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Telecommunications Regulatory Authority  
مملكة البحرين - Kingdom of Bahrain

STRATEGYANALYTICS  
TELIGEN TARIFF & BENCHMARKING

# 2012 Telecommunications Retail Price Benchmarking Report for Arab Countries

Report from the AREGNET Price Benchmarking Study

March 2013

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# Acknowledgements

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- The operators who have contributed with additional tariff information

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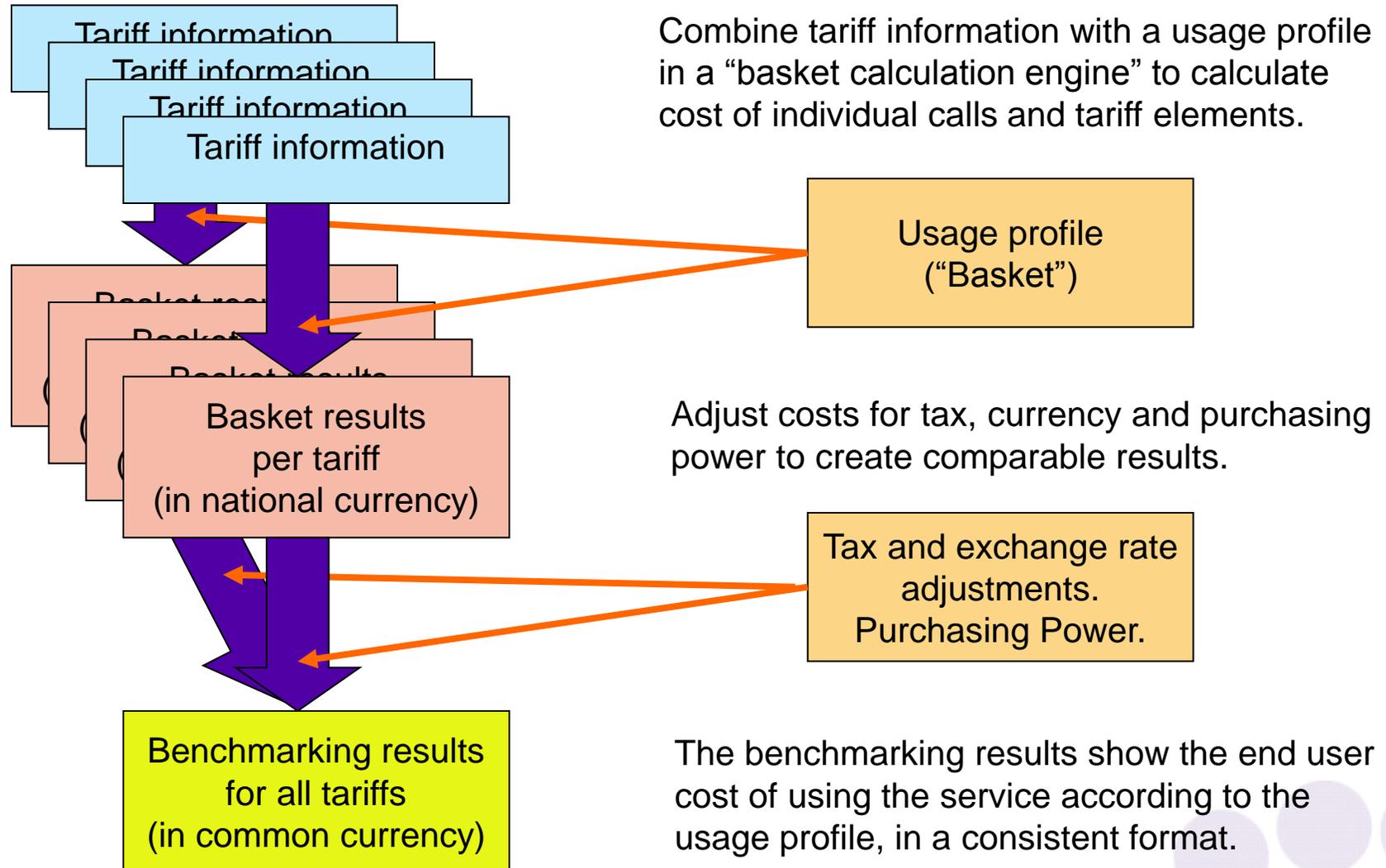
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# Background to the study and basket context

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- The benchmarking study was originally initiated by TRA Bahrain in 2008 and updated in 2009, 2010 and 2011. This update for 2012 was commissioned by TRA Bahrain on behalf of AREGNET.
  - 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 2008 to 2012.
  - 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 (Teligen's T-Wireless basket)
    - Call cost for specific types of calls
  - The methodologies for fixed and mobile telephony, leased lines and fixed broadband 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 these are used for the analysis of the mobile broadband services.
  - The data was collected by Teligen from public sources on the Internet, and was subsequently passed to national regulators for comments and checking.
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# Price benchmarking with “Baskets”



# **PSTN 2012 basket results (using OECD 2010 baskets)**

## Fixed voice (PSTN) data issues

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- Tariff data was researched from operator websites in May 2012.
  - Additional clarifications have been sought from operators and regulators.
  - Regulators have been offered the opportunity to comment on the tariff information used in this report.
- Due to lack of published data, and lack of feedback, no data is available for:
  - Comoros
  - Iraq
  - Kuwait
- Some data is missing for:
  - Syria (no prices for calls to mobile)
  - Yemen (no prices for national calls and fixed line)
  - No business tariffs are available for PSTN in Sudan
- The analysis covers up to 114 tariffs from the incumbent operators in 19 countries



# Fixed voice (PSTN) baskets, 2010 version

- 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

Calls per month	Total calls	Call distribution			
		Fixed to fixed Local	Fixed to fixed National	Fixed to mobile	International
20 calls basket	20	61%	20%	17%	2%
60 calls basket	60	60%	15%	21%	4%
140 calls basket	140	58%	15%	23%	4%
420 calls 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

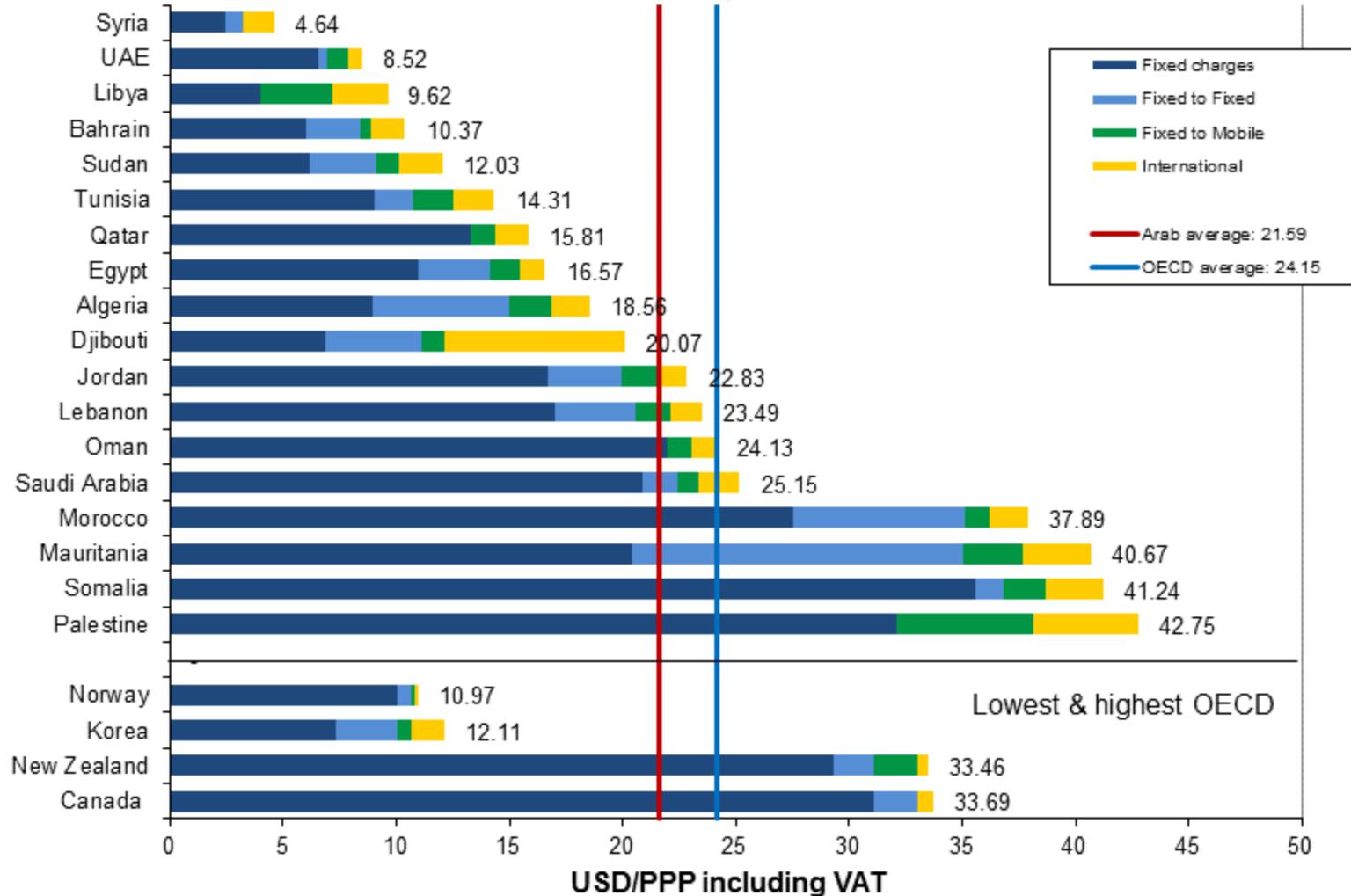


# 2010 OECD PSTN basket

## 20 calls/month, Residential

### 20 calls residential basket

Tariffs as of May 2012



No national tariffs for Yemen are included.  
No F2M prices for Syria are included.

