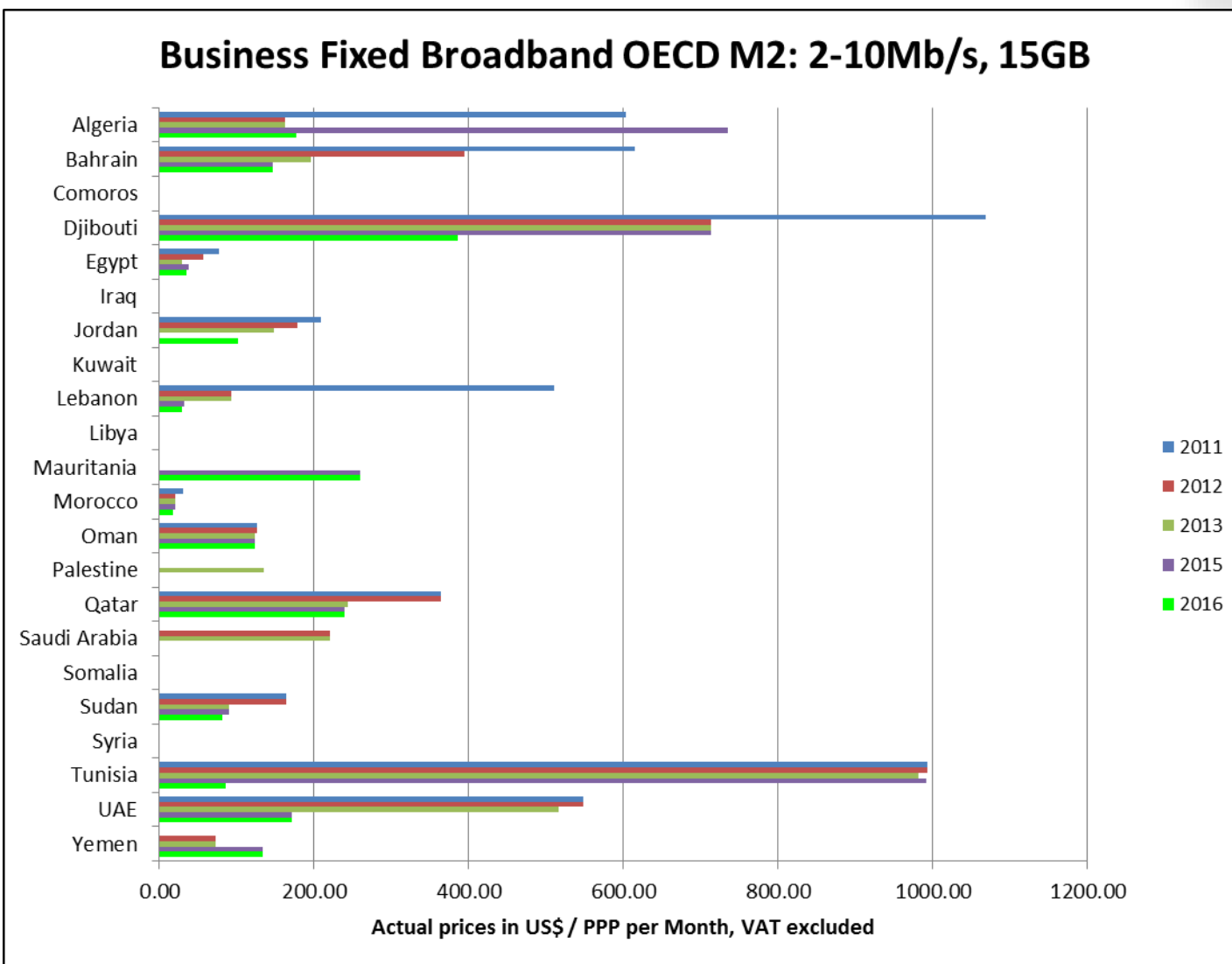
# 2014 OECD BUSINESS FIXED BROADBAND TIME SERIES, >256 KB/S UP TO 2 MB/S, HIGH USAGE



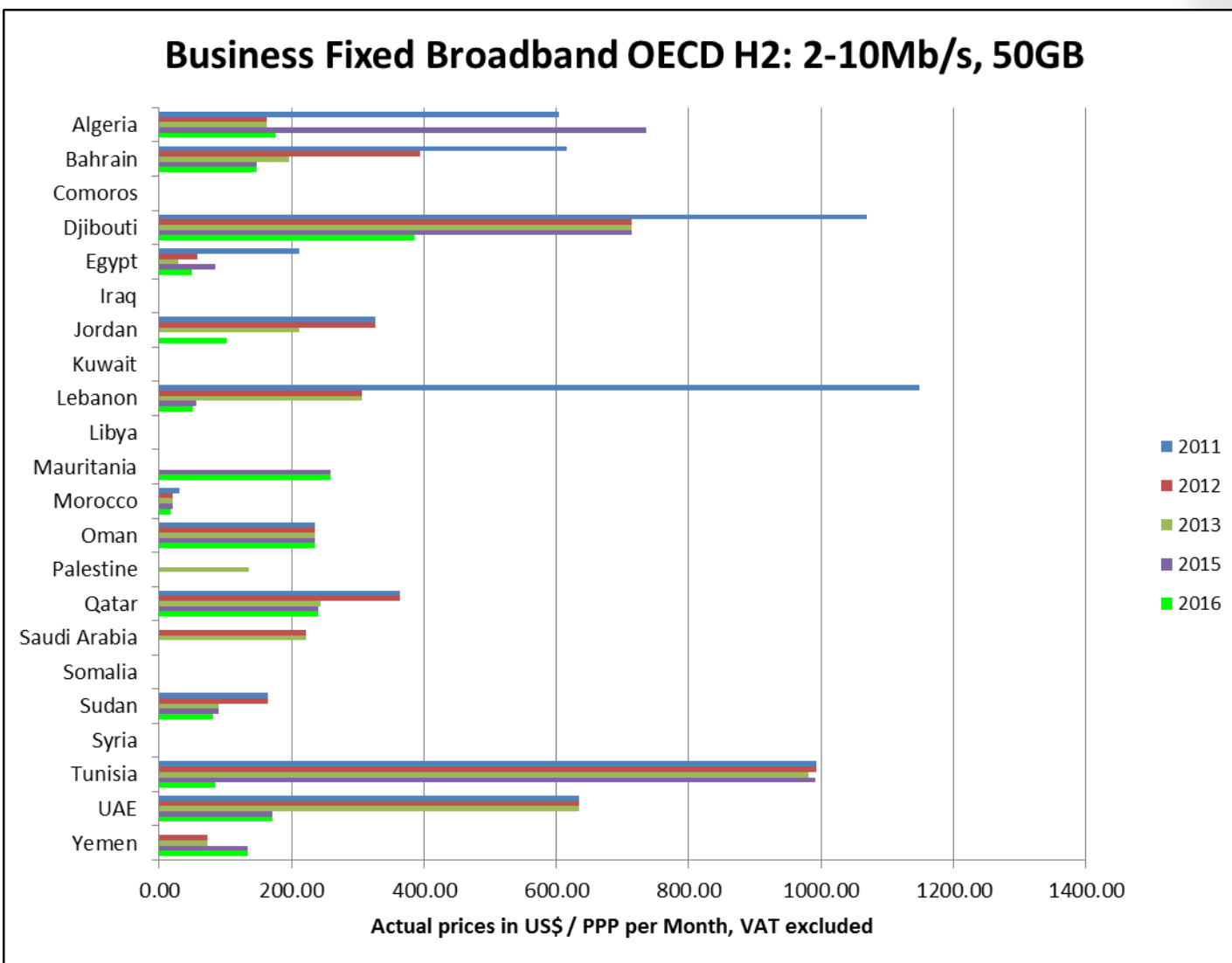
# 2014 OECD BUSINESS FIXED BROADBAND TIME SERIES, >2 MB/S UP TO 10 MB/S, LOW USAGE



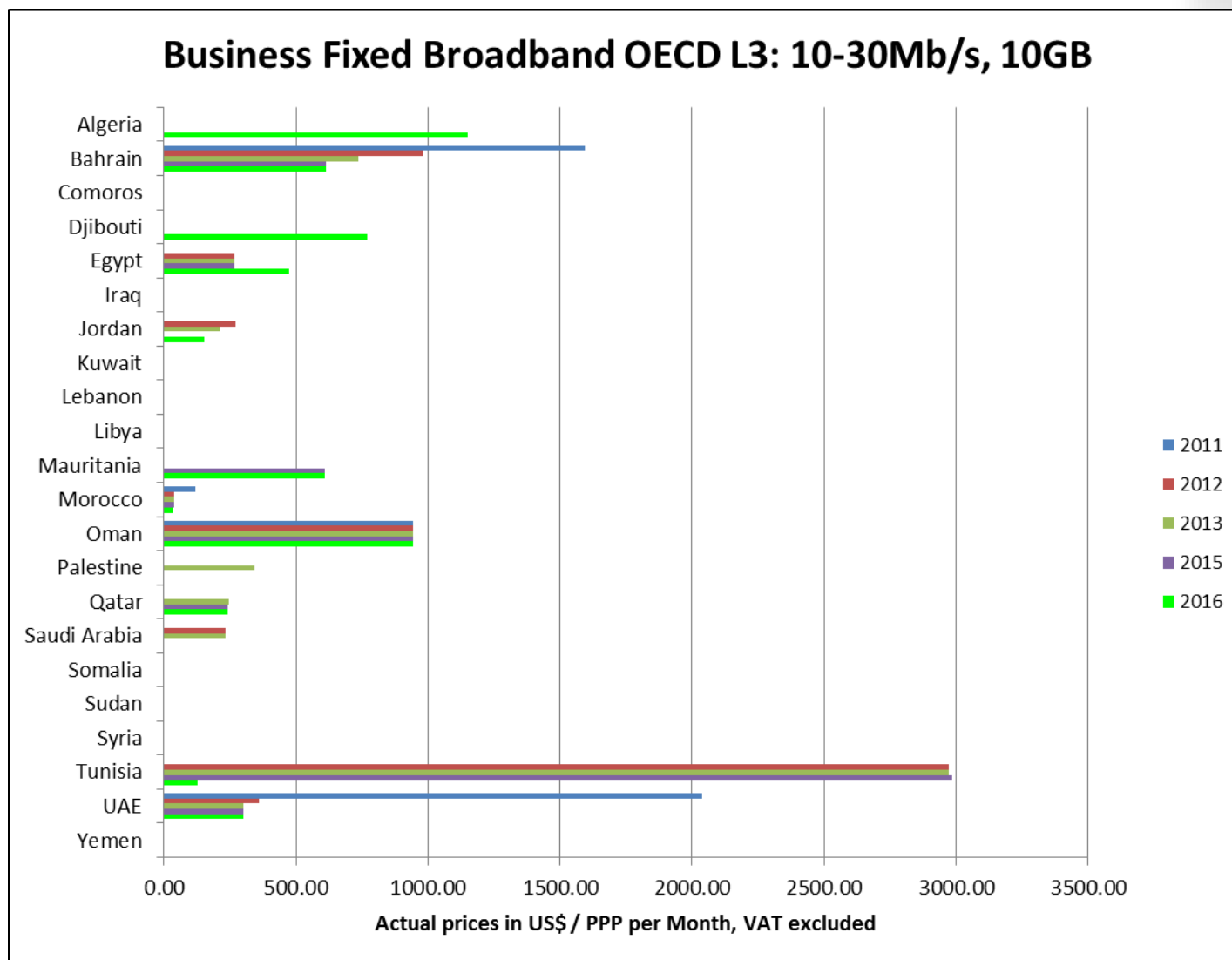
# 2014 OECD BUSINESS FIXED BROADBAND TIME SERIES, >2 MB/S UP TO 10 MB/S, MEDIUM USAGE



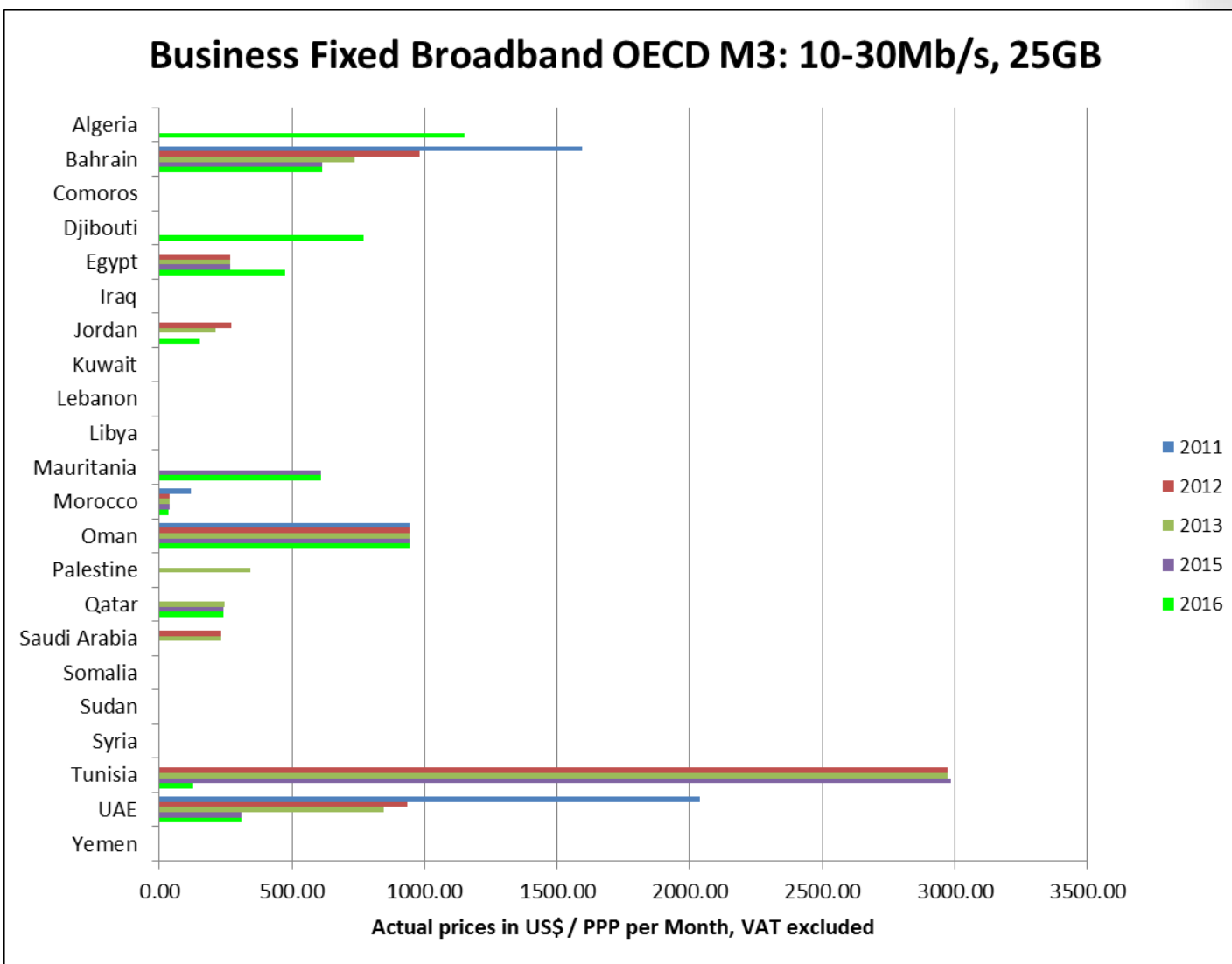
# 2014 OECD BUSINESS FIXED BROADBAND TIME SERIES, >2 MB/S UP TO 10 MB/S, HIGH USAGE



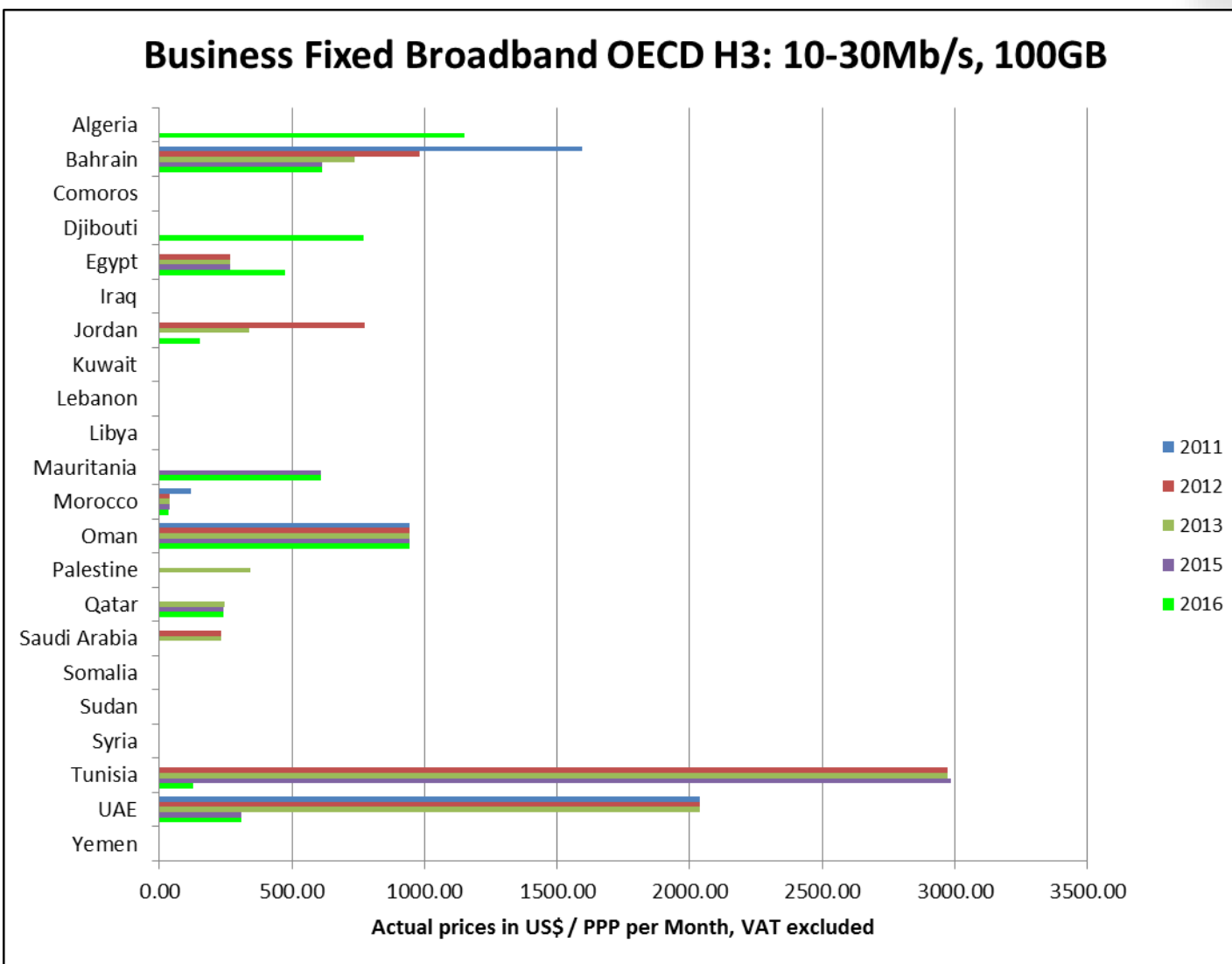
# 2014 OECD BUSINESS FIXED BROADBAND TIME SERIES, >10 MB/S UP TO 30 MB/S, LOW USAGE



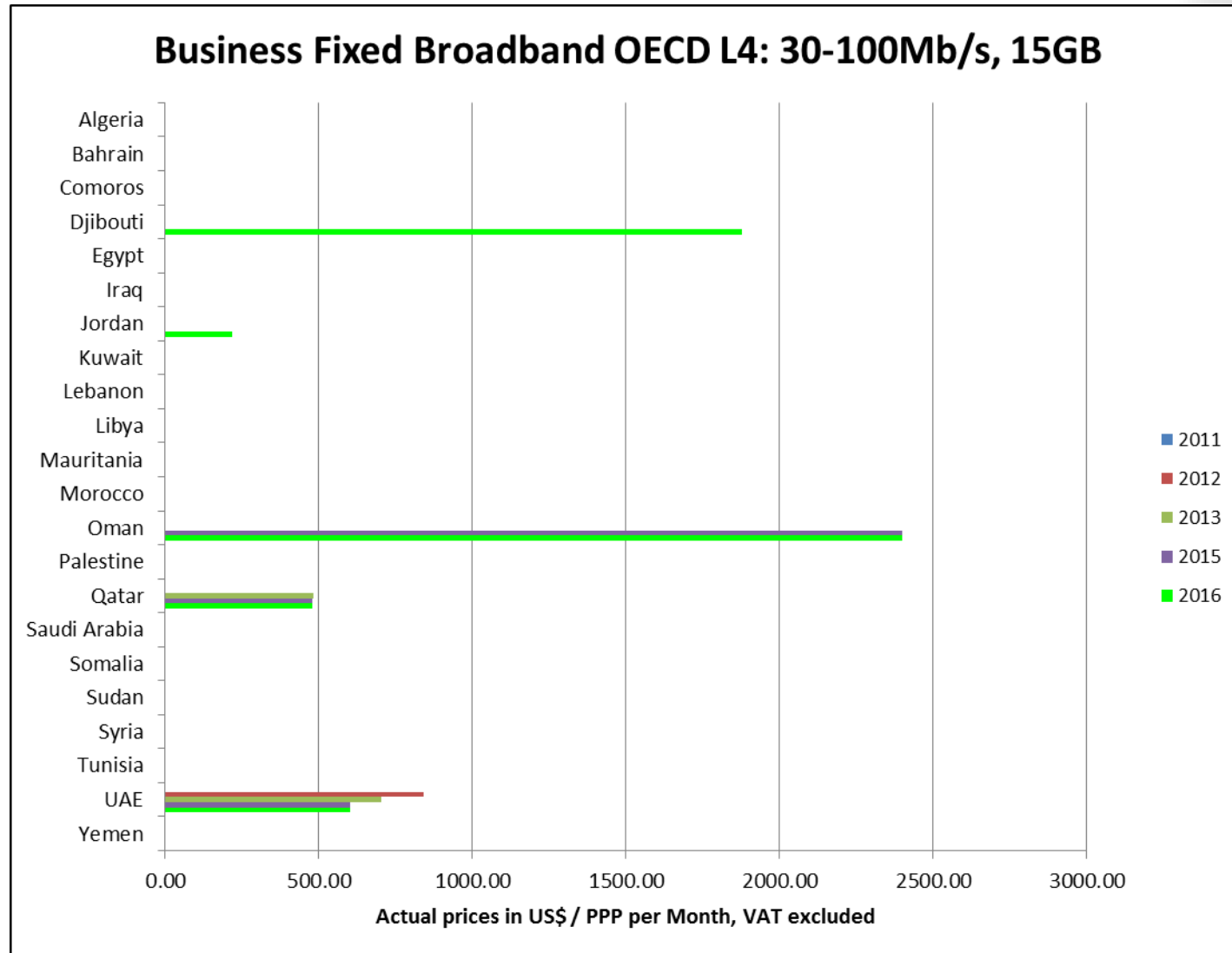
# 2014 OECD BUSINESS FIXED BROADBAND TIME SERIES, >10 MB/S UP TO 30 MB/S, MEDIUM USAGE



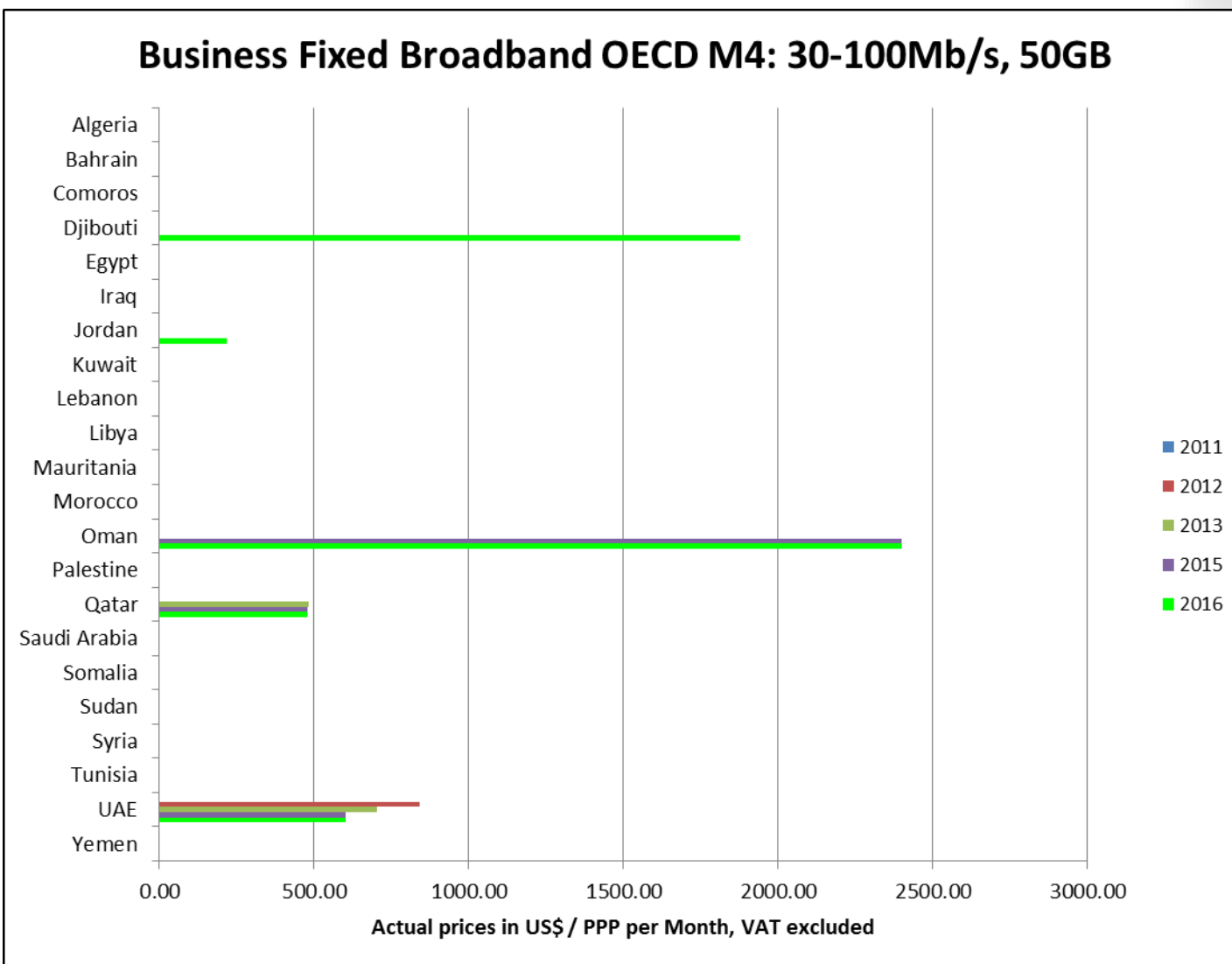
# 2014 OECD BUSINESS FIXED BROADBAND TIME SERIES, >10 MB/S UP TO 30 MB/S, HIGH USAGE



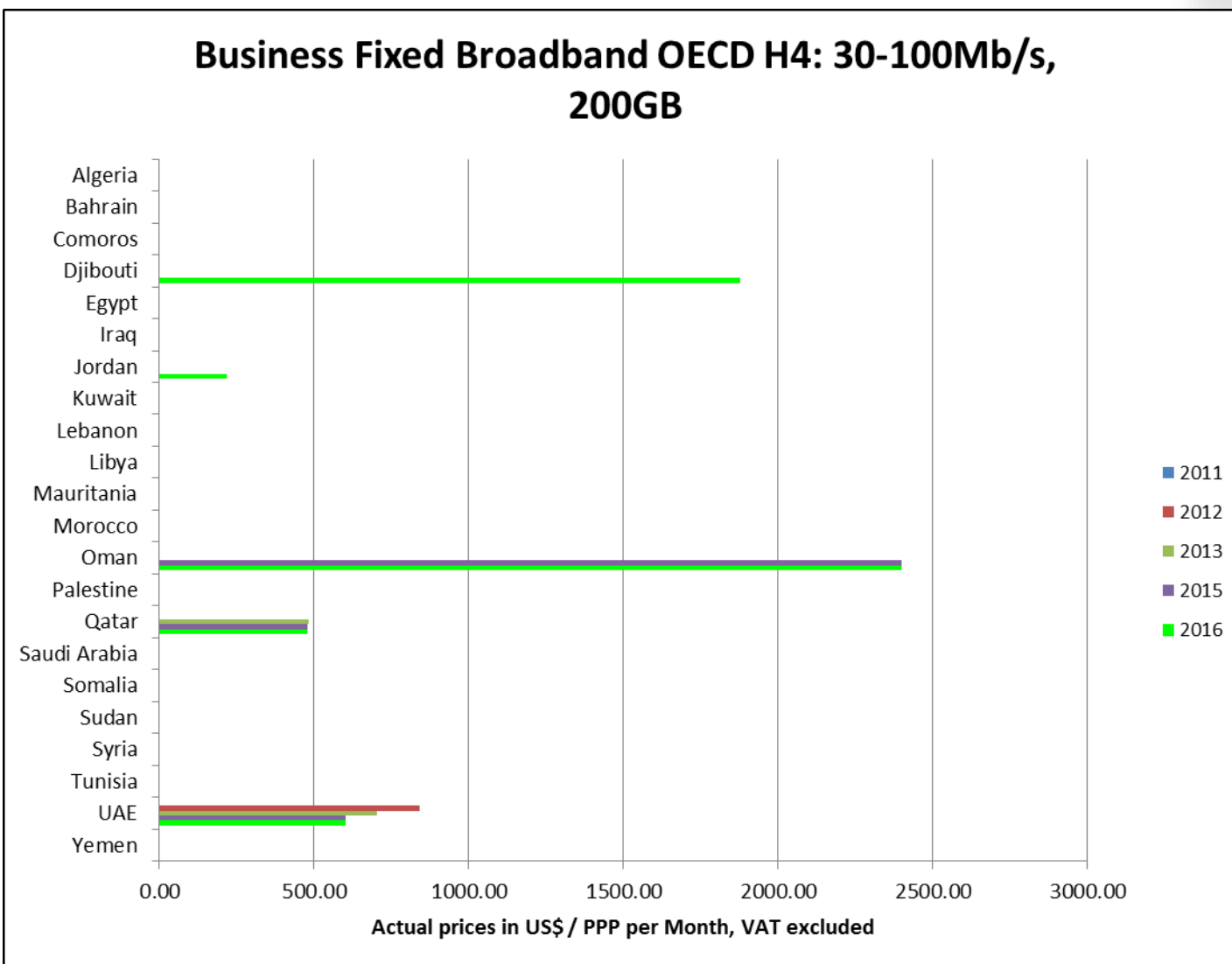
# 2014 OECD BUSINESS FIXED BROADBAND TIME SERIES, >30 MB/S UP TO 100 MB/S, LOW USAGE



# 2014 OECD BUSINESS FIXED BROADBAND TIME SERIES, >30 MB/S UP TO 100 MB/S, MEDIUM USAGE



# 2014 OECD BUSINESS FIXED BROADBAND TIME SERIES, >30 MB/S UP TO 100 MB/S, HIGH USAGE



# OBSERVATIONS FROM FIXED BROADBAND TIME SERIES RESULTS



- There were price changes in a number of Arab countries. The more notable changes are:
  - Algeria: The number of published offers was further reduced from 13 in 2015 to 8 in 2016. The lowest speed available is now 1Mbps. Monthly service rental prices have been generally reduced across offers .( e.g. 1 Mb/s from 2019 dinars in 2015 to 1600 dinars in 2016)
  - Bahrain: Change in range of offers, including increased speeds, and increased allowances on capped packages. Highest speed available for residential customers is 300 Mb/s. New entry point 10Mb/s Broadband Superfast offer is driving cost decrease across a few select baskets.
  - Djibouti: Change in range of offers available with lower speed services under 1 Mb/s having been removed. Lowest speed available for residential customers is now 2Mb/s. This has a varying effect on the lower speed services: cost increase for the lower usage baskets and decrease for the higher usage ones.
  - Egypt: Further reduction of offers available from 21 in 2015 to 16 in 2016. The Optimum ADSL range has been removed from the provider website, but is believed to still be available, possibly only through resellers. It has been kept in the database, as the best price for Egypt in the 10-30 Mb/s range otherwise would have almost doubled.
  - Jordan: New competitive business fixed broadband services have been published while no data was available the previous year. The new business services are very competitive compared to those historically available in the country.
  - Lebanon: Price reduction for modem rental has a small impact across all Fixed Broadband services available.
  - Palestine: Change in the range of offers with lowest speed services removed. The lowest residential speed available is now 4Mb/s as opposed to 1Mb/s which was available in 2015. Price of the 4Mb/s service has reduced from 80 to 64, however as the cheaper lower speed services are not available anymore, this has an impact on costs across baskets
  - Tunisia: Removal of lowest speed offer is driving cost increases across the lower speed services baskets. On the other hand, the introduction of a new 12Mb/s fixed broadband offer is driving the costs of the 10-30 Mb/s baskets down for both residential and businesses alike.
- Prices of residential broadband services in Arab countries have continued to fall over the past years and while trends are different depending on specific speed requirements, they were mostly stable between 2015 and 2016 with a few exceptions such as basket L3 (10-30Mb/s 10GB) which increased by +15%, driven by the very large price increase in Egypt.
- By contrast, the average cost for business broadband services has decreased significantly on the lower speed baskets, mostly driven by Tunisia and Algeria. Average cost for high speed broadband services have increased, mostly due to new offers available in Djibouti which is one of the most expensive within the Arab countries.





# FIXED BROADBAND RANKING TABLES 2011–2016

# 2016 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 256 KB/S – 2 MB/S LOW USAGE



Total results for OECD L1: 0.25-2Mb/s, 5GB, residential offers  
Results in US\$ / PPP VAT included, lowest per country

	2011	2012	2013	2015	2016
Algeria	27.60	27.60	27.60	41.07	38.77
Bahrain	63.73	63.73	63.73	24.47	24.47
Comoros		81.60	75.73	75.73	75.73
Djibouti	124.10	87.88	87.88	87.88	112.03
Egypt	31.63	31.63	40.06	21.08	21.08
Iraq					
Jordan	71.35	57.77	72.58	72.58	68.55
Kuwait					
Lebanon	109.44	43.30	43.30	35.72	35.35
Libya	42.95	55.49	55.49	55.49	55.49
Mauritania	61.32	61.32	59.26	33.58	33.58
Morocco	24.84				
Oman	90.04	90.04	90.04		
Palestine	37.07	30.29	44.91	65.10	
Qatar	84.48	84.48	97.67	97.67	97.67
Saudi Arabia	35.04	93.72	56.76		
Somalia					
Sudan	22.08	22.08	23.74	19.78	19.78
Syria	11.55	11.55	11.55	5.26	5.26
Tunisia	30.50	36.21	30.50	30.50	49.56
UAE	66.04	67.58	88.53	88.53	67.57
Yemen	29.38	25.37	25.37	18.69	18.69

Arab average	53.51	53.98	55.26	48.32	48.24
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Below Arab average  
Above Arab average

Ranking for OECD L1: 0.25-2Mb/s, 5GB, residential offers

	2011	2012	2013	2015	2016
Algeria	4	4	4	9	8
Bahrain	12	12	12	5	5
Comoros	-	14	14	13	13
Djibouti	18	16	15	14	15
Egypt	7	6	6	4	4
Iraq	-	-	-	-	-
Jordan	14	10	13	12	12
Kuwait	-	-	-	-	-
Lebanon	17	8	7	8	7
Libya	10	9	9	10	10
Mauritania	11	11	11	7	6
Morocco	3	-	-	-	-
Oman	16	17	17	-	-
Palestine	9	5	8	11	-
Qatar	15	15	18	16	14
Saudi Arabia	8	18	10	-	-
Somalia	-	-	-	-	-
Sudan	2	2	2	3	3
Syria	1	1	1	1	1
Tunisia	6	7	5	6	9
UAE	13	13	16	15	11
Yemen	5	3	3	2	2

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 256 KB/S – 2 MB/S MEDIUM USAGE



Total results for OECD M1: 0.25-2Mb/s, 10GB, residential offers  
Results in US\$ / PPP VAT included, lowest per country

	2011	2012	2013	2015	2016
Algeria	27.60	27.60	27.60	41.07	38.77
Bahrain	83.42	83.42	83.42	24.47	24.47
Comoros		81.60	75.73	75.73	75.73
Djibouti	124.10	87.88	87.88	124.10	112.03
Egypt	40.06	31.63	40.06	21.08	21.08
Iraq					
Jordan	71.35	71.35	72.58	72.58	68.55
Kuwait					
Lebanon	209.59	53.73	53.73	35.72	35.35
Libya	149.67	55.49	55.49	55.49	55.49
Mauritania	61.32	61.32	59.26	33.58	33.58
Morocco	24.84				
Oman	105.68	105.68	105.68		
Palestine	37.07	30.29	44.91	65.10	
Qatar	84.48	84.48	97.67	97.67	97.67
Saudi Arabia	35.04	93.72	56.76		
Somalia					
Sudan	22.08	22.08	23.74	23.74	23.74
Syria	11.55	11.55	11.55	5.26	5.26
Tunisia	30.50	36.21	30.50	30.50	49.56
UAE	66.04	67.58	88.53	88.53	67.57
Yemen	29.38	25.37	25.37	18.69	18.69

Arab average	67.43	57.28	57.80	50.83	48.50
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Below Arab average  
Above Arab average

Ranking for OECD M1: 0.25-2Mb/s, 10GB, residential offers

	2011	2012	2013	2015	2016
Algeria	4	4	4	9	8
Bahrain	13	14	14	5	5
Comoros	-	13	13	13	13
Djibouti	16	16	15	16	15
Egypt	9	6	6	3	3
Iraq	-	-	-	-	-
Jordan	12	12	12	12	12
Kuwait	-	-	-	-	-
Lebanon	18	8	8	8	7
Libya	17	9	9	10	10
Mauritania	10	10	11	7	6
Morocco	3	-	-	-	-
Oman	15	18	18	-	-
Palestine	8	5	7	11	-
Qatar	14	15	17	15	14
Saudi Arabia	7	17	10	-	-
Somalia	-	-	-	-	-
Sudan	2	2	2	4	4
Syria	1	1	1	1	1
Tunisia	6	7	5	6	9
UAE	11	11	16	14	11
Yemen	5	3	3	2	2

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 256 KB/S – 2 MB/S HIGH USAGE



Total results for OECD H1: 0.25-2Mb/s, 20GB, residential offers  
Results in US\$ / PPP VAT included, lowest per country

	2011	2012	2013	2015	2016
Algeria	27.60	27.60	27.60	41.07	38.77
Bahrain	122.91	122.91	122.91	24.47	24.47
Comoros		81.60	75.73	75.73	75.73
Djibouti	305.23	184.48	184.48	305.23	112.03
Egypt	40.06	31.63	40.06	21.08	21.08
Iraq					
Jordan	105.65	105.65	145.53	145.53	141.50
Kuwait					
Lebanon	409.88	101.98	101.98	35.72	35.35
Libya	505.43	229.20	142.35	55.49	55.49
Mauritania	61.32	61.32	59.26	33.58	59.26
Morocco	24.84				
Oman	105.68	105.68	105.68		
Palestine	37.07	30.29	44.91	65.10	
Qatar	84.48	84.48	97.67	97.67	97.67
Saudi Arabia	35.04	93.72	56.76		
Somalia					
Sudan	22.08	22.08	35.61	35.61	35.61
Syria	11.55	11.55	11.55	5.26	7.48
Tunisia	30.50	36.21	30.50	30.50	49.56
UAE	66.04	67.58	88.53	88.53	88.53
Yemen	29.38	25.37	25.37	18.69	24.70

Arab average	112.49	79.07	77.58	67.45	57.82
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Below Arab average  
Above Arab average

Ranking for OECD H1: 0.25-2Mb/s, 20GB, residential offers

	2011	2012	2013	2015	2016
Algeria	4	4	3	9	7
Bahrain	15	16	15	4	3
Comoros	-	10	10	12	11
Djibouti	16	17	18	16	14
Egypt	9	6	6	3	2
Iraq	-	-	-	-	-
Jordan	13	14	17	15	15
Kuwait	-	-	-	-	-
Lebanon	17	13	13	8	5
Libya	18	18	16	10	9
Mauritania	10	8	9	6	10
Morocco	3	-	-	-	-
Oman	14	15	14	-	-
Palestine	8	5	7	11	-
Qatar	12	11	12	14	13
Saudi Arabia	7	12	8	-	-
Somalia	-	-	-	-	-
Sudan	2	2	5	7	6
Syria	1	1	1	1	1
Tunisia	6	7	4	5	8
UAE	11	9	11	13	12
Yemen	5	3	2	2	4

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 2 MB/S – 10 MB/S LOW USAGE



Total results for OECD L2: 2-10Mb/s, 5GB, residential offers  
Results in US\$ / PPP VAT included, lowest per country

	2011	2012	2013	2015	2016
Algeria		83.32	83.32	73.63	50.88
Bahrain	97.86	63.73	63.73	24.47	24.47
Comoros		688.72	492.88	297.03	297.03
Djibouti					112.03
Egypt	84.34	63.25	31.63	31.63	31.63
Iraq					
Jordan	105.65	105.65	109.06	101.28	96.64
Kuwait					
Lebanon	421.27	101.98	101.98	35.72	35.35
Libya					
Mauritania	343.26	259.63	259.63	156.88	156.88
Morocco	36.72	24.18	24.18	24.18	24.78
Oman	90.04	90.04	90.04	90.04	90.04
Palestine	54.06	45.97	69.07	80.98	92.66
Qatar	124.45	124.45	137.64	95.46	95.46
Saudi Arabia	135.57	151.05	56.76	85.43	85.43
Somalia					
Sudan	180.84	180.84	98.91	98.91	98.91
Syria	45.97	45.97	45.97	18.58	18.58
Tunisia	48.28	48.28	30.50	30.50	30.50
UAE	118.73	109.68	130.44	130.44	130.44
Yemen		73.44	73.44	54.75	54.75

Arab average	134.79	132.95	111.72	84.11	84.80
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Below Arab average  
Above Arab average

Ranking for OECD L2: 2-10Mb/s, 5GB, residential offers

	2011	2012	2013	2015	2016
Algeria	-	8	9	8	7
Bahrain	7	6	6	3	2
Comoros	-	17	17	17	18
Djibouti	-	-	-	-	15
Egypt	5	5	3	5	5
Iraq	-	-	-	-	-
Jordan	8	11	13	14	13
Kuwait	-	-	-	-	-
Lebanon	14	10	12	6	6
Libya	-	-	-	-	-
Mauritania	13	16	16	16	17
Morocco	1	1	1	2	3
Oman	6	9	10	11	10
Palestine	4	3	7	9	11
Qatar	10	13	15	12	12
Saudi Arabia	11	14	5	10	9
Somalia	-	-	-	-	-
Sudan	12	15	11	13	14
Syria	2	2	4	1	1
Tunisia	3	4	2	4	4
UAE	9	12	14	15	16
Yemen	-	7	8	7	8

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 2 MB/S – 10 MB/S MEDIUM USAGE



Total results for OECD M2: 2-10Mb/s, 15GB, residential offers  
Results in US\$ / PPP VAT included, lowest per country

	2011	2012	2013	2015	2016
Algeria		83.32	83.32	73.63	50.88
Bahrain	97.86	97.86	97.86	24.47	24.47
Comoros		688.72	492.88	297.03	297.03
Djibouti					112.03
Egypt	84.34	63.25	31.63	42.17	42.17
Iraq					
Jordan	105.65	105.65	109.06	101.28	96.64
Kuwait					
Lebanon	561.47	101.98	101.98	35.72	35.35
Libya					
Mauritania	343.26	259.63	259.63	156.88	156.88
Morocco	36.72	24.18	24.18	24.18	24.78
Oman	105.68	105.68	105.68	105.68	105.68
Palestine	54.06	45.97	69.07	80.98	92.66
Qatar	124.45	124.45	137.64	95.46	95.46
Saudi Arabia	135.57	151.05	56.76	85.43	85.43
Somalia					
Sudan	180.84	180.84	98.91	98.91	98.91
Syria	45.97	45.97	45.97	18.58	18.58
Tunisia	48.28	48.28	30.50	30.50	30.50
UAE	118.73	109.68	130.44	130.44	130.44
Yemen		73.44	73.44	54.75	54.75

Arab average	145.92	135.88	114.64	85.65	86.26
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Below Arab average  
Above Arab average

Ranking for OECD M2: 2-10Mb/s, 15GB, residential offers

	2011	2012	2013	2015	2016
Algeria	-	7	8	8	7
Bahrain	6	8	9	3	2
Comoros	-	17	17	17	18
Djibouti	-	-	-	-	15
Egypt	5	5	3	6	6
Iraq	-	-	-	-	-
Jordan	7	10	13	13	12
Kuwait	-	-	-	-	-
Lebanon	14	9	11	5	5
Libya	-	-	-	-	-
Mauritania	13	16	16	16	17
Morocco	1	1	1	2	3
Oman	8	11	12	14	14
Palestine	4	3	6	9	10
Qatar	10	13	15	11	11
Saudi Arabia	11	14	5	10	9
Somalia	-	-	-	-	-
Sudan	12	15	10	12	13
Syria	2	2	4	1	1
Tunisia	3	4	2	4	4
UAE	9	12	14	15	16
Yemen	-	6	7	7	8

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 2 MB/S – 10 MB/S HIGH USAGE



Total results for OECD H2: 2-10Mb/s, 50GB, residential offers  
Results in US\$ / PPP VAT included, lowest per country

	2011	2012	2013	2015	2016
Algeria		83.32	83.32	73.63	50.88
Bahrain	272.05	247.00	247.00	24.47	24.47
Comoros		688.72	492.88	297.03	297.03
Djibouti					112.03
Egypt	231.93	63.25	31.63	59.04	59.04
Iraq					
Jordan	219.22	167.70	109.06	101.28	96.64
Kuwait					
Lebanon	1262.50	336.70	336.70	61.80	61.43
Libya					
Mauritania	343.26	259.63	259.63	156.88	156.88
Morocco	36.72	24.18	24.18	24.18	24.78
Oman	105.68	105.68	105.68	105.68	105.68
Palestine	54.06	45.97	69.07	80.98	92.66
Qatar	124.45	124.45	137.64	95.46	95.46
Saudi Arabia	135.57	151.05	56.76	85.43	85.43
Somalia					
Sudan	180.84	180.84	98.91	98.91	98.91
Syria	45.97	45.97	45.97	18.58	18.58
Tunisia	48.28	48.28	30.50	30.50	30.50
UAE	118.73	109.68	130.44	130.44	130.44
Yemen		73.44	73.44	54.75	54.75

Arab average	227.09	162.11	137.22	88.18	88.64
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Below Arab average  
Above Arab average

Ranking for OECD H2: 2-10Mb/s, 50GB, residential offers

	2011	2012	2013	2015	2016
Algeria	-	7	8	8	5
Bahrain	12	14	14	3	2
Comoros	-	17	17	17	18
Djibouti	-	-	-	-	15
Egypt	11	5	3	6	7
Iraq	-	-	-	-	-
Jordan	10	12	11	13	12
Kuwait	-	-	-	-	-
Lebanon	14	16	16	7	8
Libya	-	-	-	-	-
Mauritania	13	15	15	16	17
Morocco	1	1	1	2	3
Oman	5	8	10	14	14
Palestine	4	3	6	9	10
Qatar	7	10	13	11	11
Saudi Arabia	8	11	5	10	9
Somalia	-	-	-	-	-
Sudan	9	13	9	12	13
Syria	2	2	4	1	1
Tunisia	3	4	2	4	4
UAE	6	9	12	15	16
Yemen	-	6	7	5	6