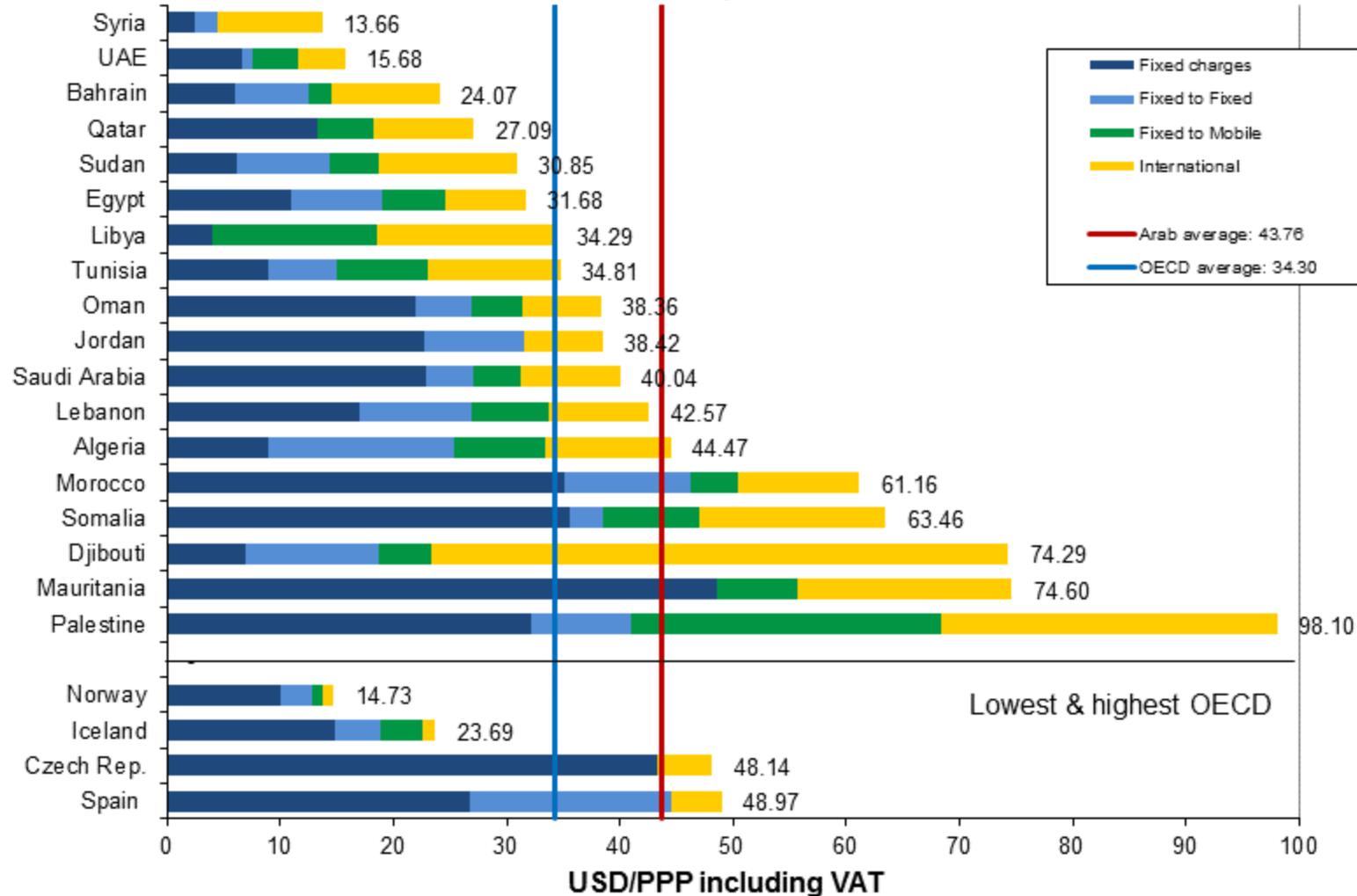


# 2010 OECD PSTN basket

## 60 calls/month, Residential

### 60 calls residential basket

Tariffs as of May 2012



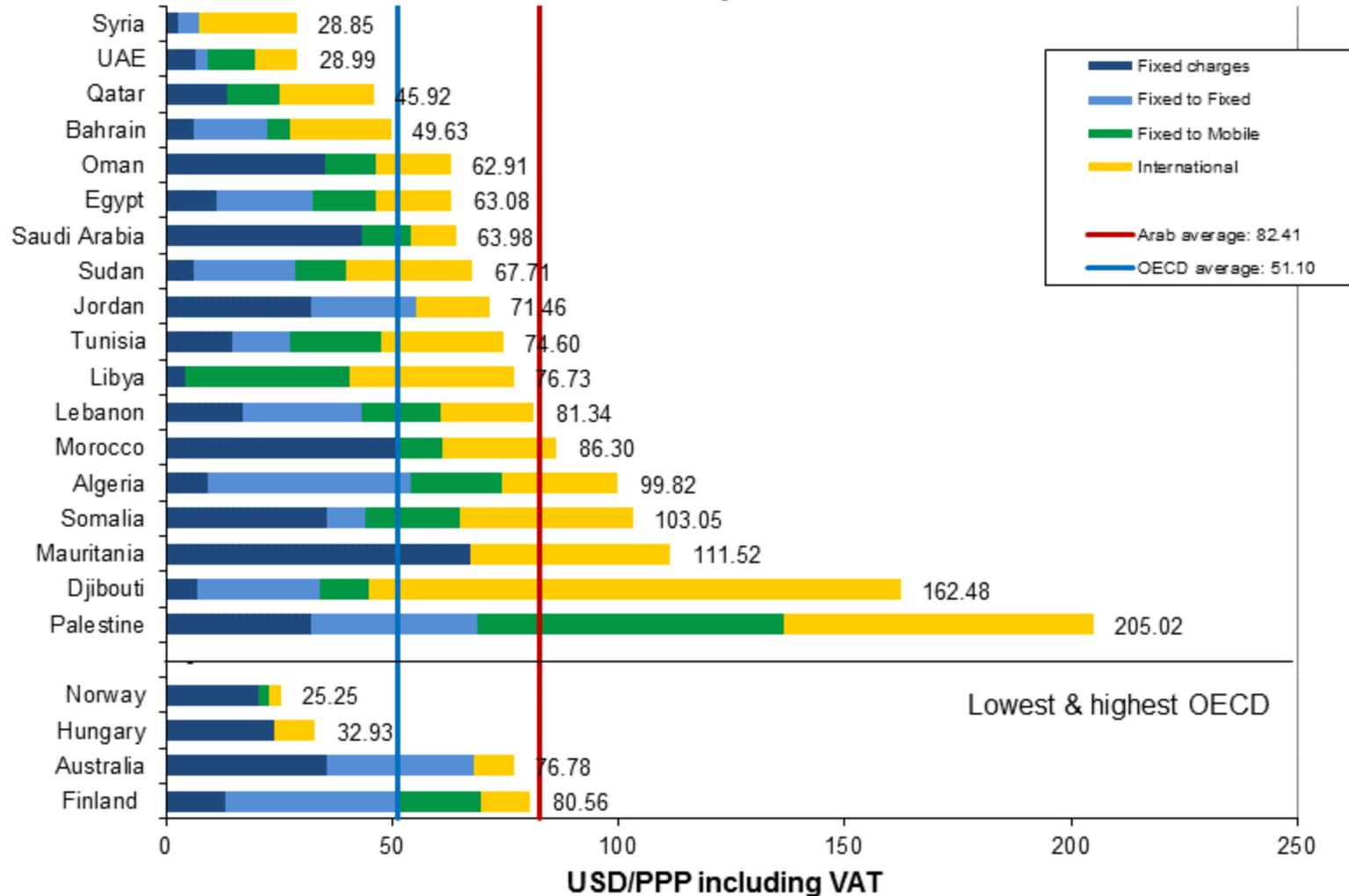
No national tariffs for Yemen are included.  
No F2M prices for Syria are included.



# 2010 OECD PSTN basket

## 140 calls/month, Residential

**140 calls residential basket**  
Tariffs as of May 2012



No national tariffs for Yemen are included.  
No F2M prices for Syria are included.

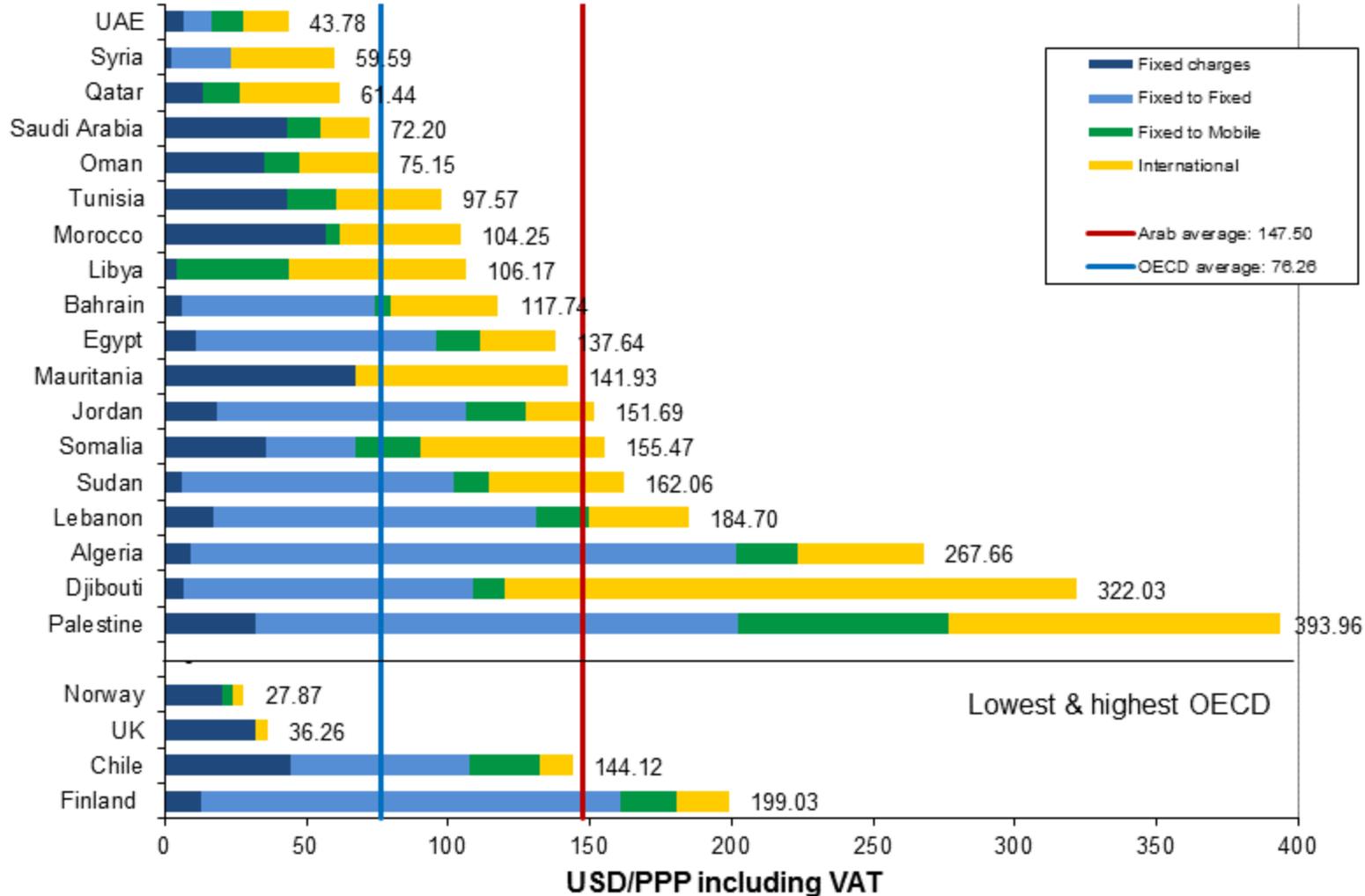


# 2010 OECD PSTN basket

## 420 calls/month, Residential

### 420 calls residential basket

Tariffs as of May 2012

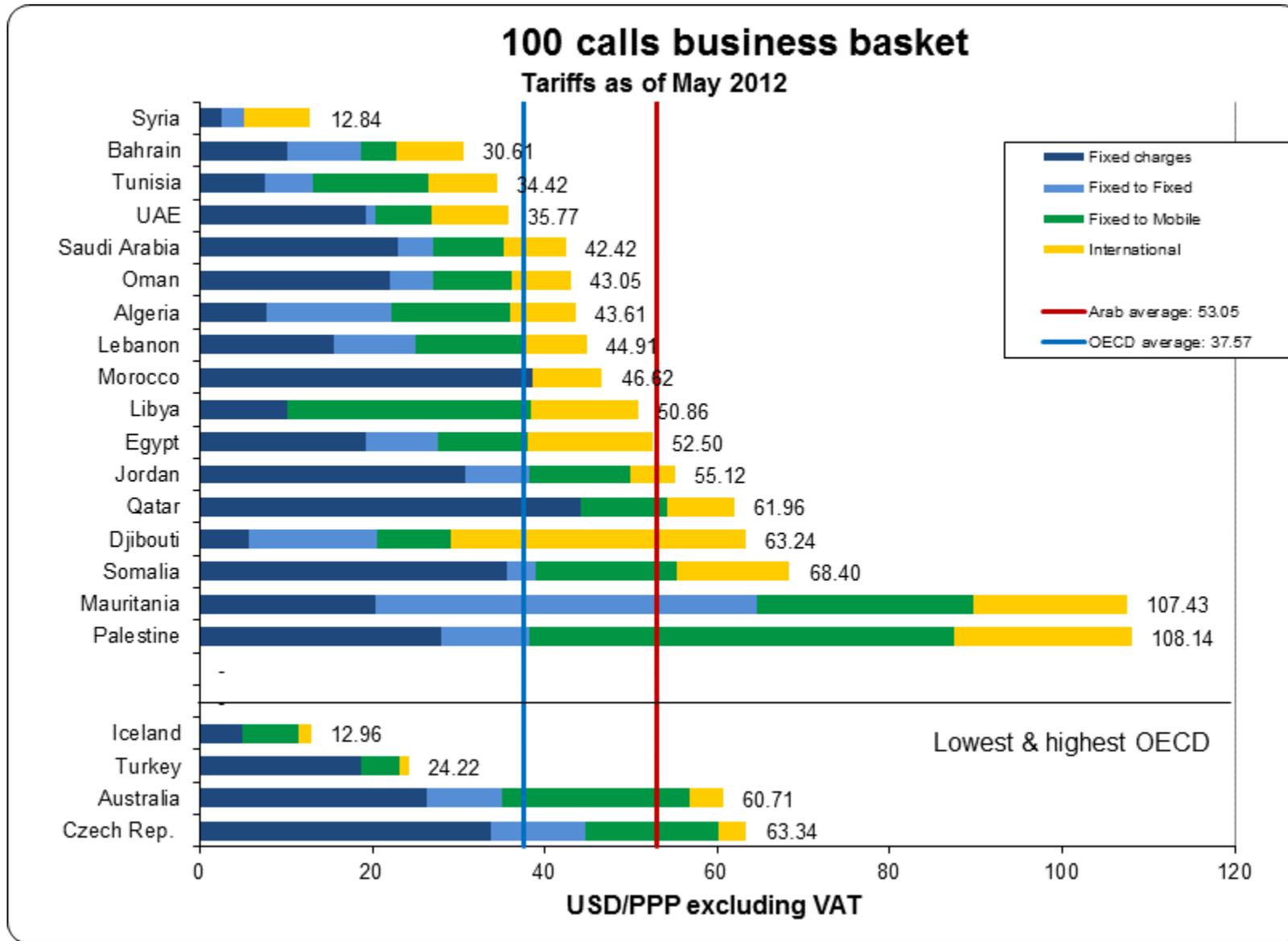


No national tariffs for Yemen are included.  
No F2M prices for Syria are included.



# 2010 OECD PSTN basket

## 100 calls/month, Business

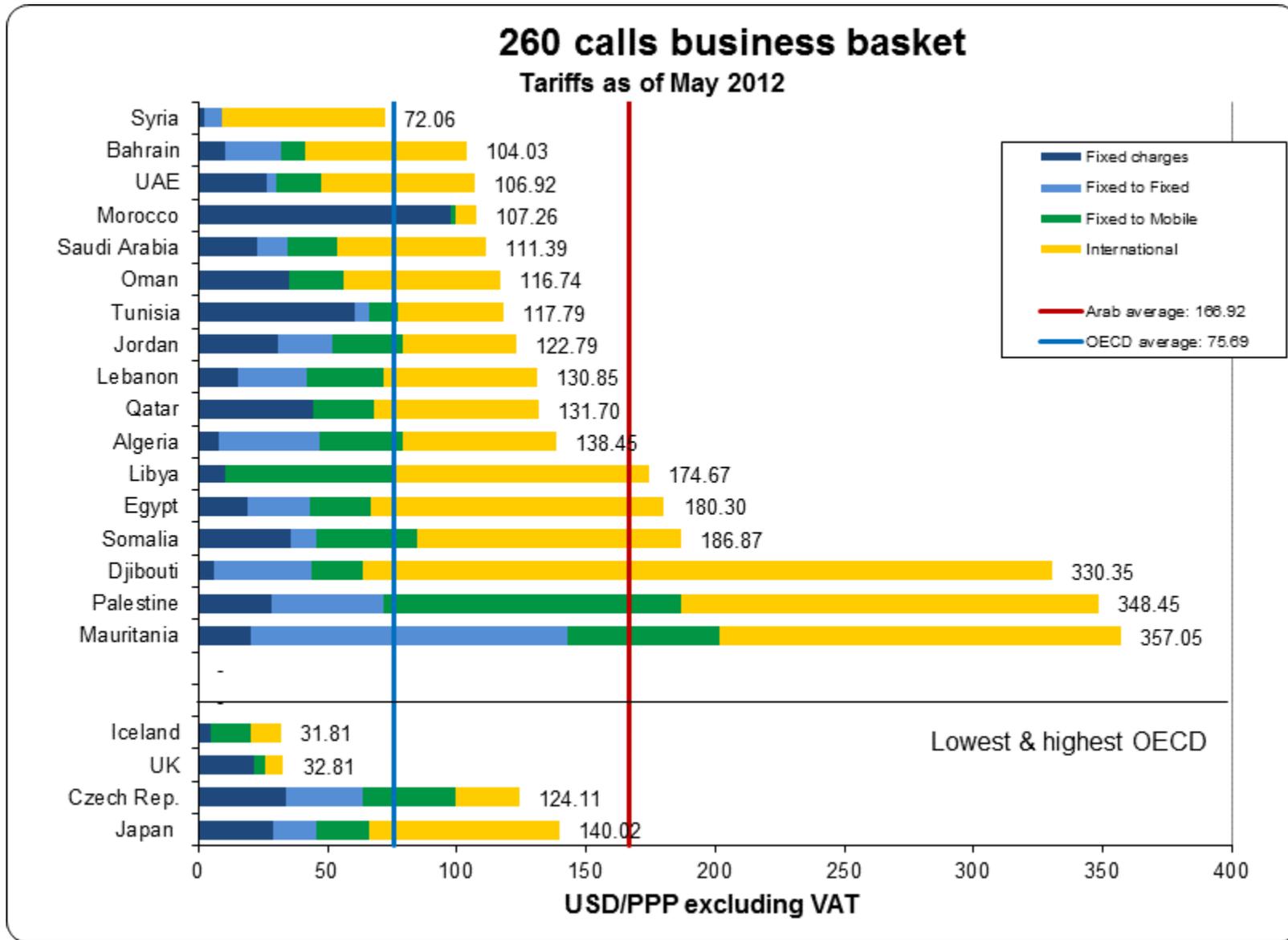


No national tariffs for Yemen are included.  
No F2M prices for Syria are included  
There are no business tariffs for Sudan.