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 10 MB/S – 30 MB/S LOW USAGE



Total results for OECD L3: 10-30Mb/s, 10GB, residential offers  
Results in US\$ / PPP VAT included, lowest per country

	2010	2011	2012	2013	2015	2016
Algeria						
Bahrain	392.80	391.44	293.58	244.65	97.86	73.40
Comoros						
Djibouti						
Egypt			295.19	295.19	295.19	295.19
Iraq						
Jordan			105.31	130.12	115.87	110.42
Kuwait						
Lebanon						
Libya						
Mauritania					403.48	403.48
Morocco	238.69	143.64	47.94	47.94	47.94	48.54
Oman		183.85	183.85	183.85	183.85	183.85
Palestine				212.03	145.85	151.56
Qatar		324.31	324.31	137.64	95.46	95.46
Saudi Arabia	326.51	178.00	178.00	114.10	85.43	85.43
Somalia						
Sudan						
Syria						
Tunisia			139.77	119.44	68.62	60.99
UAE	153.83	142.62	140.70	130.44	130.44	130.44
Yemen						

Arab average	277.96	227.31	189.85	161.54	151.82	148.98
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Below Arab average  
Above Arab average

Ranking for OECD L3: 10-30Mb/s, 10GB, residential offers

	2010	2011	2012	2013	2015	2016
Algeria	-	-	-	-	-	-
Bahrain	4	6	7	9	5	3
Comoros	-	-	-	-	-	-
Djibouti	-	-	-	-	-	-
Egypt	-	-	8	10	10	10
Iraq	-	-	-	-	-	-
Jordan	-	-	2	4	6	6
Kuwait	-	-	-	-	-	-
Lebanon	-	-	-	-	-	-
Libya	-	-	-	-	-	-
Mauritania	-	-	-	-	11	11
Morocco	2	2	1	1	1	1
Oman	-	4	6	7	9	9
Palestine	-	-	-	8	8	8
Qatar	-	5	9	6	4	5
Saudi Arabia	3	3	5	2	3	4
Somalia	-	-	-	-	-	-
Sudan	-	-	-	-	-	-
Syria	-	-	-	-	-	-
Tunisia	-	-	3	3	2	2
UAE	1	1	4	5	7	7
Yemen	-	-	-	-	-	-

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 10 MB/S – 30 MB/S MEDIUM USAGE



Total results for OECD M3: 10-30Mb/s, 25GB, residential offers  
Results in US\$ / PPP VAT included, lowest per country

Ranking for OECD M3: 10-30Mb/s, 25GB, residential offers

	2010	2011	2012	2013	2015	2016
Algeria						
Bahrain	392.80	391.44	293.58	244.65	97.86	73.40
Comoros						
Djibouti						
Egypt			295.19	295.19	295.19	295.19
Iraq						
Jordan			127.85	130.12	115.87	110.42
Kuwait						
Lebanon						
Libya						
Mauritania					403.48	403.48
Morocco	238.69	143.64	47.94	47.94	47.94	48.54
Oman		183.85	183.85	183.85	183.85	183.85
Palestine				212.03	145.85	151.56
Qatar		324.31	324.31	137.64	95.46	95.46
Saudi Arabia	326.51	178.00	178.00	114.10	85.43	85.43
Somalia						
Sudan						
Syria						
Tunisia			139.77	119.44	68.62	60.99
UAE	153.83	142.62	140.70	130.44	130.44	130.44
Yemen						

	2010	2011	2012	2013	2015	2016
Algeria	-	-	-	-	-	-
Bahrain	4	6	7	9	5	3
Comoros	-	-	-	-	-	-
Djibouti	-	-	-	-	-	-
Egypt	-	-	8	10	10	10
Iraq	-	-	-	-	-	-
Jordan	-	-	2	4	6	6
Kuwait	-	-	-	-	-	-
Lebanon	-	-	-	-	-	-
Libya	-	-	-	-	-	-
Mauritania	-	-	-	-	11	11
Morocco	2	2	1	1	1	1
Oman	-	4	6	7	9	9
Palestine	-	-	-	8	8	8
Qatar	-	5	9	6	4	5
Saudi Arabia	3	3	5	2	3	4
Somalia	-	-	-	-	-	-
Sudan	-	-	-	-	-	-
Syria	-	-	-	-	-	-
Tunisia	-	-	3	3	2	2
UAE	1	1	4	5	7	7
Yemen	-	-	-	-	-	-

Arab average	277.96	227.31	192.35	161.54	151.82	148.98
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Below Arab average  
Above Arab average

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 10 MB/S – 30 MB/S HIGH USAGE



Total results for OECD H3: 10-30Mb/s, 100GB, residential offers  
Results in US\$ / PPP VAT included, lowest per country

	2010	2011	2012	2013	2015	2016
Algeria						
Bahrain	590.87	489.30	293.58	293.58	97.86	73.40
Comoros						
Djibouti						
Egypt			295.19	295.19	295.19	295.19
Iraq						
Jordan			409.72	145.53	115.87	110.42
Kuwait						
Lebanon						
Libya						
Mauritania					403.48	403.48
Morocco	238.69	143.64	47.94	47.94	47.94	48.54
Oman		183.85	183.85	183.85	183.85	183.85
Palestine				212.03	145.85	151.56
Qatar		324.31	324.31	137.64	95.46	95.46
Saudi Arabia	326.51	178.00	178.00	114.10	85.43	85.43
Somalia						
Sudan						
Syria						
Tunisia			139.77	119.44	68.62	60.99
UAE	153.83	142.62	140.70	130.44	130.44	130.44
Yemen						

Arab average	327.48	243.62	223.67	167.98	151.82	148.98
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Below Arab average  
Above Arab average

Ranking for OECD H3: 10-30Mb/s, 100GB, residential offers

	2010	2011	2012	2013	2015	2016
Algeria	-	-	-	-	-	-
Bahrain	4	6	6	9	5	3
Comoros	-	-	-	-	-	-
Djibouti	-	-	-	-	-	-
Egypt	-	-	7	10	10	10
Iraq	-	-	-	-	-	-
Jordan	-	-	9	6	6	6
Kuwait	-	-	-	-	-	-
Lebanon	-	-	-	-	-	-
Libya	-	-	-	-	-	-
Mauritania	-	-	-	-	11	11
Morocco	2	2	1	1	1	1
Oman	-	4	5	7	9	9
Palestine	-	-	-	8	8	8
Qatar	-	5	8	5	4	5
Saudi Arabia	3	3	4	2	3	4
Somalia	-	-	-	-	-	-
Sudan	-	-	-	-	-	-
Syria	-	-	-	-	-	-
Tunisia	-	-	2	3	2	2
UAE	1	1	3	4	7	7
Yemen	-	-	-	-	-	-

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 30 MB/S – 100 MB/S LOW USAGE



Total results for OECD L4: 30-100Mb/s, 15GB, residential offers  
Results in US\$ / PPP VAT included, lowest per country

	2011	2012	2013	2015	2016
Algeria					
Bahrain			366.98	244.65	244.65
Comoros					
Djibouti					
Egypt					
Iraq					
Jordan				273.69	163.29
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					
Oman	314.14	314.14	314.14	288.08	288.08
Palestine					170.76
Qatar			204.39	202.18	202.18
Saudi Arabia	114.10		192.46	171.44	171.44
Somalia					
Sudan					
Syria					
Tunisia					
UAE	197.11	191.56	256.19	256.19	214.28
Yemen					

Arab average	208.45	252.85	266.83	239.37	207.81
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Below Arab average  
Above Arab average

Ranking for OECD L4: 30-100Mb/s, 15GB, residential offers

	2011	2012	2013	2015	2016
Algeria	-	-	-	-	-
Bahrain	-	-	5	3	6
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	5	1
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	-
Oman	3	2	4	6	7
Palestine	-	-	-	-	2
Qatar	-	-	2	2	4
Saudi Arabia	1	-	1	1	3
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	2	1	3	4	5
Yemen	-	-	-	-	-

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 30 MB/S – 100 MB/S MEDIUM USAGE



Total results for OECD M4: 30-100Mb/s, 50GB, residential offers  
Results in US\$ / PPP VAT included, lowest per country

	2011	2012	2013	2015	2016
Algeria					
Bahrain			366.98	244.65	244.65
Comoros					
Djibouti					
Egypt					
Iraq					
Jordan				273.69	163.29
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					
Oman	314.14	314.14	314.14	288.08	288.08
Palestine					170.76
Qatar			204.39	202.18	202.18
Saudi Arabia	114.10		192.46	171.44	171.44
Somalia					
Sudan					
Syria					
Tunisia					
UAE	197.11	191.56	256.19	256.19	214.28
Yemen					

Arab average	208.45	252.85	266.83	239.37	207.81
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Below Arab average  
Above Arab average

Ranking for OECD M4: 30-100Mb/s, 50GB, residential offers

	2011	2012	2013	2015	2016
Algeria	-	-	-	-	-
Bahrain	-	-	5	3	6
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	5	1
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	-
Oman	3	2	4	6	7
Palestine	-	-	-	-	2
Qatar	-	-	2	2	4
Saudi Arabia	1	-	1	1	3
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	2	1	3	4	5
Yemen	-	-	-	-	-

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS RESIDENTIAL 30 MB/S – 100 MB/S HIGH USAGE



Total results for OECD H4: 30-100Mb/s, 200GB, residential offers  
Results in US\$ / PPP VAT included, lowest per country

	2011	2012	2013	2015	2016
Algeria					
Bahrain			1118.55	244.65	244.65
Comoros					
Djibouti					
Egypt					
Iraq					
Jordan				273.69	163.29
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					
Oman	314.14	314.14	314.14	288.08	288.08
Palestine					170.76
Qatar			204.39	202.18	202.18
Saudi Arabia	114.10		192.46	171.44	171.44
Somalia					
Sudan					
Syria					
Tunisia					
UAE	197.11	191.56	256.19	256.19	214.28
Yemen					

Arab average	208.45	252.85	417.15	239.37	207.81
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Below Arab average  
Above Arab average

Ranking for OECD H4: 30-100Mb/s, 200GB, residential offers

	2011	2012	2013	2015	2016
Algeria	-	-	-	-	-
Bahrain	-	-	5	3	6
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	5	1
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	-
Oman	3	2	4	6	7
Palestine	-	-	-	-	2
Qatar	-	-	2	2	4
Saudi Arabia	1	-	1	1	3
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	2	1	3	4	5
Yemen	-	-	-	-	-

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 256 KB/S – 2 MB/S LOW USAGE



Total results for OECD L1: 0.25-2Mb/s, 5GB, business offers  
Results in US\$ / PPP VAT excluded, lowest per country

	2011	2012	2013	2015	2016
Algeria	131.19	79.50	79.50	224.32	177.00
Bahrain	160.49	107.65	73.40	73.40	73.40
Comoros					
Djibouti	428.99	428.99	428.99	428.99	360.50
Egypt	28.75	28.75	36.42	36.42	17.43
Iraq					
Jordan	131.78	119.20	111.05		71.42
Kuwait					
Lebanon	117.27	39.37	39.37	32.47	29.22
Libya	42.95	55.49	55.49	55.49	55.49
Mauritania				61.32	61.32
Morocco	20.52				
Oman	79.62	79.62	78.58	78.58	78.58
Palestine			98.34		
Qatar	244.36	244.36	244.36	242.03	242.03
Saudi Arabia		335.81	335.81		
Somalia					
Sudan	20.07	20.07	21.58	17.98	16.35
Syria					
Tunisia	377.21	608.12	981.69	991.19	
UAE	200.73	172.40	151.44	151.44	129.48
Yemen	29.38	25.37	25.37	55.19	55.19

Arab average	143.81	167.48	184.09	188.37	105.18
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Below Arab average  
Above Arab average

Ranking for OECD L1: 0.25-2Mb/s, 5GB, business offers

	2011	2012	2013	2015	2016
Algeria	8	6	8	10	11
Bahrain	10	8	6	7	8
Comoros	-	-	-	-	-
Djibouti	14	13	14	12	13
Egypt	3	3	3	3	2
Iraq	-	-	-	-	-
Jordan	9	9	10	-	7
Kuwait	-	-	-	-	-
Lebanon	7	4	4	2	3
Libya	5	5	5	5	5
Mauritania	-	-	-	6	6
Morocco	2	-	-	-	-
Oman	6	7	7	8	9
Palestine	-	-	9	-	-
Qatar	12	11	12	11	12
Saudi Arabia	-	12	13	-	-
Somalia	-	-	-	-	-
Sudan	1	1	1	1	1
Syria	-	-	-	-	-
Tunisia	13	14	15	13	-
UAE	11	10	11	9	10
Yemen	4	2	2	4	4

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 256 KB/S – 2 MB/S MEDIUM USAGE



Total results for OECD M1: 0.25-2Mb/s, 10GB, business offers  
Results in US\$ / PPP VAT excluded, lowest per country

	2011	2012	2013	2015	2016
Algeria	131.19	79.50	79.50	224.32	177.00
Bahrain	248.05	107.65	73.40	73.40	73.40
Comoros					
Djibouti	428.99	428.99	428.99	428.99	360.50
Egypt	36.42	28.75	36.42	36.42	17.43
Iraq					
Jordan	131.78	119.20	111.05		71.42
Kuwait					
Lebanon	208.32	48.85	48.85	32.47	29.22
Libya	149.67	55.49	55.49	55.49	55.49
Mauritania				61.32	61.32
Morocco	20.52				
Oman	100.47	100.47	100.47	100.47	100.47
Palestine			98.34		
Qatar	244.36	244.36	244.36	242.03	242.03
Saudi Arabia		335.81	335.81		
Somalia					
Sudan	20.07	20.07	21.58	21.58	19.62
Syria					
Tunisia	377.21	608.12	981.69	991.19	
UAE	200.73	200.73	200.73	255.23	129.48
Yemen	29.38	25.37	25.37	55.19	55.19

Arab average	166.23	171.67	189.47	198.32	107.12
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Below Arab average  
Above Arab average

Ranking for OECD M1: 0.25-2Mb/s, 10GB, business offers

	2011	2012	2013	2015	2016
Algeria	6	6	7	9	11
Bahrain	12	8	6	7	8
Comoros	-	-	-	-	-
Djibouti	14	13	14	12	13
Egypt	4	3	3	3	1
Iraq	-	-	-	-	-
Jordan	7	9	10	-	7
Kuwait	-	-	-	-	-
Lebanon	10	4	4	2	3
Libya	8	5	5	5	5
Mauritania	-	-	-	6	6
Morocco	2	-	-	-	-
Oman	5	7	9	8	9
Palestine	-	-	8	-	-
Qatar	11	11	12	10	12
Saudi Arabia	-	12	13	-	-
Somalia	-	-	-	-	-
Sudan	1	1	1	1	2
Syria	-	-	-	-	-
Tunisia	13	14	15	13	-
UAE	9	10	11	11	10
Yemen	3	2	2	4	4

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 256 KB/S – 2 MB/S HIGH USAGE



Total results for OECD H1: 0.25-2Mb/s, 20GB, business offers  
Results in US\$ / PPP VAT excluded, lowest per country

	2011	2012	2013	2015	2016
Algeria	131.19	79.50	79.50	224.32	177.00
Bahrain	370.38	107.65	73.40	73.40	73.40
Comoros					
Djibouti	428.99	428.99	428.99	428.99	360.50
Egypt	36.42	28.75	36.42	36.42	17.43
Iraq					
Jordan	161.96	161.96	161.36		71.42
Kuwait					
Lebanon	390.40	92.71	92.71	32.47	29.22
Libya	505.43	229.20	142.35	55.49	55.49
Mauritania				61.32	92.79
Morocco	20.52				
Oman	152.58	152.58	147.37	147.37	147.37
Palestine			98.34		
Qatar	244.36	244.36	244.36	242.03	242.03
Saudi Arabia		335.81	335.81		
Somalia					
Sudan	20.07	20.07	32.37	32.37	29.43
Syria					
Tunisia	377.21	608.12	981.69	991.19	
UAE	200.73	200.73	200.73	255.23	129.48
Yemen	29.38	25.37	25.37	55.19	85.23

Arab average	219.26	193.99	205.39	202.75	116.21
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Below Arab average  
Above Arab average

Ranking for OECD H1: 0.25-2Mb/s, 20GB, business offers

	2011	2012	2013	2015	2016
Algeria	5	4	5	9	11
Bahrain	10	6	4	7	6
Comoros	-	-	-	-	-
Djibouti	13	13	14	12	13
Egypt	4	3	3	3	1
Iraq	-	-	-	-	-
Jordan	7	8	10	-	5
Kuwait	-	-	-	-	-
Lebanon	12	5	6	2	2
Libya	14	10	8	5	4
Mauritania	-	-	-	6	8
Morocco	2	-	-	-	-
Oman	6	7	9	8	10
Palestine	-	-	7	-	-
Qatar	9	11	12	10	12
Saudi Arabia	-	12	13	-	-
Somalia	-	-	-	-	-
Sudan	1	1	2	1	3
Syria	-	-	-	-	-
Tunisia	11	14	15	13	-
UAE	8	9	11	11	9
Yemen	3	2	1	4	7

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 2 MB/S – 10 MB/S LOW USAGE



Total results for OECD L2: 2-10Mb/s, 5GB, business offers  
Results in US\$ / PPP VAT excluded, lowest per country

	2011	2012	2013	2015	2016
Algeria	603.44	162.34	162.34	735.47	177.00
Bahrain	615.03	394.84	195.72	146.79	146.79
Comoros					
Djibouti	1068.26	713.11	713.11	713.11	386.08
Egypt	76.67	57.50	28.75	28.75	26.14
Iraq					
Jordan	209.13	178.94	148.78		102.14
Kuwait					
Lebanon	382.97	92.71	92.71	32.47	29.22
Libya					
Mauritania				259.63	259.63
Morocco	30.42	20.70	20.15	20.15	17.21
Oman	79.62	79.62	78.58	78.58	78.58
Palestine			134.86		
Qatar	364.28	364.28	244.36	239.82	239.82
Saudi Arabia		221.13	221.13		
Somalia					
Sudan	164.40	164.40	89.92	89.92	81.74
Syria					
Tunisia	992.46	992.46	981.69	991.19	85.07
UAE	548.64	247.85	214.31	171.39	171.39
Yemen		73.44	73.44	133.30	133.30

Arab average	427.94	268.81	226.66	280.04	138.15
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Below Arab average  
Above Arab average

Ranking for OECD L2: 2-10Mb/s, 5GB, business offers

	2011	2012	2013	2015	2016
Algeria	9	6	9	12	11
Bahrain	10	12	10	7	9
Comoros	-	-	-	-	-
Djibouti	12	13	14	11	14
Egypt	2	2	2	2	2
Iraq	-	-	-	-	-
Jordan	5	8	8	-	7
Kuwait	-	-	-	-	-
Lebanon	7	5	6	3	3
Libya	-	-	-	-	-
Mauritania	-	-	-	10	13
Morocco	1	1	1	1	1
Oman	3	4	4	4	4
Palestine	-	-	7	-	-
Qatar	6	11	13	9	12
Saudi Arabia	-	9	12	-	-
Somalia	-	-	-	-	-
Sudan	4	7	5	5	5
Syria	-	-	-	-	-
Tunisia	11	14	15	13	6
UAE	8	10	11	8	10
Yemen	-	3	3	6	8

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 2 MB/S – 10 MB/S MEDIUM USAGE



Total results for OECD M2: 2-10Mb/s, 15GB, business offers  
Results in US\$ / PPP VAT excluded, lowest per country

	2011	2012	2013	2015	2016
Algeria	603.44	162.34	162.34	735.47	177.00
Bahrain	615.03	394.84	195.72	146.79	146.79
Comoros					
Djibouti	1068.26	713.11	713.11	713.11	386.08
Egypt	76.67	57.50	28.75	38.34	34.85
Iraq					
Jordan	209.13	178.94	148.78		102.14
Kuwait					
Lebanon	510.43	92.71	92.71	32.47	29.22
Libya					
Mauritania				259.63	259.63
Morocco	30.42	20.70	20.15	20.15	17.21
Oman	126.52	126.52	123.92	123.92	123.92
Palestine			134.86		
Qatar	364.28	364.28	244.36	239.82	239.82
Saudi Arabia		221.13	221.13		
Somalia					
Sudan	164.40	164.40	89.92	89.92	81.74
Syria					
Tunisia	992.46	992.46	981.69	991.19	85.07
UAE	548.64	548.64	515.95	171.39	171.39
Yemen		73.44	73.44	133.30	133.30

Arab average	442.47	293.64	249.79	284.27	142.01
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Below Arab average  
Above Arab average

Ranking for OECD M2: 2-10Mb/s, 15GB, business offers

	2011	2012	2013	2015	2016
Algeria	9	6	9	12	11
Bahrain	10	11	10	7	9
Comoros	-	-	-	-	-
Djibouti	12	13	14	11	14
Egypt	2	2	2	3	3
Iraq	-	-	-	-	-
Jordan	5	8	8	-	6
Kuwait	-	-	-	-	-
Lebanon	7	4	5	2	2
Libya	-	-	-	-	-
Mauritania	-	-	-	10	13
Morocco	1	1	1	1	1
Oman	3	5	6	5	7
Palestine	-	-	7	-	-
Qatar	6	10	12	9	12
Saudi Arabia	-	9	11	-	-
Somalia	-	-	-	-	-
Sudan	4	7	4	4	4
Syria	-	-	-	-	-
Tunisia	11	14	15	13	5
UAE	8	12	13	8	10
Yemen	-	3	3	6	8

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 2 MB/S – 10 MB/S HIGH USAGE



Total results for OECD H2: 2-10Mb/s, 50GB, business offers  
Results in US\$ / PPP VAT excluded, lowest per country

	2011	2012	2013	2015	2016
Algeria	603.44	162.34	162.34	735.47	177.00
Bahrain	615.03	394.84	195.72	146.79	146.79
Comoros					
Djibouti	1068.26	713.11	713.11	713.11	386.08
Egypt	210.85	57.50	28.75	84.34	48.79
Iraq					
Jordan	326.23	326.23	211.67		102.14
Kuwait					
Lebanon	1147.73	306.09	306.09	56.18	50.77
Libya					
Mauritania				259.63	259.63
Morocco	30.42	20.70	20.15	20.15	17.21
Oman	235.97	235.97	235.97	235.97	235.97
Palestine			134.86		
Qatar	364.28	364.28	244.36	239.82	239.82
Saudi Arabia		221.13	221.13		
Somalia					
Sudan	164.40	164.40	89.92	89.92	81.74
Syria					
Tunisia	992.46	992.46	981.69	991.19	85.07
UAE	634.57	634.57	634.57	171.39	171.39
Yemen		73.44	73.44	133.30	133.30

Arab average	532.80	333.36	283.58	298.25	152.55
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Below Arab average  
Above Arab average

Ranking for OECD H2: 2-10Mb/s, 50GB, business offers

	2011	2012	2013	2015	2016
Algeria	7	4	6	12	10
Bahrain	8	11	7	6	8
Comoros	-	-	-	-	-
Djibouti	11	13	14	11	14
Egypt	3	2	2	3	2
Iraq	-	-	-	-	-
Jordan	5	9	8	-	6
Kuwait	-	-	-	-	-
Lebanon	12	8	12	2	3
Libya	-	-	-	-	-
Mauritania	-	-	-	10	13
Morocco	1	1	1	1	1
Oman	4	7	10	8	11
Palestine	-	-	5	-	-
Qatar	6	10	11	9	12
Saudi Arabia	-	6	9	-	-
Somalia	-	-	-	-	-
Sudan	2	5	4	4	4
Syria	-	-	-	-	-
Tunisia	10	14	15	13	5
UAE	9	12	13	7	9
Yemen	-	3	3	5	7

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 10 MB/S – 30 MB/S LOW USAGE



Total results for OECD L3: 10-30Mb/s, 10GB, business offers  
Results in US\$ / PPP VAT excluded, lowest per country

	2011	2012	2013	2015	2016
Algeria					1150.52
Bahrain	1593.64	982.01	737.35	615.03	615.03
Comoros					
Djibouti					769.79
Egypt		268.35	268.35	268.35	472.23
Iraq					
Jordan		273.27	211.67		153.34
Kuwait					
Lebanon					
Libya					
Mauritania				608.98	608.98
Morocco	119.52	40.50	39.95	39.95	33.71
Oman	944.74	944.74	944.74	944.74	944.74
Palestine			341.97		
Qatar			244.36	239.82	239.82
Saudi Arabia		232.60	232.60		
Somalia					
Sudan					
Syria					
Tunisia		2970.81	2970.81	2986.12	128.14
UAE	2038.78	360.02	301.33	301.33	301.33
Yemen					

Arab average	1,174.17	759.04	629.31	750.54	492.51
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Below Arab average  
Above Arab average

Ranking for OECD L3: 10-30Mb/s, 10GB, business offers

	2011	2012	2013	2015	2016
Algeria	-	-	-	-	11
Bahrain	3	7	8	6	8
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	9
Egypt	-	3	5	3	6
Iraq	-	-	-	-	-
Jordan	-	4	2	-	3
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	5	7
Morocco	1	1	1	1	1
Oman	2	6	9	7	10
Palestine	-	-	7	-	-
Qatar	-	-	4	2	4
Saudi Arabia	-	2	3	-	-
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	8	10	8	2
UAE	4	5	6	4	5
Yemen	-	-	-	-	-

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 10 MB/S – 30 MB/S MEDIUM USAGE



Total results for OECD M3: 10-30Mb/s, 25GB, business offers  
Results in US\$ / PPP VAT excluded, lowest per country

	2011	2012	2013	2015	2016
Algeria					1150.52
Bahrain	1593.64	982.01	737.35	615.03	615.03
Comoros					
Djibouti					769.79
Egypt		268.35	268.35	268.35	472.23
Iraq					
Jordan		273.27	211.67		153.34
Kuwait					
Lebanon					
Libya					
Mauritania				608.98	608.98
Morocco	119.52	40.50	39.95	39.95	33.71
Oman	944.74	944.74	944.74	944.74	944.74
Palestine			341.97		
Qatar			244.36	239.82	239.82
Saudi Arabia		232.60	232.60		
Somalia					
Sudan					
Syria					
Tunisia		2970.81	2970.81	2986.12	128.14
UAE	2038.78	934.94	844.82	309.72	309.72
Yemen					

Arab average	1,174.17	830.90	683.66	751.59	493.27
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Below Arab average  
 Above Arab average

Ranking for OECD M3: 10-30Mb/s, 25GB, business offers

	2011	2012	2013	2015	2016
Algeria	-	-	-	-	11
Bahrain	3	7	7	6	8
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	9
Egypt	-	3	5	3	6
Iraq	-	-	-	-	-
Jordan	-	4	2	-	3
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	5	7
Morocco	1	1	1	1	1
Oman	2	6	9	7	10
Palestine	-	-	6	-	-
Qatar	-	-	4	2	4
Saudi Arabia	-	2	3	-	-
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	8	10	8	2
UAE	4	5	8	4	5
Yemen	-	-	-	-	-

Least expensive  
 Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 10 MB/S – 30 MB/S HIGH USAGE



Total results for OECD H3: 10-30Mb/s, 100GB, business offers  
Results in US\$ / PPP VAT excluded, lowest per country

	2011	2012	2013	2015	2016
Algeria					1150.52
Bahrain	1593.64	982.01	737.35	615.03	615.03
Comoros					
Djibouti					769.79
Egypt		268.35	268.35	268.35	472.23
Iraq					
Jordan		772.88	337.44		153.34
Kuwait					
Lebanon					
Libya					
Mauritania				608.98	608.98
Morocco	119.52	40.50	39.95	39.95	33.71
Oman	944.74	944.74	944.74	944.74	944.74
Palestine			341.97		
Qatar			244.36	239.82	239.82
Saudi Arabia		232.60	232.60		
Somalia					
Sudan					
Syria					
Tunisia		2970.81	2970.81	2986.12	128.14
UAE	2038.78	2038.78	2038.78	309.72	309.72
Yemen					

Arab average	1,174.17	1,031.33	815.63	751.59	493.27
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Below Arab average  
Above Arab average

Ranking for OECD H3: 10-30Mb/s, 100GB, business offers

	2011	2012	2013	2015	2016
Algeria	-	-	-	-	11
Bahrain	3	6	7	6	8
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	9
Egypt	-	3	4	3	6
Iraq	-	-	-	-	-
Jordan	-	4	5	-	3
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	5	7
Morocco	1	1	1	1	1
Oman	2	5	8	7	10
Palestine	-	-	6	-	-
Qatar	-	-	3	2	4
Saudi Arabia	-	2	2	-	-
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	8	10	8	2
UAE	4	7	9	4	5
Yemen	-	-	-	-	-

Least expensive  
Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 30 MB/S – 100 MB/S LOW USAGE



Total results for OECD L4: 30-100Mb/s, 15GB, business offers  
Results in US\$ / PPP VAT excluded, lowest per country

	2011	2012	2013	2015	2016
Algeria					
Bahrain					
Comoros					
Djibouti					1878.29
Egypt					
Iraq					
Jordan					217.34
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					
Oman				2398.76	2398.76
Palestine					
Qatar			484.19	479.65	479.65
Saudi Arabia					
Somalia					
Sudan					
Syria					
Tunisia					
UAE		842.06	703.73	603.13	603.13
Yemen					

<b>Arab average</b>		842.06	593.96	1,160.51	1,115.43
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Below Arab average  
 Above Arab average

Ranking for OECD L4: 30-100Mb/s, 15GB, business offers

	2011	2012	2013	2015	2016
Algeria	-	-	-	-	-
Bahrain	-	-	-	-	-
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	4
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	-	1
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	-
Oman	-	-	-	3	5
Palestine	-	-	-	-	-
Qatar	-	-	1	1	2
Saudi Arabia	-	-	-	-	-
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	-	1	2	2	3
Yemen	-	-	-	-	-

Least expensive  
 Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 30 MB/S – 100 MB/S MEDIUM USAGE



Total results for OECD M4: 30-100Mb/s, 50GB, business offers  
Results in US\$ / PPP VAT excluded, lowest per country

	2011	2012	2013	2015	2016
Algeria					
Bahrain					
Comoros					
Djibouti					1878.29
Egypt					
Iraq					
Jordan					217.34
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					
Oman				2398.76	2398.76
Palestine					
Qatar			484.19	479.65	479.65
Saudi Arabia					
Somalia					
Sudan					
Syria					
Tunisia					
UAE		842.06	703.73	603.13	603.13
Yemen					

Arab average		842.06	593.96	1,160.51	1,115.43
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Below Arab average  
 Above Arab average

Ranking for OECD M4: 30-100Mb/s, 50GB, business offers

	2011	2012	2013	2015	2016
Algeria	-	-	-	-	-
Bahrain	-	-	-	-	-
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	4
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	-	1
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	-
Oman	-	-	-	3	5
Palestine	-	-	-	-	-
Qatar	-	-	1	1	2
Saudi Arabia	-	-	-	-	-
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	-	1	2	2	3
Yemen	-	-	-	-	-

Least expensive  
 Most expensive



# 2016 OECD FIXED BROADBAND BASKET RANKINGS BUSINESS 30 MB/S – 100 MB/S HIGH USAGE



Total results for OECD H4: 30-100Mb/s, 200GB, business offers  
Results in US\$ / PPP VAT excluded, lowest per country

	2011	2012	2013	2015	2016
Algeria					
Bahrain					
Comoros					
Djibouti					1878.29
Egypt					
Iraq					
Jordan					217.34
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco					
Oman				2398.76	2398.76
Palestine					
Qatar			484.19	479.65	479.65
Saudi Arabia					
Somalia					
Sudan					
Syria					
Tunisia					
UAE		842.06	703.73	603.13	603.13
Yemen					

<b>Arab average</b>		842.06	593.96	1,160.51	1,115.43
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Below Arab average  
 Above Arab average

Ranking for OECD H4: 30-100Mb/s, 200GB, business offers

	2011	2012	2013	2015	2016
Algeria	-	-	-	-	-
Bahrain	-	-	-	-	-
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	4
Egypt	-	-	-	-	-
Iraq	-	-	-	-	-
Jordan	-	-	-	-	1
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	-
Oman	-	-	-	3	5
Palestine	-	-	-	-	-
Qatar	-	-	1	1	2
Saudi Arabia	-	-	-	-	-
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	-	1	2	2	3
Yemen	-	-	-	-	-

Least expensive  
 Most expensive





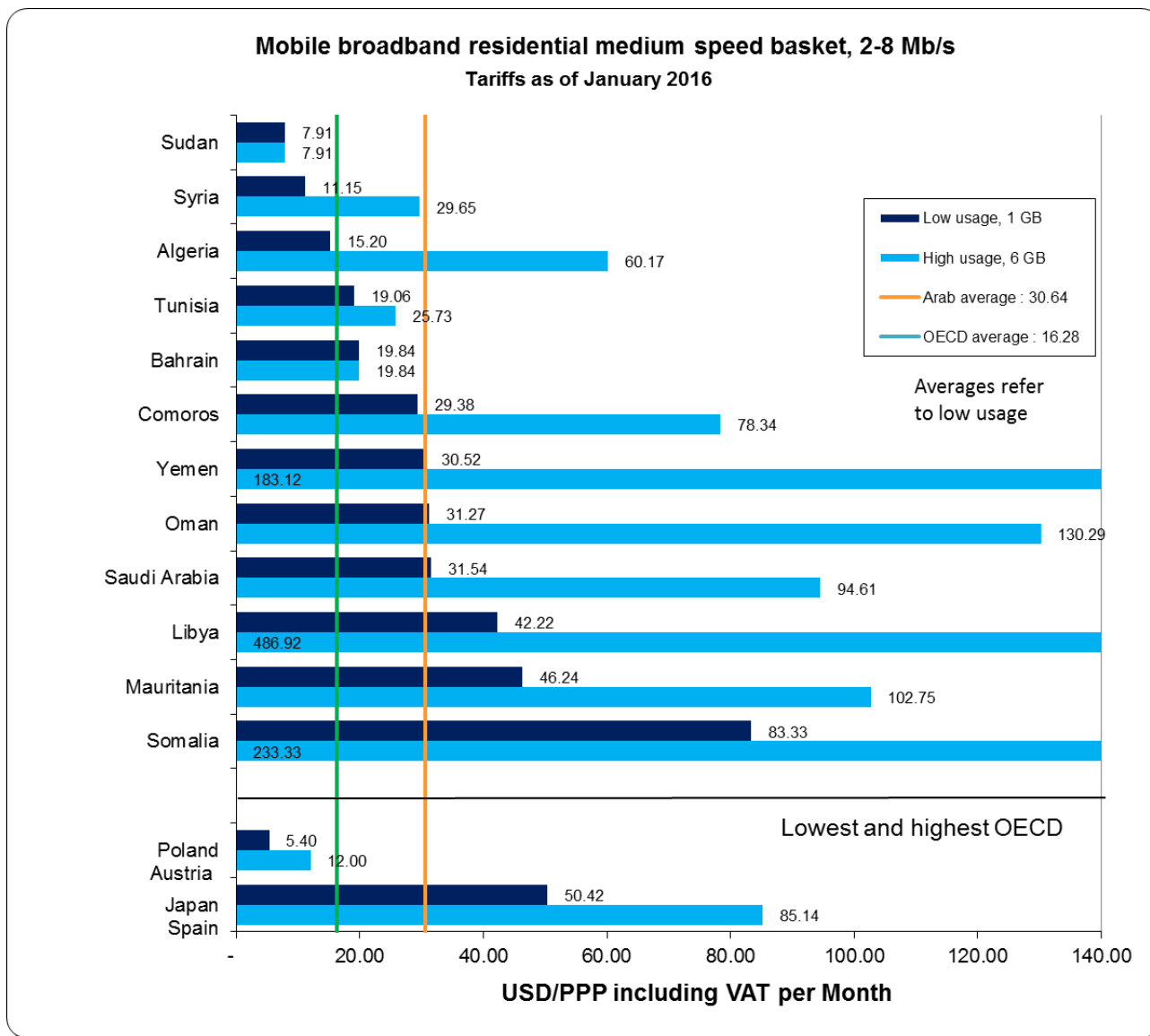
# MOBILE BROADBAND BASKET RESULTS 2016



# MOBILE BROADBAND DATA ISSUES

- Data collected refers to dedicated mobile broadband packages (i.e. not mobile broadband bundled with or added to mobile voice packages)
- Data was available for all countries, however, not all providers specify speeds of service, so results may not be available for some countries where a speed designation is applied to the basket.
- For countries where data was available, up to three operators were considered
- Total monthly cost calculated based on two usage baskets from the modified OECD baskets:
  - **Low usage:** 1 GB and 5 hours per month.
  - **High usage:** 6 GB and 30 hours per month.
  - Please note that the OECD baskets do not consider time (i.e. hours of usage). This has been added to avoid exclusion of any time related tariffs in this study.
- Two speeds were considered for each usage level:
  - **Medium speed:** 2-8 Mb/s
  - **High speed:** >8 Mb/s
  - Please note that the OECD baskets do not distinguish on speed, but rather includes all speeds above 256 Kb/s. The two speed ranges were included to be able to analyse developments in mobile broadband speeds.
- In addition, a calculation has been included for the same low and high usage levels, for both business and residential services, but not taking into account any speed limitations,
- This captures tariffs which are published but without any download speed information, and which would otherwise not have been considered for the analysis
  - This calculation is especially important for this update, as there are a lot more mobile broadband offers in the market, many of which do not specify the speed of service.
- Results were compared to the recent OECD results covering 34 OECD countries, using the same usage baskets described above
  - The new OECD baskets for mobile broadband were adopted in June 2012

# RESIDENTIAL MEDIUM SPEED MOBILE BROADBAND (2-8 MB/S)



**Low usage: 1 GB and 5 hours per month over 15 days**

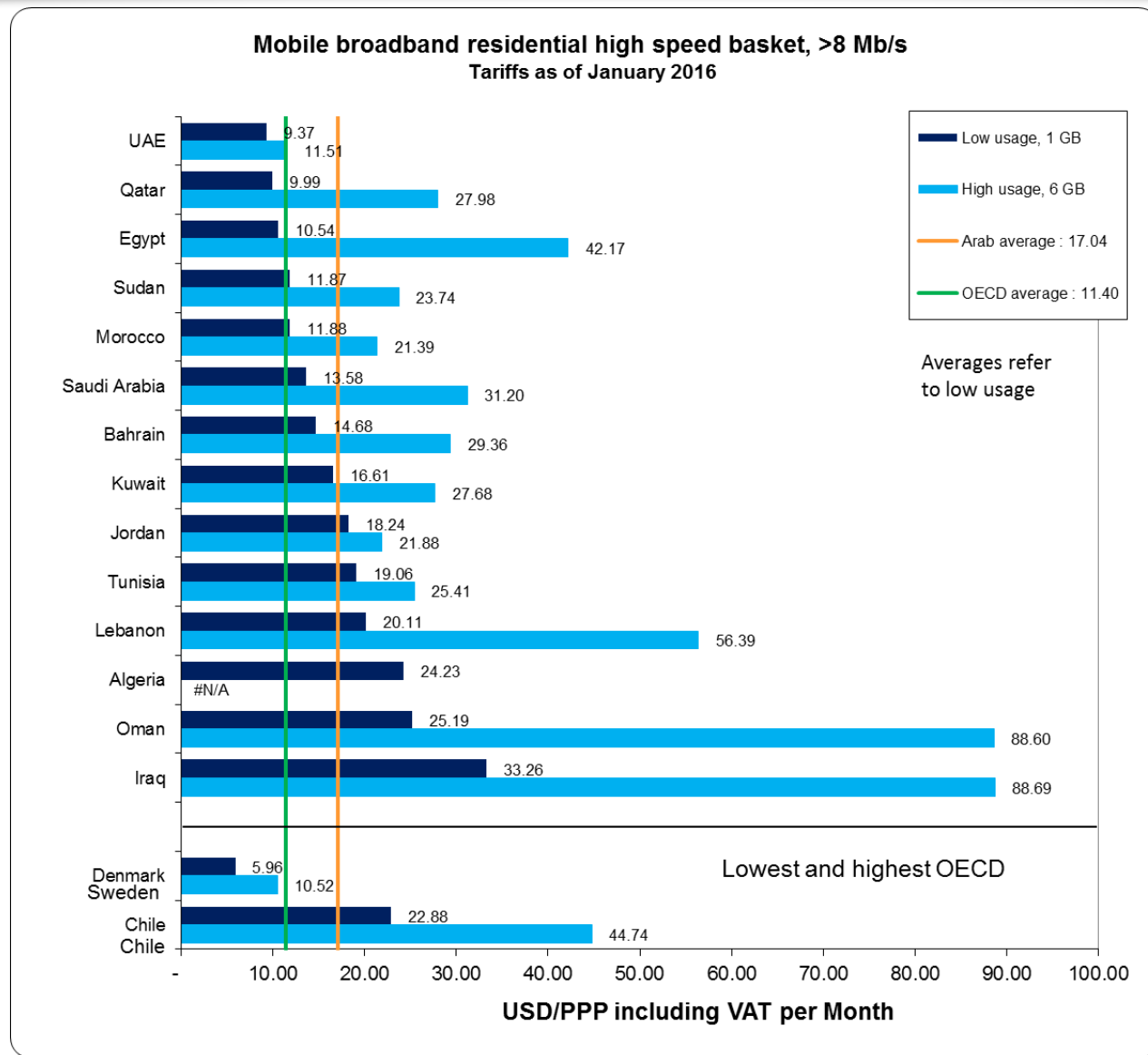
**High usage: 6 GB and 30 hours over 30 days**

**Average lines are based on low usage results**

**For high usage, some of the results have been truncated, to make the graph easier to read**



# RESIDENTIAL HIGH SPEED MOBILE BROADBAND (> 8 MB/S)



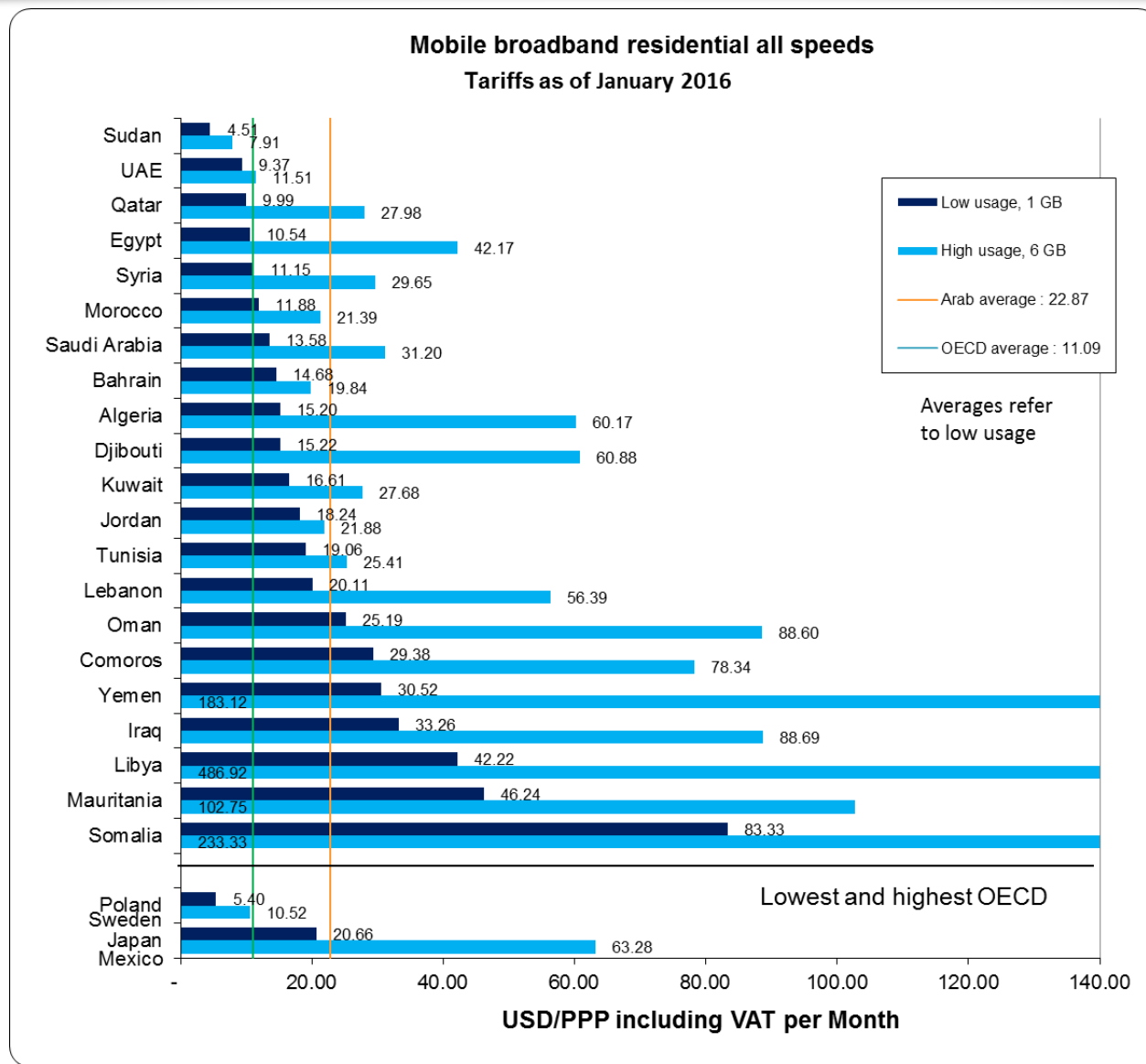
**Low usage: 1 GB and 5 hours per month over 15 days**