# 2010 OECD PSTN basket

## 260 calls/month, Business



No national tariffs for Yemen are included.  
No F2M prices for Syria are included  
There are no business tariffs for Sudan.



# Observations from PSTN basket results

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- The cheapest countries throughout are : (\*)
  - UAE, Bahrain, and Qatar
    - The exact order of these may vary with usage level, and note, the results for Syria are only based on partial data
    - This list is based on average ranking across all six baskets, residential and business
    - Sudan, which has no prices for business services, ranks fairly cheaply if we consider residential only services, while Saudi Arabia becomes more expensive, especially for the lower use baskets
- Most of these countries have total costs below or just above the OECD average across all the residential baskets
- Costs for the business baskets in the Arab countries tend to be above the OECD average, particularly for the highest usage business basket
- Generally the Arab countries in North Africa are more expensive than the Arab countries in the Middle East.
- As in previous years, the price range for the Arab countries (cheapest to most expensive) is wider than for the OECD countries
  - The cheapest OECD country is below the cheapest Arab country, on all baskets except the two lowest usage residential; for the 20 calls residential basket, 3 Arab countries, UAE, Libya and Bahrain are cheaper than the cheapest OECD country (Norway)
  - The most expensive Arab country is more expensive than the most expensive OECD country, and significantly so for higher usage baskets
- Many 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 PSTN services is higher in the Arab countries than in the OECD countries.
- There remains a clear lack of rebalancing in most Arab countries, where the usage revenue covers a significant portion of the fixed line cost for the operators.
- International calls are significantly more expensive than in OECD countries



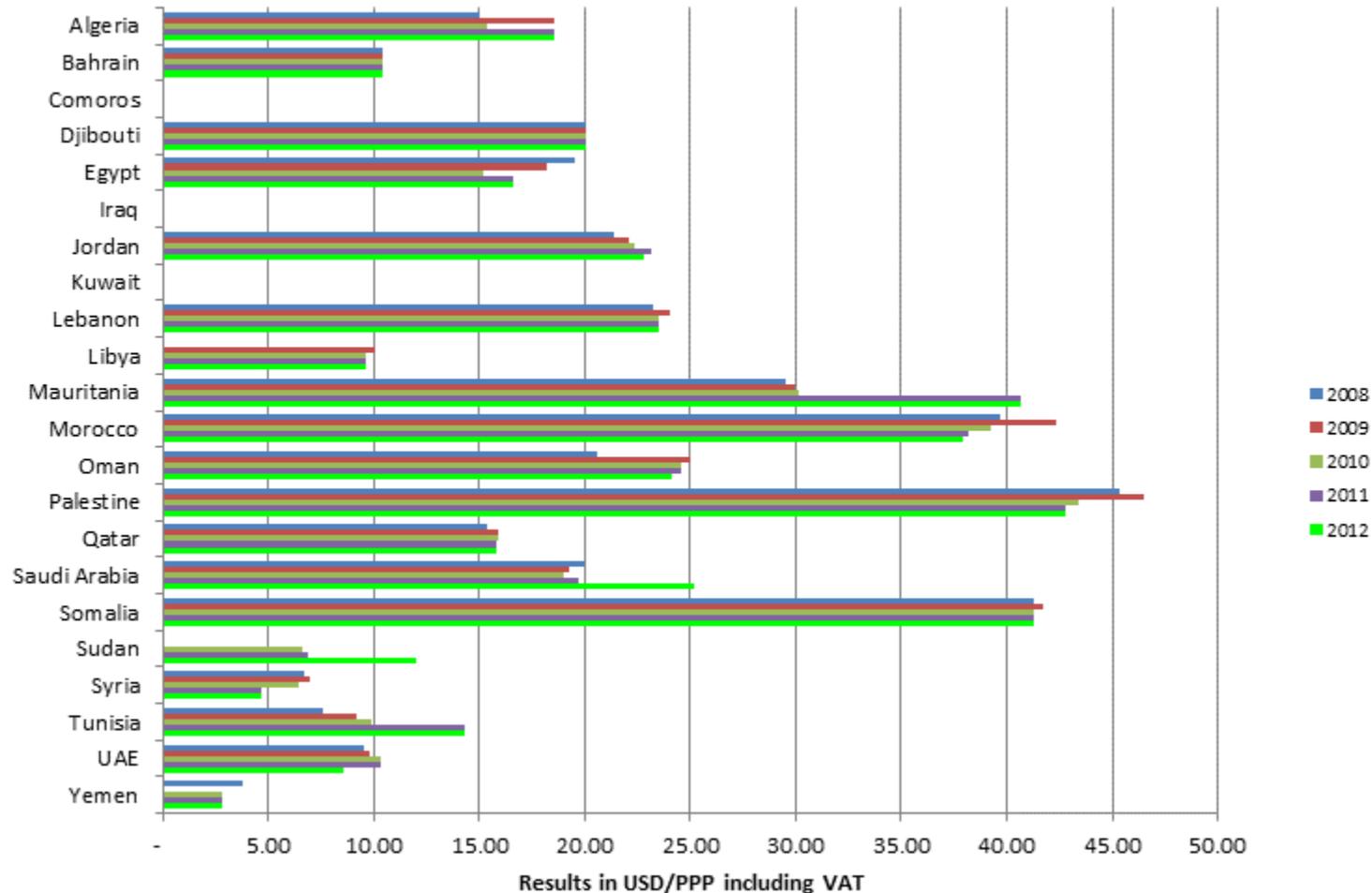
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\* Countries with gaps in the tariff information are not considered.

# **PSTN time series analysis (using OECD 2010 baskets)**

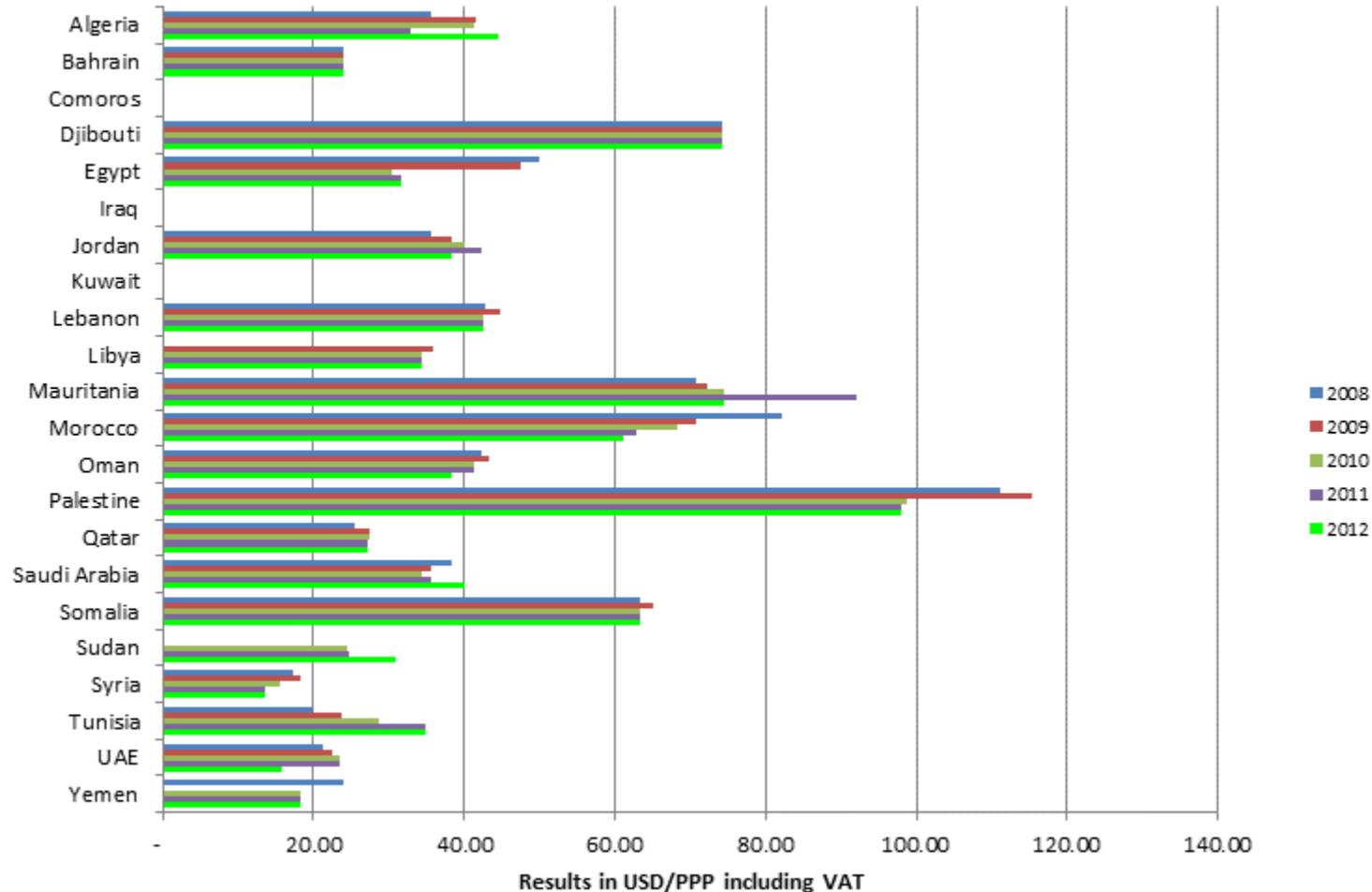
# 2010 OECD PSTN baskets time series, 20 calls/month, residential

Total results for PSTN - OECD 20 calls 2010 basket, tariffs 2008-2012



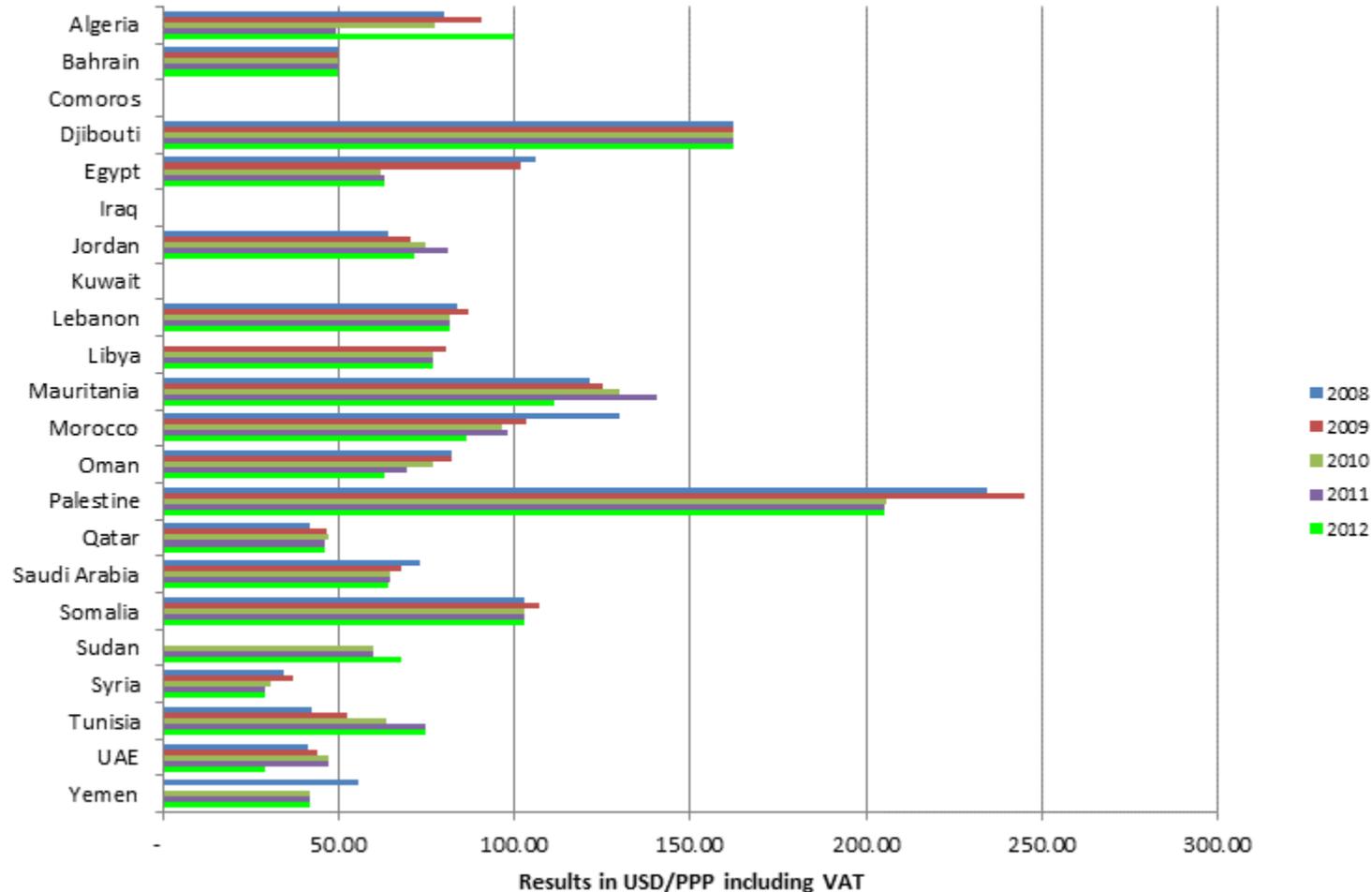
# 2010 OECD PSTN baskets time series, 60 calls/month, residential

Total results for PSTN - OECD 60 calls 2010 basket, tariffs 2008-2012



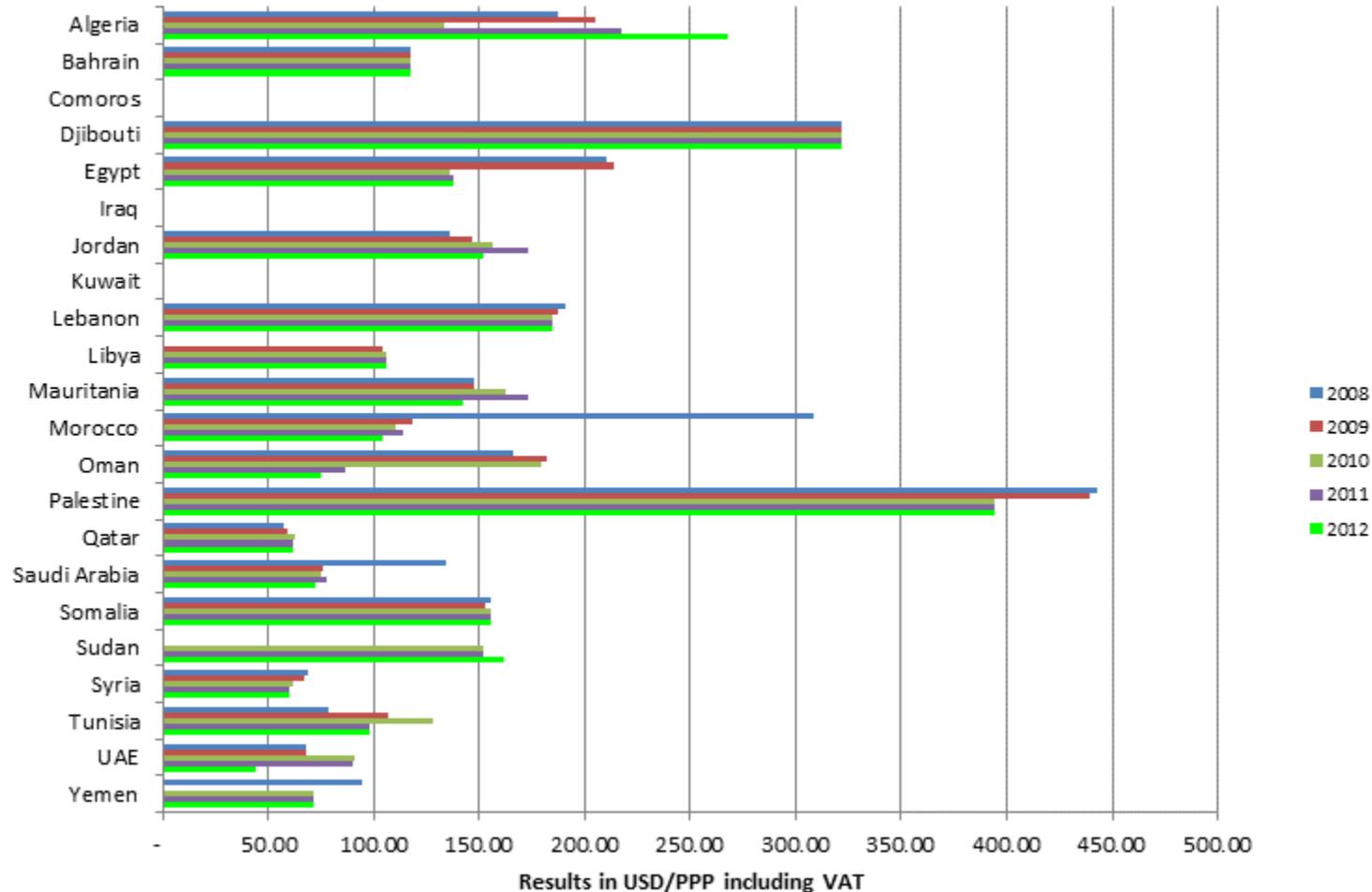
# 2010 OECD PSTN baskets time series, 140 calls/month, residential

Total results for PSTN - OECD 140 calls 2010 basket, tariffs 2008-2012



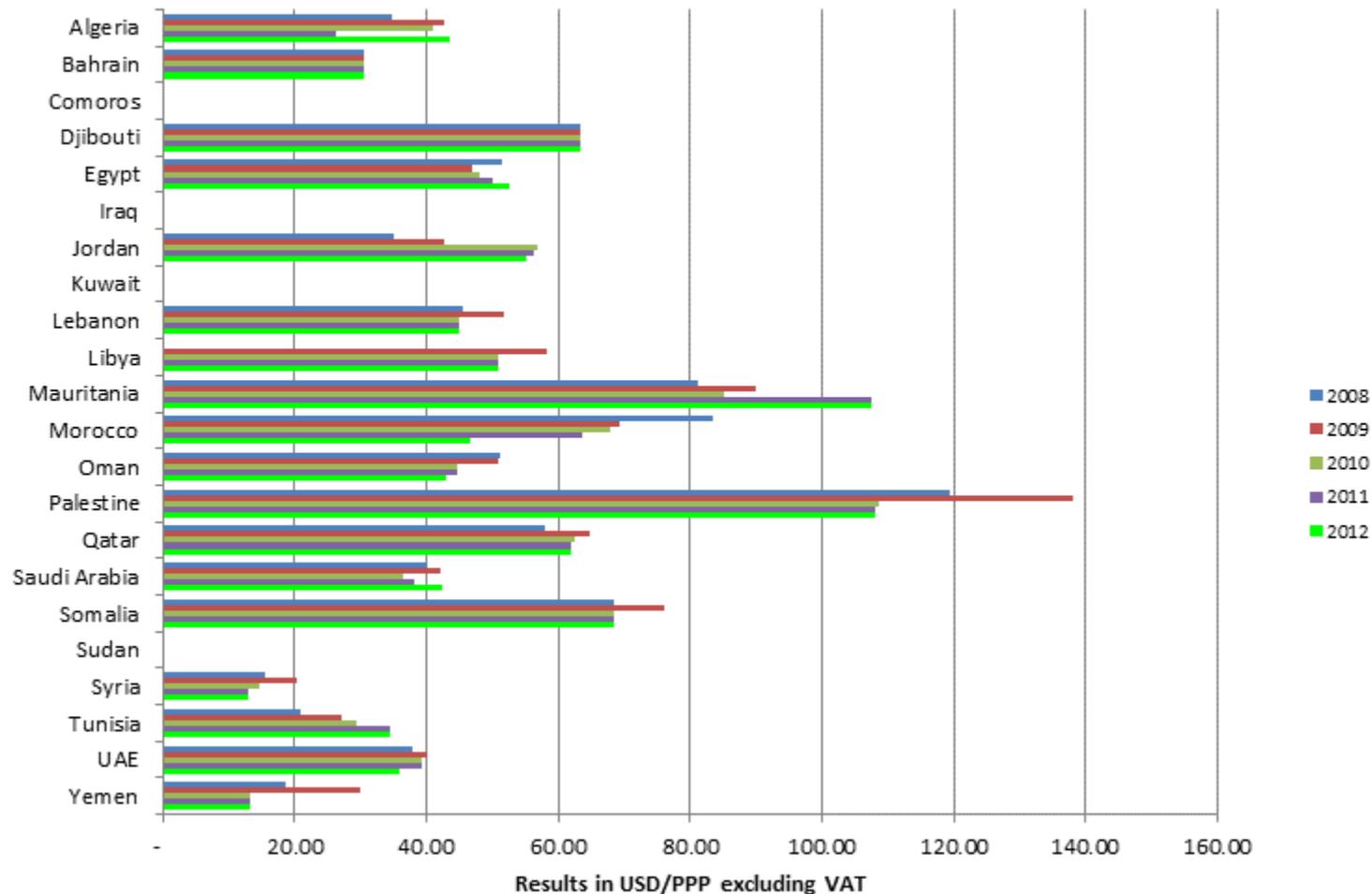
# 2010 OECD PSTN baskets time series, 420 calls/month, residential