**High usage: 6 GB and 30 hours over 30 days**

**Average lines are based on low usage results**



# RESIDENTIAL MOBILE BROADBAND ALL SPEEDS



**Low usage: 1 GB and 5 hours per month over 15 days**

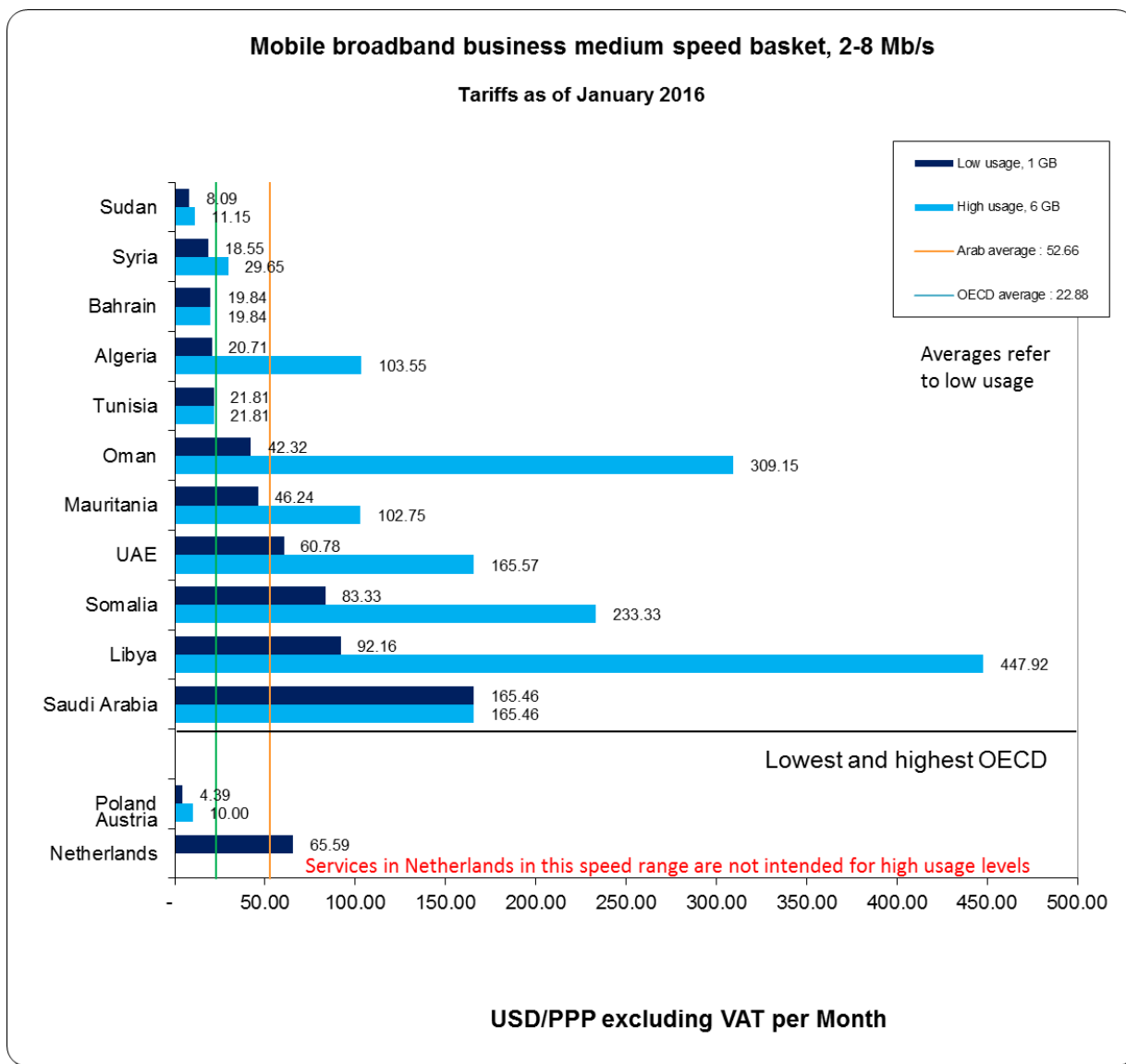
**High usage: 6 GB and 30 hours over 30 days**

**Average lines are based on low usage results**

**For high usage, some of the results have been truncated, to make the graph easier to read**



# BUSINESS MEDIUM SPEED MOBILE BROADBAND (2–8 MB/S)



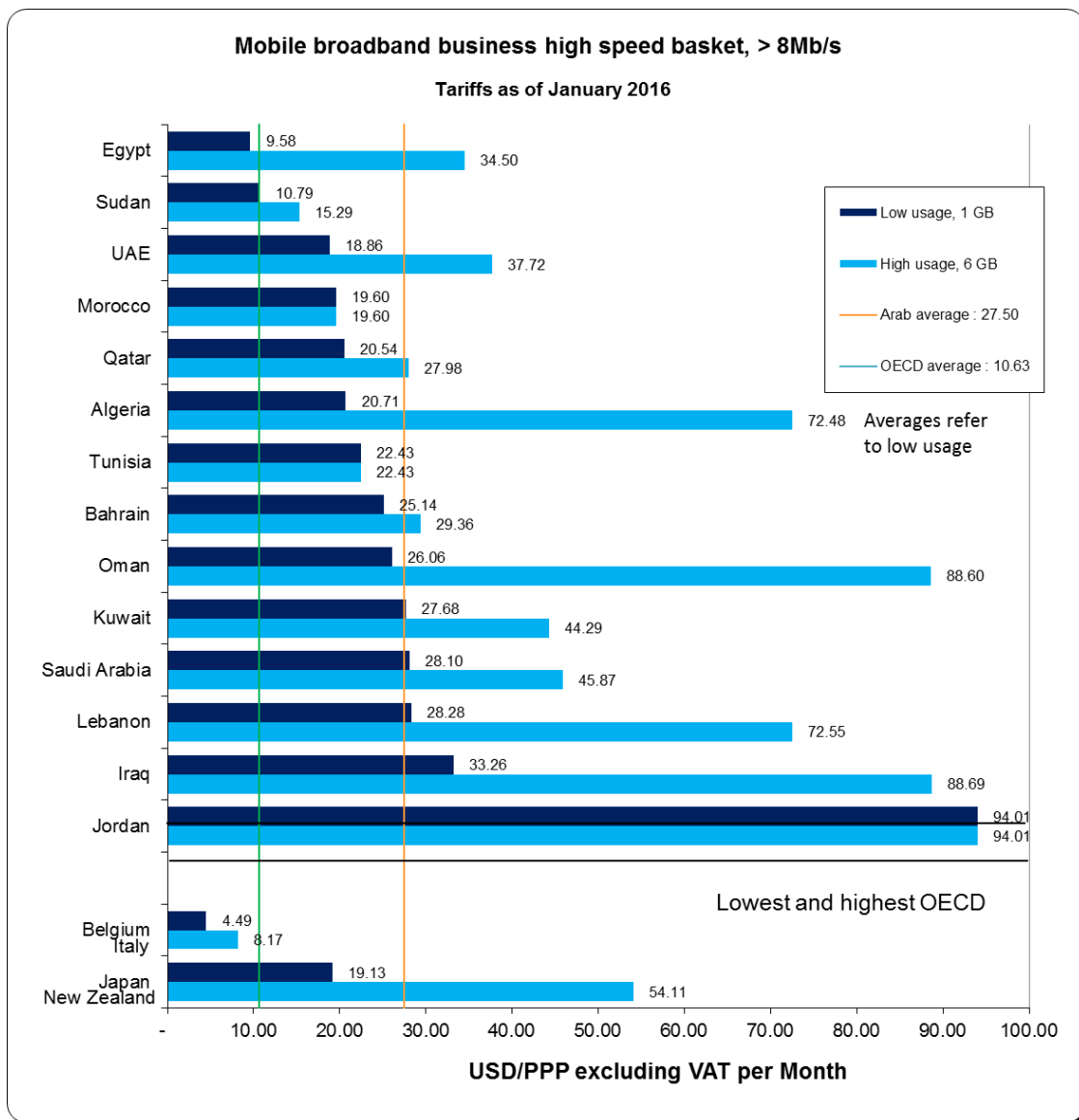
**Low usage: 1 GB**  
and 5 hours per  
month over 15 days

**High usage: 6 GB**  
and 30 hours over  
30 days

Average lines are  
based on low usage  
results



# BUSINESS HIGH SPEED MOBILE BROADBAND (> 8 MB/S)



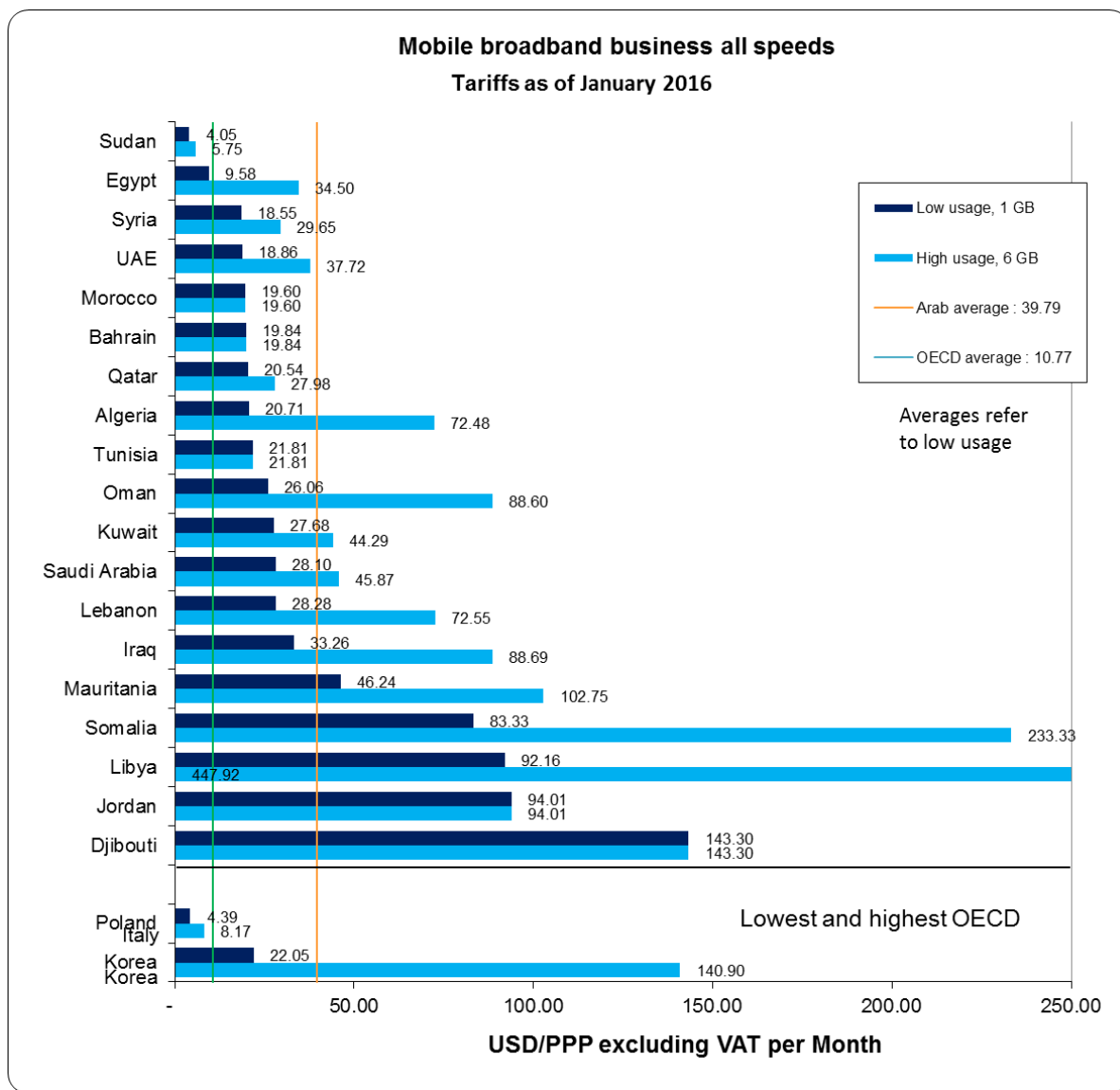
**Low usage: 1 GB and 5  
hours per month over 15  
days**

**High usage: 6 GB and 30  
hours over 30 days**

**Average lines are based on  
low usage results**



# BUSINESS MOBILE BROADBAND ALL SPEEDS



**Low usage: 1 GB and  
5 hours per month  
over 15 days**

**High usage: 6 GB and  
30 hours over 30 days**

**Average lines are  
based on low usage  
results**

**For high usage, the  
results for Libya have  
been truncated, to  
make the graph easier  
to read**



# OBSERVATIONS FROM MOBILE BROADBAND BASKET RESULTS



- Mobile broadband services are available across all the Arab countries.
  - The average advertised download speed is just over 63 Mb/s, which is similar to 2015
  - Higher speeds increasingly commonplace, with speeds in excess of 7.2 Mb/s available in 15 of the Arab countries .
  - Very low speeds of < 1Mb/s are not widely available, but still exist in a handful of countries, namely Djibouti, Saudi Arabia and Sudan.
- When all speeds are considered (no speed limitations), Sudan is the cheapest country for residential broadband, for both low and high usage. UAE, Qatar, Egypt and Syria are also relatively cheap, for low usage (and below or on par with the OECD average).
- Costs in many countries rise dramatically when considering the 6GB basket, most notably for lower speed services (2-8 Mb/s)
  - Many providers offer very large allowances, but these come at a high cost, and this is a key driver in pushing up the cost of the high usage basket.
  - For higher speed services, > 8Mb/s, the high usage cost is much closer to the low usage than lower speeds.
- For business services, Sudan is again the cheapest, when we do not take speed into account. Egypt is the cheapest for high speed services (low usage), followed by Sudan and UAE.
- As with residential services, the cost variation between low usage (1GB) and high usage (6GB) is much smaller for higher speed services.
- The average cost of mobile broadband services for both residential and business customers in the Arab countries compared to the OECD average is shown in the table below.

## Arab/OECD average

	Low usage		High usage		Low usage	High usage
	2-8 Mb/s	>8 Mb/s	2-8 Mb/s	>8 Mb/s	All speeds	All speeds
Arab/OECD residential	1.88	1.50	3.05	1.63	2.06	3.47
Arab/OECD business	2.30	2.59	2.17	2.14	3.69	3.29

- The average varies according to which basket and speed is being considered, and whether the services are residential or business, but broadly, the residential Arab average is anywhere up to 3.5 times more than the OECD average, with higher speed services showing more parity.
- For business services, the Arab/OECD ratio is similarly variable, but can be up to 3.7 times.



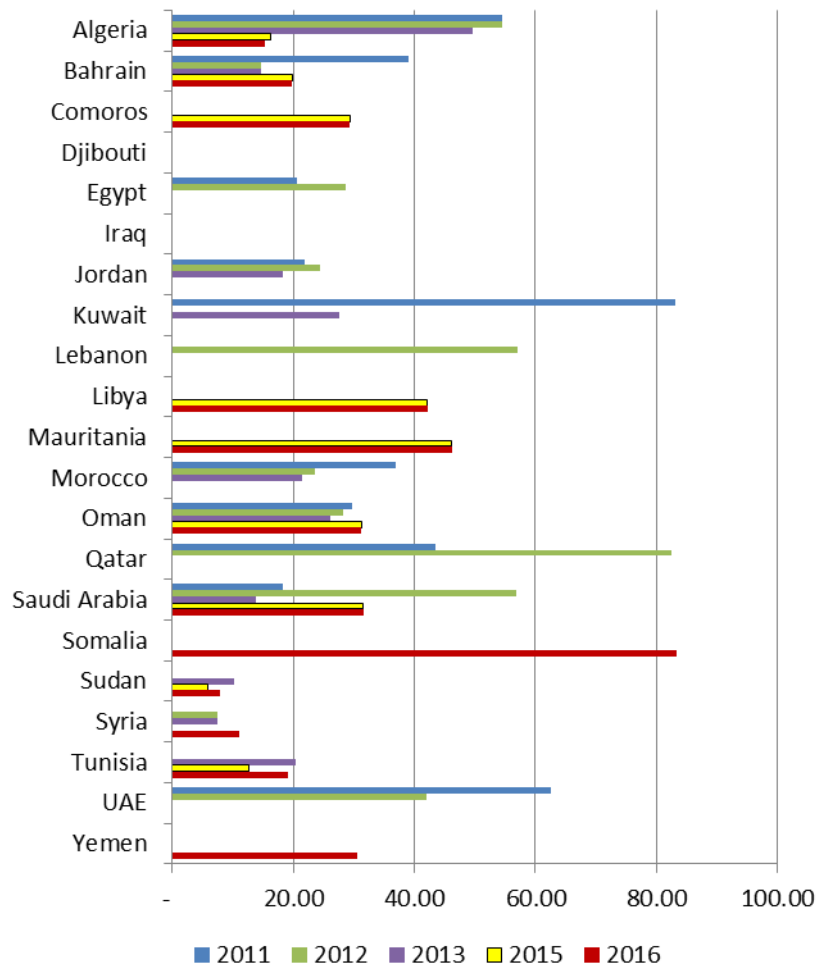


# MOBILE BROADBAND TIME SERIES ANALYSIS 2011–2016

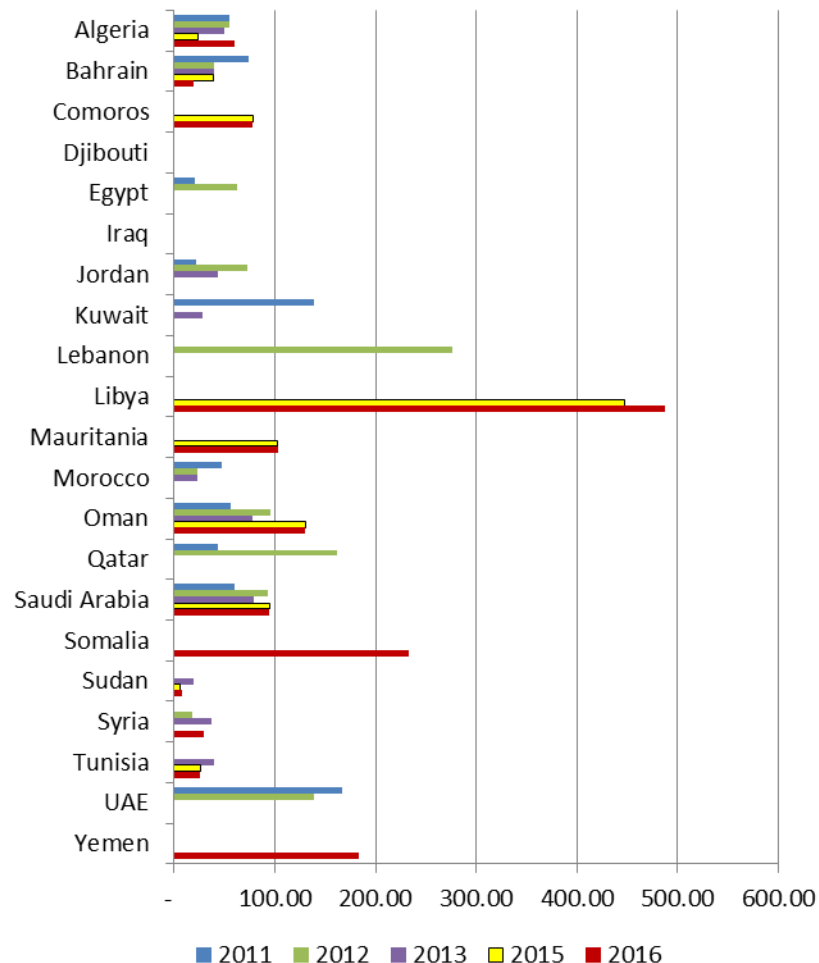
# RESIDENTIAL MOBILE BROADBAND, MEDIUM SPEED TIME SERIES, 2-8 MB/S



**Basket 3: 1GB, Residential**  
2 - 8 Mb/s



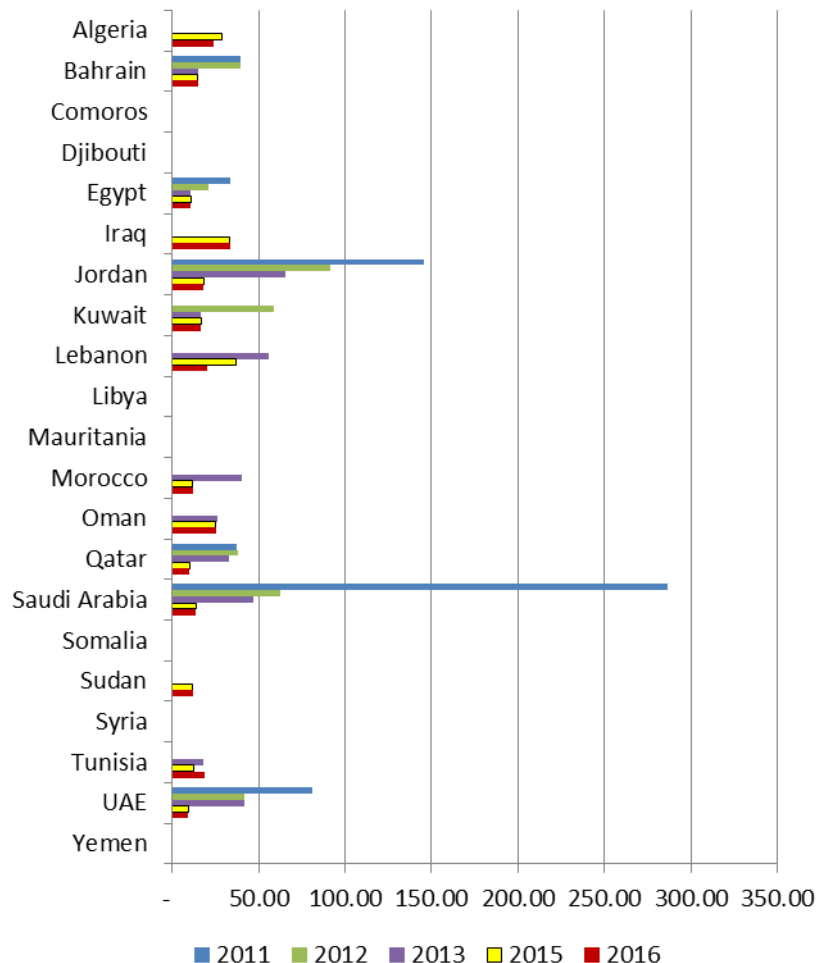
**Basket 6: 6GB, Residential**  
2 - 8 Mb/s



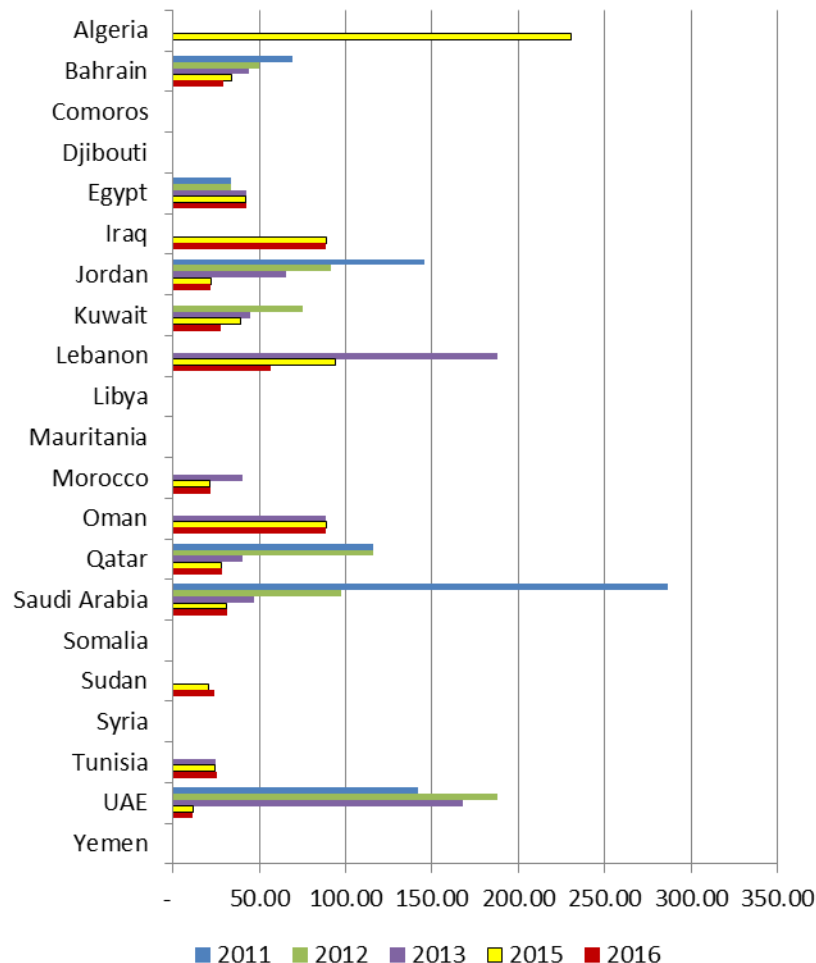
# RESIDENTIAL MOBILE BROADBAND, HIGH SPEED TIME SERIES, > 8 MB/S



**Basket 3: 1GB, Residential**  
8 Mb/s and above



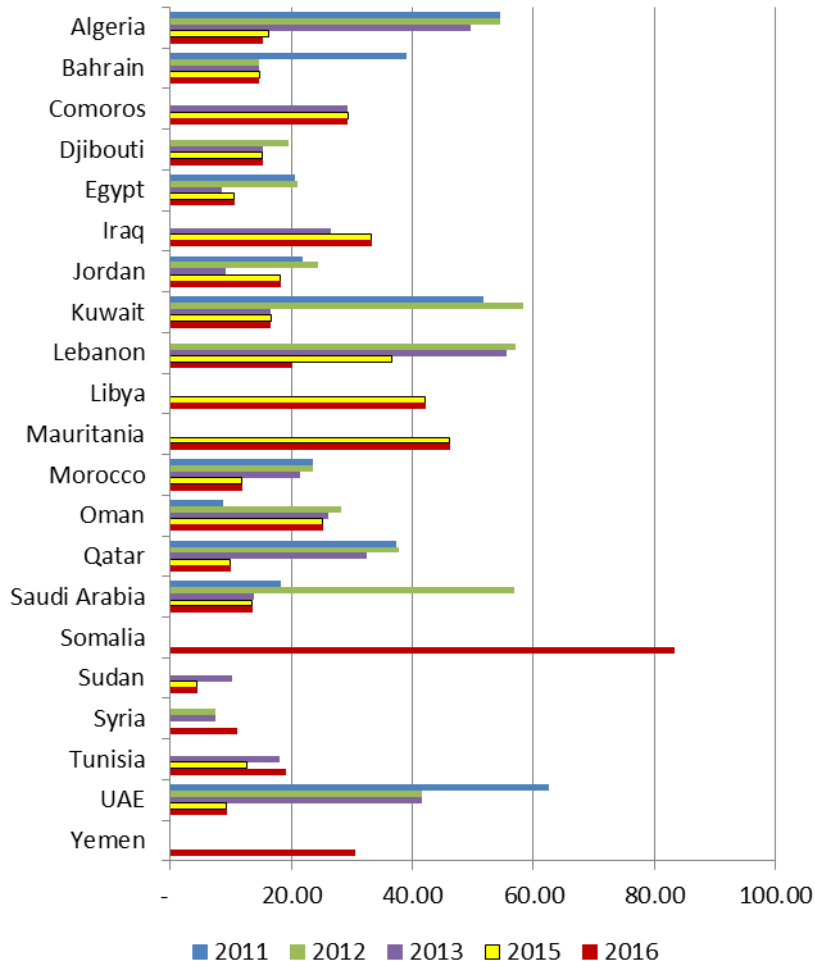
**Basket 6: 6GB, Residential**  
8 Mb/s and above



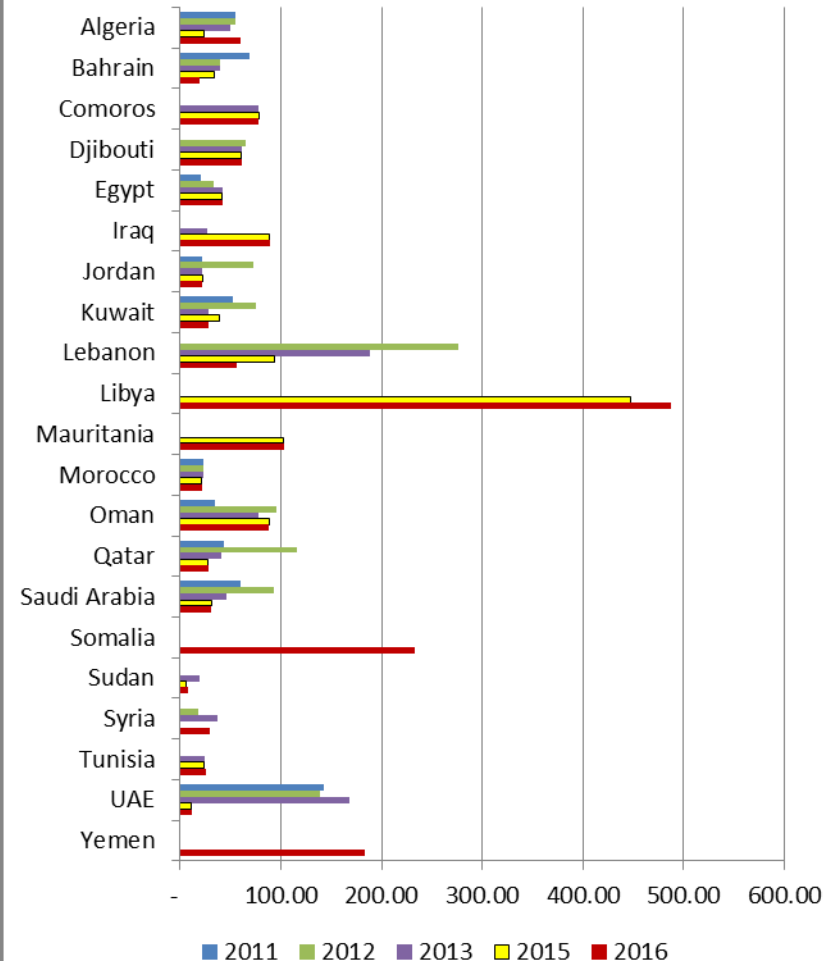
# RESIDENTIAL MOBILE BROADBAND, ALL SPEEDS TIME SERIES



**Basket 3: 1GB, Residential**  
All speeds



**Basket 6: 6GB, Residential**  
All speeds

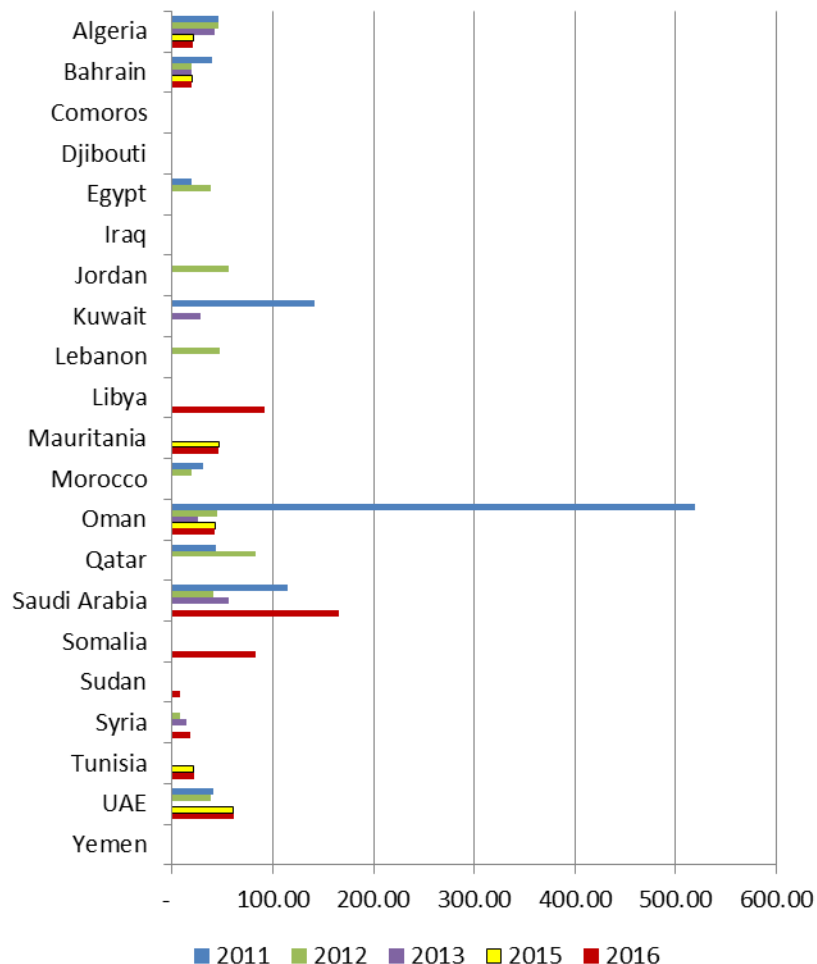


# BUSINESS MOBILE BROADBAND, MEDIUM SPEED TIME SERIES, 2-8 MB/S



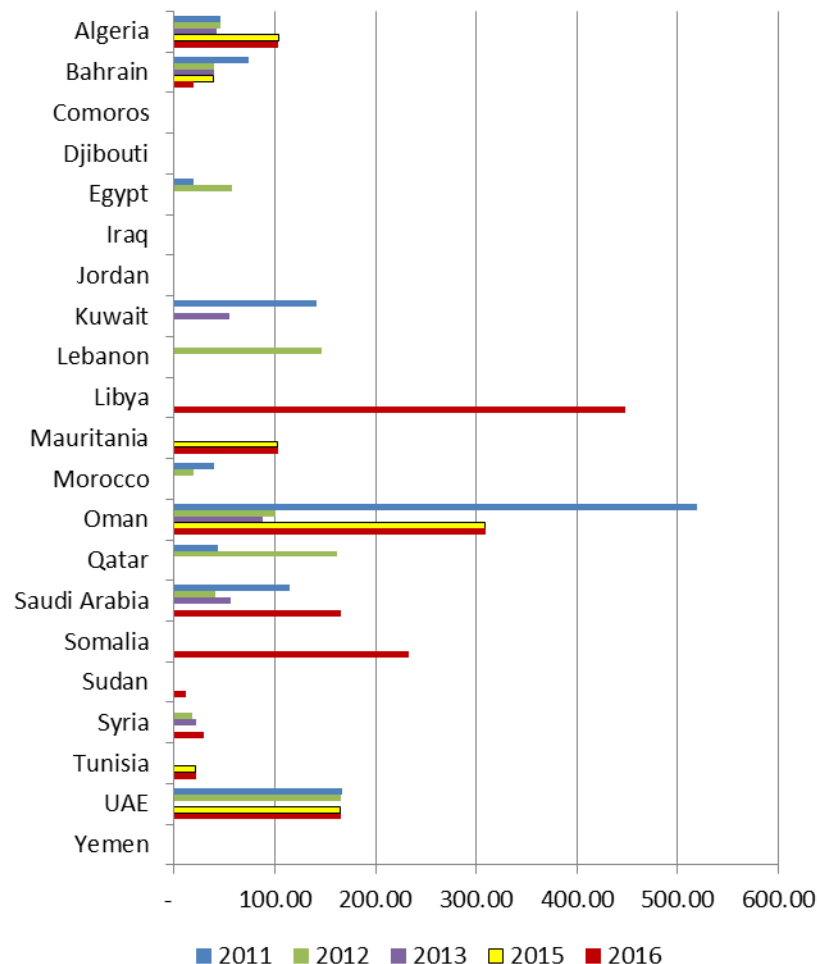
## Basket 3: 1GB, Business

2 - 8 Mb/s



## Basket 6: 6GB, Business

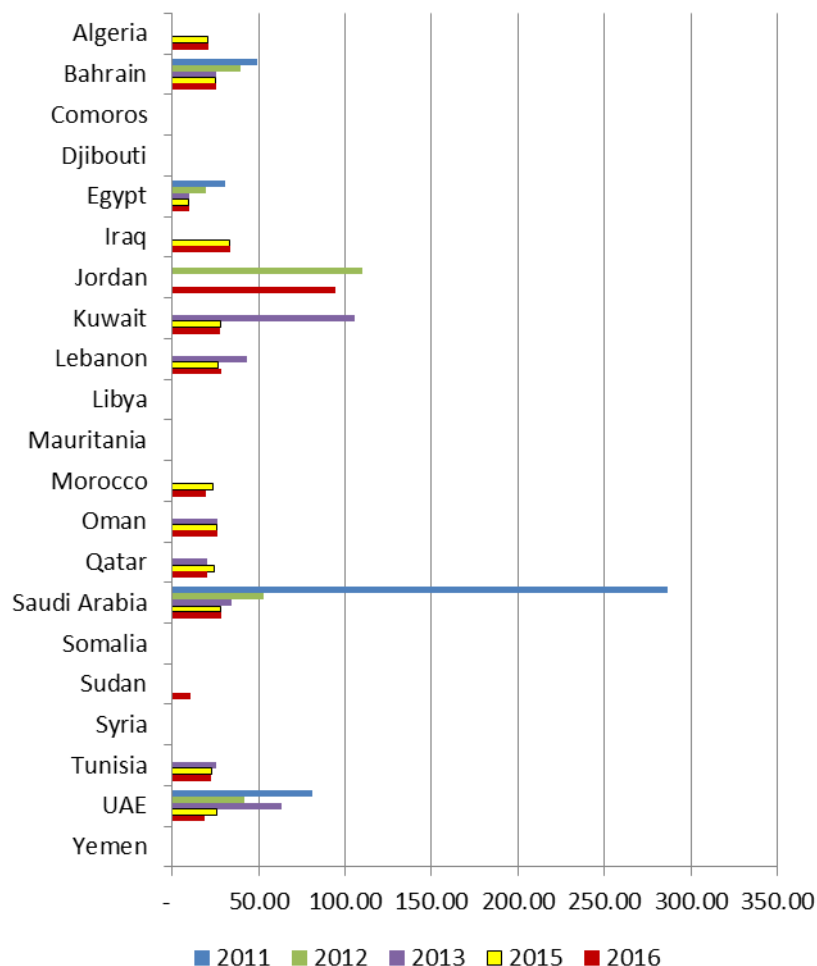
2 - 8 Mb/s



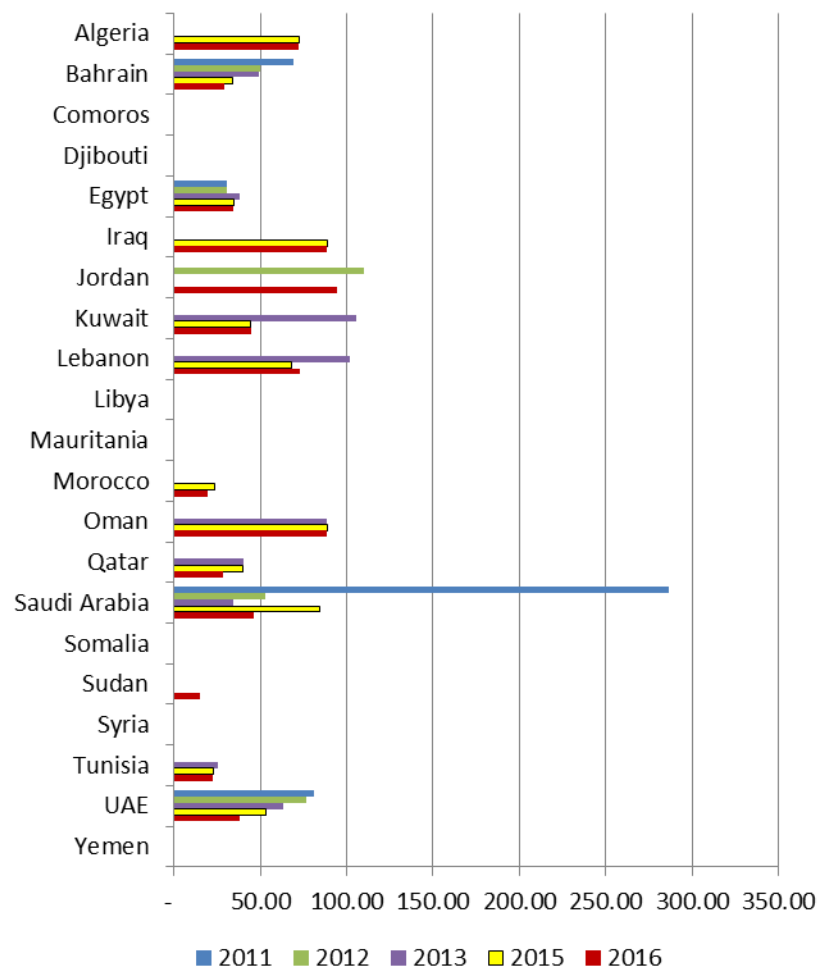
# BUSINESS MOBILE BROADBAND, HIGH SPEED TIME SERIES, >8 MB/S



**Basket 3: 1GB, Business**  
8 Mb/s and above



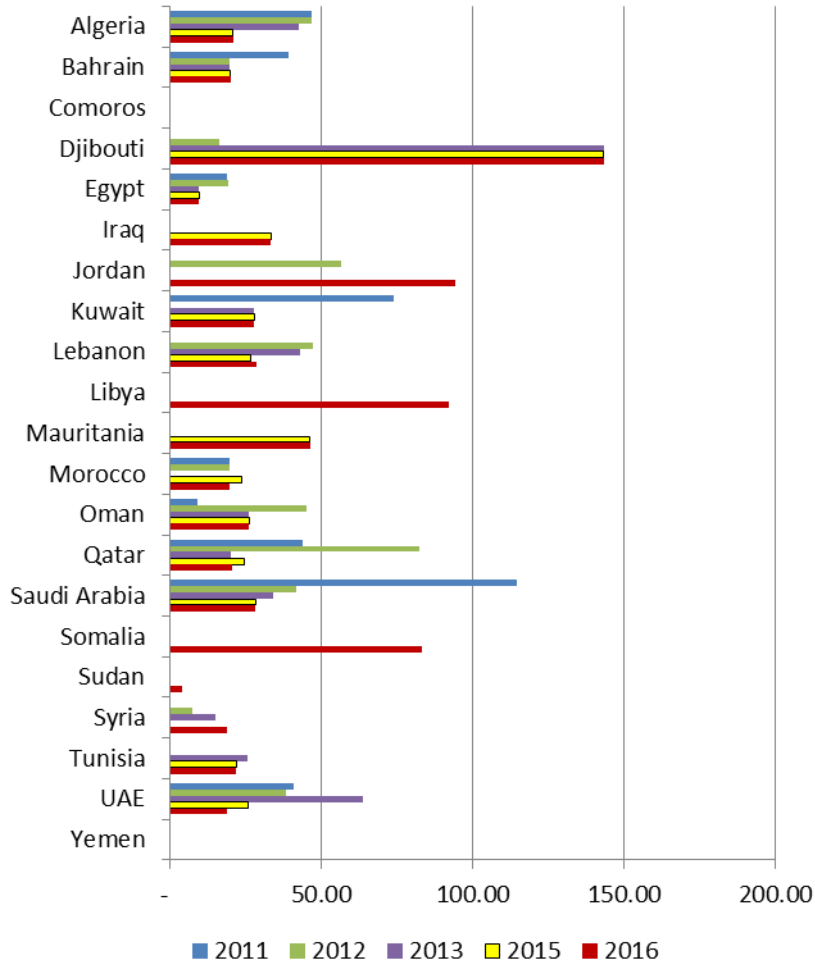
**Basket 6: 6GB, Business**  
8 Mb/s and above



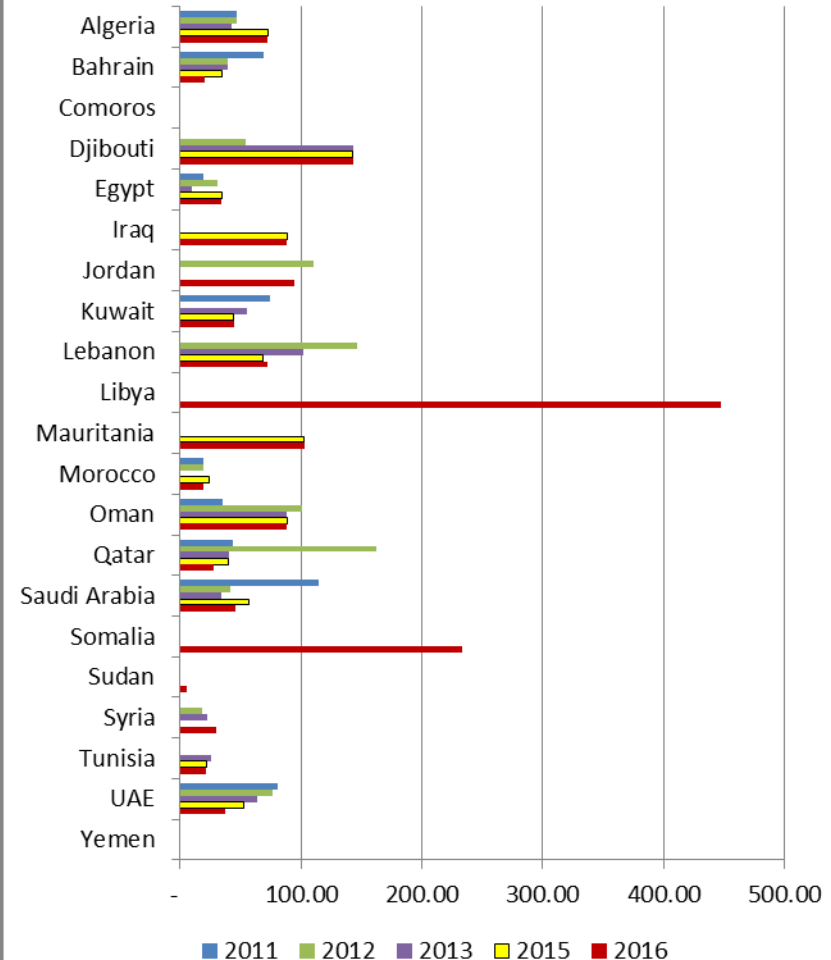
# BUSINESS MOBILE BROADBAND, ALL SPEEDS TIME SERIES



**Basket 3: 1GB, Business**  
All speeds



**Basket 6: 6GB, Business**  
All speeds



# OBSERVATIONS FROM MOBILE BROADBAND TIME SERIES RESULTS



- There have been price and service changes from most of the Arab providers since 2015. Many of these have centred around extending the range of packages and allowances (compared to last year, where the focus was on rollout of 4G services for many operators). Key changes include:
  - Algeria: Minor revisions for ATM Mobilis, including the introduction of a tablet tariff with device included. Changes to Djezzy's plans to incorporate wider range of allowances.
  - Bahrain: some expansion and revisions of range of offers. Zain has added a new prepaid plan which has an allowance of 50GB. Viva has introduced a number of new offers, which feature large allowances. For residential customers, allowances of 350 GB are available, and for business customers, up to 1000 GB, all LTE-based. Some new prepaid offers have also been added to Viva's portfolio.
  - Egypt: introduction of a 0.4 GB and a 3.5 GB package from Vodafone.
  - Iraq: extension of offers from Zain to include 3, 6 and 8GB packages, plus a new offer from Korek, in addition to the existing portfolio.
  - Jordan: Introduction by Orange of a 200GB and 300GB offering for residential customers, plus the first business specific service, offering 15GB. Revision of offerings from Zain, to introduce broader range of family packages. Introduction of new offerings from Umniah, with allowances range from 5GB to 50GB.
  - Kuwait: Broader range of offers, including 1TB plans from both Zain and VIVA.
  - Mauritania: Increase in speeds of residential offers up to 7.8 Mb/s to match business offers.
  - Morocco: Introduction of high speed offerings, up to 150 Mb/s, from Meditel. Similarly, Maroc Telecom also introduced a range high speed offers, up to 225 Mb/s, as well as extending range of offers. For Inwi, all services are now offered at 225 Mb/s, and the range of postpaid offers has been extended, offering allowances up to 60GB.
  - Saudi Arabia: Revision and extension to tariff portfolio for all providers. Number of plans increased from 170 in 2015 to 209 in 2016. Most services are 4G.
  - Sudan: New prepaid offers for Sudani . Extended range of tariffs for MTN, with allowances from 20MB to 20GB
  - UAE: Introduction of wider range of plans allowing more choice on monthly allowances.
  - Introduction of tariffs for both MTN and Sabofon in Yemen.
- The change in costs since 2015 has faced a mixed bag, for both residential and business pricing, with the average cost of some baskets falling while others have increased, however, increases were much more prevalent. This is partly as a result of providers offering (relatively high cost) services, that were not there in 2015. Allowances are much larger now, as well.