Total results for PSTN - OECD 420 calls 2010 basket, tariffs 2008-2012



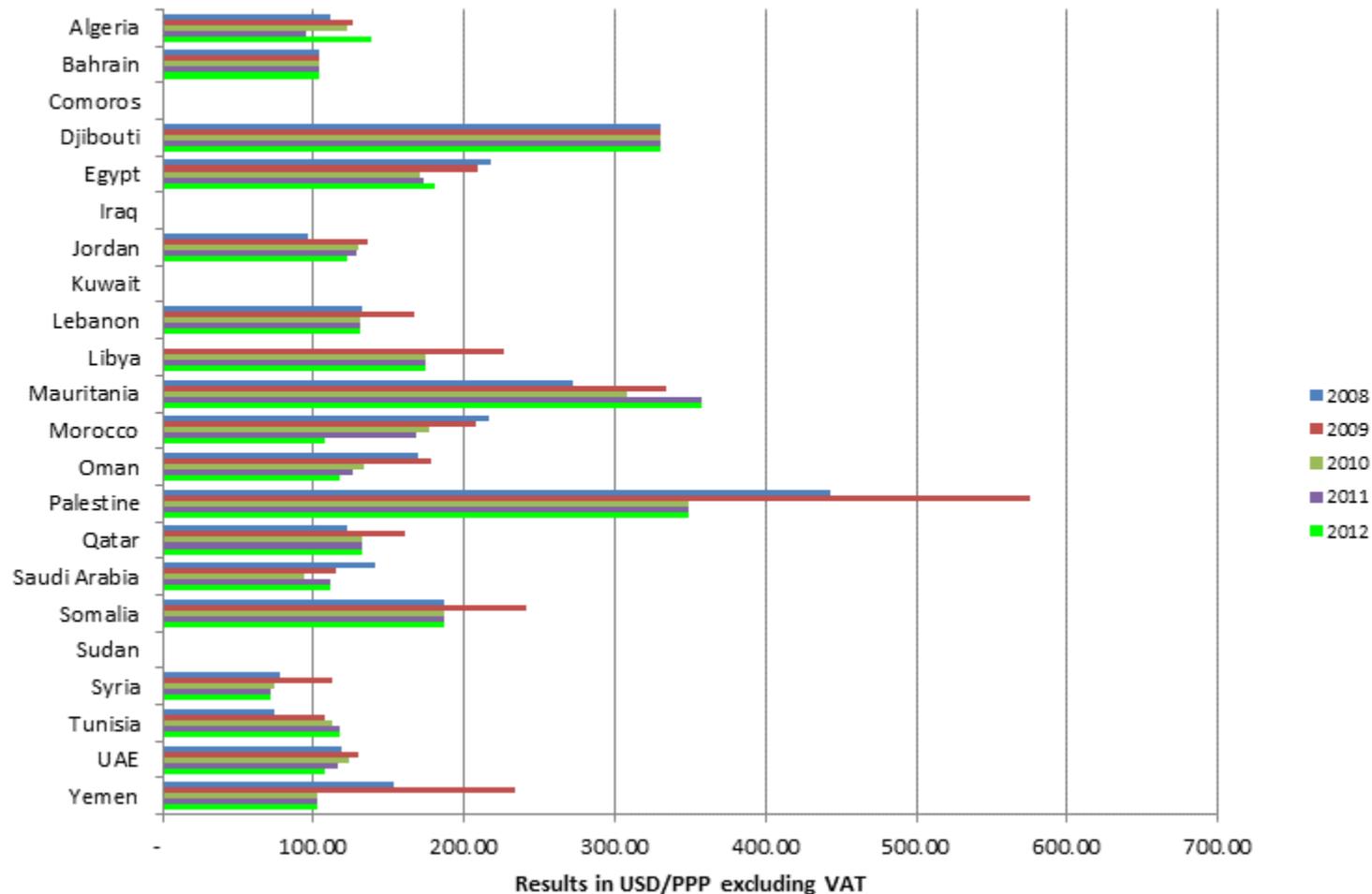
# 2010 OECD PSTN baskets time series, 100 calls/month, business

**Total results for PSTN - OECD 100 calls business 2010 basket, tariffs 2008-2012**



# 2010 OECD PSTN baskets time series, 260 calls/month, business

Total results for PSTN - OECD 260 calls business 2010 basket, tariffs 2008-2012



# Observations from PSTN time series results

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- There were price changes in just over a third of the Arab countries since 2011, and while many were fairly modest, some had a substantial impact on some baskets.
  - Most notable changes were seen in Algeria, Sudan and UAE
- Notable price changes 2011 - 2012:
  - Algeria: removal of 'L'Offre AKHI' which gave a monthly minute allowance in return for a monthly charge. The impact is an increased cost, particularly for the higher usage baskets.
  - Egypt: doubling of national fixed to fixed call costs for business customers, resulting in increased costs for business customers.
  - Jordan: introduction of time of day charging for national fixed to fixed calls and options for fixed-to-mobile calling, with an optional monthly charge for a block of included minutes resulting in a cost reduction in all baskets.
  - Mauritania: a change to selected packages, to include a block of minutes per month to all national fixed and mobile calls, which reduces the cost of some baskets.
  - Morocco: introduction a much wider range of packages, plus a change in the way calls to mobile are billed on existing packages – the introduction of per second billing for many tariffs, plus the removal of the minimum call length of 1 minute - which reduces the cost of all baskets
  - Oman: reduction in the cost of international call charges
  - Saudi Arabia: change in packages available, in particular, removal of Hatif 30 package, and Jood Plus package
  - Sudan: a reduction in the connection charge, coupled with the introduction of a monthly rental charge, plus a reduction in the cost of international call charges, resulting in an overall increase in the cost of some baskets, particularly the lower usage baskets
  - UAE: reduction in the cost of international call charges, and the introduction of a super off-peak plan (residential customers) resulting in a reduction in the cost of all baskets, with more dramatic reduction for higher usage residential baskets.
- While average costs across the baskets have generally reduced since last year, both for OECD and Arab countries, these falls have been fairly modest, particularly for the Arab countries.



# PSTN ranking tables, 2008-2012

# PSTN 20 calls residential basket ranking

Total results for PSTN OECD 20 calls residential basket, tariffs 2008-2012  
Results in USD/PPP including VAT

	2008	2009	2010	2011	2012
Algeria	15.02	18.59	15.39	18.56	18.56
Bahrain	10.37	10.37	10.37	10.37	10.37
Comoros					
Djibouti	20.07	20.07	20.07	20.07	20.07
Egypt	19.52	18.23	15.18	16.57	16.57
Iraq					
Jordan	21.35	22.08	22.37	23.20	22.83
Kuwait					
Lebanon	23.24	24.04	23.49	23.49	23.49
Libya		10.05	9.62	9.62	9.62
Mauritania	29.55	29.97	30.14	40.67	40.67
Morocco	39.73	42.33	39.24	38.19	37.89
Oman	20.55	25.02	24.57	24.57	24.13
Palestine	45.38	46.53	43.43	42.75	42.75
Qatar	15.38	15.87	15.90	15.81	15.81
Saudi Arabia	19.98	19.28	18.96	19.71	25.15
Somalia	41.24	41.69	41.24	41.24	41.24
Sudan			6.65	6.84	12.03
Syria	6.68	6.98	6.42	4.64	4.64
Tunisia	7.57	9.14	9.87	14.31	14.31
UAE	9.49	9.79	10.33	10.33	8.52
Yemen					

Arab average	21.57	21.77	20.18	21.16	21.59
OECD average	N/A	N/A	24.67	24.32	24.15