# MOBILE BROADBAND RANKING TABLES 2011–2016

# RESIDENTIAL MEDIUM SPEED MOBILE BROADBAND (2–8 MB/S), LOW USAGE BASKET RANKING



	Basket 3: 1GB, Residential				
	2011	2012	2013	2015	2016
Algeria	54.52	54.52	49.67	16.15	15.20
Bahrain	39.14	14.68	14.68	19.84	19.84
Comoros				29.38	29.38
Djibouti					
Egypt	20.66	28.68			
Iraq					
Jordan	21.88	24.32	18.24		
Kuwait	83.05		27.68		
Lebanon		57.00			
Libya				42.22	42.22
Mauritania				46.24	46.24
Morocco	36.96	23.52	21.39		
Oman	29.68	28.23	26.06	31.27	31.27
Qatar	43.57	82.43			
Saudi Arabia	18.37	56.76	13.76	31.54	31.54
Somalia					83.33
Sudan			10.29	5.93	7.91
Syria		7.40	7.46		11.15
Tunisia			20.47	12.71	19.06
UAE	62.53	41.92			
Yemen					30.52
Average	41.04	38.13	20.97	26.14	30.64

Below average
Above average

	Basket 3: 1GB, Residential				
	2011	2012	2013	2015	2016
Algeria	8	8	10	3	3
Bahrain	6	2	4	4	5
Comoros				5	6
Djibouti					
Egypt	2	6			
Iraq					
Jordan	3	4	5		
Kuwait	10		9		
Lebanon		10			
Libya				8	10
Mauritania				9	11
Morocco	5	3	7		
Oman	4	5	8	6	8
Qatar	7	11			
Saudi Arabia	1	9	3	7	9
Somalia					12
Sudan			2	1	1
Syria		1	1		2
Tunisia			6	2	4
UAE	9	7			
Yemen					7

Lowest price
Highest price



# RESIDENTIAL MEDIUM SPEED MOBILE BROADBAND (2–8 MB/S), HIGH USAGE BASKET RANKING



	Basket 6: 6GB, Residential				
	2011	2012	2013	2015	2016
Algeria	54.52	54.52	49.67	24.23	60.17
Bahrain	73.40	39.14	39.14	39.42	19.84
Comoros				78.34	78.34
Djibouti					
Egypt	20.66	62.83			
Iraq					
Jordan	21.88	72.58	43.40		
Kuwait	138.41		27.68		
Lebanon		275.76			
Libya				447.92	486.92
Mauritania				102.75	102.75
Morocco	47.28	23.52	23.52		
Oman	55.73	95.98	78.17	130.29	130.29
Qatar	43.57	162.37			
Saudi Arabia	60.13	92.57	79.13	94.61	94.61
Somalia					233.33
Sudan			18.99	5.93	7.91
Syria		18.50	37.00		29.65
Tunisia			39.53	25.73	25.73
UAE	167.32	138.97			
Yemen					183.12
Average	68.29	94.25	43.63	105.47	121.06

Below average
Above average

	Basket 6: 6GB, Residential				
	2011	2012	2013	2015	2016
Algeria	5	4	8	2	5
Bahrain	8	3	5	4	2
Comoros				5	6
Djibouti					
Egypt	1	5			
Iraq					
Jordan	2	6	7		
Kuwait	9		3		
Lebanon		11			
Libya				9	12
Mauritania				7	8
Morocco	4	2	2		
Oman	6	8	9	8	9
Qatar	3	10			
Saudi Arabia	7	7	10	6	7
Somalia					11
Sudan			1	1	1
Syria		1	4		4
Tunisia			6	3	3
UAE	10	9			
Yemen					10

Lowest price
Highest price



# RESIDENTIAL HIGH SPEED MOBILE BROADBAND (> 8 MB/S), LOW USAGE BASKET RANKING



	Basket 3: 1GB, Residential				
	2011	2012	2013	2015	2016
Algeria				28.35	24.23
Bahrain	39.82	39.82	14.68	14.68	14.68
Comoros					
Djibouti					
Egypt	33.74	21.08	10.54	10.54	10.54
Iraq				33.26	33.26
Jordan	145.53	91.18	65.65	18.24	18.24
Kuwait		58.44	16.61	16.61	16.61
Lebanon			55.65	36.55	20.11
Libya					
Mauritania					
Morocco			40.39	11.88	11.88
Oman			26.06	25.19	25.19
Qatar	37.31	37.86	32.53	9.99	9.99
Saudi Arabia	286.69	62.12	46.67	13.58	13.58
Somalia					
Sudan				11.87	11.87
Syria					
Tunisia			18.00	12.71	19.06
UAE	80.97	41.50	41.50	9.37	9.37
Yemen					
Average	104.01	50.29	33.48	18.06	17.04

Below average
Above average

	Basket 3: 1GB, Residential				
	2011	2012	2013	2015	2016
Algeria				12	12
Bahrain	3	3	2	8	7
Comoros					
Djibouti					
Egypt	1	1	1	3	3
Iraq				13	14
Jordan	5	7	11	10	9
Kuwait		5	3	9	8
Lebanon			10	14	11
Libya					
Mauritania					
Morocco			7	5	5
Oman			5	11	13
Qatar	2	2	6	2	2
Saudi Arabia	6	6	9	7	6
Somalia					
Sudan				4	4
Syria					
Tunisia			4	6	10
UAE	4	4	8	1	1
Yemen					

Lowest price
Highest price



# RESIDENTIAL HIGH SPEED MOBILE BROADBAND (> 8 MB/S), HIGH USAGE BASKET RANKING



	Basket 6: 6GB, Residential				
	2011	2012	2013	2015	2016
Algeria				230.18	
Bahrain	69.18	49.61	44.04	34.25	29.36
Comoros					
Djibouti					
Egypt	33.74	33.74	42.17	42.17	42.17
Iraq				88.69	88.69
Jordan	145.53	91.18	65.65	21.88	21.88
Kuwait		75.05	44.29	38.76	27.68
Lebanon			188.17	93.84	56.39
Libya					
Mauritania					
Morocco			40.39	21.39	21.39
Oman			88.60	88.60	88.60
Qatar	115.54	116.10	40.53	27.98	27.98
Saudi Arabia	286.69	97.34	46.67	31.20	31.20
Somalia					
Sudan				20.77	23.74
Syria					
Tunisia			24.35	23.97	25.41
UAE	142.10	188.21	167.67	11.51	11.51
Yemen					
Average	132.13	93.03	72.05	55.37	38.15

Below average
Above average

	Basket 6: 6GB, Residential				
	2011	2012	2013	2015	2016
Algeria				14	
Bahrain	2	2	5	8	8
Comoros					
Djibouti					
Egypt	1	1	4	10	10
Iraq				12	13
Jordan	5	4	8	4	3
Kuwait		3	6	9	6
Lebanon			11	13	11
Libya					
Mauritania					
Morocco			2	3	2
Oman			9	11	12
Qatar	3	6	3	6	7
Saudi Arabia	6	5	7	7	9
Somalia					
Sudan				2	4
Syria					
Tunisia			1	5	5
UAE	4	7	10	1	1
Yemen					

Lowest price
Highest price



# RESIDENTIAL HIGH SPEED MOBILE BROADBAND (ALL SPEEDS), LOW USAGE BASKET RANKING



	Basket 3: 1GB, Residential				
	2011	2012	2013	2015	2016
Algeria	54.52	54.52	49.67	16.15	15.20
Bahrain	39.14	14.68	14.68	14.68	14.68
Comoros			29.38	29.38	29.38
Djibouti		19.45	15.22	15.22	15.22
Egypt	20.66	21.08	8.43	10.54	10.54
Iraq			26.61	33.26	33.26
Jordan	21.88	24.32	9.12	18.24	18.24
Kuwait	51.83	58.44	16.61	16.61	16.61
Lebanon		57.00	55.65	36.55	20.11
Libya				42.22	42.22
Mauritania				46.24	46.24
Morocco	23.52	23.52	21.39	11.88	11.88
Oman	8.83	28.23	26.06	25.19	25.19
Qatar	37.31	37.86	32.53	9.99	9.99
Saudi Arabia	18.37	56.76	13.76	13.58	13.58
Somalia					83.33
Sudan			10.29	4.45	4.51
Syria		7.40	7.46		11.15
Tunisia			18.00	12.71	19.06
UAE	62.53	41.50	41.50	9.37	9.37
Yemen					30.52
Average	33.86	34.21	23.31	20.35	22.87

Below average
Above average

	Basket 3: 1GB, Residential				
	2011	2012	2013	2015	2016
Algeria	9	10	16	10	9
Bahrain	7	2	6	8	8
Comoros			13	14	16
Djibouti		3	7	9	10
Egypt	3	4	2	4	4
Iraq			12	15	18
Jordan	4	6	3	12	12
Kuwait	8	13	8	11	11
Lebanon		12	17	16	14
Libya				17	19
Mauritania				18	20
Morocco	5	5	10	5	6
Oman	1	7	11	13	15
Qatar	6	8	14	3	3
Saudi Arabia	2	11	5	7	7
Somalia					21
Sudan			4	1	1
Syria		1	1		5
Tunisia			9	6	13
UAE	10	9	15	2	2
Yemen					17

Lowest price
Highest price



# RESIDENTIAL HIGH SPEED MOBILE BROADBAND (ALL SPEEDS), HIGH USAGE BASKET RANKING



	Basket 6: 6GB, Residential				
	2011	2012	2013	2015	2016
Algeria	54.52	54.52	49.67	24.23	60.17
Bahrain	69.18	39.14	39.14	34.25	19.84
Comoros			78.34	78.34	78.34
Djibouti		65.11	60.88	60.88	60.88
Egypt	20.66	33.74	42.17	42.17	42.17
Iraq			26.61	88.69	88.69
Jordan	21.88	72.58	21.88	21.88	21.88
Kuwait	51.83	75.05	27.68	38.76	27.68
Lebanon		275.76	188.17	93.84	56.39
Libya				447.92	486.92
Mauritania				102.75	102.75
Morocco	23.52	23.52	23.52	21.39	21.39
Oman	34.89	95.98	78.17	88.60	88.60
Qatar	43.57	116.10	40.53	27.98	27.98
Saudi Arabia	60.13	92.57	46.67	31.20	31.20
Somalia					233.33
Sudan			18.99	5.93	7.91
Syria		18.50	37.00		29.65
Tunisia			24.35	23.97	25.41
UAE	142.10	138.97	167.67	11.51	11.51
Yemen					183.12

Average	52.23	84.73	57.14	69.13	81.23
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Below average
Above average

	Basket 6: 6GB, Residential				
	2011	2012	2013	2015	2016
Algeria	7	5	12	6	13
Bahrain	9	4	8	9	3
Comoros			15	13	15
Djibouti		6	13	12	14
Egypt	1	3	10	11	11
Iraq			5	15	17
Jordan	2	7	2	4	5
Kuwait	6	8	6	10	7
Lebanon		13	17	16	12
Libya				18	21
Mauritania				17	18
Morocco	3	2	3	3	4
Oman	4	10	14	14	16
Qatar	5	11	9	7	8
Saudi Arabia	8	9	11	8	10
Somalia					20
Sudan			1	1	1
Syria		1	7		9
Tunisia			4	5	6
UAE	10	12	16	2	2
Yemen					19

Lowest price
Highest price



# BUSINESS MEDIUM SPEED MOBILE BROADBAND (2–8 MB/S), LOW USAGE BASKET RANKING



	Basket 3: 1GB, Business				
	2011	2012	2013	2015	2016
Algeria	46.60	46.60	42.45	20.71	20.71
Bahrain	39.14	19.57	19.57	19.84	19.84
Comoros					
Djibouti					
Egypt	18.78	37.95			
Iraq					
Jordan		56.60			
Kuwait	141.64		27.68		
Lebanon		47.22			
Libya					92.16
Mauritania				46.24	46.24
Morocco	30.80	19.60			
Oman	518.69	45.11	26.06	42.32	42.32
Qatar	43.57	82.43			
Saudi Arabia	114.68	41.46	56.69		165.46
Somalia					83.33
Sudan					8.09
Syria		7.40	14.80		18.55
Tunisia				21.81	21.81
UAE	40.81	38.42		60.78	60.78
Yemen					
Average	110.52	40.22	31.21	35.28	52.66

Below average
Above average

	Basket 3: 1GB, Business				
	2011	2012	2013	2015	2016
Algeria	6	8	5	2	4
Bahrain	3	2	2	1	3
Comoros					
Djibouti					
Egypt	1	4			
Iraq					
Jordan		10			
Kuwait	8		4		
Lebanon		9			
Libya					10
Mauritania				5	7
Morocco	2	3			
Oman	9	7	3	4	6
Qatar	5	11			
Saudi Arabia	7	6	6		11
Somalia					9
Sudan					1
Syria		1	1		2
Tunisia				3	5
UAE	4	5		6	8
Yemen					

Lowest price
Highest price



# BUSINESS MEDIUM SPEED MOBILE BROADBAND (2–8 MB/S), HIGH USAGE BASKET RANKING



	Basket 6: 6GB, Business				
	2011	2012	2013	2015	2016
Algeria	46.60	46.60	42.45	103.55	103.55
Bahrain	73.40	39.14	39.14	39.42	19.84
Comoros					
Djibouti					
Egypt	18.78	57.12			
Iraq					
Jordan					
Kuwait	141.64		55.37		
Lebanon		146.10			
Libya					447.92
Mauritania				102.75	102.75
Morocco	39.40	19.60			
Oman	518.69	101.19	88.60	309.15	309.15
Qatar	43.57	162.37			
Saudi Arabia	114.68	41.46	56.69		165.46
Somalia					233.33
Sudan					11.15
Syria		18.50	22.20		29.65
Tunisia				21.81	21.81
UAE	167.32	165.57		165.57	165.57
Yemen					
Average	129.34	79.77	50.74	123.71	146.38

Below average
Above average

	Basket 6: 6GB, Business				
	2011	2012	2013	2015	2016
Algeria	4	5	3	4	6
Bahrain	5	3	2	2	2
Comoros					
Djibouti					
Egypt	1	6			
Iraq					
Jordan					
Kuwait	7		4		
Lebanon		8			
Libya					11
Mauritania				3	5
Morocco	2	2			
Oman	9	7	6	6	10
Qatar	3	9			
Saudi Arabia	6	4	5		7
Somalia					9
Sudan					1
Syria		1	1		4
Tunisia				1	3
UAE	8	10		5	8
Yemen					

Lowest price
Highest price



# BUSINESS HIGH SPEED MOBILE BROADBAND (> 8 MB/S), LOW USAGE BASKET RANKING



	Basket 3: 1GB, Business				
	2011	2012	2013	2015	2016
Algeria				20.71	20.71
Bahrain	49.07	39.82	25.14	25.14	25.14
Comoros					
Djibouti					
Egypt	30.67	19.17	9.58	9.58	9.58
Iraq				33.26	33.26
Jordan		110.05			94.01
Kuwait			105.19	27.68	27.68
Lebanon			43.04	26.49	28.28
Libya					
Mauritania					
Morocco				23.76	19.60
Oman			26.06	26.06	26.06
Qatar			19.99	24.54	20.54
Saudi Arabia	286.69	52.56	33.93	28.10	28.10
Somalia					
Sudan					10.79
Syria					
Tunisia			25.43	22.43	22.43
UAE	80.98	41.50	63.52	25.79	18.86
Yemen					
Average	111.85	52.62	39.10	24.46	27.50

Below average
Above average

	Basket 3: 1GB, Business				
	2011	2012	2013	2015	2016
Algeria				2	6
Bahrain	2	2	3	6	8
Comoros					
Djibouti					
Egypt	1	1	1	1	1
Iraq				12	13
Jordan		5			14
Kuwait			9	10	10
Lebanon			7	9	12
Libya					
Mauritania					
Morocco				4	4
Oman			5	8	9
Qatar			2	5	5
Saudi Arabia	4	4	6	11	11
Somalia					
Sudan					2
Syria					
Tunisia			4	3	7
UAE	3	3	8	7	3
Yemen					

Lowest price
Highest price



# BUSINESS HIGH SPEED MOBILE BROADBAND (> 8 MB/S), HIGH USAGE BASKET RANKING



	Basket 6: 6GB, Business				
	2011	2012	2013	2015	2016
Algeria				72.48	72.48
Bahrain	69.18	49.61	48.93	34.25	29.36
Comoros					
Djibouti					
Egypt	30.67	30.67	38.34	34.50	34.50
Iraq				88.69	88.69
Jordan		110.05			94.01
Kuwait			105.19	44.29	44.29
Lebanon			102.07	68.30	72.55
Libya					
Mauritania					
Morocco				23.76	19.60
Oman			88.60	88.60	88.60
Qatar			39.97	39.97	27.98
Saudi Arabia	286.69	52.56	33.93	84.29	45.87
Somalia					
Sudan					15.29
Syria					
Tunisia			25.43	22.43	22.43
UAE	80.98	76.85	63.52	53.04	37.72
Yemen					
Average	116.88	63.95	60.66	54.55	49.53

Below average
Above average

	Basket 6: 6GB, Business				
	2011	2012	2013	2015	2016
Algeria				9	10
Bahrain	2	2	5	3	5
Comoros					
Djibouti					
Egypt	1	1	3	4	6
Iraq				12	13
Jordan		5			14
Kuwait			9	6	8
Lebanon			8	8	11
Libya					
Mauritania					
Morocco				2	2
Oman			7	11	12
Qatar			4	5	4
Saudi Arabia	4	3	2	10	9
Somalia					
Sudan					1
Syria					
Tunisia			1	1	3
UAE	3	4	6	7	7
Yemen					

Lowest price
Highest price



# BUSINESS HIGH SPEED MOBILE BROADBAND (ALL SPEEDS), LOW USAGE BASKET RANKING



	Basket 3: 1GB, Business				
	2011	2012	2013	2015	2016
Algeria	46.60	46.60	42.45	20.71	20.71
Bahrain	39.14	19.57	19.57	19.84	19.84
Comoros					
Djibouti		16.34	143.30	143.30	143.30
Egypt	18.78	19.17	9.58	9.58	9.58
Iraq				33.26	33.26
Jordan		56.60			94.01
Kuwait	73.97		27.68	27.68	27.68
Lebanon		47.22	43.04	26.49	28.28
Libya					92.16
Mauritania				46.24	46.24
Morocco	19.60	19.60		23.76	19.60
Oman	8.83	45.11	26.06	26.06	26.06
Qatar	43.57	82.43	19.99	24.54	20.54
Saudi Arabia	114.68	41.46	33.93	28.10	28.10
Somalia					83.33
Sudan					4.05
Syria		7.40	14.80		18.55
Tunisia			25.43	21.81	21.81
UAE	40.81	38.42	63.52	25.79	18.86
Yemen					

Average	45.11	36.66	39.11	34.08	39.79
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Below average
Above average

	Basket 3: 1GB, Business				
	2011	2012	2013	2015	2016
Algeria	7	9	9	3	8
Bahrain	4	4	3	2	6
Comoros					
Djibouti		2	12	14	19
Egypt	2	3	1	1	2
Iraq				12	14
Jordan		11			18
Kuwait	8		7	10	11
Lebanon		10	10	9	13
Libya					17
Mauritania				13	15
Morocco	3	5		5	5
Oman	1	8	6	8	10
Qatar	6	12	4	6	7
Saudi Arabia	9	7	8	11	12
Somalia					16
Sudan					1
Syria		1	2		3
Tunisia			5	4	9
UAE	5	6	11	7	4
Yemen					

Lowest price
Highest price



# BUSINESS HIGH SPEED MOBILE BROADBAND (ALL SPEEDS), HIGH USAGE BASKET RANKING



	Basket 6: 6GB, Business				
	2011	2012	2013	2015	2016
Algeria	46.60	46.60	42.45	72.48	72.48
Bahrain	69.18	39.14	39.14	34.25	19.84
Comoros					
Djibouti		54.71	143.30	143.30	143.30
Egypt	18.78	30.67	9.58	34.50	34.50
Iraq				88.69	88.69
Jordan		110.05			94.01
Kuwait	73.97		55.37	44.29	44.29
Lebanon		146.10	102.07	68.30	72.55
Libya					447.92
Mauritania				102.75	102.75
Morocco	19.60	19.60		23.76	19.60
Oman	34.89	101.19	88.60	88.60	88.60
Qatar	43.57	162.37	39.97	39.97	27.98
Saudi Arabia	114.68	41.46	33.93	56.69	45.87
Somalia					233.33
Sudan					5.75
Syria		18.50	22.20		29.65
Tunisia			25.43	21.81	21.81
UAE	80.98	76.85	63.52	53.04	37.72
Yemen					

Average	55.81	70.60	55.46	62.32	85.82
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Below average
Above average

	Basket 6: 6GB, Business				
	2011	2012	2013	2015	2016
Algeria	5	6	7	10	11
Bahrain	6	4	5	3	3
Comoros					
Djibouti		7	12	14	17
Egypt	1	3	1	4	7
Iraq				12	14
Jordan		10			15
Kuwait	7		8	6	9
Lebanon		11	11	9	12
Libya					19
Mauritania				13	16
Morocco	2	2		2	2
Oman	3	9	10	11	13
Qatar	4	12	6	5	5
Saudi Arabia	9	5	4	8	10
Somalia					18
Sudan					1
Syria		1	2		6
Tunisia			3	1	4
UAE	8	8	9	7	8
Yemen					

Lowest price
Highest price





# PSTN CALL COST COMPARISON



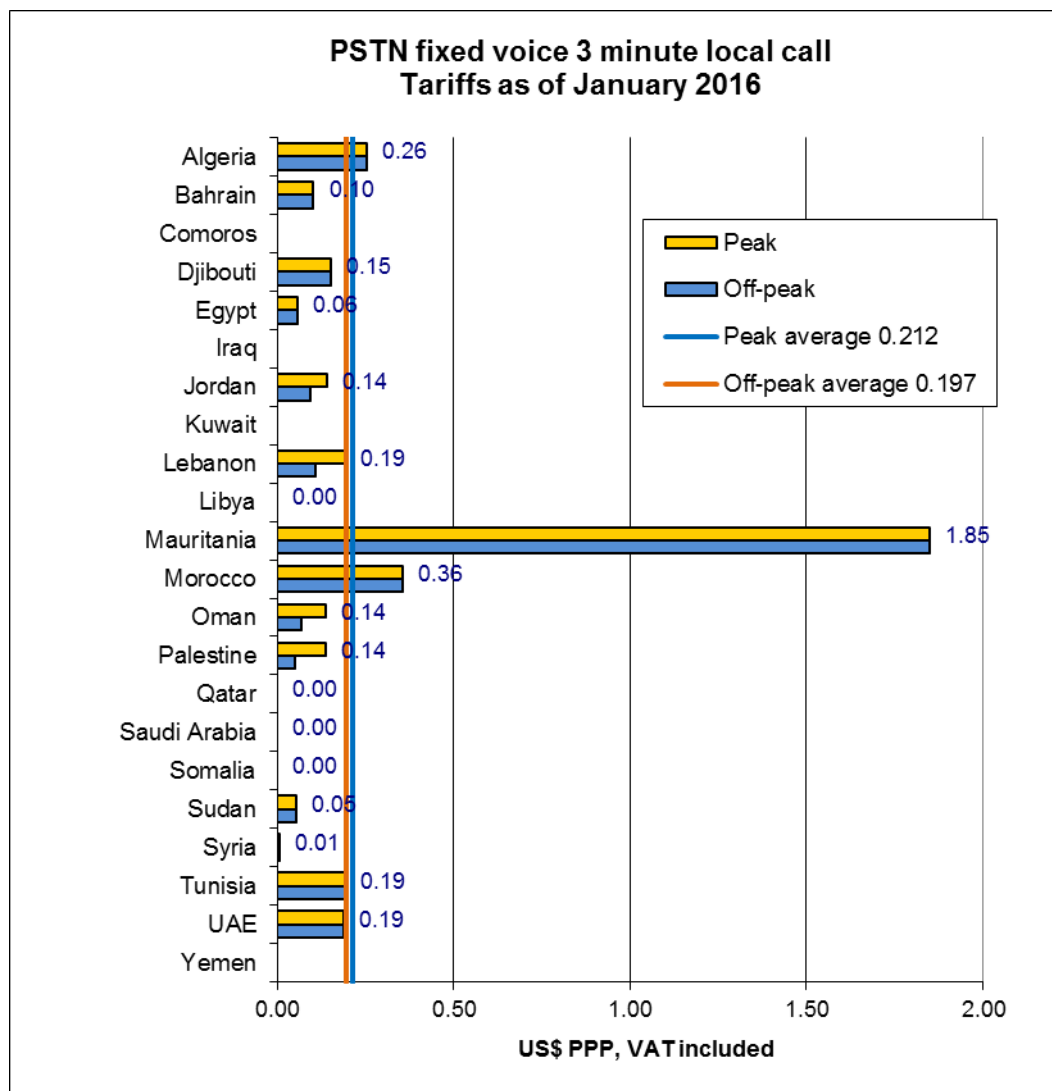
# CALL COST COMPARISON DATA ISSUES

- The comparison of call cost is based on the actual cost of a 3 minute call.
- Costs are compared for local calls, national calls, F2M calls and calls to the USA
  - At peak and off-peak times
  - Off-peak meaning the lowest possible cost period
- These comparisons have a much simpler methodology than the basket comparisons shown elsewhere in this report, and will reflect the costs for specific call types.
- The results are presented with countries in alphabetical order as a ranking of these results is not necessarily useful.
  - Services with for example free calls (zero cost per call) may still have a higher total cost to the end user





# LOCAL CALL COMPARISON



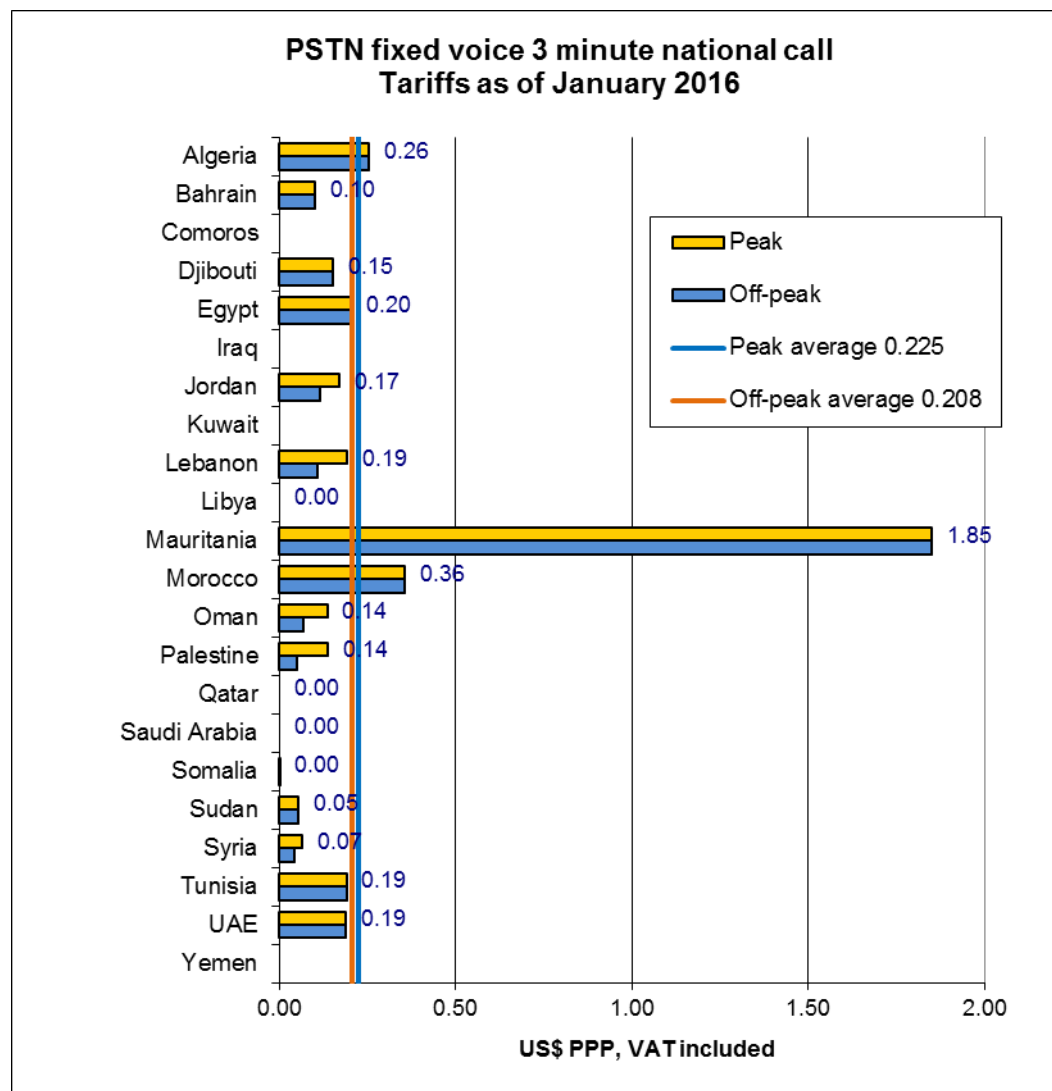
Many of the countries continue to have the same prices for peak and off peak calls.

Entries with call cost of 0.00 have free calling included in the monthly rental.





# NATIONAL CALL COMPARISON



Similar to local calls, many of the countries continue to have the same prices for peak and off peak calls.

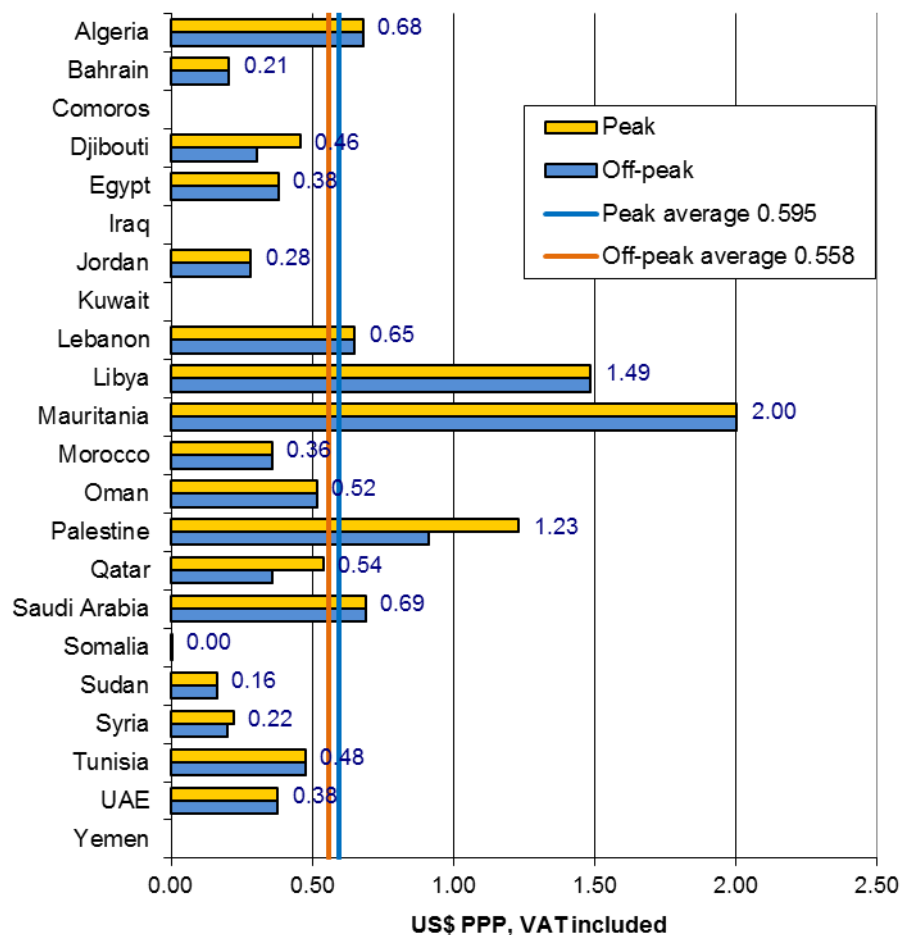
Entries with call cost of 0.00 have free calling included in the monthly rental.





# FIXED-TO-MOBILE (F2M) CALL COMPARISON

PSTN fixed voice 3 minute call fixed to mobile  
Tariffs as of January 2016



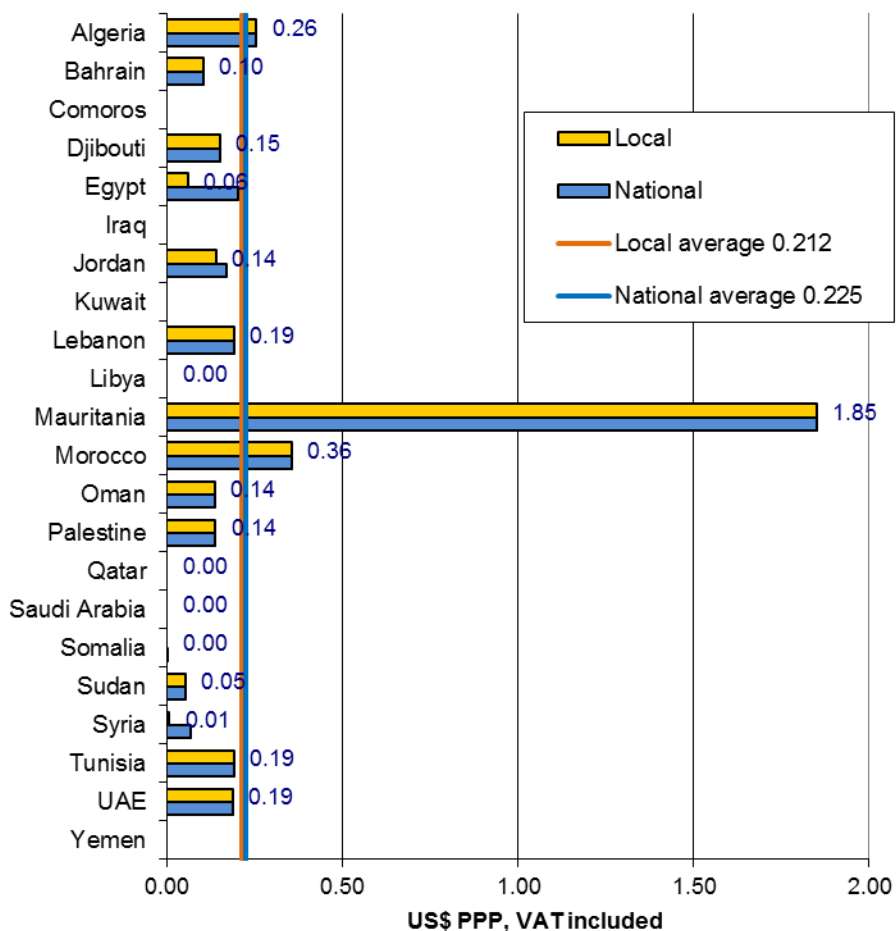
Entries with call cost of 0.00 have  
free calling included in the monthly  
rental.



# LOCAL VS. NATIONAL PSTN



**PSTN fixed voice 3 minute local vs. national call (peak )**  
**Tariffs as of January 2016**



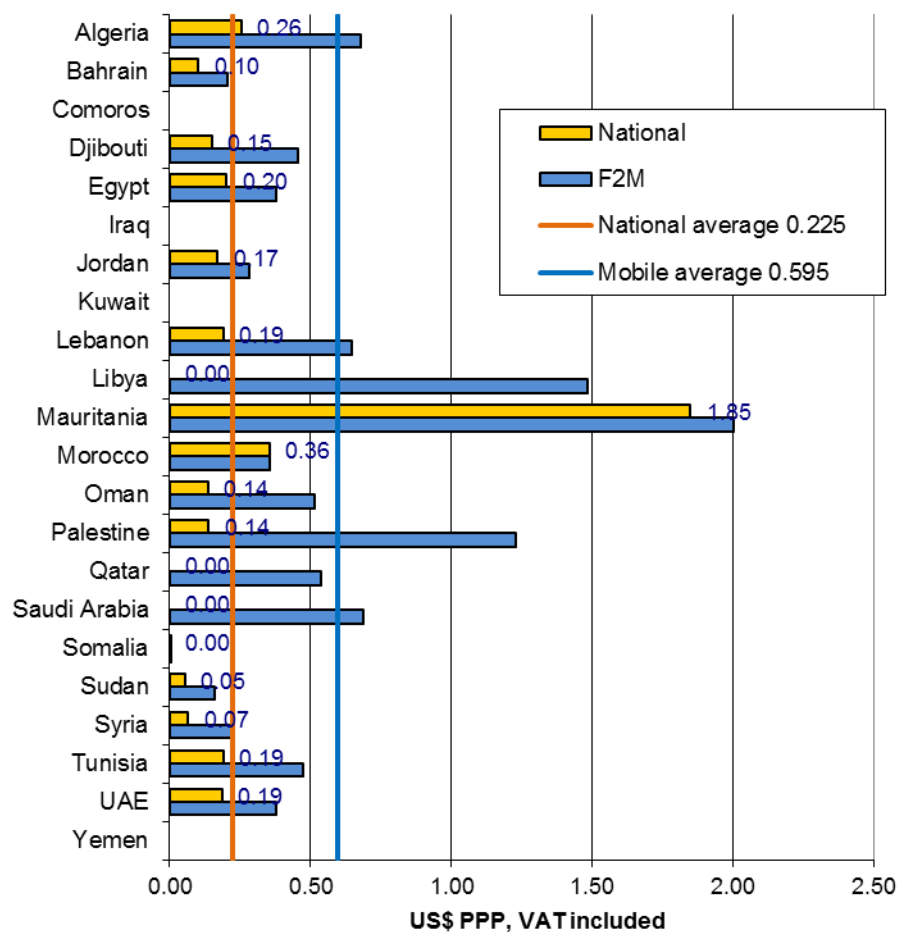
**In many countries, there is no difference between local and national call costs.**





# NATIONAL PSTN VS. FIXED-TO-MOBILE (F2M)

**PSTN 3 minute national vs. F2M call (peak)**  
**Tariffs as of January 2016**

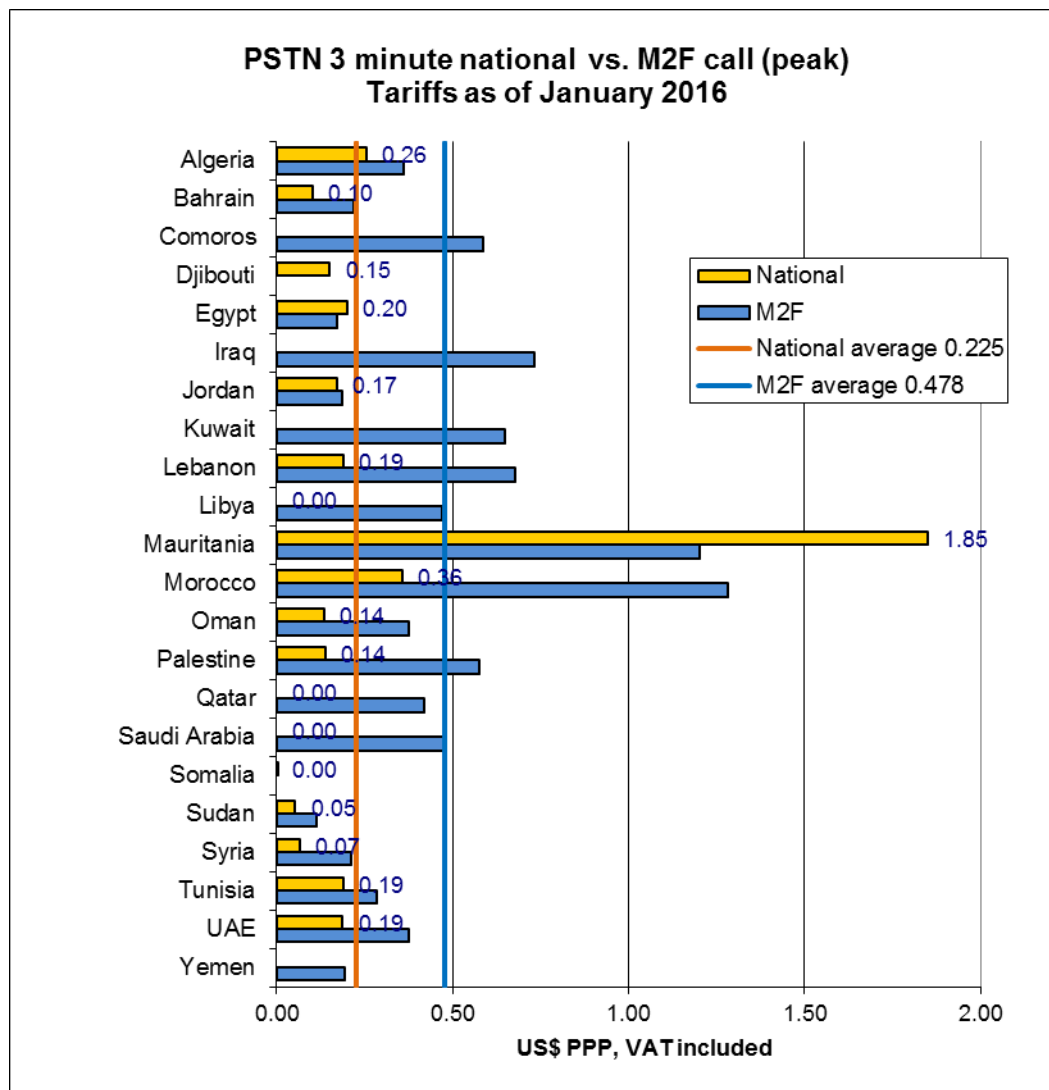


The ratio of national to fixed to mobile charges varies dramatically across the Arab countries, with fixed to mobile calls being on average 2.6 times more expensive than national calls.





# NATIONAL PSTN VS. MOBILE-TO-FIXED (M2F)



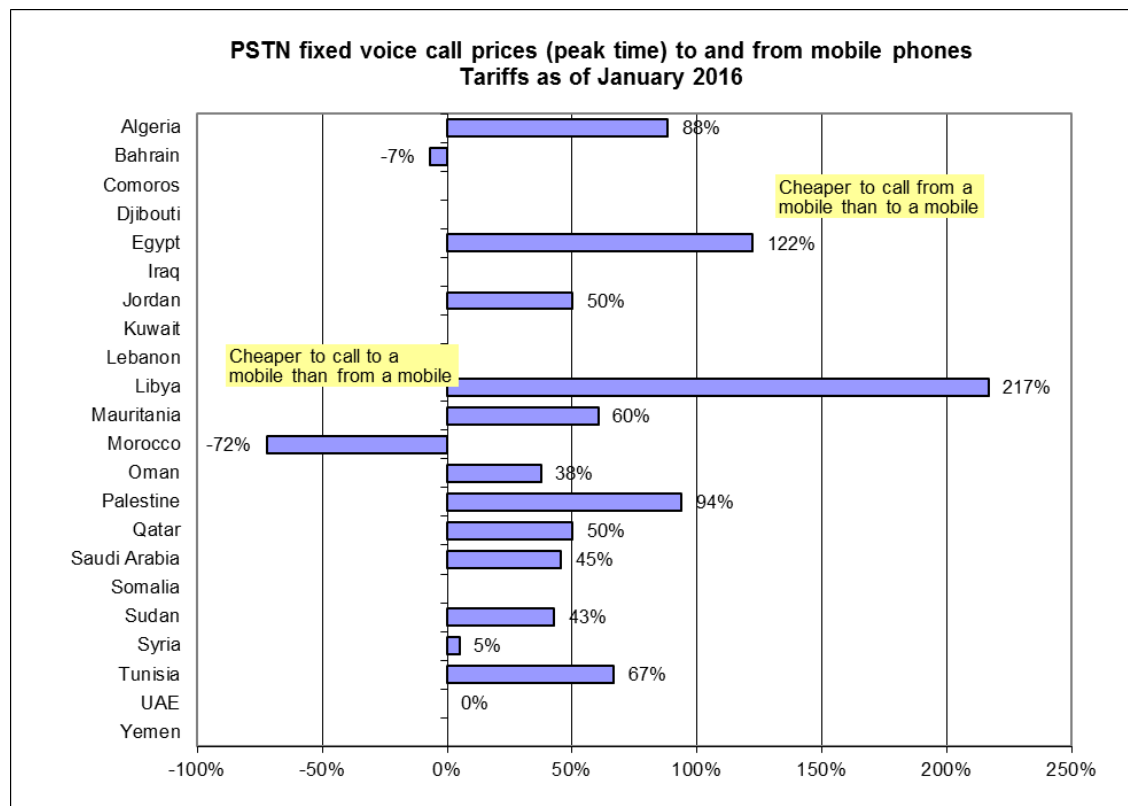
The ratio of national to mobile-to-fixed varies dramatically across the Arab countries, with fixed to mobile calls being on average more than 2 times more expensive than national calls. Mobile to fixed calls are generally cheaper than fixed-to-mobile calls.





# MAKING AND RECEIVING CALLS TO/FROM MOBILE

The relationship between prices of calls to a mobile phone and from a mobile phone varies a lot between countries, but calling from mobile to fixed is generally cheaper, often significantly, than calling from fixed to mobile.



2016 To/From mobile		
	Peak	Off-peak
Algeria	88%	88%
Bahrain	-7%	-7%
Comoros		
Djibouti		
Egypt	122%	122%
Iraq		
Jordan	50%	50%
Kuwait		
Lebanon	-4%	18%
Libya	217%	217%
Mauritania	60%	60%
Morocco	-72%	-67%
Oman	38%	38%
Palestine	94%	44%
Qatar	50%	0%
Saudi Arab	45%	45%
Somalia		
Sudan	43%	43%
Syria	5%	6%
Tunisia	67%	67%
UAE	0%	0%
Yemen		
Average	-8%	2%

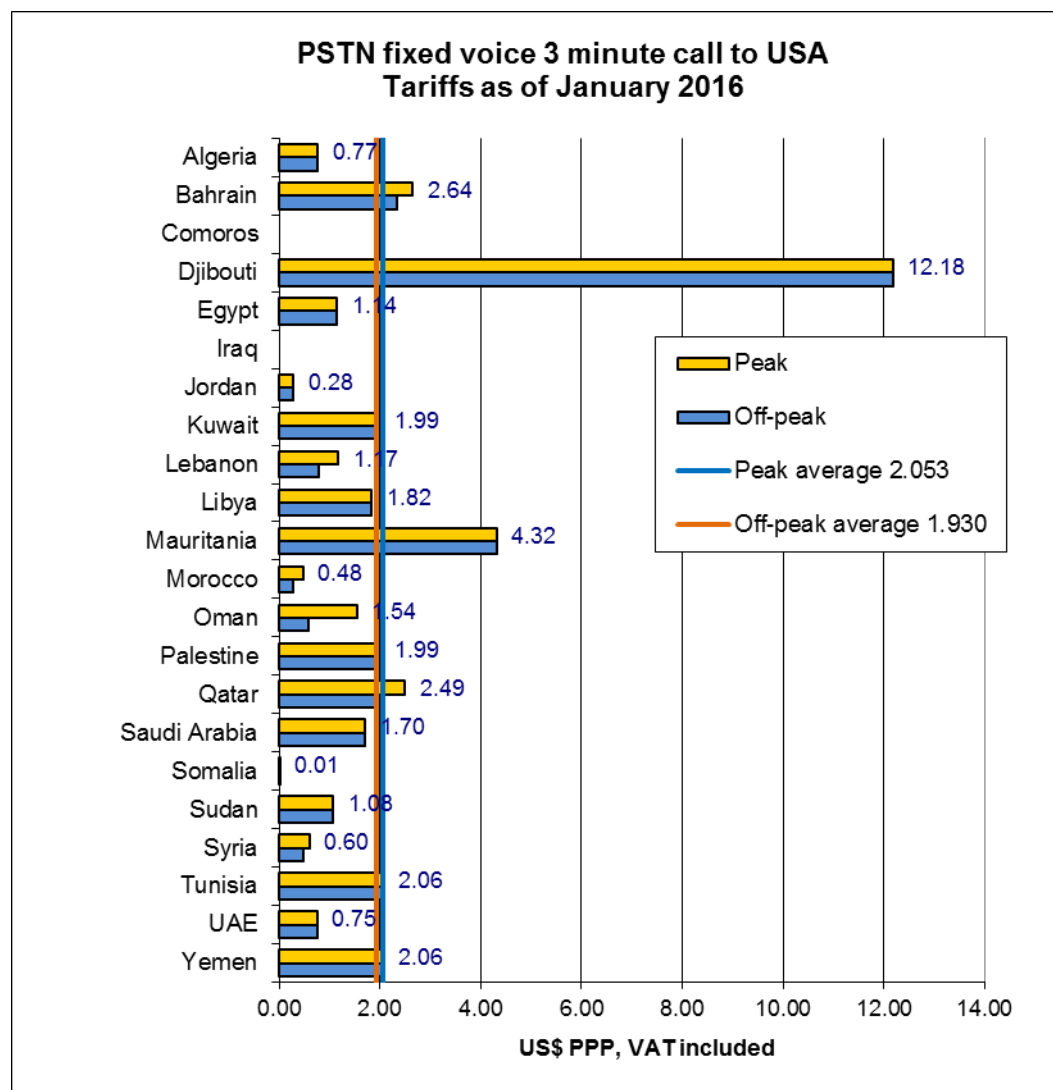
+ means F2M higher than M2F

- means F2M lower than M2F





# INTERNATIONAL CALL COMPARISON (CALL TO USA)



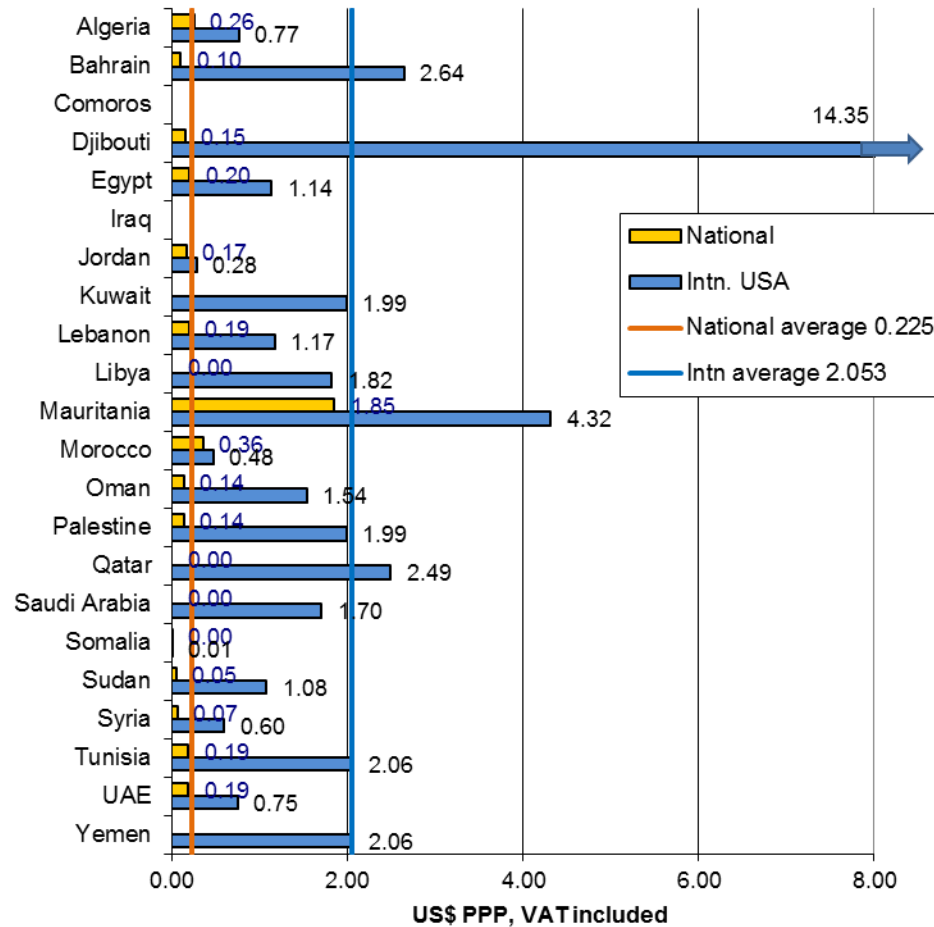
In many countries, there is no or little difference between peak and off-peak calling internationally (to the USA)





# NATIONAL VS. INTERNATIONAL TO USA

PSTN fixed voice 3 minute National vs. International (peak)  
Tariffs as of January 2016



International calls (to the USA)  
are significantly more  
expensive than national calls in  
the Arab countries – on  
average just over 9 times more  
expensive





## CALL COSTS 2015 – 2016

- There have some changes in call charges 2015 – 2016 for any of the countries covered, but where there were changes, some of these were very significant:
  - Local calls: Increase in local calls in Tunisia (peak and off-peak)
  - National calls: Decrease in local calls in Tunisia (peak and off-peak)
  - Fixed to mobile: Increase in Syria (peak and off-peak), and decrease in Tunisia (peak and off-peak)
  - Mobile to fixed: Decrease in Algeria, Saudi Arabia and Tunisia, and increase in Iraq, Mauritania, Palestine and Sudan (peak and off-peak).
  - International (to USA): Decrease in UAE and increase in Tunisia (peak and off-peak)





# OBSERVATIONS FROM THE CALL COST COMPARISON

- Prices of calls vary considerably between countries
- Around half of the countries do not differentiate between peak and off-peak calling for local, national calls, calls to mobile or for international calls (to the USA)
- Similar to 2015, in some countries the local and/or national calls are “free”, i.e. included in the monthly rental.
  - Libya, Qatar, Somalia and UAE
- In some countries there are several tariff options available, with different call charges and fixed charges. This analysis is based on the so called “basic” packages.
- Ratios of national to international call prices remain very high, with little change from 2015, and indicate that rebalancing of call charges has still not taken place in many countries in the region



# SUMMARY OF THE MAIN FINDINGS FROM THE BENCHMARKING STUDY

# SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY (1)



- Fixed voice telephony

- Costs for the business baskets in the Arab countries tend to be significantly above the OECD average, with the exception of Syria which is considerably cheaper. For the lower usage residential baskets, the Arab average is 58% higher than the OECD average while the Arab average is 2.25 times higher than the OECD average for the higher usage business basket.
- Generally the Arab countries in North Africa are more expensive than the Arab countries in the Middle East with the exception of Egypt and to a lesser extent, Tunisia.
- As in previous years, the price range for the Arab countries (cheapest to most expensive) is wider than for the OECD countries
- A number of Arab countries continue to have fixed costs well below the OECD countries, causing the usage element to dominate. There remains a clear lack of rebalancing in several Arab countries, where the usage revenue covers a significant portion of the fixed line cost for the operators. There has been some restructuring of fixed line plans, with more focus on upfront charges with increased allowances or reduced/free local and national calls. International calls remain significantly more expensive than in OECD countries

		Arab average 2016 USD PPP	OECD average 2016 USD PPP	Arab average compared to OECD average
<b>Fixed voice Residential</b>	20 calls	21	25	● -17%
	60 calls	41	34	● 19%
	140 calls	79	48	● 64%
	420 calls	178	67	● 166%
<b>Fixed voice Business</b>	100 calls	57	36	● 59%
	260 calls	150	67	● 125%

# SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY (2)



- Mobile telephony
  - The average result for the Arab countries is consistently higher than the OECD average across all mobile baskets, and the larger the basket the greater the variation, however, there is a clear correlation between the size of the basket (in terms of number of calls and volume of data), and the extent to which countries fall below the OECD average. For smaller baskets, more countries fall below the OECD average
  - Baskets which incorporate handset data show a broad variation in price across the Arab providers – the difference becoming more marked for baskets with higher data requirements.
  - Similar to the voice baskets, the Arab average for the data baskets is typically much higher than the OECD one, although this is skewed by particularly expensive countries at the upper end.
  - The main trend observed is one of stability, with fewer and less dramatic changes than in previous years. Many operators across the Arab countries have made some changes to their mobile tariff offerings since 2015, however, unlike in previous years, the average number of packages per operator has remained broadly stable, and the changes, by comparison are relatively modest.
  - Shared data plans are increasingly offered – a trend seen also with mobile broadband offerings
    - This is resulting in plans emerging with very large data allowances
  - Although there were decreases across almost all the baskets (apart from the 400 messages basket, which increased very slightly), unless the basket included handset data, the decreases were generally very modest, with a number of countries remaining static over the previous year.
  - Baskets which include handset data saw much more dramatic decreases, however this was driven by deep cost reductions in a handful of countries only, rather than decreases across the board
  - Many countries experienced little or no change to the basket cost, for most of the baskets that include data.

# SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY (3)



		Arab average 2015 USD PPP	OECD average 2015 USD PPP	Arab average compared to OECD average
Mobile voice	30 calls basket	17	14	18%
	100 calls basket	34	23	50%
	300 calls basket	74	31	136%
	900 calls basket	182	40	351%
	40 calls prepaid basket	16	15	10%
	400 messages basket	27	19	42%
Mobile voice & data	30 calls + 100 MB	34	19	82%
	100 calls + 500 MB	73	28	160%
	300 calls + 1 GB	142	36	292%
	900 calls + 2 GB	308	48	544%
	100 calls + 2 GB	147	36	306%

# SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY (4)



- Leased Lines
  - Prices for high speed circuits are generally higher than in OECD countries, with very little change since 2015
  - There continues to be a wide spread of prices between the Arab countries

		Arab average 2016 USD PPP	OECD average 2016 USD PPP	Arab average compared to OECD average
Leased Lines	64 Kb/s	622	N/A	
	256 kb/s	1232	N/A	
	2 Mb/s	3580	2095	71%
	34 Mb/s	21951	9528	130%
	155 Mb/s	37296	N/A	

# SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY (5)



- Fixed Broadband

- The Arab average residential cost is up to 5 times higher than the average OECD cost which is a significant increase against the 3.1 times ratio in 2015. For business services, the average is up to 18 times higher. For both residential and business services, the averages continue to be skewed by particularly high costs in a number of countries.
- Usage based charges are still prevalent, and appear in offers across 8 of the Arab countries, however, they have had limited impact on the basket results, and flat rate services have featured as the cheapest. In many OECD countries, usage-based charges often only apply for a very few ISPs.
- Prices of residential broadband services in Arab countries have continued to fall over the past years and while trends are different depending on specific speed requirements, they were mostly stable between 2015 and 2016 with a few exceptions, e.g. the 10-30Mb/s 10GB basket, which increased by +15%, driven mainly by a large price increase in Egypt.
- Prices of residential broadband services in Arab countries have continued to fall over the past year. The average decrease depends a lot on the speed and usage level, but with the exception of the 2-10 Mb/s basket (all usage levels), and the 30-100 Mb/s basket, high usage, which decreased by between 26 and 43%, the decreases for all other baskets ranged between 3 and 11%.
- By contrast, the average cost for business broadband services has decreased significantly on the lower speed baskets, mostly driven by reductions in a few countries. Average cost for high speed broadband services have increased, as a result of the introduction of very high cost new offers in Djibouti.

# SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY (6)



Residential Fixed Broadband		Arab average 2015 USD PPP	OECD average 2015 USD PPP	Arab average compared to OECD average
Very low speed	L1: 0.25-2Mb/s, 5GB	48	34	● 44%
	M1: 0.25-2Mb/s, 10GB	49	34	● 44%
	H1: 0.25-2Mb/s, 20GB	58	34	● 72%
Low speed	L2: 2-10Mb/s, 5GB	85	28	● 206%
	M2: 2-10Mb/s, 15GB	86	28	● 210%
	H2: 2-10Mb/s, 50GB	87	29	● 199%
Medium speed	L3: 10-30Mb/s, 10GB	174	30	● 488%
	M3: 10-30Mb/s, 25GB	174	30	● 481%
	H3: 10-30Mb/s, 100GB	174	31	● 458%
High speed	L4: 30-100Mb/s, 15GB	208	34	● 520%
	M4: 30-100Mb/s, 50GB	208	34	● 512%
	H4: 30-100Mb/s, 200GB	208	36	● 477%

# SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY (7)



Business Fixed Broadband		Arab average 2016 USD PPP	OECD average 2015 USD PPP	Arab average compared to OECD average
Very low speed	L1: 0.25-2Mb/s, 5GB	105	49	● 114%
	M1: 0.25-2Mb/s, 10GB	107	49	● 118%
	H1: 0.25-2Mb/s, 20GB	116	49	● 136%
Low speed	L2: 2-10Mb/s, 5GB	138	38	● 267%
	M2: 2-10Mb/s, 15GB	142	38	● 274%
	H2: 2-10Mb/s, 50GB	153	38	● 302%
Medium speed	L3: 10-30Mb/s, 10GB	493	38	● 1183%
	M3: 10-30Mb/s, 25GB	493	39	● 1168%
	H3: 10-30Mb/s, 100GB	493	39	● 1152%
High speed	L4: 30-100Mb/s, 15GB	795	43	● 1770%
	M4: 30-100Mb/s, 50GB	795	43	● 1760%
	H4: 30-100Mb/s, 200GB	795	43	● 1728%

Note: The significant variation for High speed connections is due to low number of services available.

# SUMMARY OF MAIN FINDINGS FROM THE BENCHMARKING STUDY (8)



- Mobile broadband
  - Mobile broadband services are available across all the Arab countries
    - The average advertised download speed is just over 63 Mb/s, which is similar to 2015. Higher speeds increasingly commonplace, with speeds in excess of 7.2 Mb/s available in 15 of the Arab countries. Very low speeds of < 1Mb/s are not widely available, but still exist in a handful of countries
  - The Arab/OECD ratio varies according to which basket and speed is being considered, and whether the services are residential or business, but broadly, the residential Arab average is anywhere up to 3.5 times more than the OECD average, with higher speed services showing more parity. For business services, this ratio can be up to 3.7 times.
  - The change in costs since 2015 has faced a mixed bag, for both residential and business pricing, with the average cost of some baskets falling while others have increased, however, increases were much more prevalent. This is partly as a result of providers offering (relatively high cost) services, that were not there in 2015. Allowances are much larger now, as well

Mobile Broadband for Laptops & Tablets		Arab average 2016 USD PPP	OECD average 2015 USD PPP	Arab average compared to OECD average
Residential	1GB, 15 days	23	11	● 106%
	6GB, 30 days	81	23	● 247%
Business	1GB, 15 days	40	11	● 269%
	6GB, 30 days	86	26	● 229%



# APPENDIX



# EXCHANGE RATES AND VAT

## Exchange rates and VAT

Country	VAT	Exchange rate into €	Exchange rate into US\$	Exchange rate into BHD	PPP rate into US\$
Algeria	17.0%	0.00860	0.00936	0.00350	0.0242
Bahrain	0.0%	2.45581	2.67290	1.00000	4.8930
Comoros	0.0%	0.00204	0.00222	0.00083	0.0039
Djibouti	19.0%	0.00517	0.00563	0.00211	0.0101
Egypt	10.0%	0.11770	0.12810	0.04793	0.4217
Iraq	0.0%	0.91878	1.00000	0.37413	2.3452
Jordan	16.0%	1.29998	1.41490	0.52935	3.1443
Kuwait	0.0%	3.02756	3.29520	1.23282	5.5366
Lebanon	10.0%	0.00063	0.00068	0.00026	0.0012
Libya	0.0%	0.67264	0.73210	0.27390	1.7371
Mauritania	0.0%	0.00308	0.00335	0.00125	0.0103
Morocco	20.0%	0.09298	0.10120	0.03786	0.2376
Oman	0.0%	2.39342	2.60500	0.97460	5.2115
Palestine	16.0%	0.23328	0.25390	0.09499	0.5706
Qatar	0.0%	0.25257	0.27490	0.10285	0.3997
Saudi Arabia	0.0%	0.24513	0.26680	0.09982	0.5734
Somalia	0.0%	0.00157	0.00171	0.00064	0.0057
Sudan	10.0%	0.15233	0.16580	0.06203	0.3597
Syria	0.0%	0.00418	0.00455	0.00170	0.0074
Tunisia	18.0%	0.45130	0.49120	0.18377	1.2707
UAE	0.0%	0.25018	0.27230	0.10187	0.4192
Yemen	0.0%	0.00428	0.00466	0.00174	0.0076
USA	10.0%	0.91878	1.00000	0.37413	1.0000

VAT rate shown for Jordan is rate applied to businesses.

Rate for residential users is 8%

Exchange rates taken from the Oanda web service on the 15<sup>th</sup> January 2016

PPPs are based on World Bank CPL data in 2012 (latest available).



# PURCHASING POWER PARITIES (PPP)

- PPPs are used to incorporate not only the financial differences between exchange rates, but also the differences in the state of the economies as seen through the purchasing power of the citizens in each country.
  - PPPs are based on an assessment of the price levels for a corresponding basket of goods and services in each country. i.e. how much the same basket costs in different countries.
  - PPPs are normally stated based on the US\$ or some other reference currency, e.g. Euro. This study uses the US\$ PPPs calculated by the World Bank.
- In order to update these values the Comparative Price Level (CPL) is used. CPL is the relationship between the PPP and the reference market exchange rate at the time the PPP was calculated.
  - CPL is used together with updated, i.e. current, exchange rates to produce an “updated” PPP value.
  - $CPL = \text{Rate}_{\text{PPP}} / \text{Rate}_{\text{Reference}}$
  - $\text{PPP}_{\text{Current}} = \text{Rate}_{\text{Market}} * CPL$
- The advantage of using PPPs is that the results reflect the price differences as seen by the end users in each country based on their income and other costs.

# PPP BACKGROUND



- This benchmarking study relies on the PPP (Purchasing Power Parity) and CPL (Comparative Price Level) values produced by the OECD and the World Bank\*. PPPs are used in international studies to provide a more even comparison between countries, adjusting the exchange rates to the purchasing power of the consumer in each country. CPL is used to calculate PPP values from current market exchange rates, in order to obtain the most up to date combination of PPP and market exchange rates.
- PPPs are usually expressed in US\$, referring to the US market. PPPs are produced comparing the cost of a basket of goods and services across countries
  - The World Bank defines PPP as: " ... the number of units of a country's currency required to buy the same amount of goods and services in the domestic market as a U.S. dollar would buy in the United States."
- The CPL is the ratio between PPP and Market Exchange Rate (XR) for a given country, as seen from a reference country (usually the USA).

$$\text{CPL} = \text{PPP}_{\text{US\$}} / \text{XR}_{\text{US\$}}$$

**CPL<1 means goods are more expensive, CPL>1 means goods are cheaper, referring to the USA.**

- The basket of goods and services is extensive, however, the PPP result will of course depend on the content of this basket. The OECD and the World Bank are working together to improve on the methodology to calculate the PPP.
- The World Bank implemented a new methodology for calculating the PPPs in 2011, improving the PPP results to show a more accurate relation between countries. The results of the implementation of this new methodology was seen in the 2014 results recently presented by the World Bank
  - As the previous World Bank methodology was different to that used by the OECD, and the new World Bank methodology is now more aligned with the OECD methodology. The changes seen from the old to the new World Bank PPP values are smaller in OECD countries than in other countries of the world.

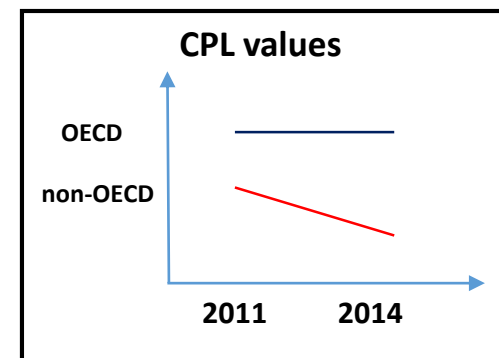
**\* The World Bank uses the term "Price Level Ratio" for the CPL.**

**Please note: Inverse values of PPP and CPL are also used, depending on application.**

# EFFECTS OF PPP CHANGES



- Since the price benchmarking studies are always using the latest available World Bank CPL values, these values will change over time. Traditionally the changes from update to update have been small.
- In 2015 the latest values were based on the “old” World Bank methodology, with data from 2011-2012, while in 2016 the “new” World Bank data is available, with data from 2014.
- There are significant differences in the CPL values from the “old” to the “new” World Bank methodologies that have had a negative impact on the benchmarking results.
  - The impact is greater for non-OECD countries.
  - For some Arab countries the apparent price increase is up to 79% over the 2015 prices\*
- This change and difference has a number of effects on the benchmarking results:
  - There is an apparent price increase from the 2015 report to the 2016 report that is only due to the change in PPP.
    - Time series changes shown within each benchmarking report are based on the same exchange rate for all years, and are not influenced by this change.
  - The prices for the Arab countries appear to now be a lot higher than for the OECD references.
  - The relative price balance between some of the Arab countries has also shifted.
- The World Bank suggests that the “old” methodology understated the price level differences, and that the “new” methodology produces more realistic results. There may still be further adjustments to the methodology.
- This benchmarking study uses the latest (2014) CPL values from the World Bank, and will suggest some different conclusions compared to previous studies.
  - To enable comparison with the 2015 report we have also produced an annex with the 2016 results using the old CPL values from last year.



\* For Iraq the change is even higher, possibly resulting from problems in the old World Bank data.



# ACRONYMS USED IN THE CONTEXT OF THIS REPORT

- OECD: Organisation of Economic Co-operation and Development
- OECD countries: Australia, Austria, Belgium, Canada, Chile, Czech Rep., Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Rep., Slovenia, Spain, Sweden, Switzerland, Turkey, UK, USA
- AREGNET: Arab Regulators Network.
- AREGNET member countries: Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, UAE, Yemen
- VAT: Value Added Tax, a consumption tax system used in most European countries and some Arab countries.
- PPP: Purchasing Power Parity, exchange rates adjusted for the purchasing power of consumers in each country. Used in international comparisons to adjust for market differences.
- CPL: Comparative Price level. The relative factor between market exchange rates and PPP. Used to calculate the PPPs from current market exchange rates.
- Service: A telecommunications service
- Basket: A theoretical usage profile describing the usage volumes across different types of calls and/or different kinds of usage. The basket includes all important elements of the service, including fixed cost elements.
- Tariff: The description of all the end user prices related to a service
- Tariff element: The part of a tariff describing the price(s) for a single type of call or service component.
- Basket calculation: The process where the Basket is applied to the individual tariff in order to calculate the cost of the individual tariff elements and the overall cost.
- Basket result: The cost of using the service as described in the Basket.
- Re-balancing: The process through which the prices are changed so that individual Tariff elements will cover their own cost, and not subsidise other Tariff elements.

# Telecommunications Retail Price Benchmarking for Arab Countries 2016



## Annex: Key results with 2012 PPP values

April 2017

**STRATEGYANALYTICS**  
TELIGEN TARIFF & BENCHMARKING



# CONTENTS OF THIS ANNEX

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# BACKGROUND TO THE CONTENT OF THIS ANNEX

- Results from the Arab Price Benchmarking studies are converted to US\$ / PPP, using market exchange rates, and Comparative Price Level (CPL) information provided by the World Bank (WB) on their website. The CPL values used are at any time the latest information provided by the World Bank.
- In previous reports in 2013 and 2015 the CPL values were based on information calculated by the World Bank using their methodology from 2005, with values referring to 2011 and 2012 (depending on country).
- In this report in 2016 the CPL values are based on a newer methodology defined in 2011, with CPL values referring to 2014.
- The new World Bank methodology produced CPL values that in some cases are widely different to those presented under the old methodology. This makes results for many of the Arab countries appear much more expensive than what was presented in the previous benchmarking reports, and also the relative position to OECD countries has changed significantly.
- It has been decided to use the new World Bank data for the main report, but to aid any comparison with previous reports this Annex to the benchmarking report shows the key results using the old World Bank CPL information from the two previous reports.
- Please note that the results presented in this Annex are not the proper results for 2016 according to the agreed benchmarking methodology. Please see the main report.
  - Please see pages 212 – 214 of the main report for more information on the World Bank PPP and CPL.
- This Annex does not contain the time series and ranking information found in the main report, nor the analysis of the results.



# PSTN BASKET RESULTS 2016

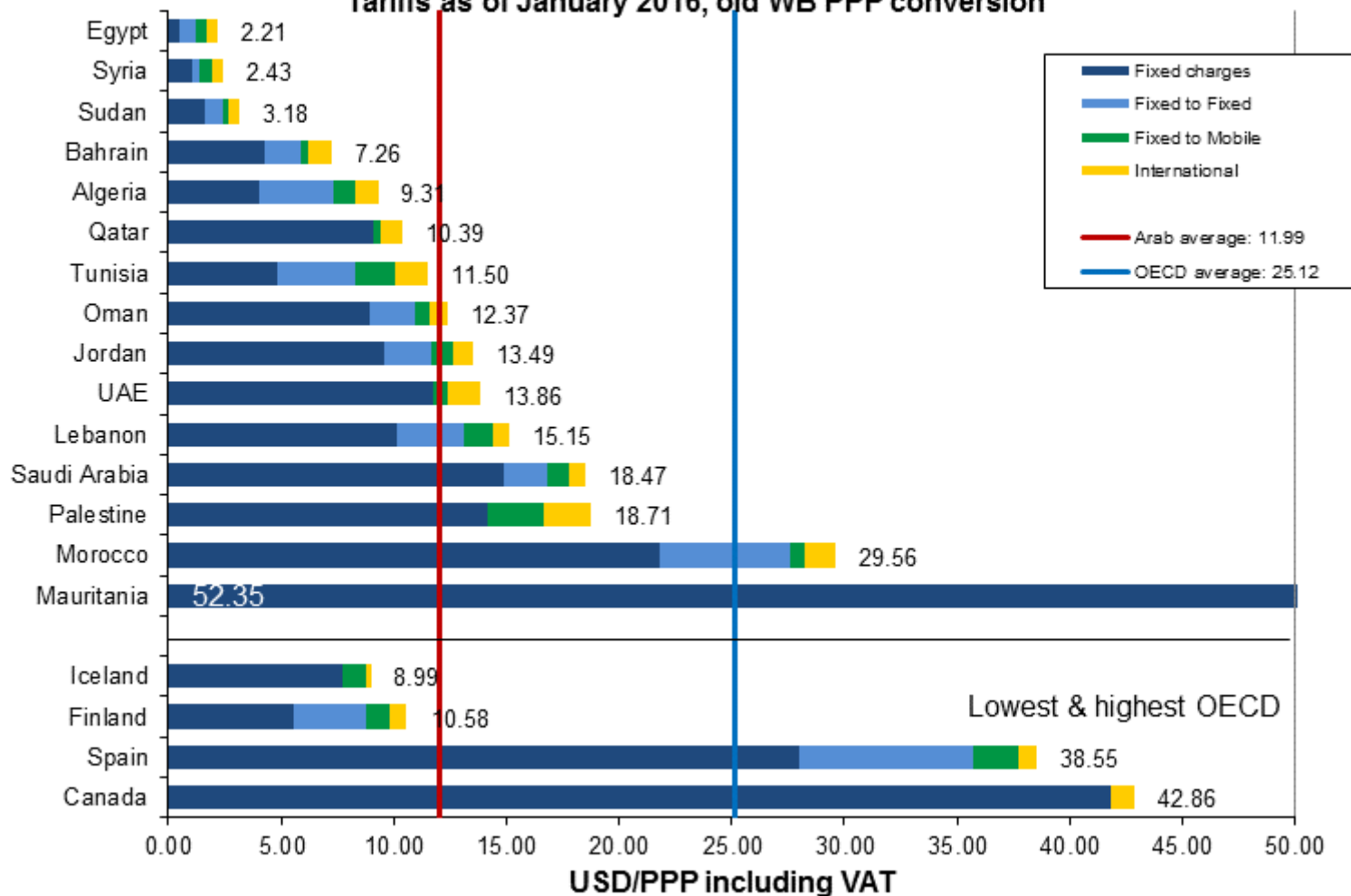
Using old World Bank PPP conversion factors (2011/2012)

# 20 CALLS/MONTH, RESIDENTIAL BASED ON 2010 OECD PSTN BASKET



## 20 calls 2010 basket

Tariffs as of January 2016, old WB PPP conversion

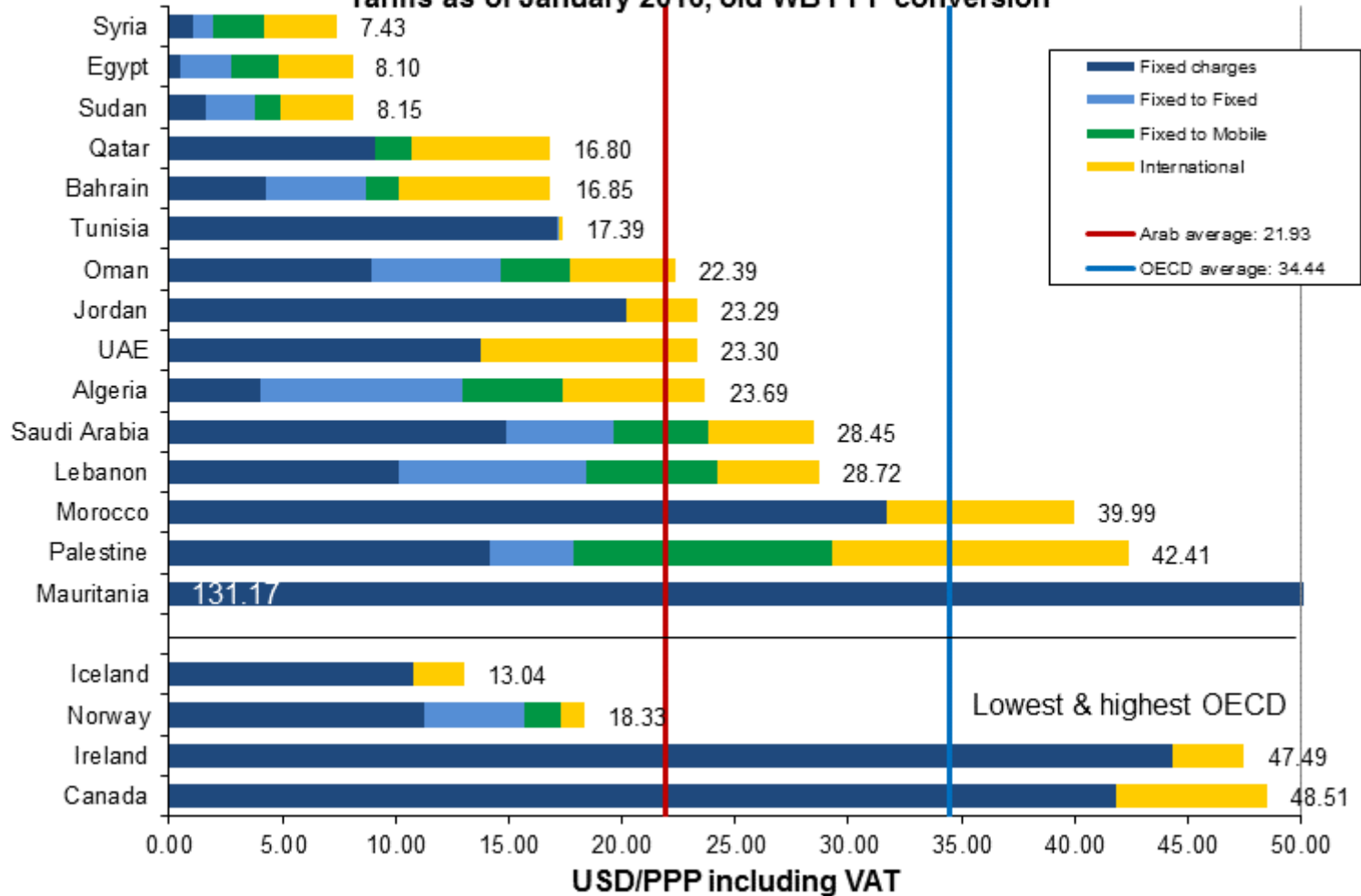


# 60 CALLS/MONTH, RESIDENTIAL BASED ON 2010 OECD PSTN BASKET



## 60 calls 2010 basket

Tariffs as of January 2016, old WB PPP conversion

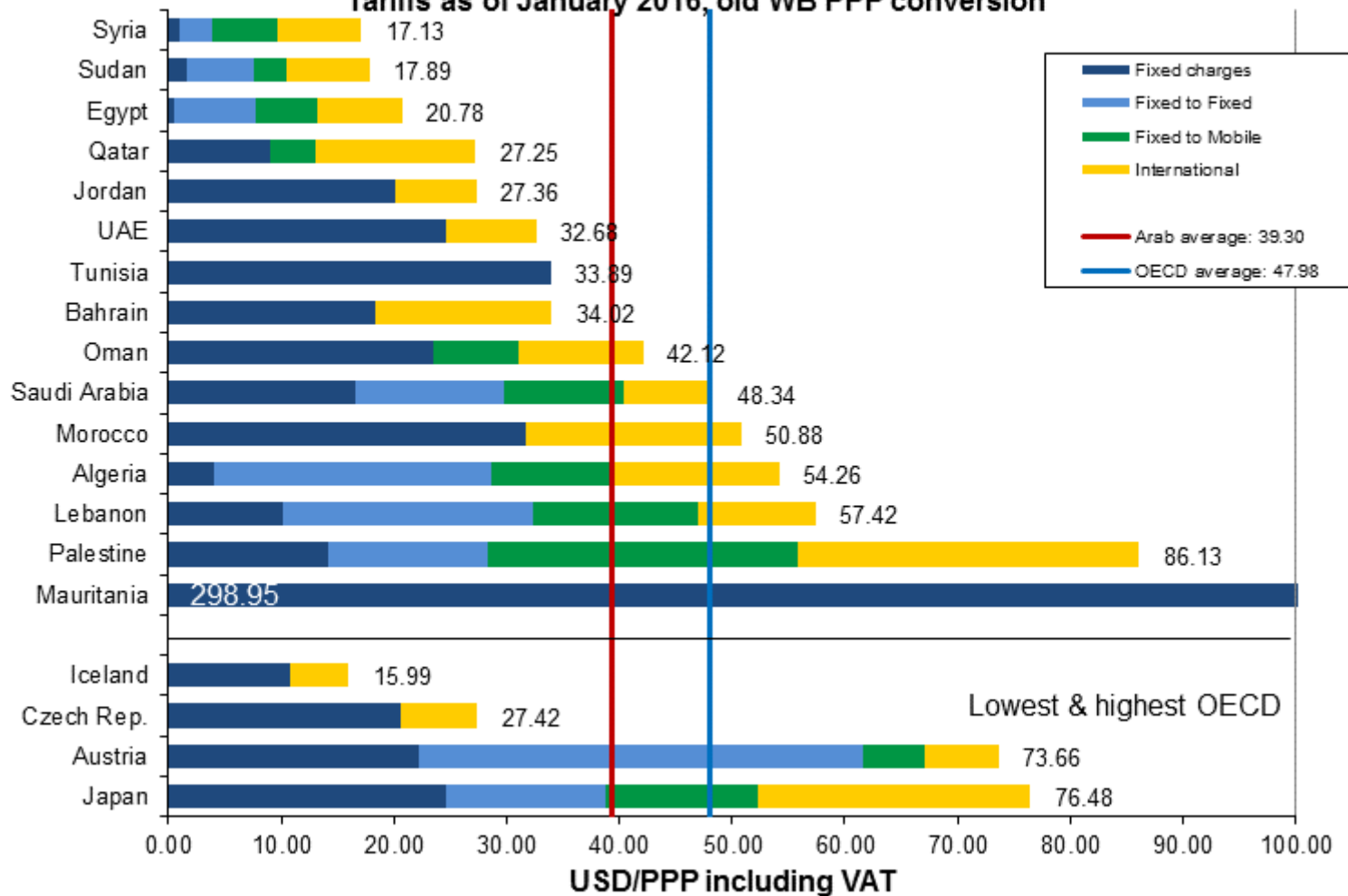


# 140 CALLS/MONTH, RESIDENTIAL BASED ON 2010 OECD PSTN BASKET

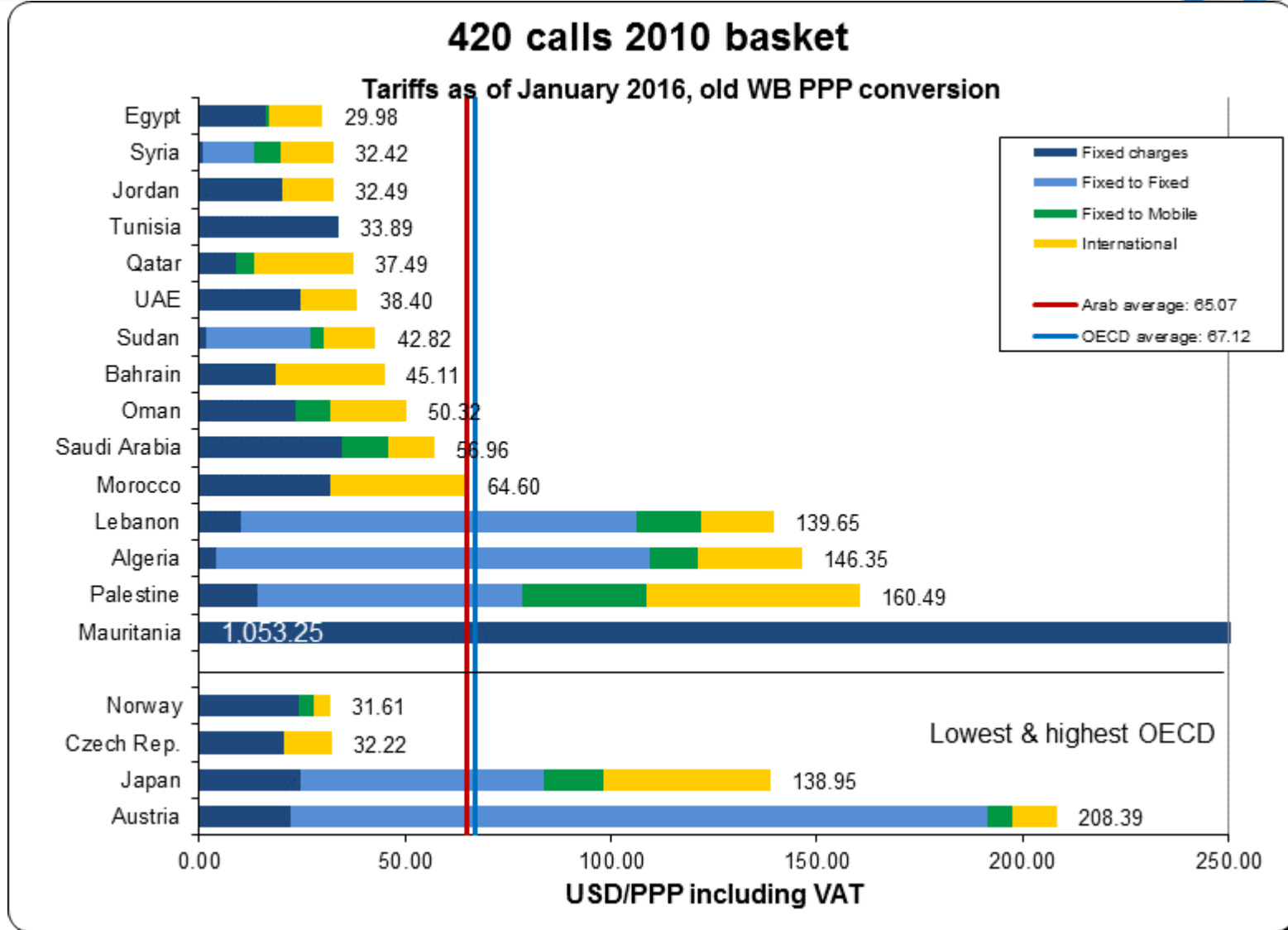


## 140 calls 2010 basket

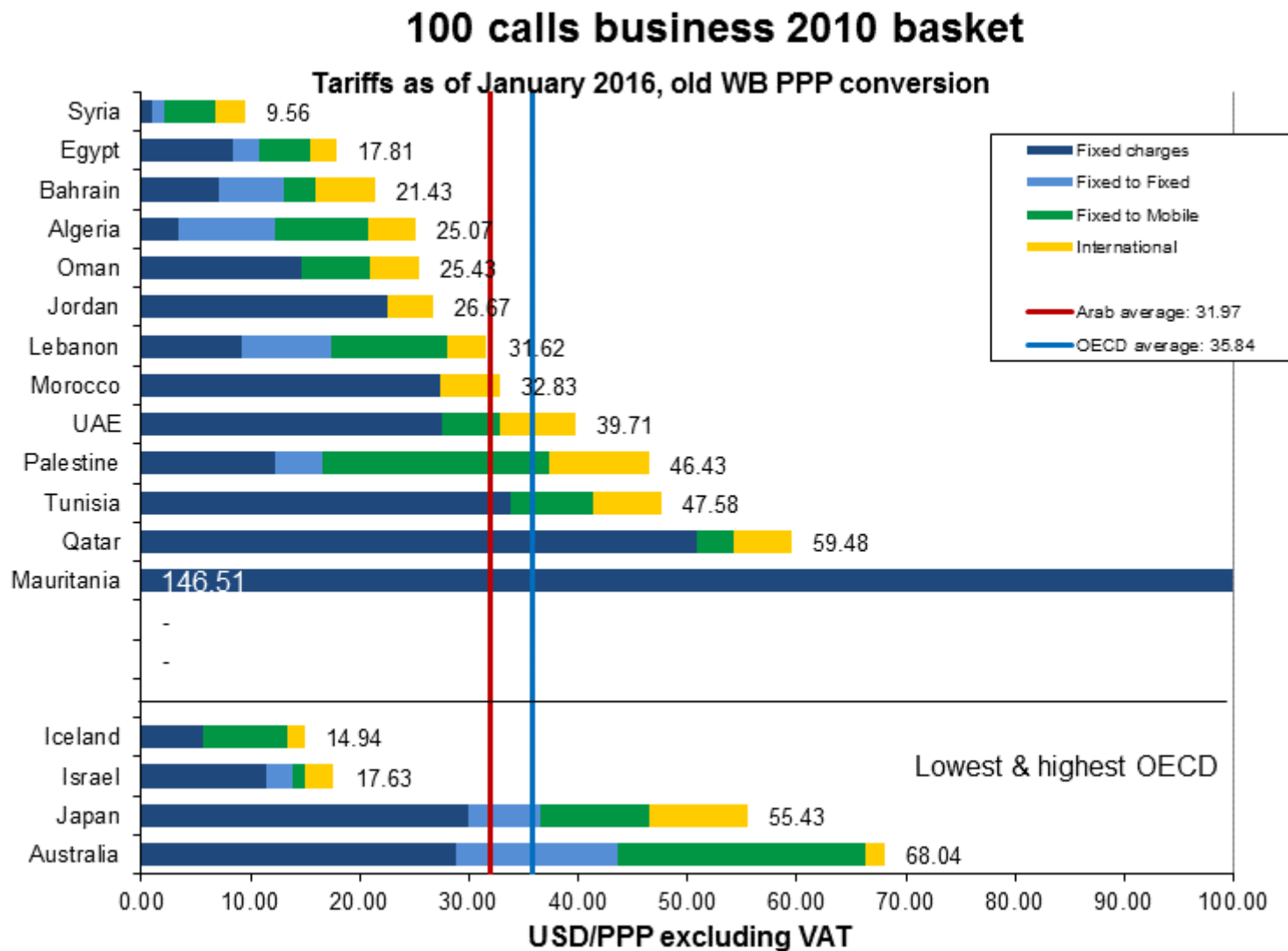
Tariffs as of January 2016, old WB PPP conversion



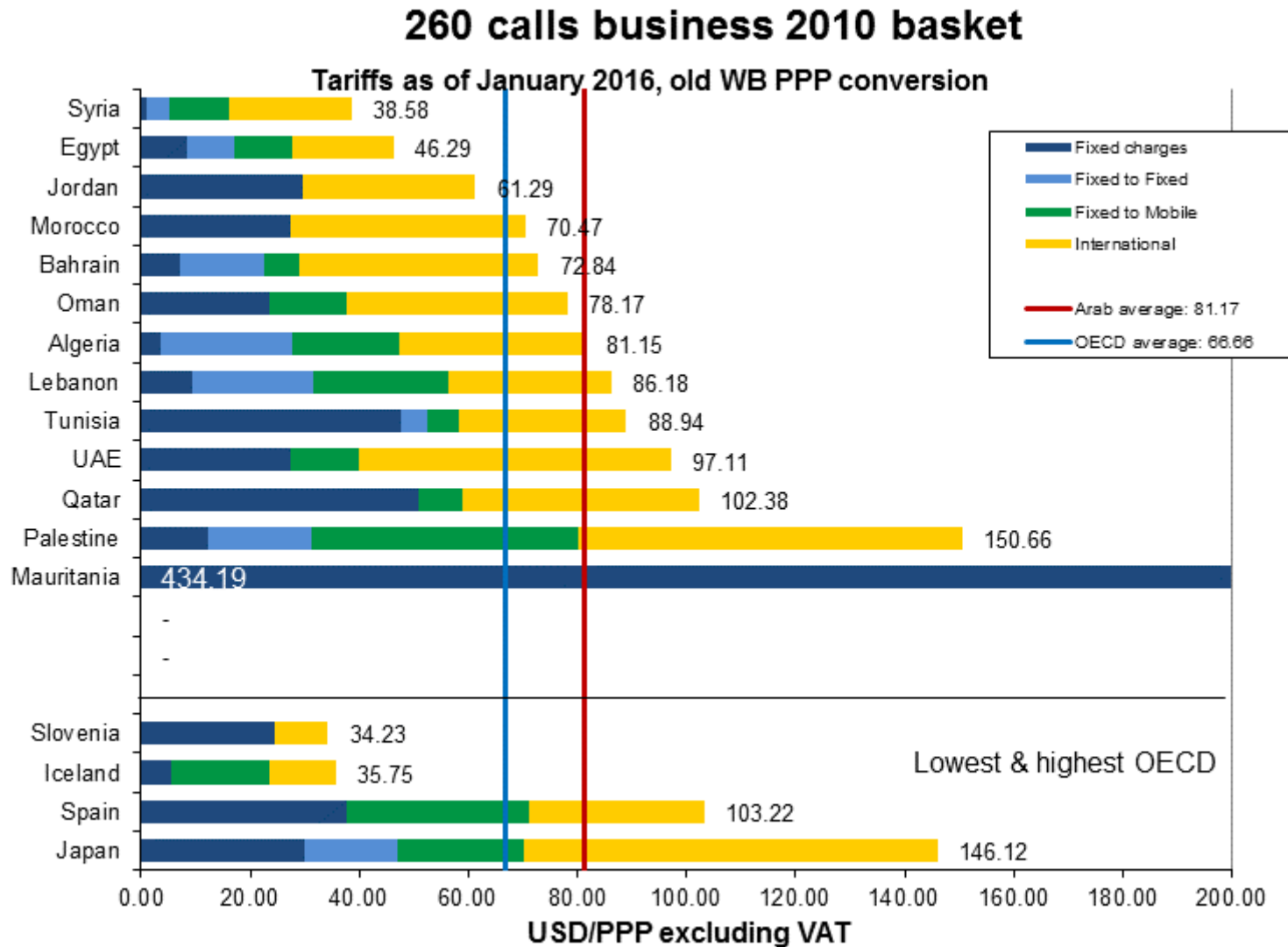
# 420 CALLS/MONTH, RESIDENTIAL BASED ON 2010 OECD PSTN BASKET



# 100 CALLS/MONTH, BUSINESS BASED ON 2010 OECD PSTN BASKET



# 260 CALLS/MONTH, BUSINESS BASED ON 2010 OECD PSTN BASKET





# MOBILE BASKET RESULTS 2016

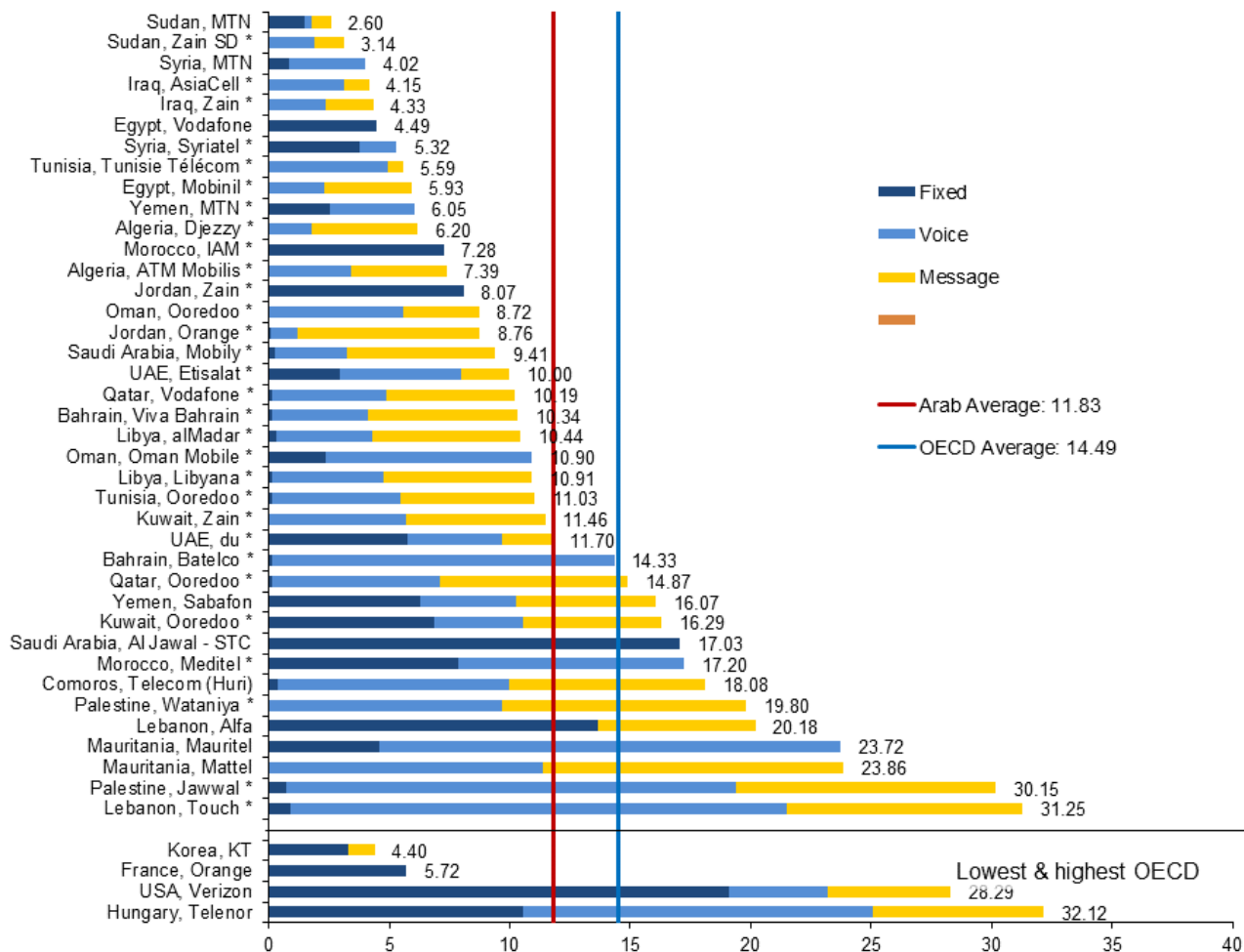
Using old World Bank PPP conversion factors (2011/2012)

# 30 CALLS/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 30 calls basket

Tariffs as of January 2016, with old WB PPP conversion.