■ Below Arab average  
■ Above Arab average

Ranking for PSTN OECD 20 calls residential basket

	2008	2009	2010	2011	2012
Algeria	4	7	7	8	8
Bahrain	3	4	5	4	3
Comoros	-	-	-	-	-
Djibouti	8	9	10	10	9
Egypt	6	6	6	7	7
Iraq	-	-	-	-	-
Jordan	10	10	11	11	10
Kuwait	-	-	-	-	-
Lebanon	11	11	12	12	11
Libya	-	3	2	2	2
Mauritania	12	13	14	15	15
Morocco	13	15	15	14	14
Oman	9	12	13	13	12
Palestine	15	16	17	17	17
Qatar	5	5	8	6	6
Saudi Arabia	7	8	9	9	13
Somalia	14	14	16	16	16
Sudan	-	-	1	1	4
Syria	-	-	-	-	-
Tunisia	1	1	3	5	5
UAE	2	2	4	3	1
Yemen	-	-	-	-	-

■ Least expensive  
■ Most expensive

The ranking for Syria is not included, as the Syrian result does not include costs for fixed-to-mobile calls, which would return a misleading rank. The monthly prices have been left in for information. Comparable OECD data is not available for 2008 and 2009



# PSTN 60 calls residential basket ranking

Total results for PSTN OECD 60 calls residential basket, tariffs 2008-2012  
Results in USD/PPP including VAT

	2008	2009	2010	2011	2012
Algeria	35.56	41.46	41.31	32.96	44.47
Bahrain	24.07	24.07	24.07	24.07	24.07
Comoros					
Djibouti	74.29	74.29	74.29	74.29	74.29
Egypt	49.87	47.39	30.30	31.68	31.68
Iraq					
Jordan	35.49	38.34	40.07	42.37	38.42
Kuwait					
Lebanon	42.88	44.85	42.57	42.57	42.57
Libya		35.83	34.29	34.29	34.29
Mauritania	70.65	72.34	74.37	92.03	74.60
Morocco	82.12	70.72	68.25	62.97	61.16
Oman	42.29	43.39	41.28	41.28	38.36
Palestine	111.04	115.41	98.77	98.10	98.10
Qatar	25.37	27.36	27.44	27.09	27.09
Saudi Arabia	38.22	35.64	34.45	35.68	40.04
Somalia	63.46	65.08	63.46	63.46	63.46
Sudan			24.45	24.64	30.85
Syria	17.21	18.27	15.44	13.66	13.66
Tunisia	20.07	23.78	28.57	34.81	34.81
UAE	21.29	22.45	23.46	23.46	15.68
Yemen					

Arab average	47.12	47.10	43.71	44.41	43.76
OECD average	N/A	N/A	37.01	35.10	34.30

█ Below Arab average  
█ Above Arab average

Ranking for PSTN OECD 60 calls residential basket

	2008	2009	2010	2011	2012
Algeria	6	8	11	6	12
Bahrain	3	3	2	2	2
Comoros	-	-	-	-	-
Djibouti	13	15	15	15	15
Egypt	10	11	6	5	5
Iraq	-	-	-	-	-
Jordan	5	7	9	11	9
Kuwait	-	-	-	-	-
Lebanon	9	10	12	12	11
Libya	-	6	7	7	6
Mauritania	12	14	16	16	16
Morocco	14	13	14	13	13
Oman	8	9	10	10	8
Palestine	15	16	17	17	17
Qatar	4	4	4	4	3
Saudi Arabia	7	5	8	9	10
Somalia	11	12	13	14	14
Sudan	-	-	3	3	4
Syria	-	-	-	-	-
Tunisia	1	2	5	8	7
UAE	2	1	1	1	1
Yemen	-	-	-	-	-

█ Least expensive  
█ Most expensive

The ranking for Syria is not included, as the Syrian result does not include costs for fixed-to-mobile calls, which would return a misleading rank. The monthly prices have been left in for information.

Algeria 2011 data includes the promotional offer AHKI, which is now discontinued.

Comparable OECD data is not available for 2008 and 2009



# PSTN 140 calls residential basket ranking

Total results for PSTN OECD 140 calls residential basket, tariffs 2008-2012  
Results in USD/PPP including VAT

	2008	2009	2010	2011	2012
Algeria	80.01	90.80	77.36	49.31	99.82
Bahrain	49.63	49.63	49.63	49.63	49.63
Comoros					
Djibouti	162.48	162.48	162.48	162.48	162.48
Egypt	106.02	101.88	61.70	63.08	63.08
Iraq					
Jordan	64.01	70.63	74.68	80.96	71.46
Kuwait					
Lebanon	83.75	86.97	81.34	81.34	81.34
Libya		80.40	76.73	76.73	76.73
Mauritania	121.15	125.24	129.99	140.51	111.52
Morocco	129.86	103.40	96.30	97.79	86.30
Oman	82.28	81.94	77.00	69.46	62.91
Palestine	234.66	245.12	205.69	205.02	205.02
Qatar	41.85	46.81	47.16	45.92	45.92
Saudi Arabia	73.02	67.94	64.70	64.37	63.98
Somalia	103.05	106.89	103.05	103.05	103.05
Sudan			59.72	59.91	67.71
Syria	34.55	37.08	30.62	28.85	28.85
Tunisia	42.58	52.46	63.60	74.60	74.60
UAE	41.38	44.16	47.23	47.23	28.99
Yemen					

Arab average	90.64	91.40	83.83	83.35	82.41
OECD average	N/A	N/A	59.61	55.96	51.10

█ Below Arab average  
█ Above Arab average

Ranking for PSTN OECD 140 calls residential basket

	2008	2009	2010	2011	2012
Algeria	7	10	11	3	13
Bahrain	4	3	3	4	3
Comoros	-	-	-	-	-
Djibouti	14	15	16	16	16
Egypt	11	11	5	6	5
Iraq	-	-	-	-	-
Jordan	5	6	8	11	8
Kuwait	-	-	-	-	-
Lebanon	9	9	12	12	11
Libya	-	7	9	10	10
Mauritania	12	14	15	15	15
Morocco	13	12	13	13	12
Oman	8	8	10	8	4
Palestine	15	16	17	17	17
Qatar	2	2	1	1	2
Saudi Arabia	6	5	7	7	6
Somalia	10	13	14	14	14
Sudan	-	-	4	5	7
Syria	-	-	-	-	-
Tunisia	3	4	6	9	9
UAE	1	1	2	2	1
Yemen	-	-	-	-	-

█ Least expensive  
█ Most expensive

The ranking for Syria is not included, as the Syrian result does not include costs for fixed-to-mobile calls, which would return a misleading rank. The monthly prices have been left in for information.

Algeria 2011 data includes the promotional offer AHKI, which is now discontinued.

Comparable OECD data is not available for 2008 and 2009



# PSTN 420 calls residential basket ranking

Total results for PSTN residential OECD 420 calls basket, tariffs 2008-2012  
Results in USD/PPP including VAT

	2008	2009	2010	2011	2012
Algeria	187.18	205.17	132.93	217.15	267.66
Bahrain	117.74	117.74	117.74	117.74	117.74
Comoros					
Djibouti	322.03	322.03	322.03	322.03	322.03
Egypt	209.91	213.87	136.26	137.64	137.64
Iraq					
Jordan	135.65	146.84	156.35	172.74	151.69
Kuwait					
Lebanon	191.22	187.69	184.70	184.70	184.70
Libya		103.90	106.17	106.17	106.17
Mauritania	147.88	147.26	162.63	173.43	141.93
Morocco	308.79	118.05	110.46	113.56	104.25
Oman	165.96	182.43	179.70	86.67	75.15
Palestine	443.27	439.09	394.63	393.96	393.96
Qatar	57.18	59.33	62.83	61.44	61.44
Saudi Arabia	133.98	75.97	75.05	77.95	72.20
Somalia	155.47	153.09	155.47	155.47	155.47
Sudan			152.07	152.26	162.06
Syria	68.35	66.64	61.37	59.59	59.59
Tunisia	78.25	106.57	127.68	97.57	97.57
UAE	68.17	67.68	90.51	89.74	43.78
Yemen					

Arab average	174.44	159.61	151.59	151.10	147.50
OECD average	N/A	N/A	101.78	89.15	76.26

■ Below Arab average  
■ Above Arab average

Ranking for PSTN OECD 420 calls residential basket

	2008	2009	2010	2011	2012
Algeria	10	13	8	15	15
Bahrain	4	6	6	8	8
Comoros	-	-	-	-	-
Djibouti	14	15	16	16	16
Egypt	12	14	9	9	9
Iraq	-	-	-	-	-
Jordan	6	8	12	12	11
Kuwait	-	-	-	-	-
Lebanon	11	12	15	14	14
Libya	-	4	4	6	7
Mauritania	7	9	13	13	10
Morocco	13	7	5	7	6
Oman	9	11	14	3	4
Palestine	15	16	17	17	17
Qatar	1	1	1	1	2
Saudi Arabia	5	3	2	2	3
Somalia	8	10	11	11	12
Sudan	-	-	10	10	13
Syria	-	-	-	-	-
Tunisia	3	5	7	5	5
UAE	2	2	3	4	1
Yemen	-	-	-	-	-

■ Least expensive  
■ Most expensive

The ranking for Syria is not included, as the Syrian result does not include costs for fixed-to-mobile calls, which would return a misleading rank. The monthly prices have been left in for information.  
Comparable OECD data is not available for 2008 and 2009



# PSTN 100 calls business basket ranking

Total results for PSTN OECD 100 calls business basket, tariffs 2008-2012  
Results in USD/PPP excluding VAT

	2008	2009	2010	2011	2012
Algeria	34.70	42.67	40.90	26.24	43.61
Bahrain	30.61	30.61	30.61	30.61	30.61
Comoros					
Djibouti	63.24	63.24	63.24	63.24	63.24
Egypt	51.54	47.03	48.14	49.98	52.50
Iraq					
Jordan	35.15	42.57	56.94	56.28	55.12
Kuwait					
Lebanon	45.38	51.69	44.91	44.91	44.91
Libya		58.14	50.86	50.86	50.86
Mauritania	81.21	89.89	85.06	107.43	107.43
Morocco	83.31	69.14	67.75	63.60	46.62
Oman	51.09	50.95	44.72	44.72	43.05
Palestine	119.25	137.97	108.73	108.14	108.14
Qatar	57.96	64.63	62.39	61.96	61.96
Saudi Arabia	40.04	42.24	36.57	38.24	42.42
Somalia	68.40	76.01	68.40	68.40	68.40
Sudan					
Syria	15.48	20.45	14.61	12.84	12.84
Tunisia	20.80	27.11	29.24	34.42	34.42
UAE	37.85	40.26	39.37	39.37	35.77
Yemen					