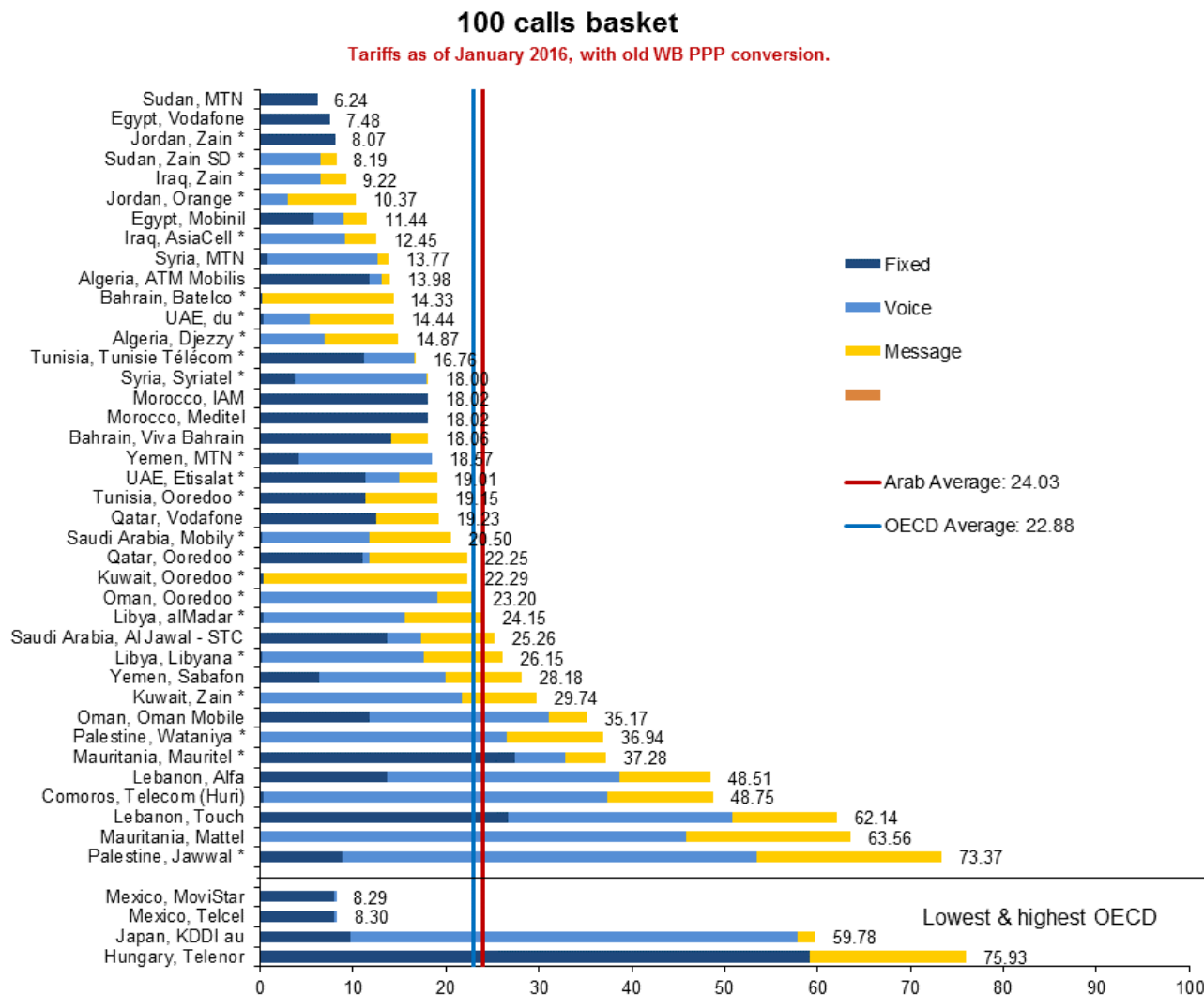
Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

Averages are  
across all  
providers, and are  
different than  
country averages.



# 100 CALLS/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



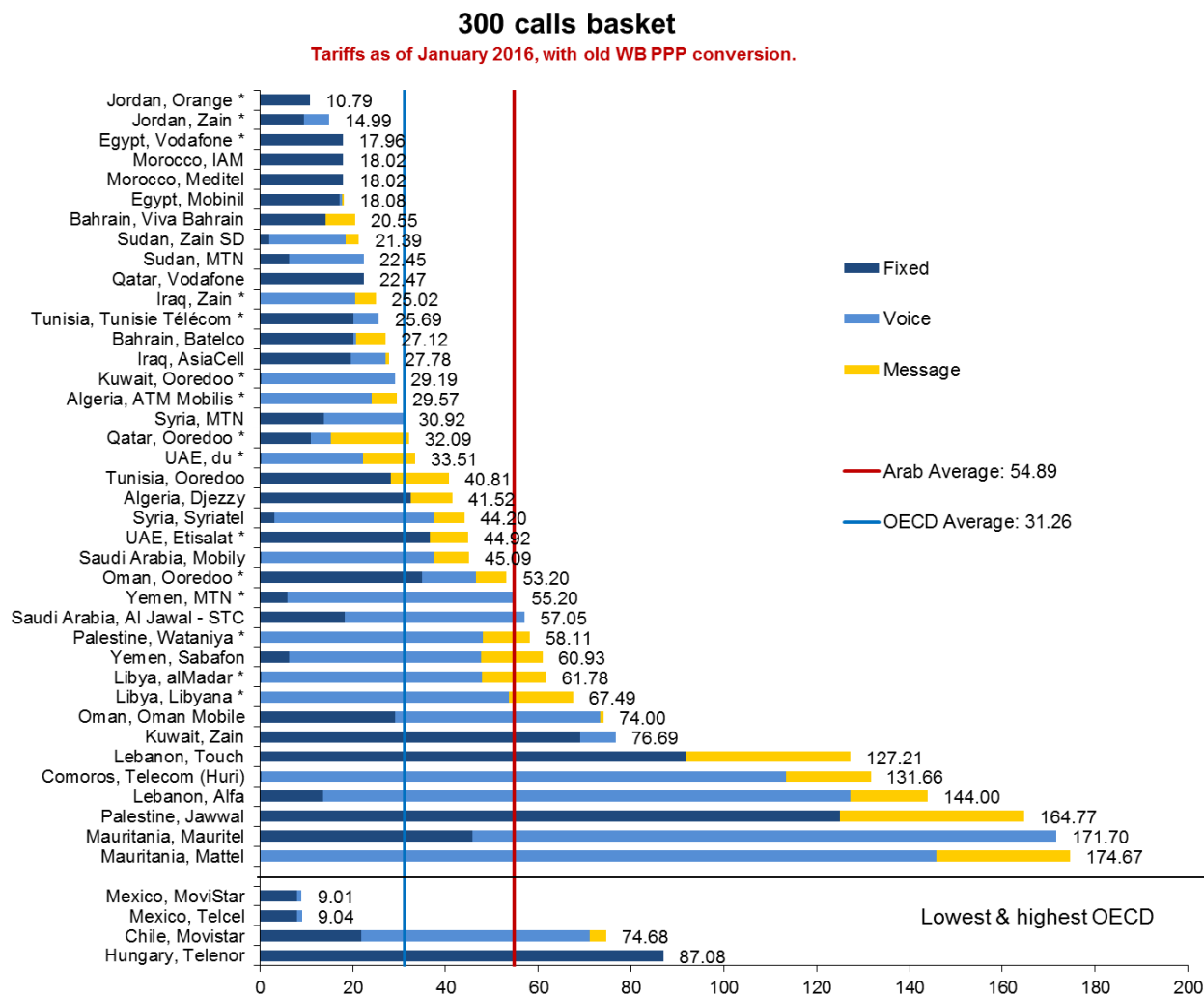
Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

Averages are  
across all  
providers, and are  
different than  
country averages.



# 300 CALLS/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

Averages are  
across all  
providers, and are  
different than  
country averages.

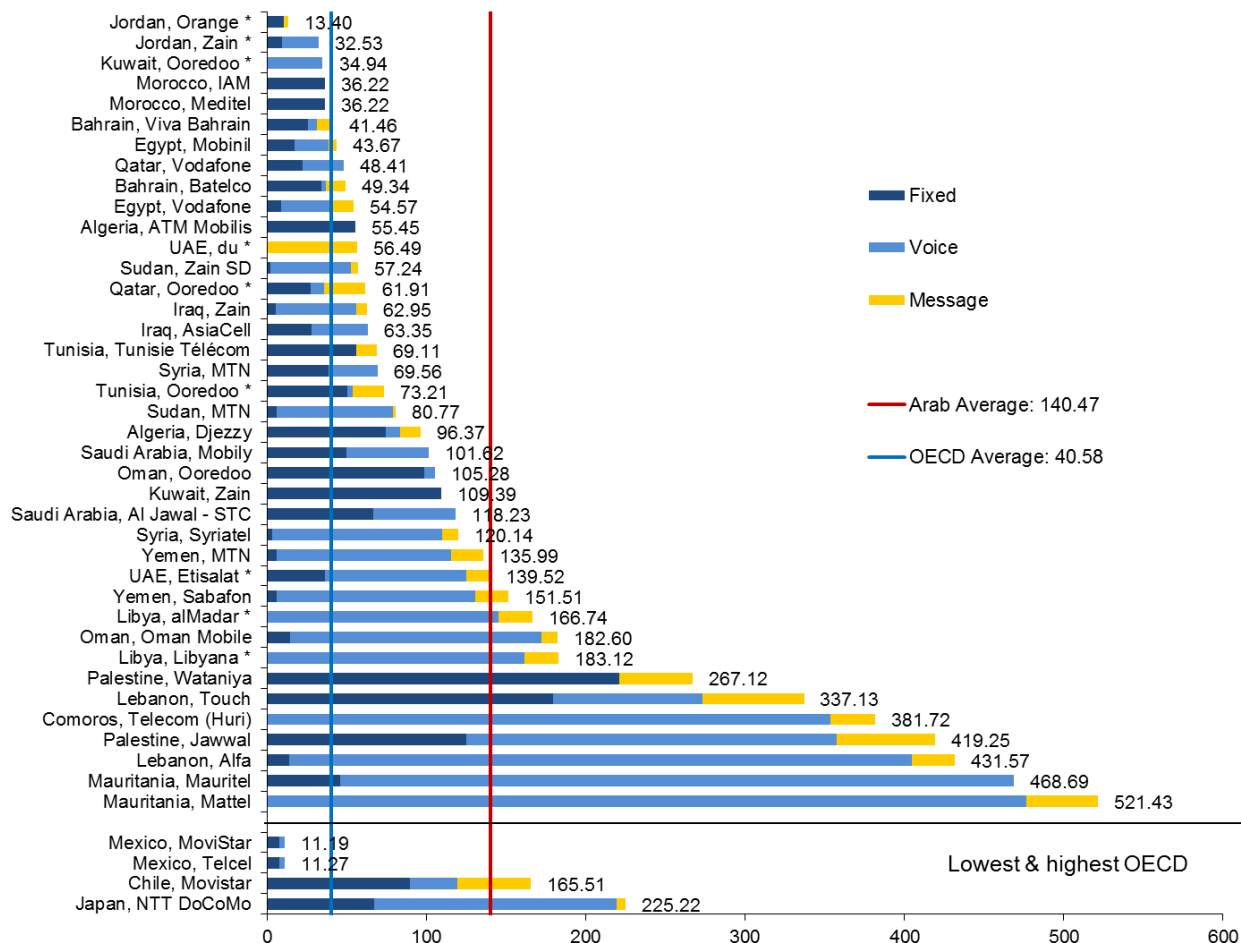


# 900 CALLS/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 900 calls basket

Tariffs as of January 2016, with old WB PPP conversion.



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

Averages are  
across all  
providers, and are  
different than  
country averages.

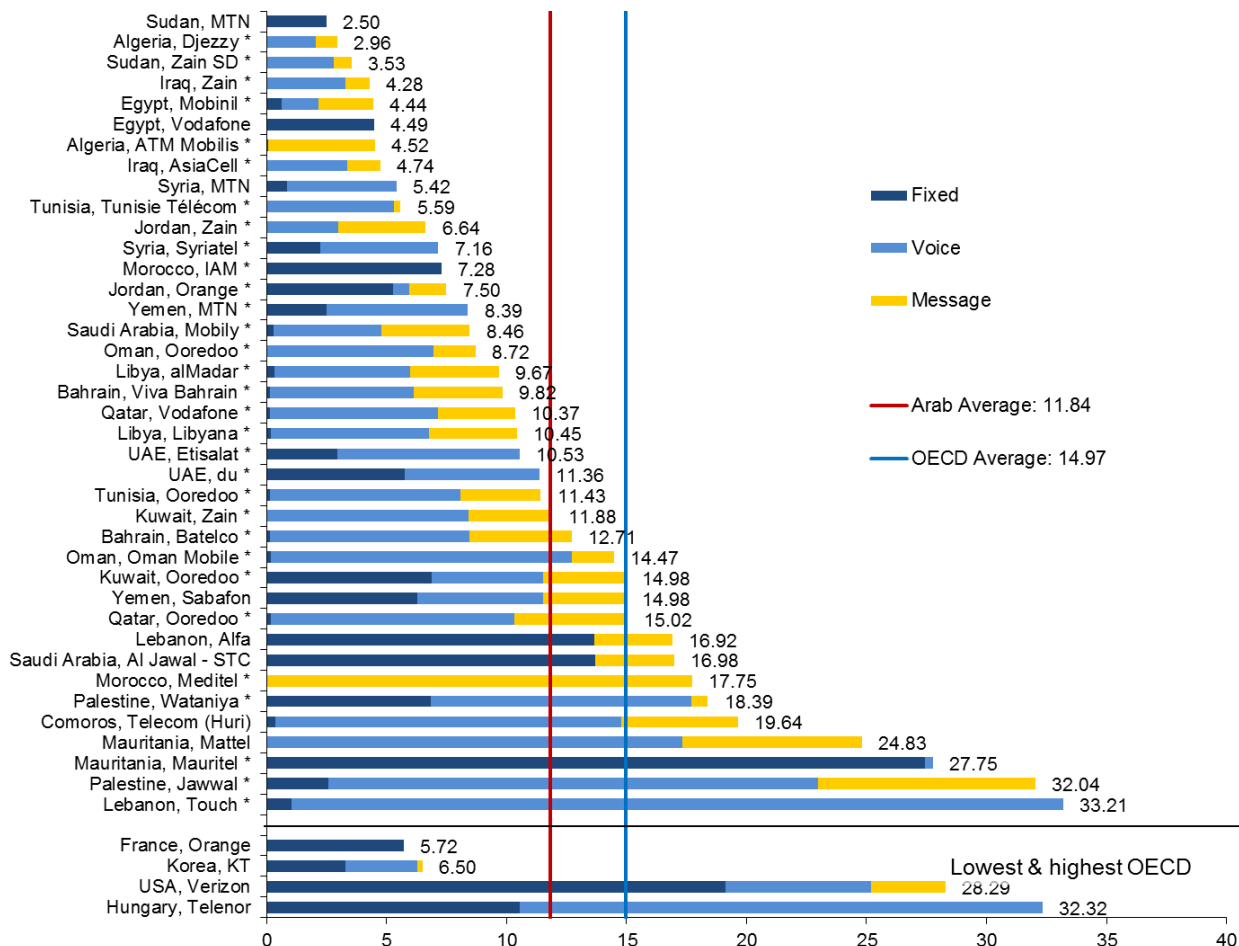


# 40 CALLS/MONTH PREPAID BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 40 calls prepaid basket

Tariffs as of January 2016, with old WB PPP conversion.



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

Averages are  
across all  
providers, and are  
different than  
country averages.

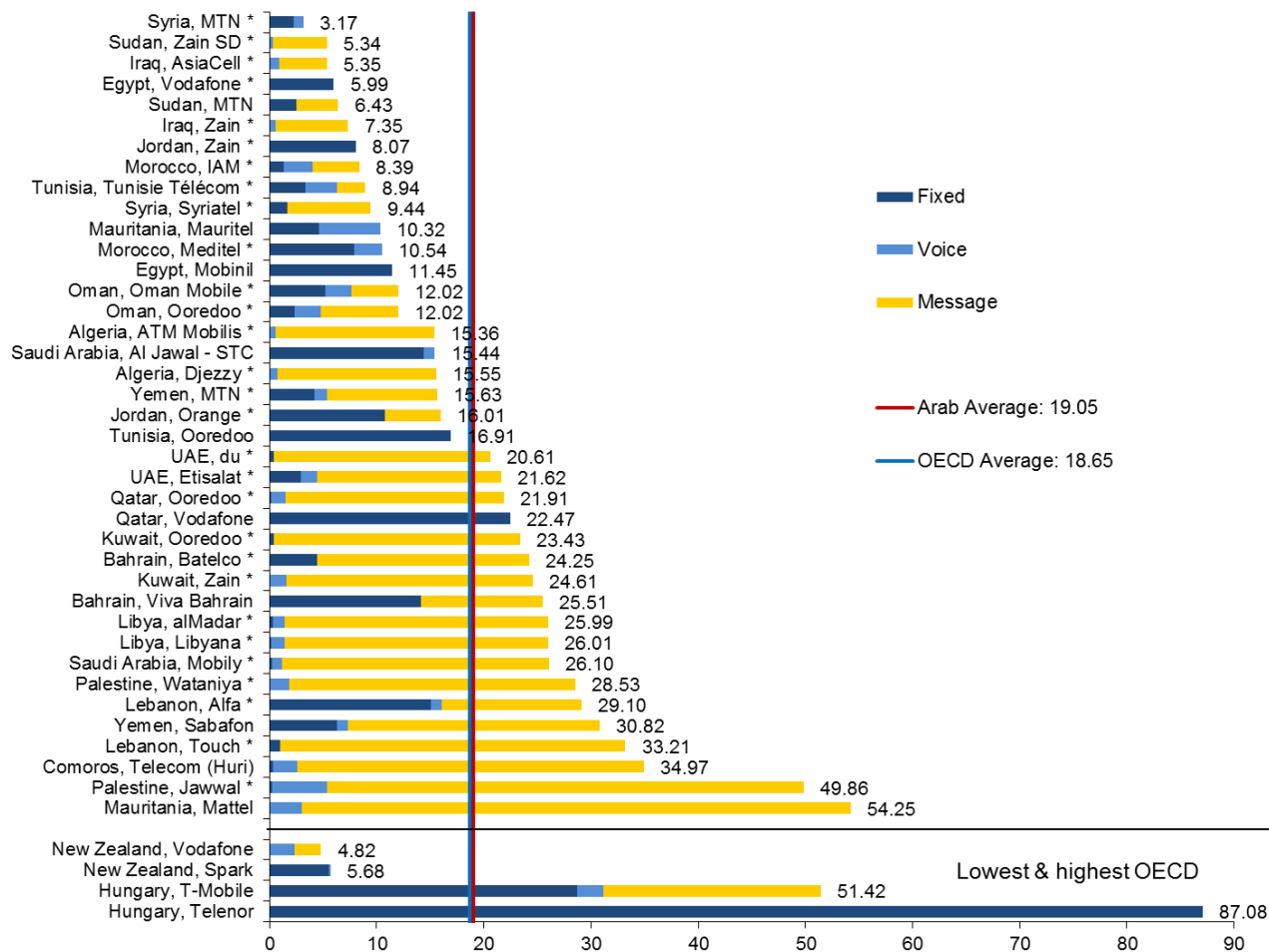


# 400 MESSAGES/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 400 messages basket

Tariffs as of January 2016, with old WB PPP conversion.



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

Averages are  
across all  
providers, and are  
different than  
country averages.

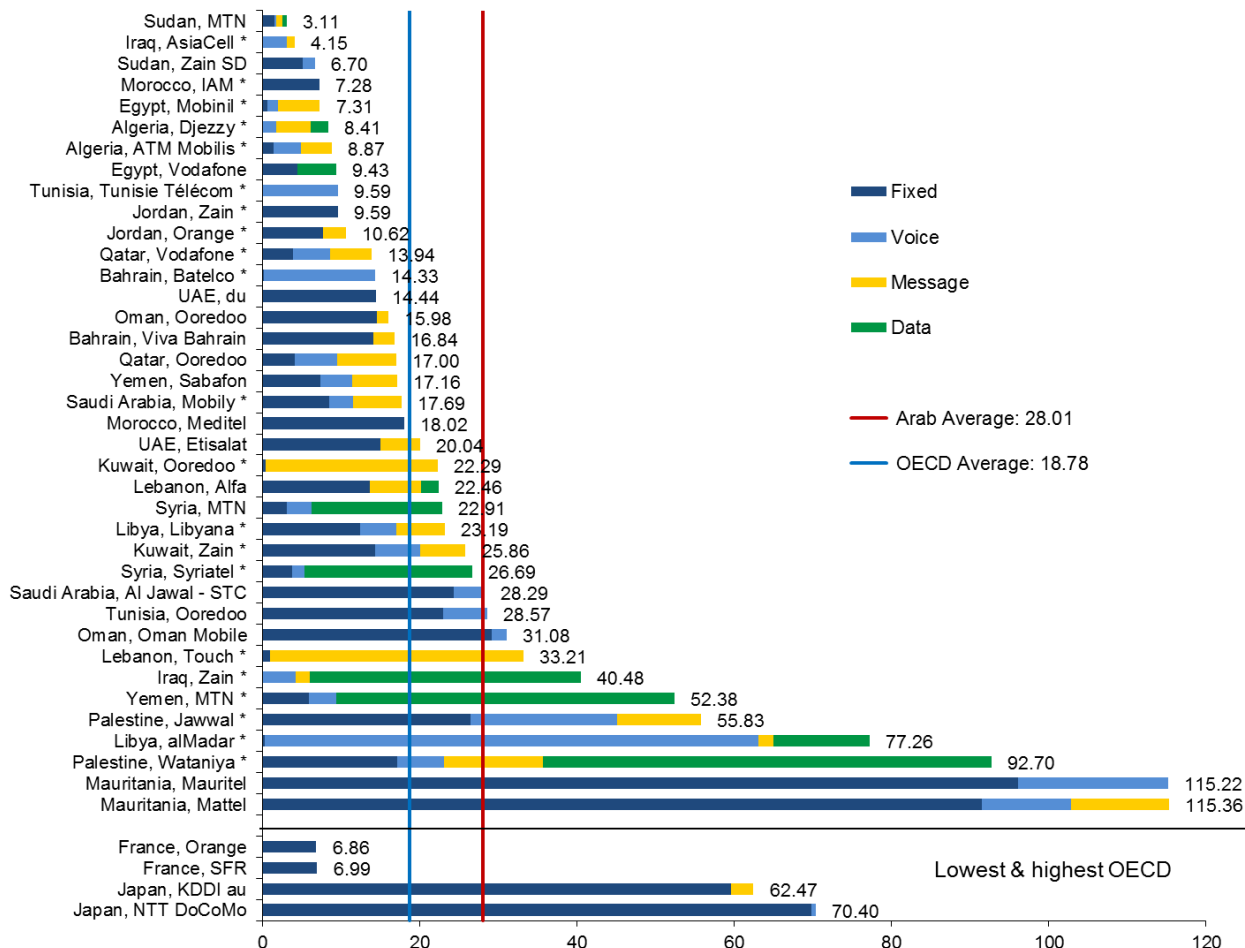


# 30 CALLS + 100 MB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 30 calls + 100 MB

Tariffs as of January 2016, with old WB PPP conversion.



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

The data charges  
shown on the  
graph refer to  
overage charges  
only. Fixed data  
charges may be  
embedded in the  
monthly fixed  
charges.

Averages are  
across all  
providers, and are  
different than  
country averages.

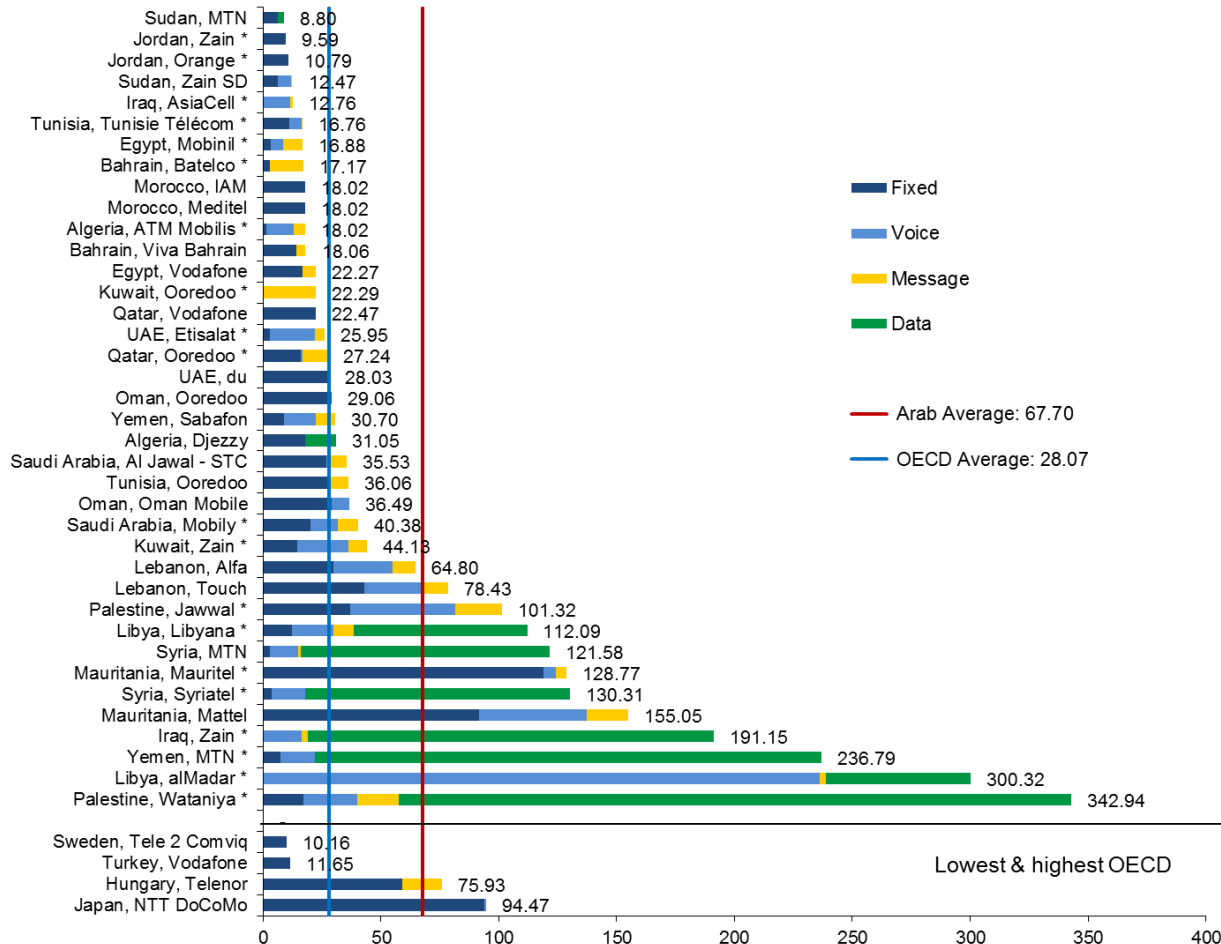


# 100 CALLS + 500 MB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 100 calls + 500 MB

Tariffs as of January 2016, with old WB PPP conversion.



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

The data charges  
shown on the  
graph refer to  
overage charges  
only. Fixed data  
charges may be  
embedded in the  
monthly fixed  
charges.

Averages are  
across all  
providers, and are  
different than  
country averages.

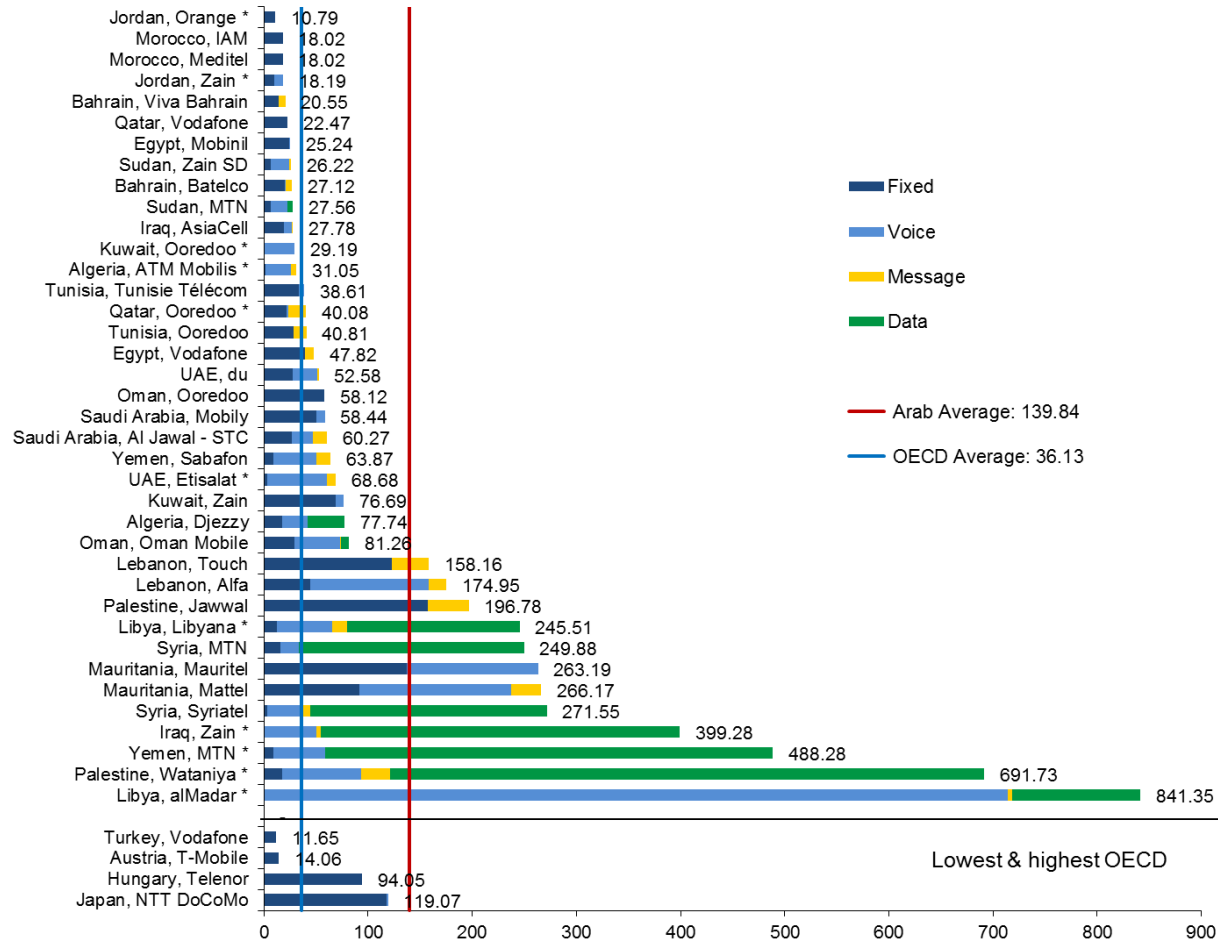


# 300 CALLS + 1 GB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 300 calls + 1 GB

Tariffs as of January 2016, with old WB PPP conversion.



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

The data charges  
shown on the  
graph refer to  
overage charges  
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charges.

Averages are  
across all  
providers, and are  
different than  
country averages.

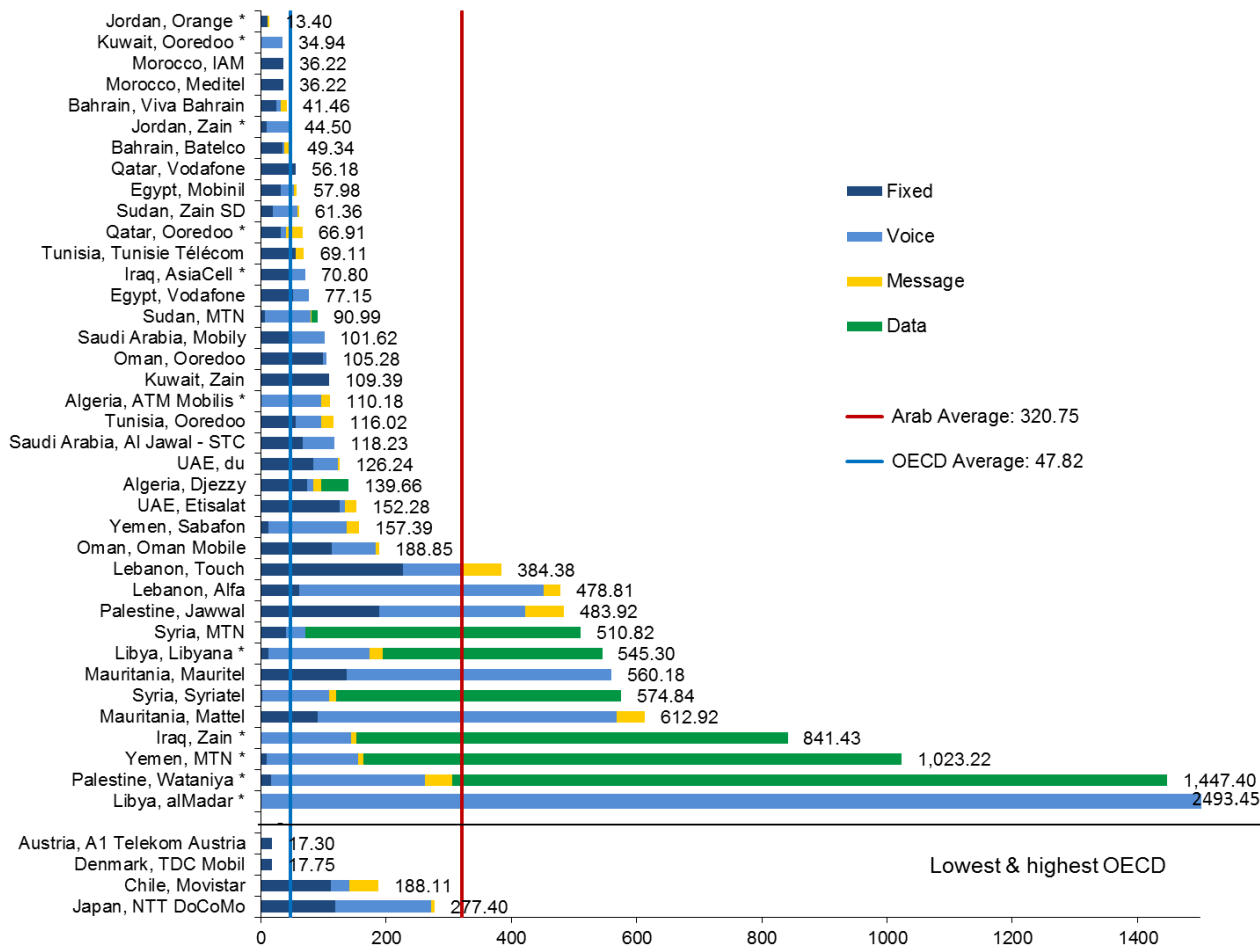


# 900 CALLS + 2 GB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 900 calls + 2 GB

Tariffs as of January 2016, with old WB PPP conversion.



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

The data charges  
shown on the  
graph refer to  
overage charges  
only. Fixed data  
charges may be  
embedded in the  
monthly fixed  
charges.

Averages are  
across all  
providers, and are  
different than  
country averages.

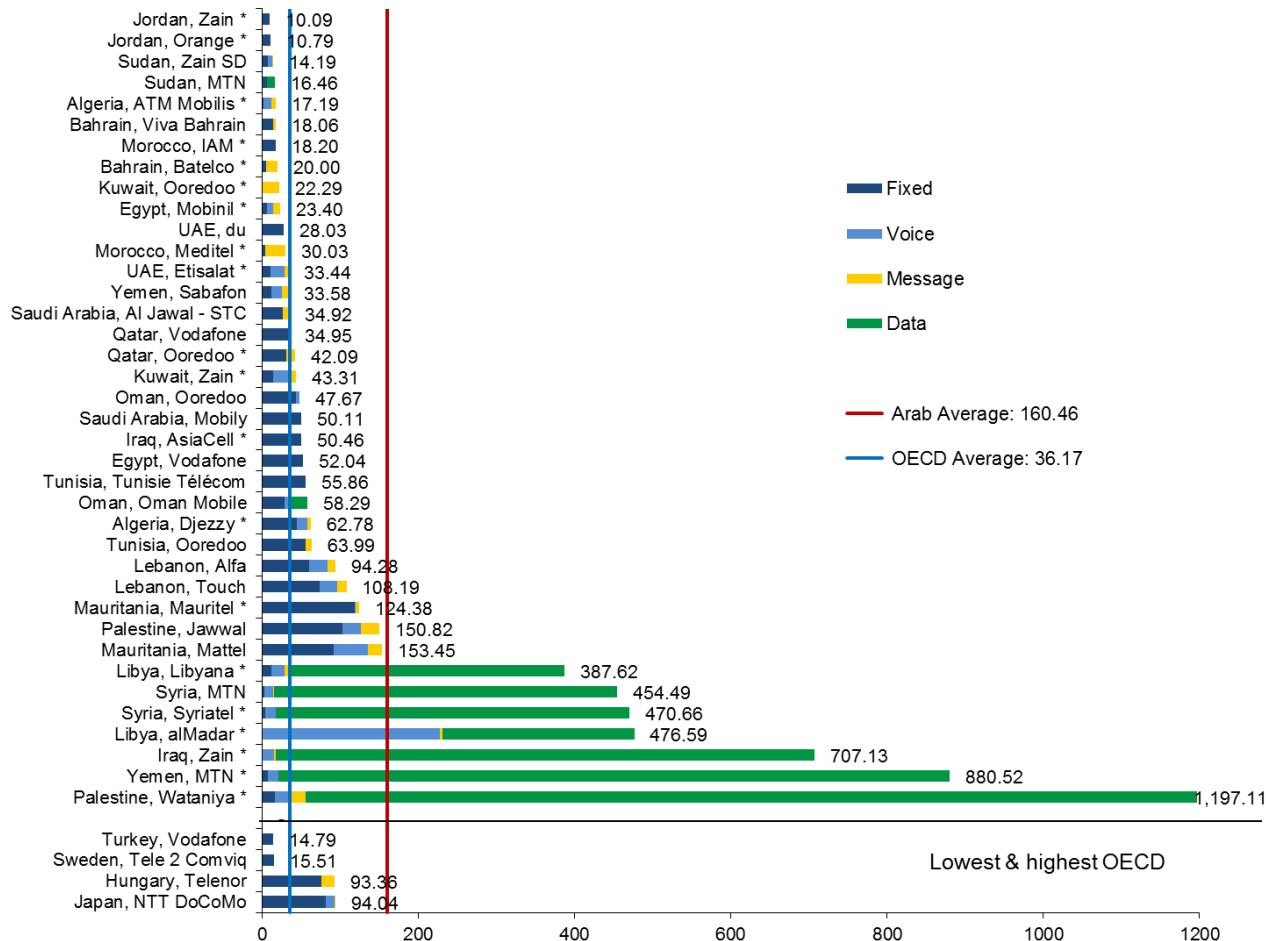


# 100 CALLS + 2 GB/MONTH BASKET RESULT BASED ON 2010 OECD MOBILE BASKET



## 100 calls + 2 GB

Tariffs as of January 2016, with old WB PPP conversion.



Please note:  
No data for  
Djibouti and  
Somalia.  
Selective discounts  
included.

\* marks pre-paid  
tariffs.

The data charges  
shown on the  
graph refer to  
overage charges  
only. Fixed data  
charges may be  
embedded in the  
monthly fixed  
charges.

Averages are  
across all  
providers, and are  
different than  
country averages.

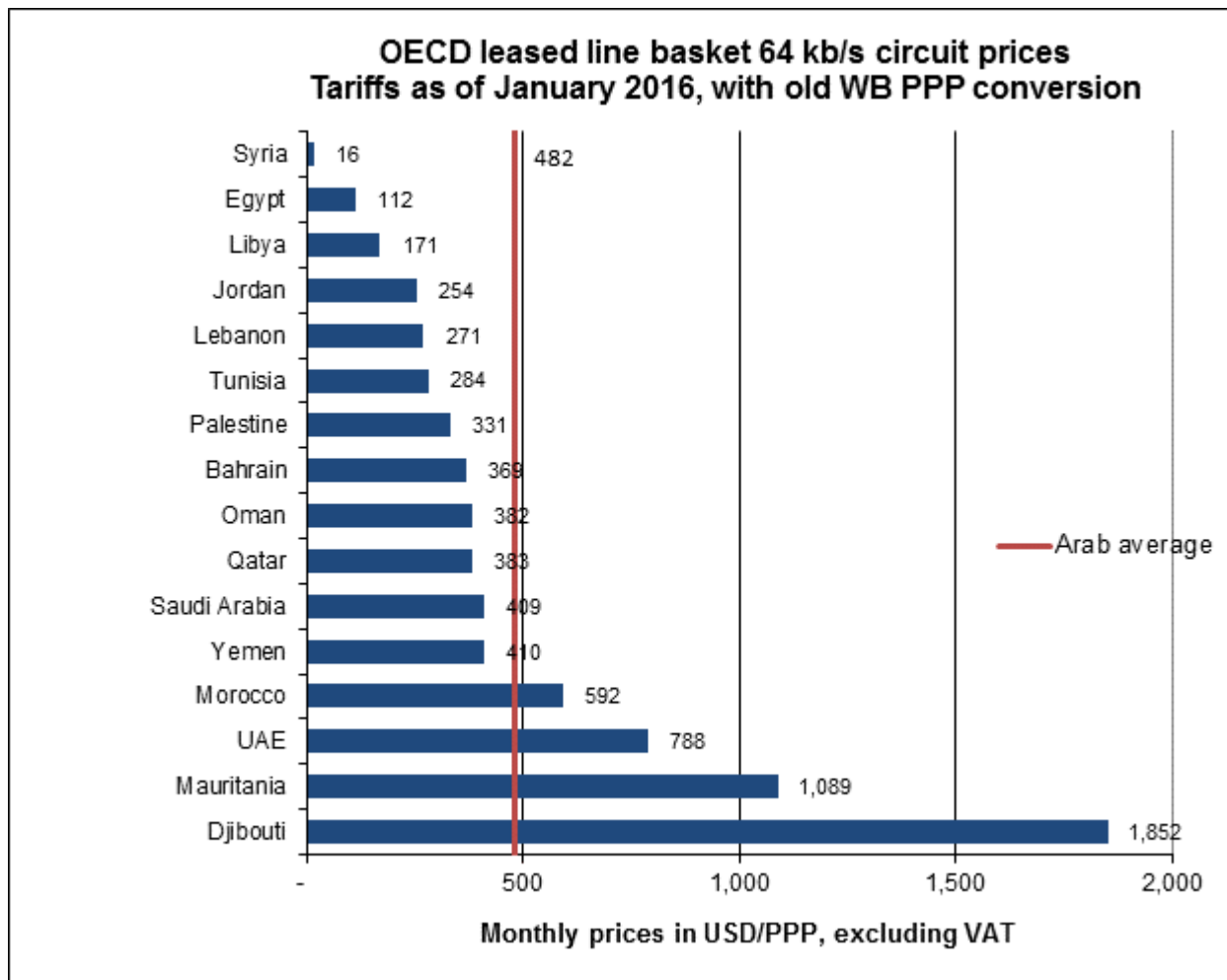




# LEASED LINE BASKET RESULTS 2016

Using old World Bank PPP conversion factors (2011/2012)

# 64 KB/S OECD LEASED LINE BASKET RESULTS



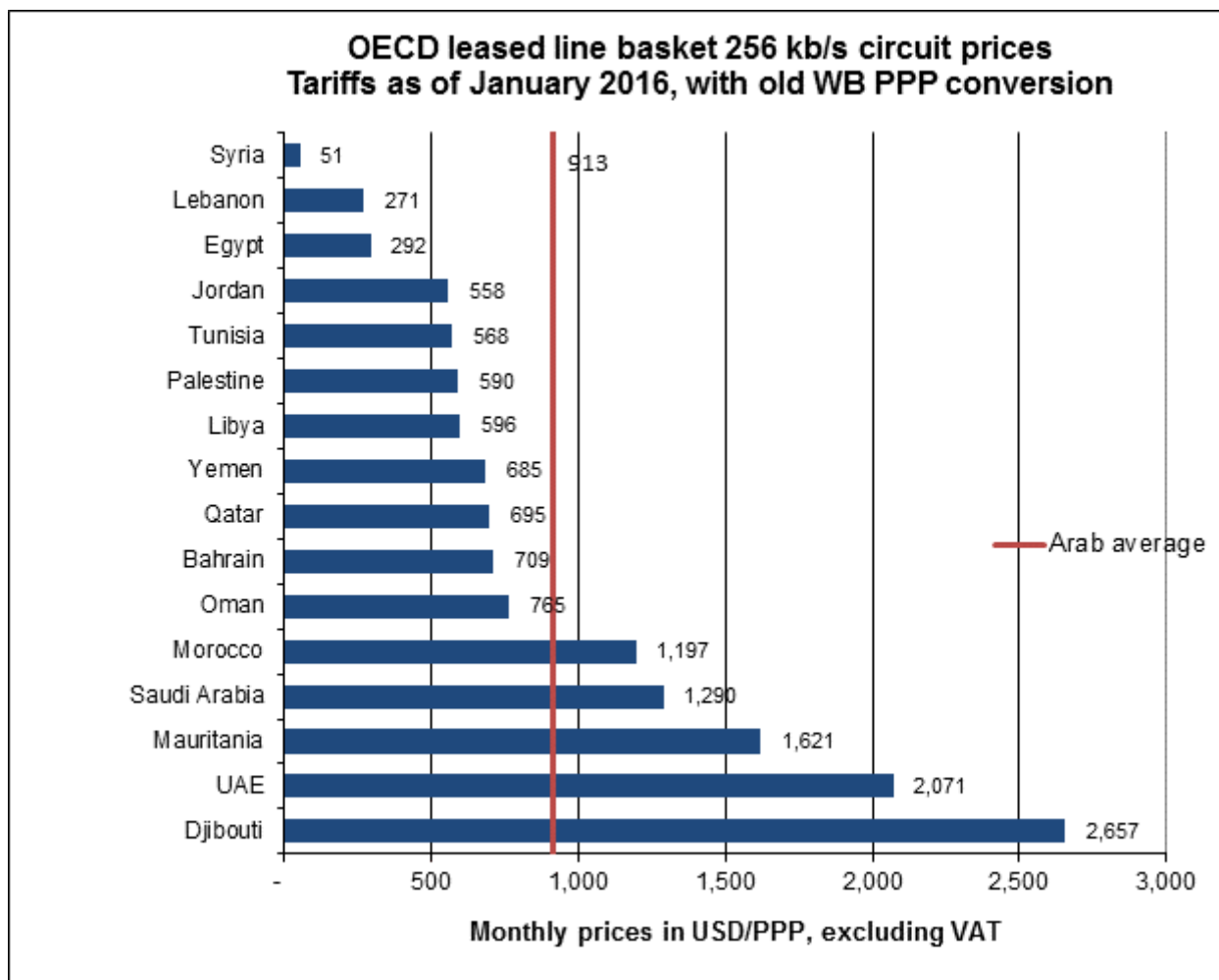
The 64 kb/s basket is no longer covered within the OECD baskets, however the standard 2010 methodology has been applied to 64 kb/s circuits for the Arab countries

Note: No equivalent OECD data exists.





# 256KB/S OECD LEASED LINE BASKET RESULTS



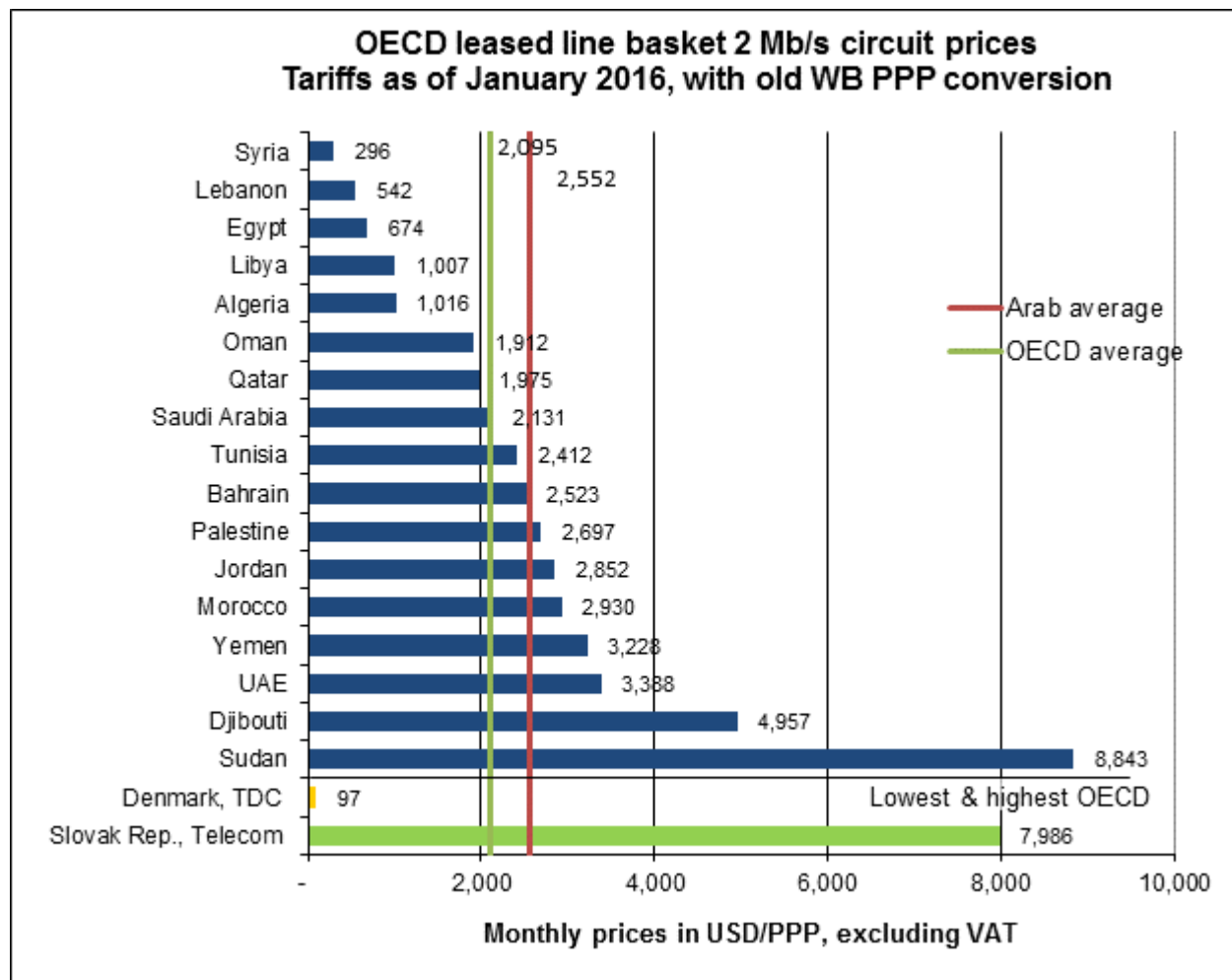
The OECD basket does not cover 256 kb/s, however the standard 2010 methodology has been applied to 256 kb/s circuits for the Arab countries

Note: No equivalent OECD data exists.





## 2 MB/S OECD LEASED LINE BASKET RESULTS

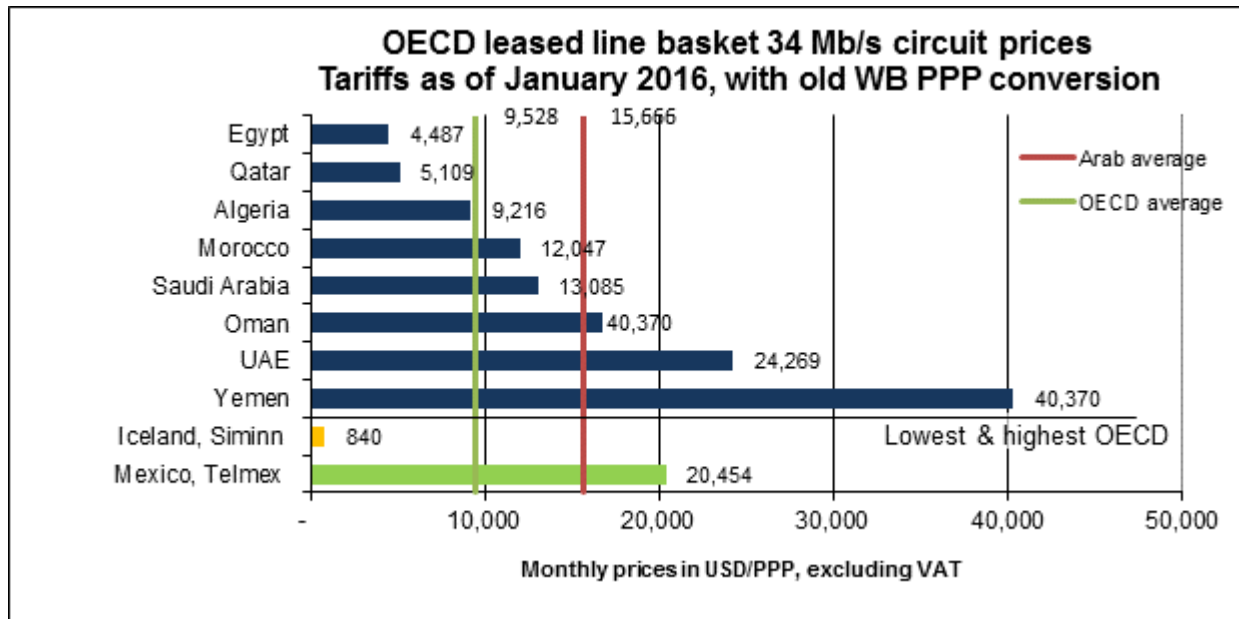


The OECD data shown represents the lowest and highest prices found in OECD countries, and the average price across all 34 OECD countries.





# 34 MB/S OECD LEASED LINE BASKET RESULTS



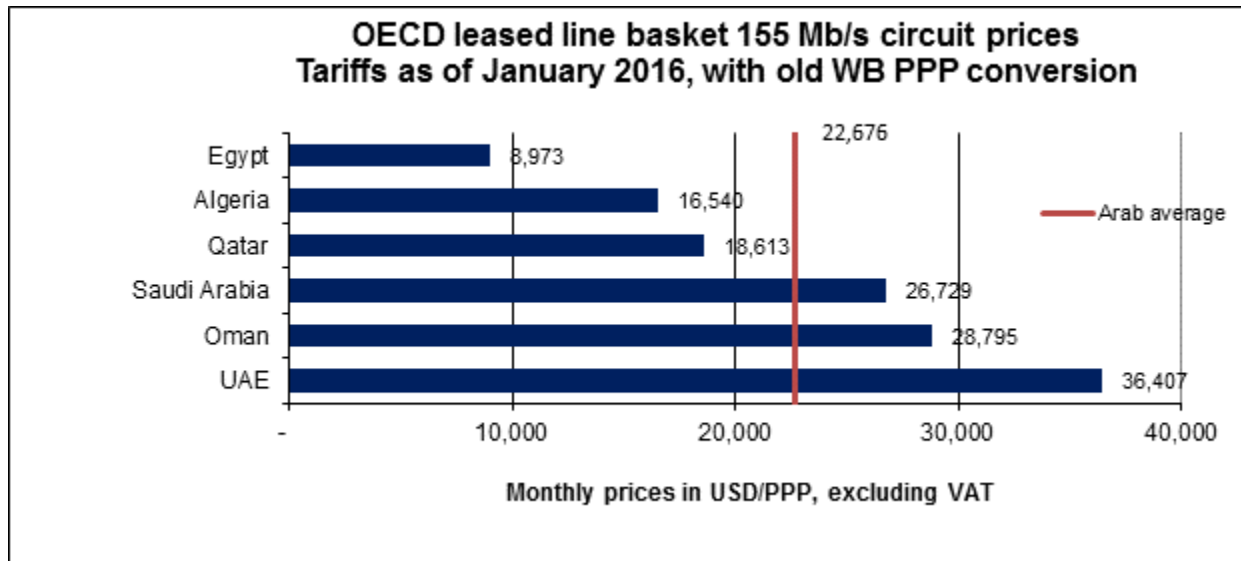
The OECD data shown represents the lowest and highest prices found in OECD countries, and the average price across all 34 OECD countries.

Only a few of the Arab countries publish these prices. The service may still be offered, though.





# 155 MB/S OECD LEASED LINE BASKET RESULTS



Only a few of the Arab countries publish these prices. The service may still be offered, though.

The OECD basket does not cover 155 Mb/s, however the standard 2010 methodology has been applied to 155 Mb/s circuits for the Arab countries

Note: No equivalent OECD data exists.





# FIXED BROADBAND BASKET RESULTS 2016

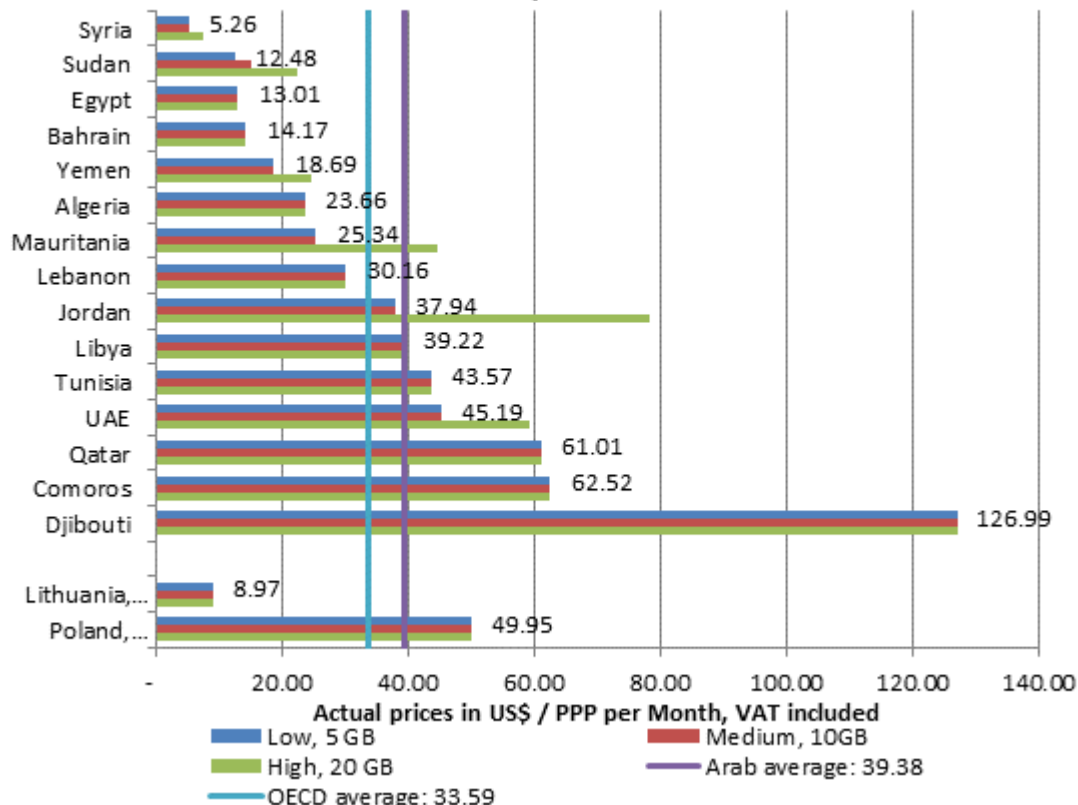
Using old World Bank PPP conversion factors (2011/2012)

# RESIDENTIAL FIXED BROADBAND VERY LOW SPEED OECD 2014 BASKET > 256 KB/S UP TO 2 MB/S



## Residential Fixed Broadband, 0.25 - 2 Mb/s

Tariffs as of January 2016, with old WB PPP conversion.



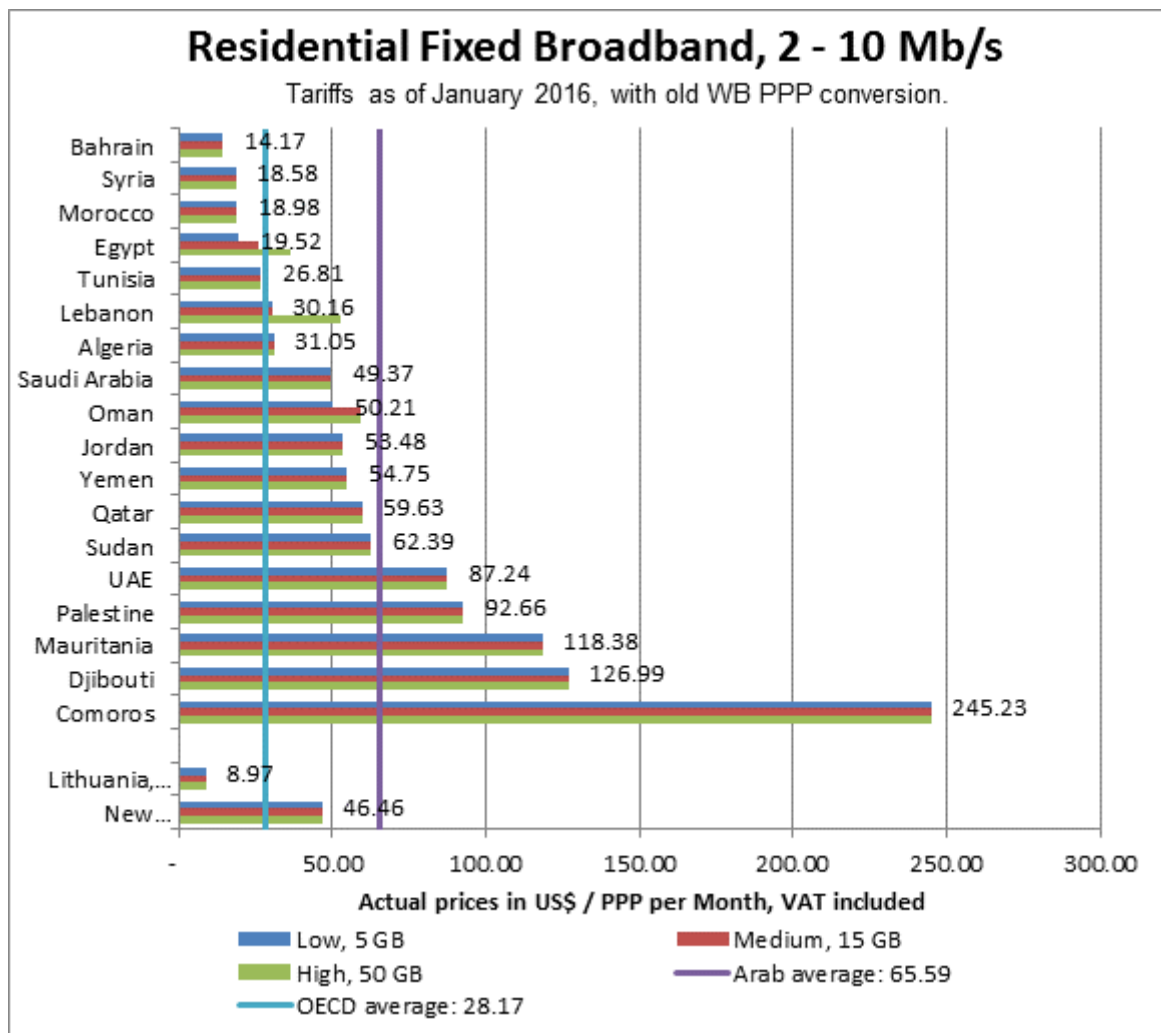
Total monthly cost  
calculated based on two  
usage baskets:

Low usage: 5 GB  
Medium usage: 10 GB  
High usage: 20 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.



# RESIDENTIAL FIXED BROADBAND LOW SPEED OECD 2014 BASKET > 2 MB/S UP TO 10 MB/S



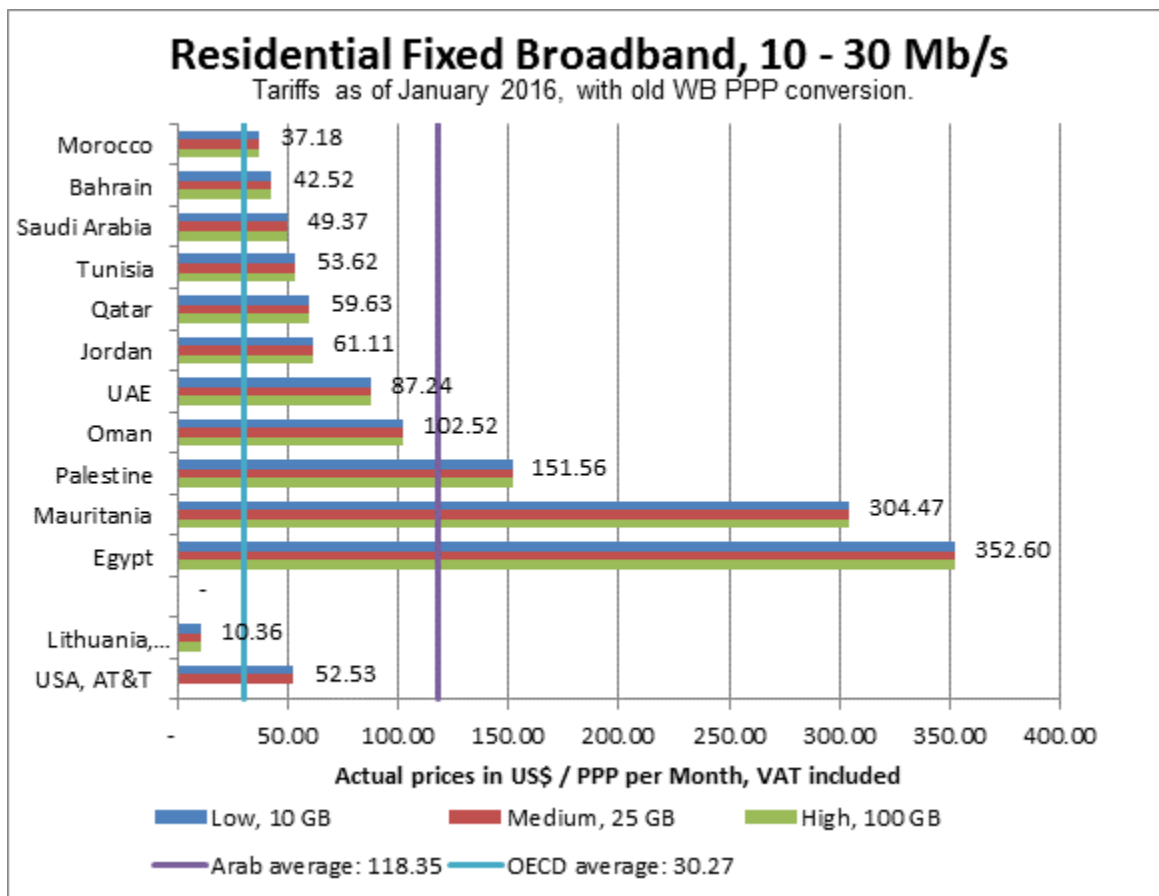
Total monthly cost  
calculated based on two  
usage baskets:

Low usage: 5 GB  
Medium usage: 15 GB  
High usage: 50 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.



# RESIDENTIAL FIXED BROADBAND MEDIUM SPEED OECD 2014 BASKET > 10 MB/S UP TO 30 MB/S



Total monthly cost  
calculated based on two  
usage baskets:

Low usage: 10 GB  
Medium usage: 25 GB  
High usage: 100 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.

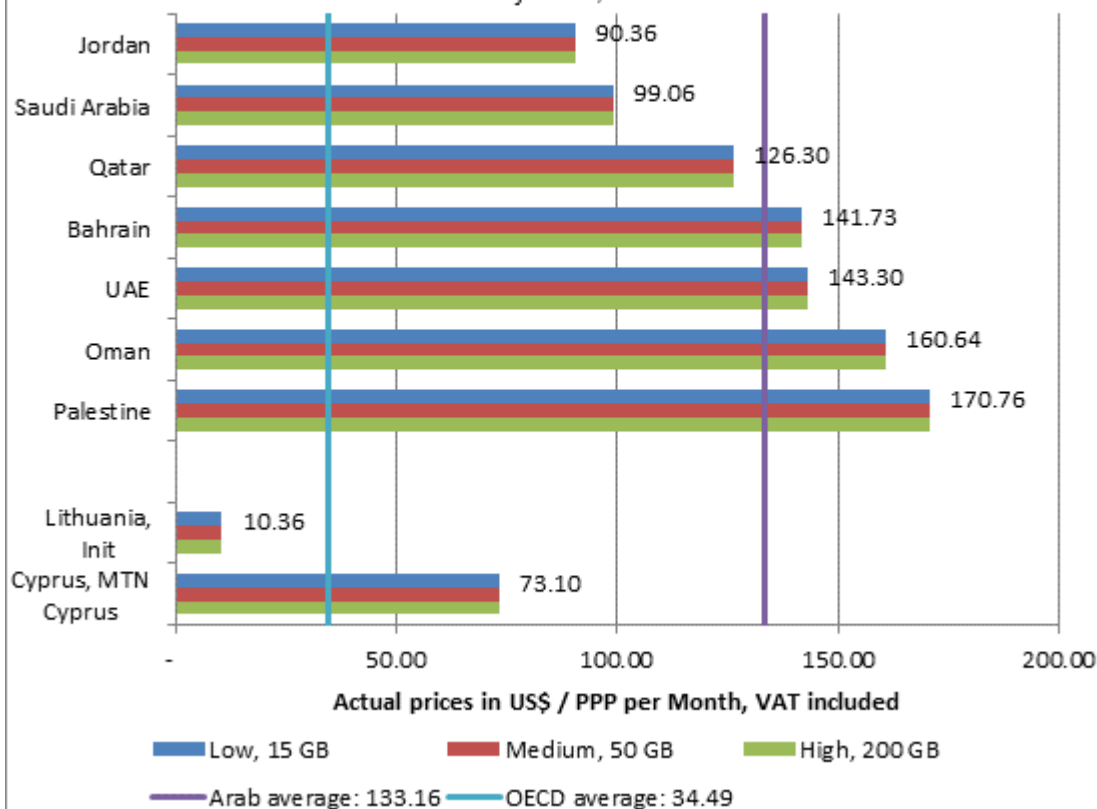


# RESIDENTIAL FIXED BROADBAND HIGH SPEED OECD 2014 BASKET > 30 MB/S UP TO 100 MB/S



## Residential Fixed Broadband, 30 - 100 Mb/s

Tariffs as of January 2016, with old WB PPP conversion.



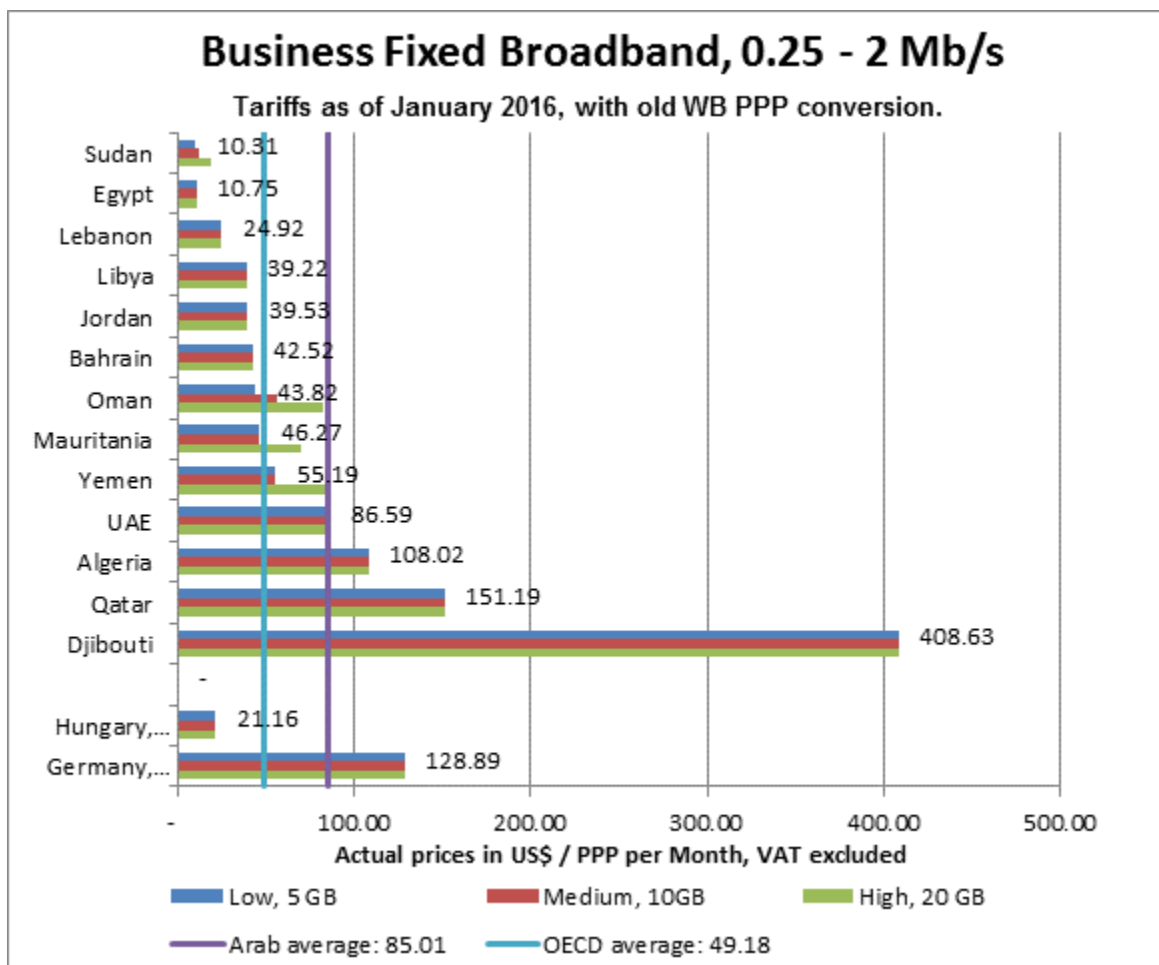
Total monthly cost  
calculated based on two  
usage baskets:

Low usage: 15 GB  
Medium usage: 50 GB  
High usage: 200 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.



# BUSINESS FIXED BROADBAND VERY LOW SPEED OECD 2014 BASKET > 256 KB/S UP TO 2 MB/S



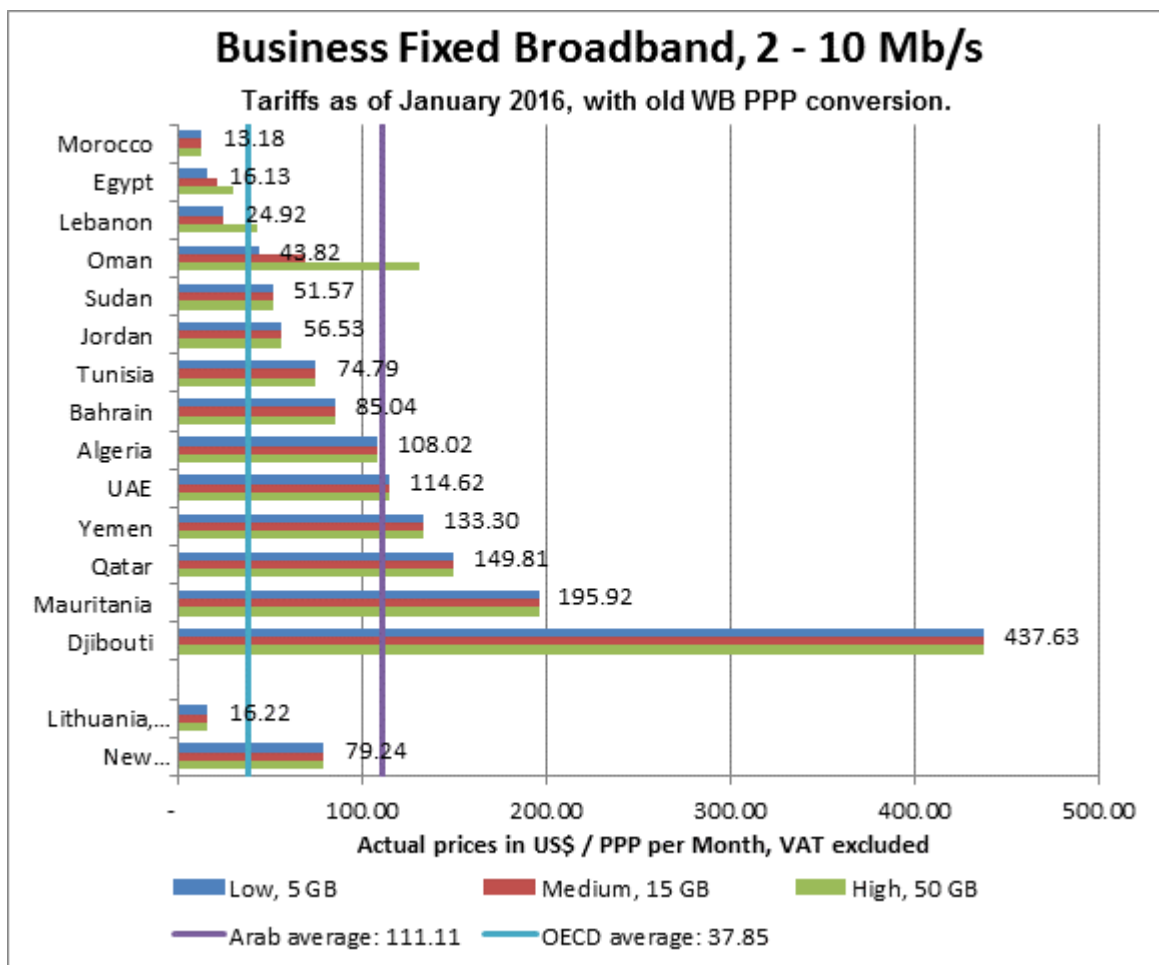
Total monthly cost  
calculated based on two  
usage baskets:

Low usage: 5 GB  
Medium usage: 10 GB  
High usage: 20 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.



# BUSINESS FIXED BROADBAND LOW SPEED OECD 2014 BASKET > 2 MB/S UP TO 10 MB/S



Total monthly cost  
calculated based on two  
usage baskets:

Low usage: 5 GB  
Medium usage: 15 GB  
High usage: 50 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.

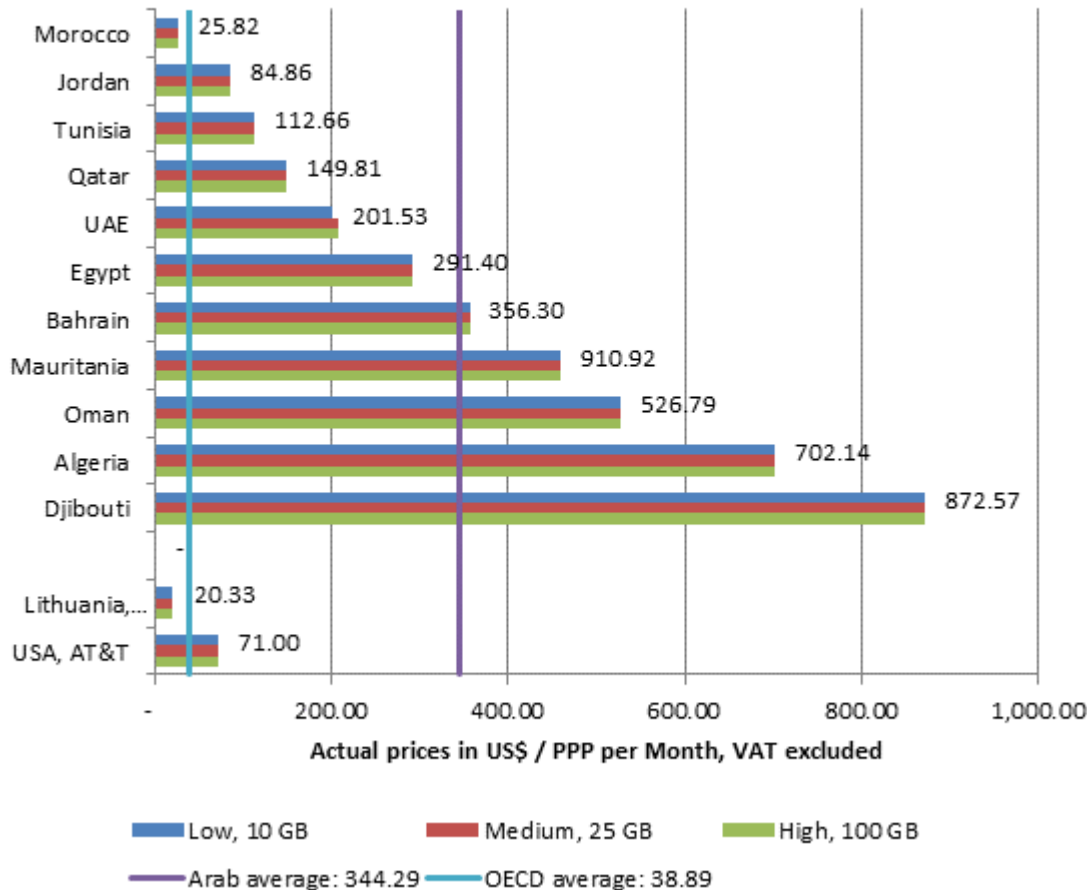


# BUSINESS FIXED BROADBAND MEDIUM SPEED OECD 2014 BASKET > 10 MB/S UP TO 30 MB/S



## Business Fixed Broadband, 10 - 30 Mb/s

Tariffs as of January 2016, with old WB PPP conversion.



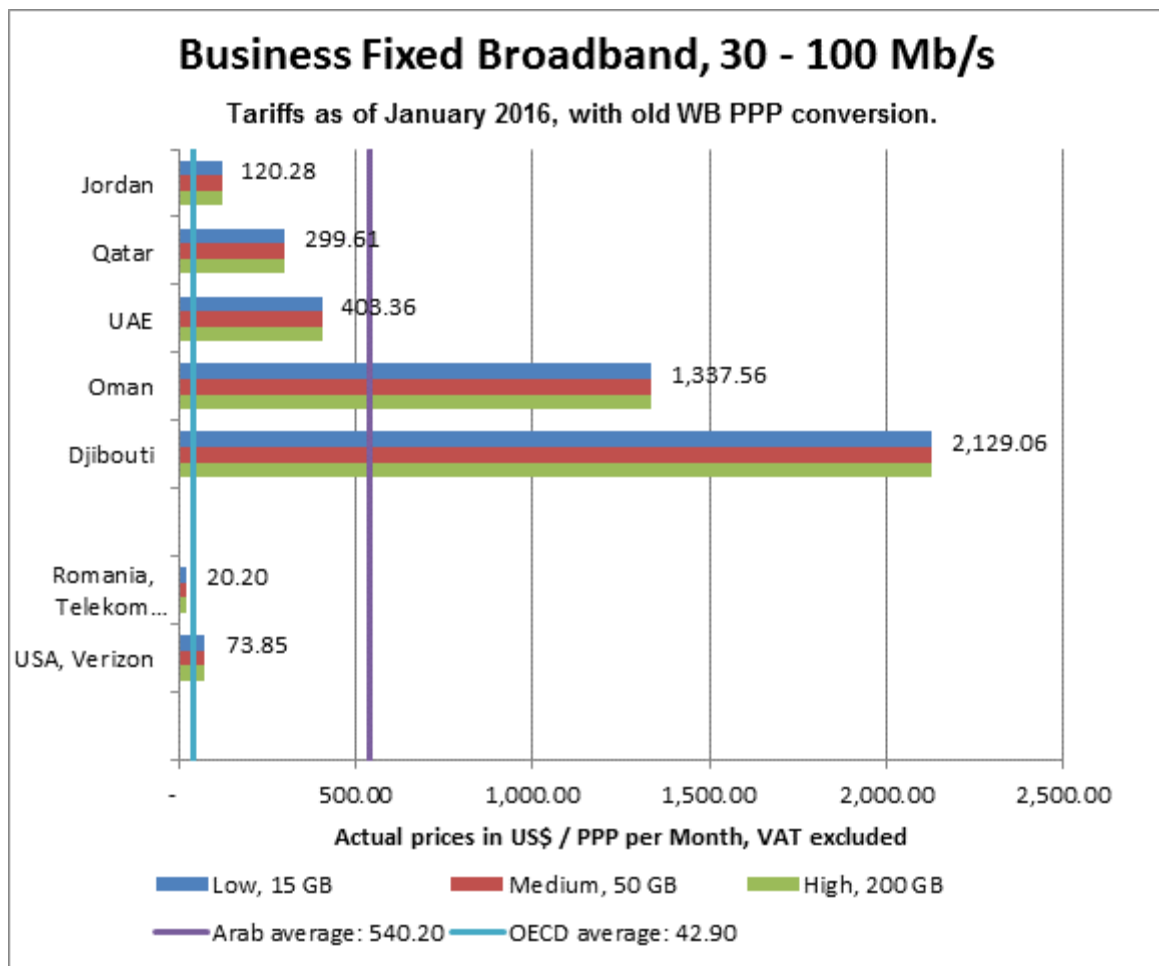
Total monthly cost  
calculated based on two  
usage baskets:

Low usage: 10 GB  
Medium usage: 25 GB  
High usage: 100 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.



# BUSINESS FIXED BROADBAND HIGH SPEED OECD 2014 BASKET > 30 MB/S UP TO 100 MB/S



Total monthly cost  
calculated based on two  
usage baskets:

Low usage: 15 GB  
Medium usage: 50 GB  
High usage: 200 GB.

Average lines are based on  
average across the overall results  
for the 3 usage levels.





# MOBILE BROADBAND BASKET RESULTS 2016

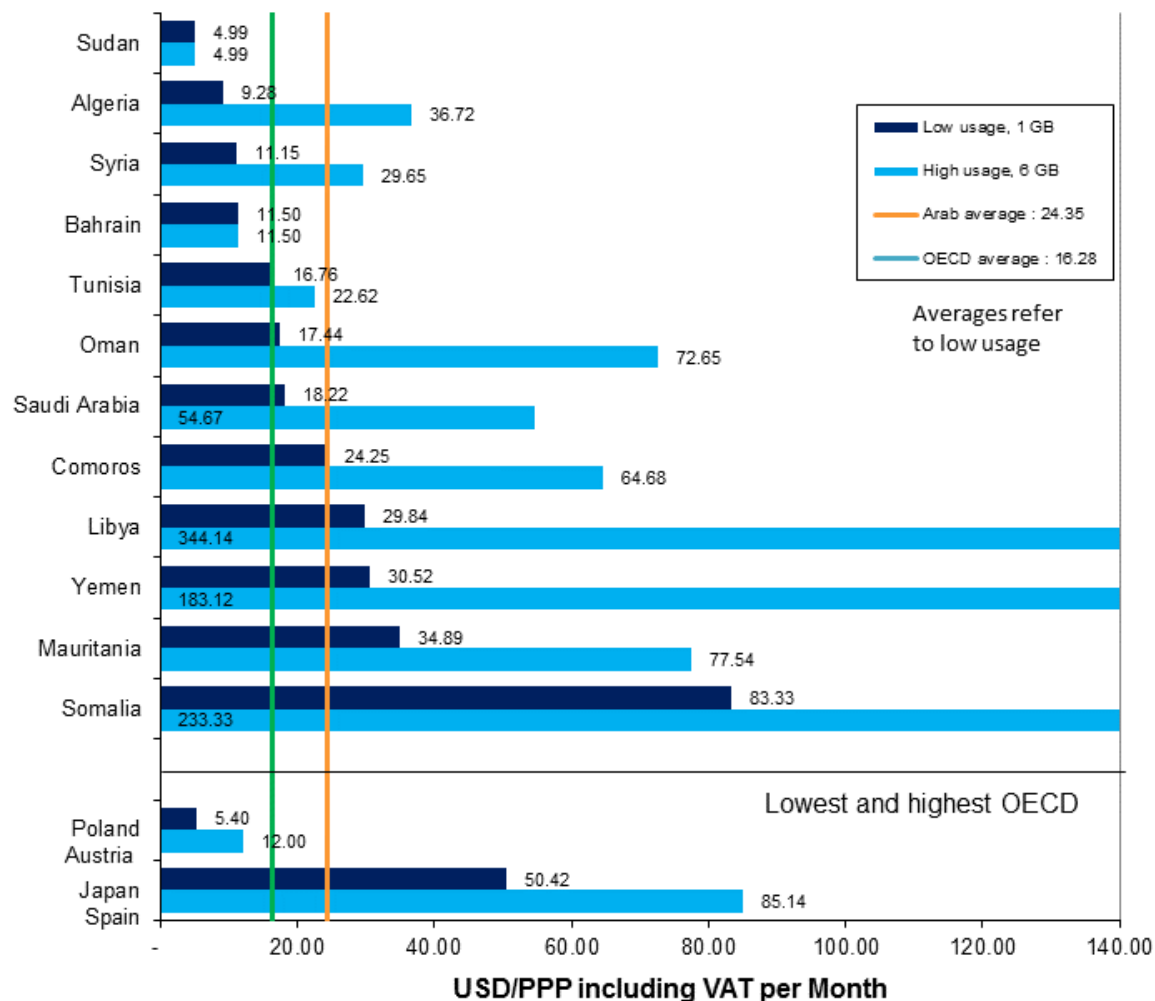
Using old World Bank PPP conversion factors (2011/2012)

# RESIDENTIAL MEDIUM SPEED MOBILE BROADBAND (2-8 MB/S)



Mobile broadband residential medium speed basket, 2-8 Mb/s

Tariffs as of January 2016, with old WB PPP conversion.



Low usage: 1 GB and  
5 hours per month  
over 15 days

High usage: 6 GB and  
30 hours over 30 days

Average lines are  
based on low usage  
results

For high usage, some  
of the results have  
been truncated, to  
make the graph easier  
to read

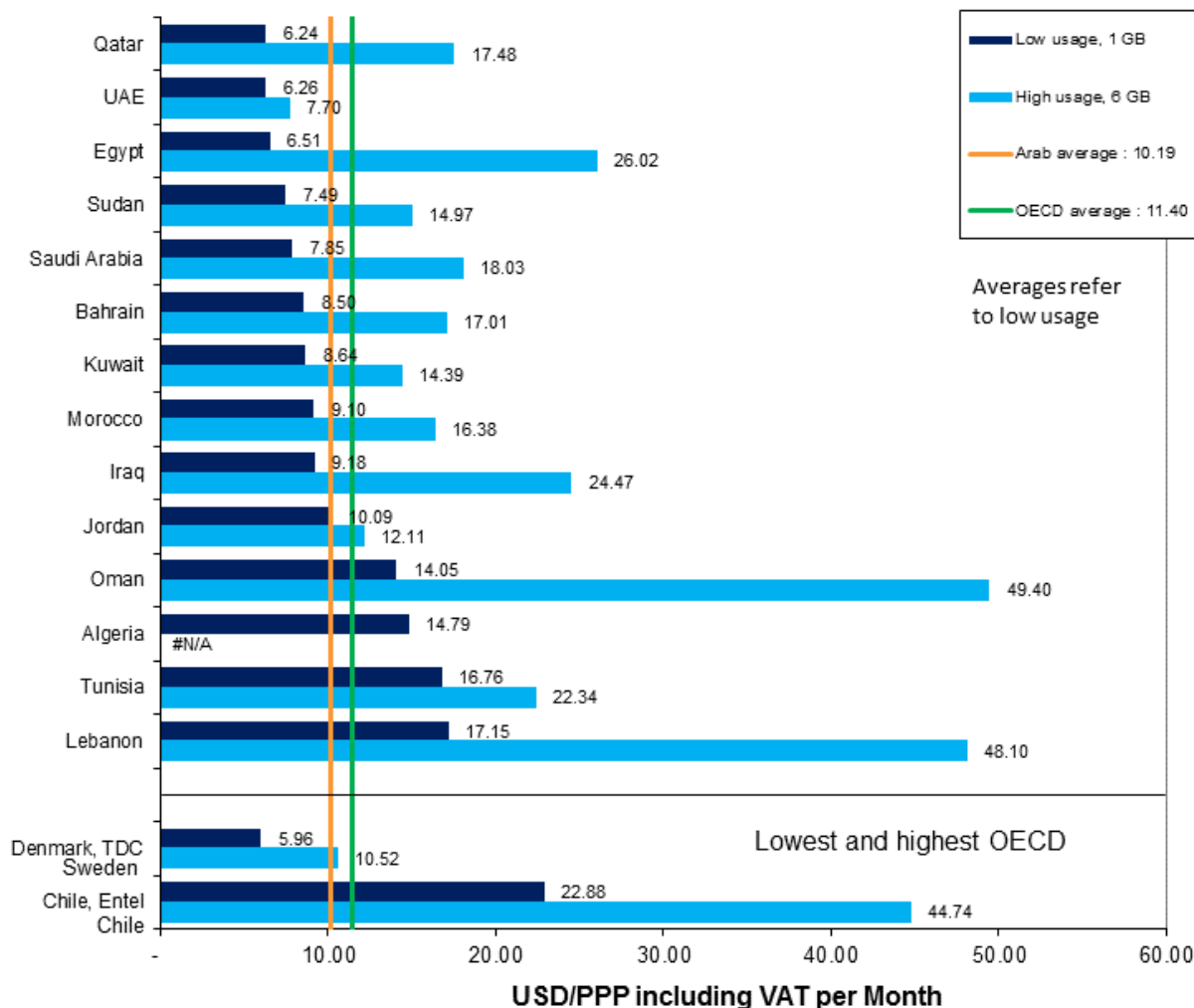


# RESIDENTIAL HIGH SPEED MOBILE BROADBAND (> 8 MB/S)



## Mobile broadband residential high speed basket, >8 Mb/s

Tariffs as of January 2016, with old WB PPP conversion.



Low usage: 1 GB and 5  
hours per month over 15  
days

High usage: 6 GB and 30  
hours over 30 days

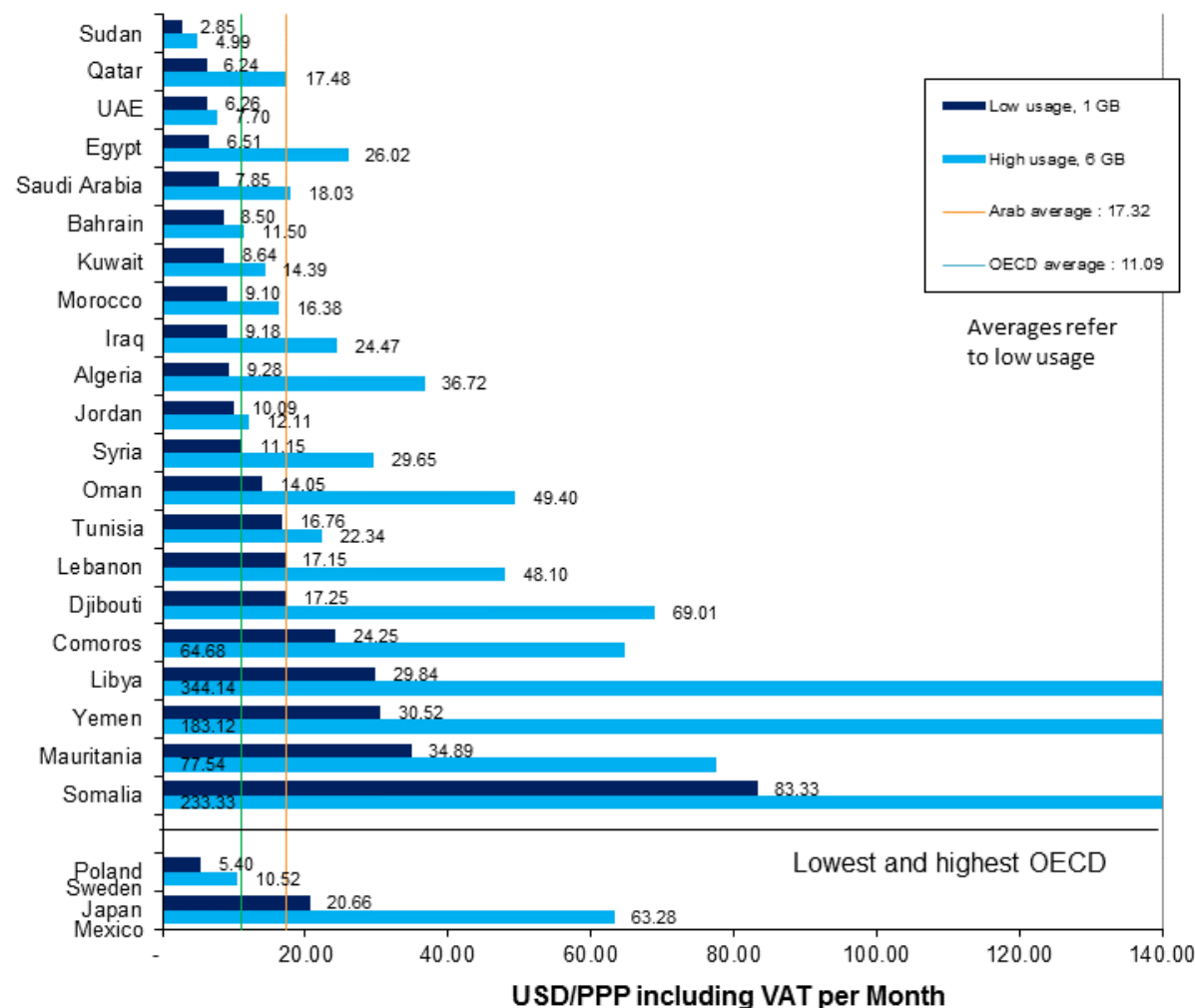
Average lines are based  
on low usage results





# RESIDENTIAL MOBILE BROADBAND ALL SPEEDS

**Mobile broadband residential all speeds**  
Tariffs as of January 2016, with old WB PPP conversion.



**Low usage: 1 GB and  
5 hours per month  
over 15 days**

**High usage: 6 GB  
and 30 hours over 30  
days**

**Average lines are  
based on low usage  
results**

**For high usage,  
some of the results  
have been truncated,  
to make the graph  
easier to read**

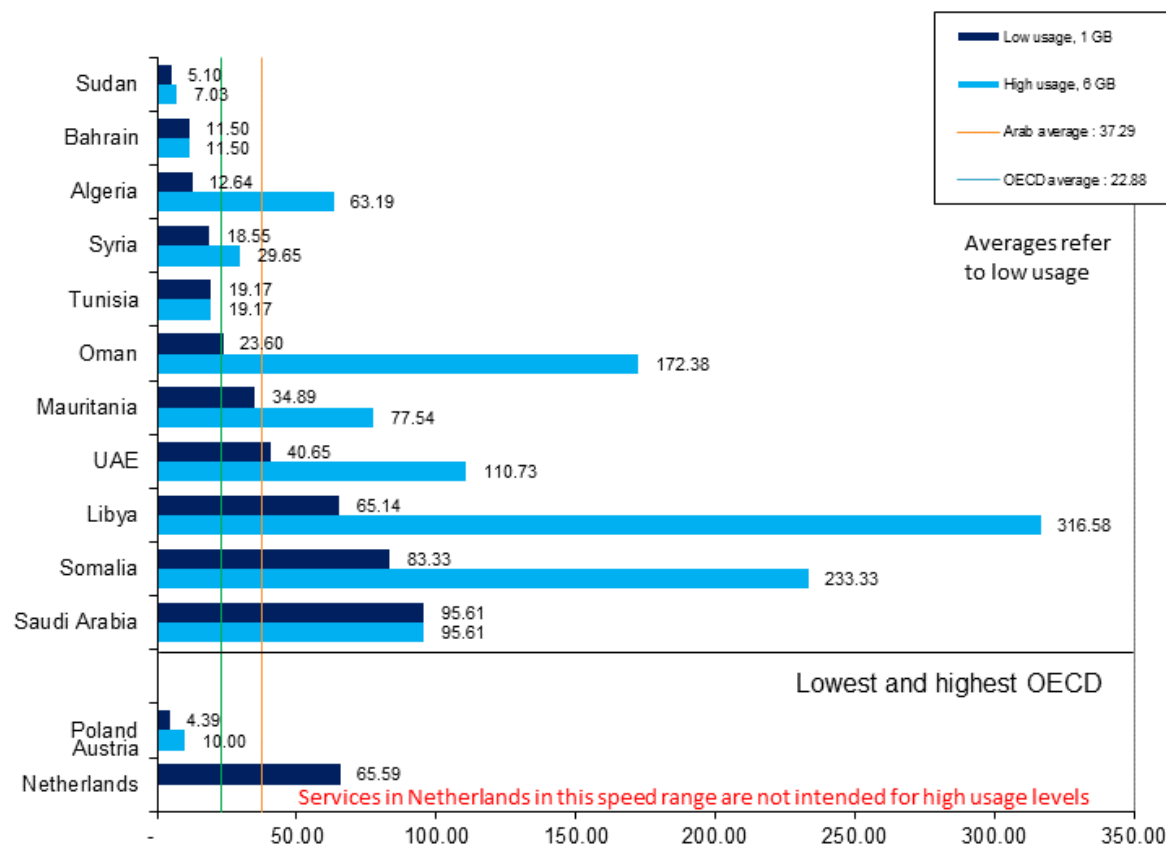


# BUSINESS MEDIUM SPEED MOBILE BROADBAND (2-8 MB/S)



## Mobile broadband business medium speed basket, 2-8 Mb/s

Tariffs as of January 2016, with old WB PPP conversion.



Low usage: 1 GB  
and 5 hours per  
month over 15 days

High usage: 6 GB  
and 30 hours over  
30 days

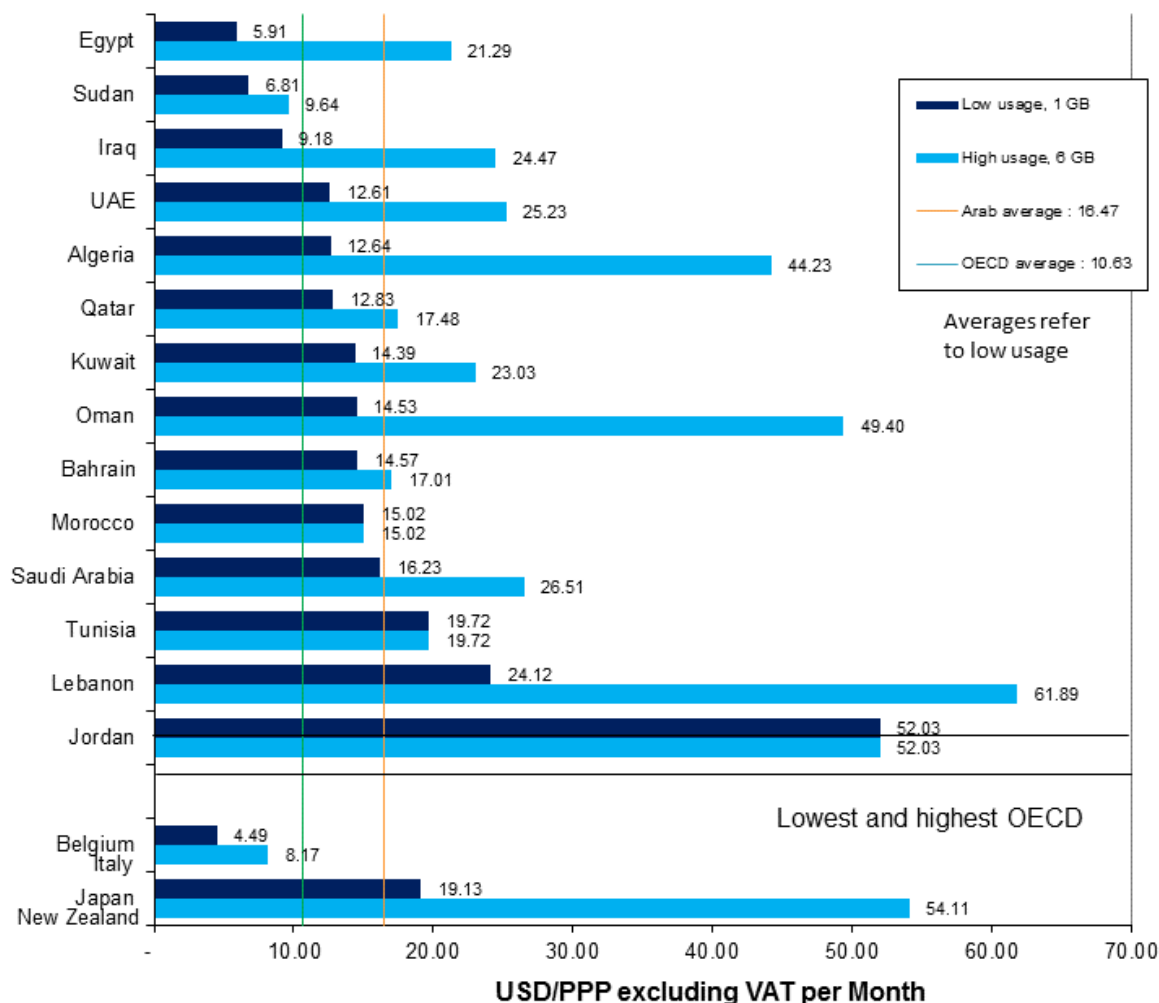
Average lines are  
based on low usage  
results



# BUSINESS HIGH SPEED MOBILE BROADBAND (> 8 MB/S)



**Mobile broadband business high speed basket, > 8Mb/s**  
Tariffs as of January 2016, with old WB PPP conversion.



**Low usage: 1 GB and 5  
hours per month over 15  
days**

**High usage: 6 GB and 30  
hours over 30 days**

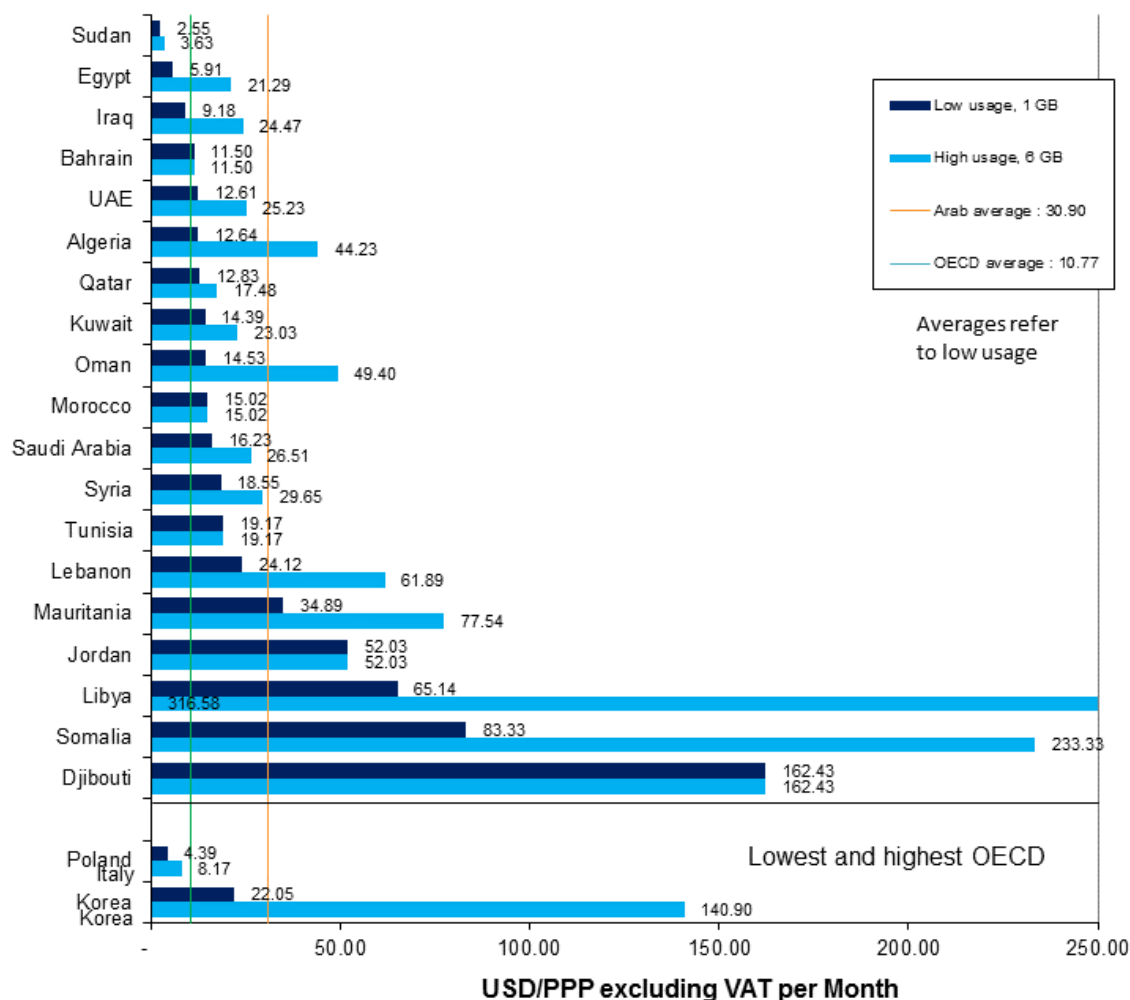
**Average lines are based on  
low usage results**



# BUSINESS MOBILE BROADBAND ALL SPEEDS



**Mobile broadband business all speeds**  
Tariffs as of January 2016, with old WB PPP conversion.



**Low usage: 1 GB and  
5 hours per month  
over 15 days**

**High usage: 6 GB and  
30 hours over 30 days**

**Average lines are  
based on low usage  
results**

**For high usage, the  
results for Libya have  
been truncated, to  
make the graph easier  
to read**





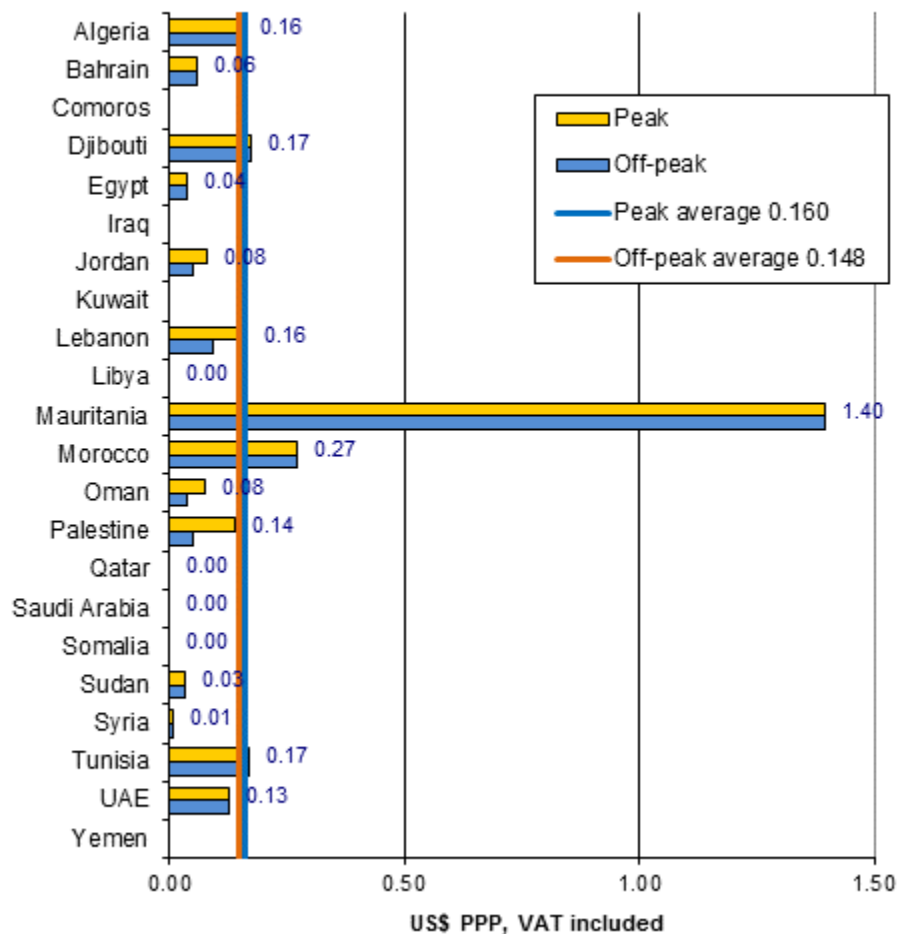
# PSTN CALL COST COMPARISON

Using old World Bank PPP conversion factors (2011/2012)



# LOCAL CALL COMPARISON

**PSTN fixed voice 3 minute local call**  
**Tariffs as of January 2016, with old WB PPP conversion**



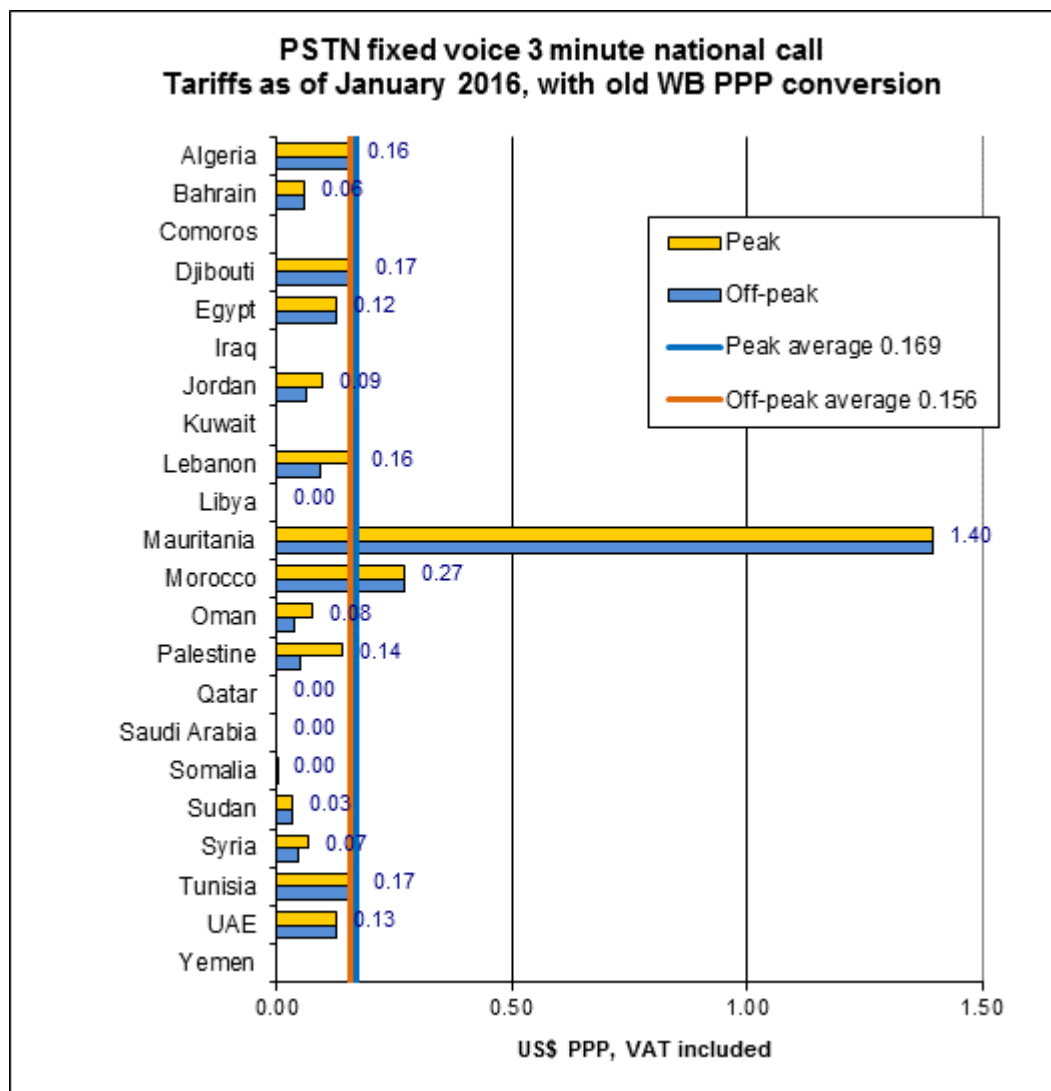
Many of the countries continue to have the same prices for peak and off peak calls.

Entries with call cost of 0.00 have free calling included in the monthly rental.





# NATIONAL CALL COMPARISON



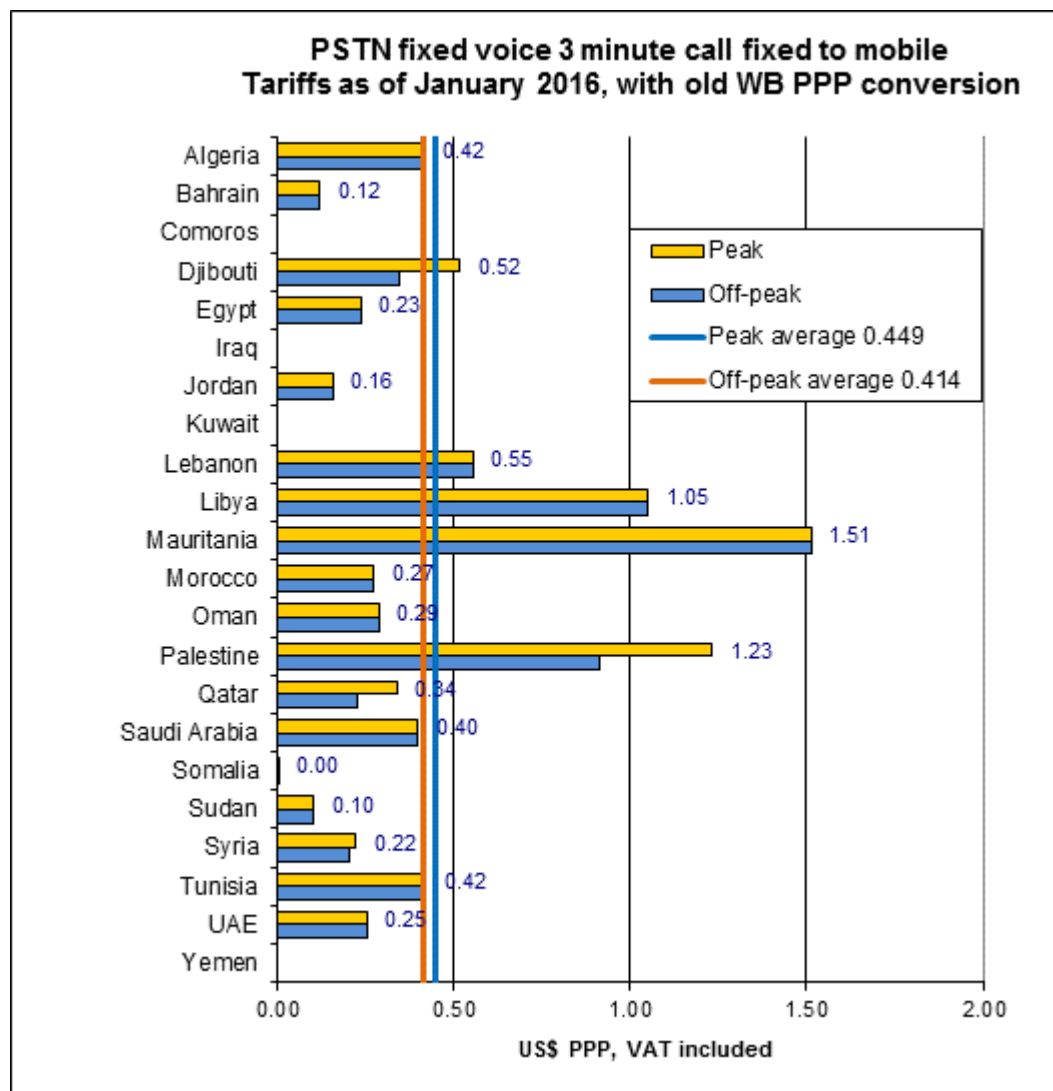
Similar to local calls, many of the countries continue to have the same prices for peak and off peak calls.

Entries with call cost of 0.00 have free calling included in the monthly rental.





# FIXED-TO-MOBILE (F2M) CALL COMPARISON

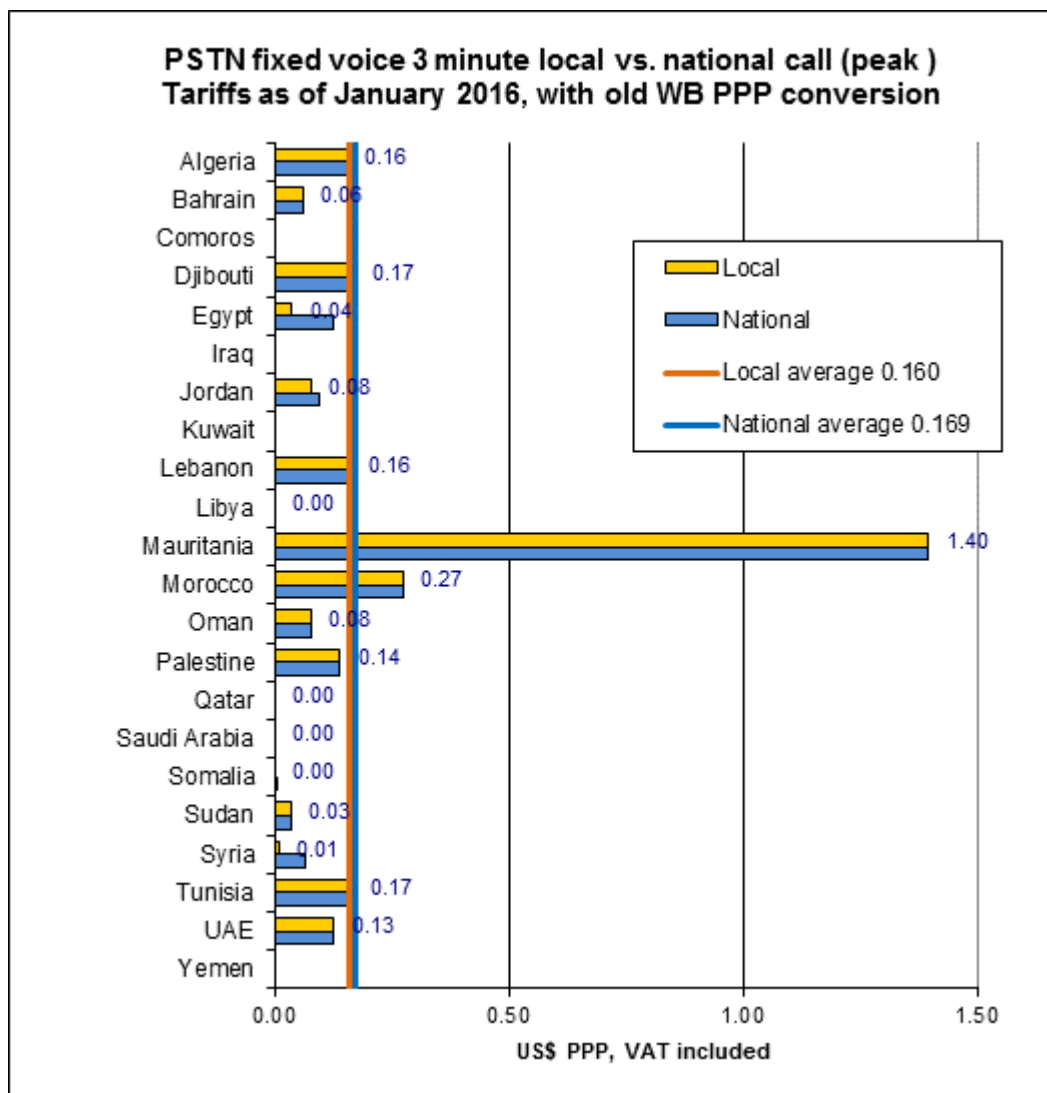


Entries with call cost of 0.00 have  
free calling included in the monthly  
rental.





# LOCAL VS. NATIONAL PSTN

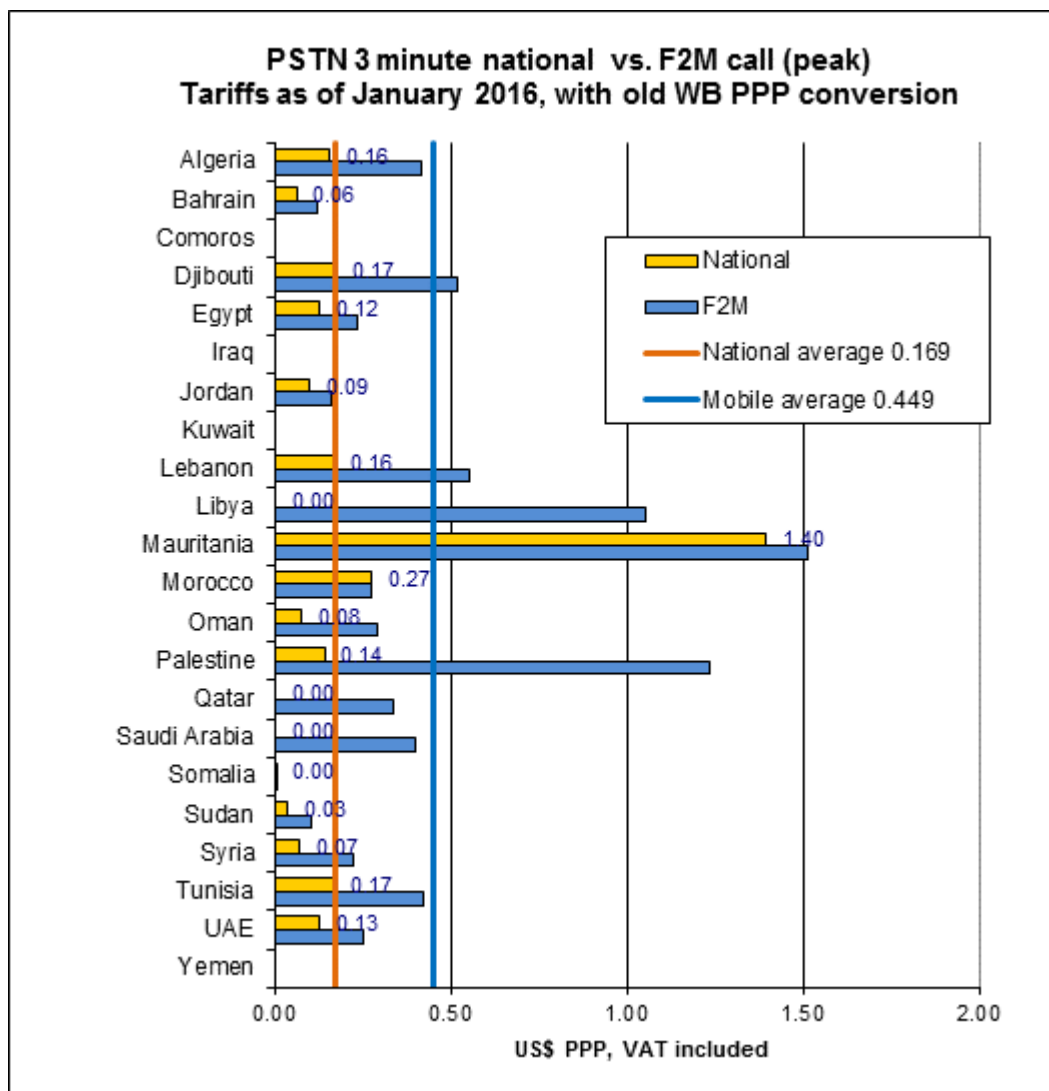


In many countries, there is no difference between local and national call costs.





# NATIONAL PSTN VS. FIXED-TO-MOBILE (F2M)

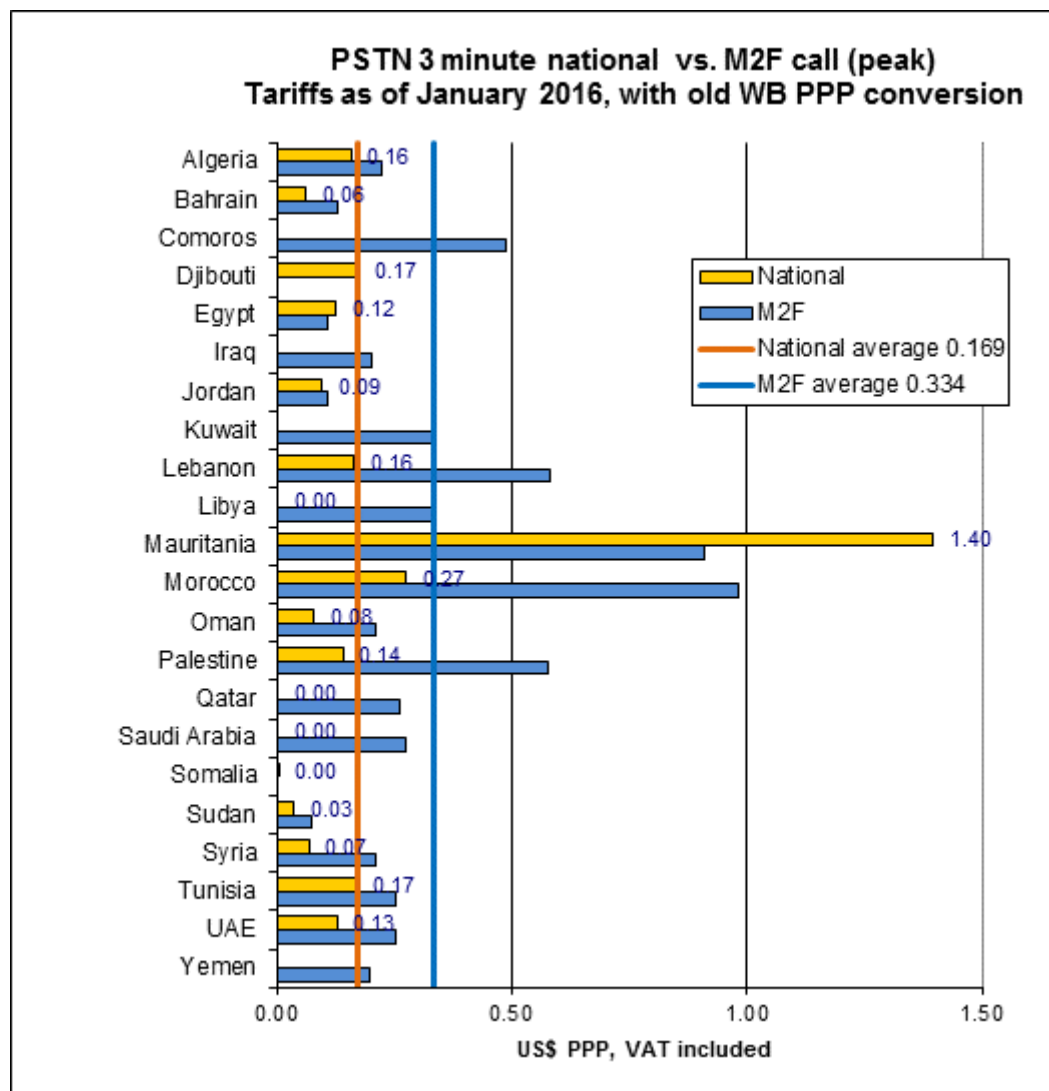


The ratio of national to fixed to mobile charges varies dramatically across the Arab countries, with fixed to mobile calls being on average 2.6 times more expensive than national calls.





# NATIONAL PSTN VS. MOBILE-TO-FIXED (M2F)

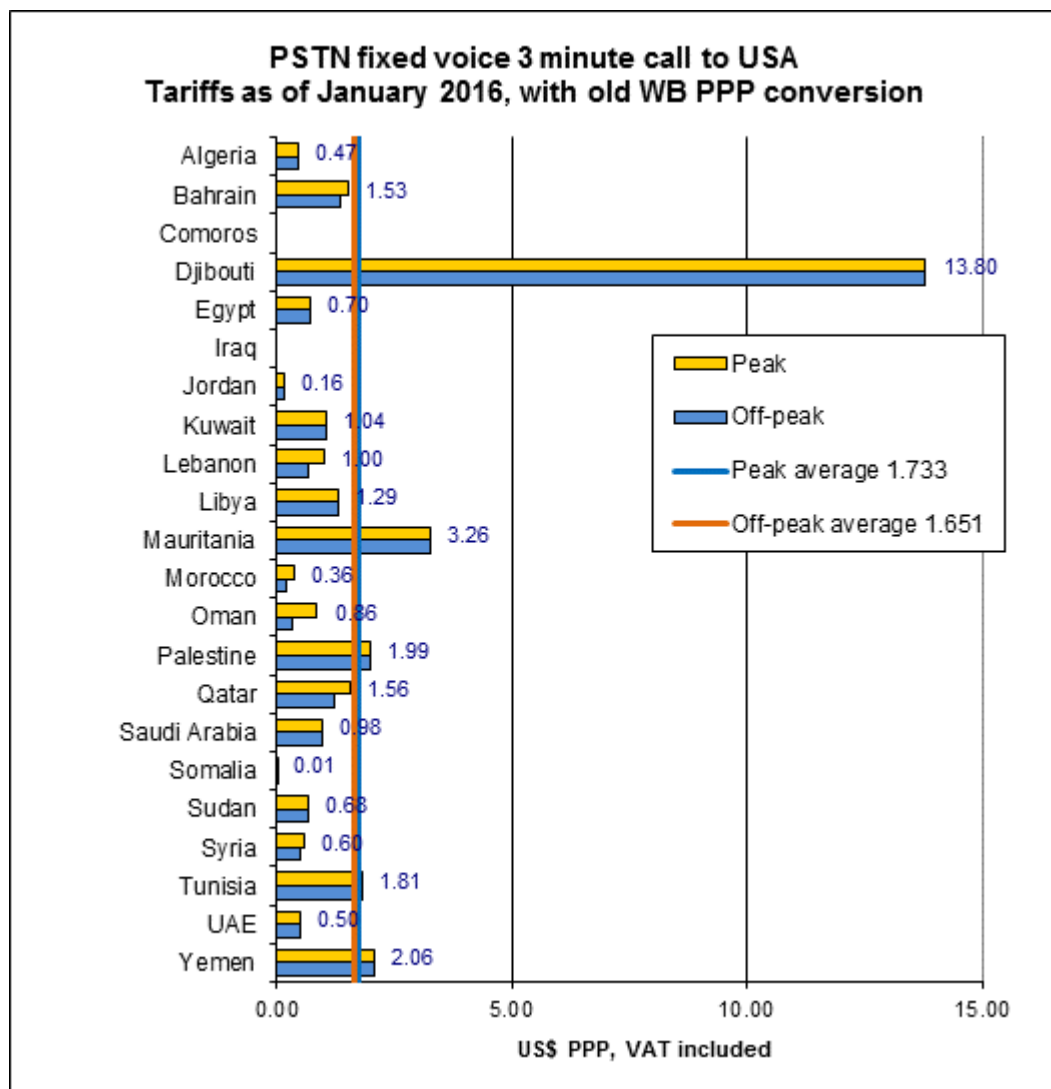


The ratio of national to mobile-to-fixed varies dramatically across the Arab countries, with fixed to mobile calls being on average more than 2 times more expensive than national calls. Mobile to fixed calls are generally cheaper than fixed-to-mobile calls.





# INTERNATIONAL CALL COMPARISON (CALL TO USA)



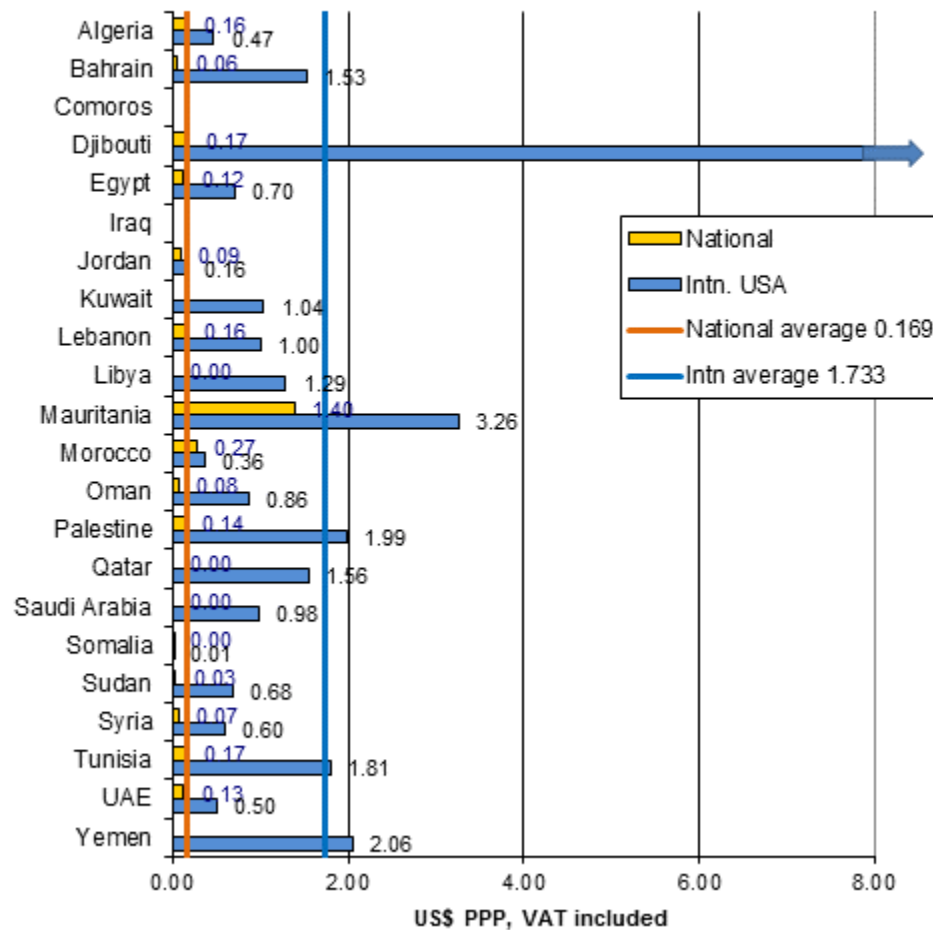
In many countries, there is no or little difference between peak and off-peak calling internationally (to the USA)





# NATIONAL VS. INTERNATIONAL TO USA

**PSTN fixed voice 3 minute National vs. International (peak)  
Tariffs as of January 2016, with old WB PPP conversion**



International calls (to the USA)  
are significantly more  
expensive than national calls in  
the Arab countries – on  
average just over 9 times more  
expensive