Arab average	52.25	56.15	52.50	53.01	53.05
OECD average	N/A	N/A	41.78	39.69	37.57

■ Below Arab average  
■ Above Arab average

Ranking for PSTN OECD 100 calls business basket

	2008	2009	2010	2011	2012
Algeria	3	6	5	1	6
Bahrain	2	2	2	2	1
Comoros	-	-	-	-	-
Djibouti	11	11	12	12	13
Egypt	9	7	8	8	10
Iraq	-	-	-	-	-
Jordan	4	5	10	10	11
Kuwait	-	-	-	-	-
Lebanon	7	9	7	7	7
Libya	-	10	9	9	9
Mauritania	13	15	15	15	15
Morocco	14	13	13	13	8
Oman	8	8	6	6	5
Palestine	15	16	16	16	16
Qatar	10	12	11	11	12
Saudi Arabia	6	4	3	4	4
Somalia	12	14	14	14	14
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	1	1	1	3	2
UAE	5	3	4	5	3
Yemen	-	-	-	-	-

■ Least expensive  
■ Most expensive

The ranking for Syria is not included, as the Syrian result does not include costs for fixed-to-mobile calls, which would return a misleading rank. The monthly prices have been left in for information.

Algeria 2011 data includes the promotional offer AHKI, which is now discontinued.

Comparable OECD data is not available for 2008 and 2009



# PSTN 260 calls business basket ranking

Total results for PSTN OECD 260 calls business basket, tariffs 2008-2012  
Results in USD/PPP excluding VAT

	2008	2009	2010	2011	2012
Algeria	110.56	126.56	122.01	95.27	138.45
Bahrain	104.03	104.03	104.03	104.03	104.03
Comoros					
Djibouti	330.35	330.35	330.35	330.35	330.35
Egypt	217.82	208.67	170.64	172.48	180.30
Iraq					
Jordan	96.77	135.31	129.67	129.02	122.79
Kuwait					
Lebanon	132.33	167.10	130.85	130.85	130.85
Libya		226.07	174.67	174.67	174.67
Mauritania	272.41	333.75	307.63	357.05	357.05
Morocco	216.99	208.12	177.03	168.32	107.26
Oman	168.82	177.50	133.30	125.99	116.74
Palestine	442.81	575.03	349.04	348.45	348.45
Qatar	122.57	160.20	132.47	131.70	131.70
Saudi Arabia	140.78	115.09	94.09	111.39	111.39
Somalia	186.87	240.62	186.87	186.87	186.87
Sudan					
Syria	77.42	112.48	73.84	72.06	72.06
Tunisia	74.42	106.86	112.11	117.79	117.79
UAE	118.38	129.41	123.71	116.17	106.92
Yemen					

Arab average	175.83	203.36	167.78	168.97	166.92
OECD average	N/A	N/A	86.49	80.33	75.69

Below Arab average  
 Above Arab average

Ranking for PSTN OECD 260 calls business basket

	2008	2009	2010	2011	2012
Algeria	4	4	4	1	10
Bahrain	3	1	2	2	1
Comoros	-	-	-	-	-
Djibouti	14	14	15	14	14
Egypt	12	11	10	11	12
Iraq	-	-	-	-	-
Jordan	2	6	6	7	7
Kuwait	-	-	-	-	-
Lebanon	7	8	7	8	8
Libya	-	12	11	12	11
Mauritania	13	15	14	16	16
Morocco	11	10	12	10	3
Oman	9	9	9	6	5
Palestine	15	16	16	15	15
Qatar	6	7	8	9	9
Saudi Arabia	8	3	1	3	4
Somalia	10	13	13	13	13
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	1	2	3	5	6
UAE	5	5	5	4	2
Yemen	-	-	-	-	-

Least expensive  
 Most expensive

The ranking for Syria is not included, as the Syrian result does not include costs for fixed-to-mobile calls, which would return a misleading rank. The monthly prices have been left in for information.

Algeria 2011 data includes the promotional offer AHKI, which is now discontinued.

Comparable OECD data is not available for 2008 and 2009



# Mobile basket 2012 results (using OECD 2010 baskets)

# Mobile tariff data issues

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- Tariff data was researched from operator websites in May 2012.
  - Additional clarifications have been sought from the operators and regulators.
  - Regulators have been offered the opportunity to comment on the tariff information used in this report.
- No tariff information available for:
  - Djibouti, Somalia
  - Only pre-paid for Libya
  - One operator only for Comoros, Iraq, Mauritania, Palestine and Syria
- Part of tariff information missing for:
  - Kuwait (international call prices for Zain)
- Otherwise two operators are covered for each country
- A total of 561 tariff packages covered for 36 operators in 20 countries
- The OECD results do not include international calls as these are not part of the OECD basket definitions. The “Arab average w/o int'l” line shows the equivalent average without international, based on the Arab basket result, for comparison



## OECD mobile baskets 2010

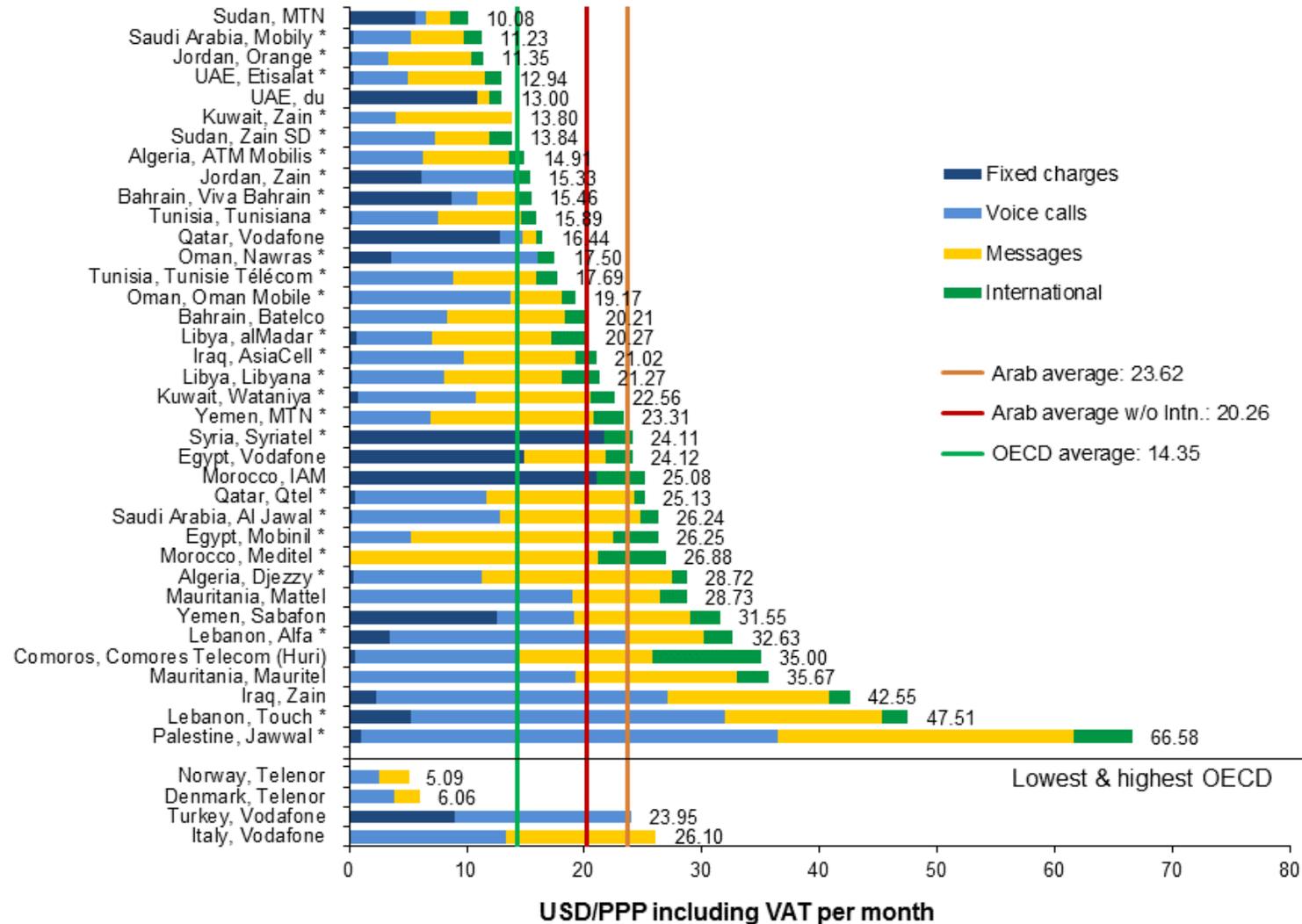
- The OECD adopted new baskets for mobile in March 2010. The key information about the basket definitions is shown below.
  - The following 6 pages show the results using the new basket definitions
  - Tariff elements used are the same as for previous results
  - New baskets include a new way of calculating call costs, and also include the capability to cover “Selective discounts”
  - Pre- and Post-paid tariffs are included for all baskets

Volume per month	Total calls per month	Call distribution				SMS
		Mobile to fixed	On-net	Off-net	Voicemail	
30 calls basket	30	16%	55%	25%	4%	100
100 calls basket	100	17%	52%	28%	3%	140
300 calls basket	300	14%	46%	37%	3%	225
900 calls basket	900	14%	55%	28%	3%	350
40 calls prepaid basket	40	14%	64%	18%	4%	60
400 messages basket	8	8%	55%	25%	12%	400



# 2010 OECD mobile basket: 30 calls/month

30 calls 2010 basket  
Tariffs as of May 2012



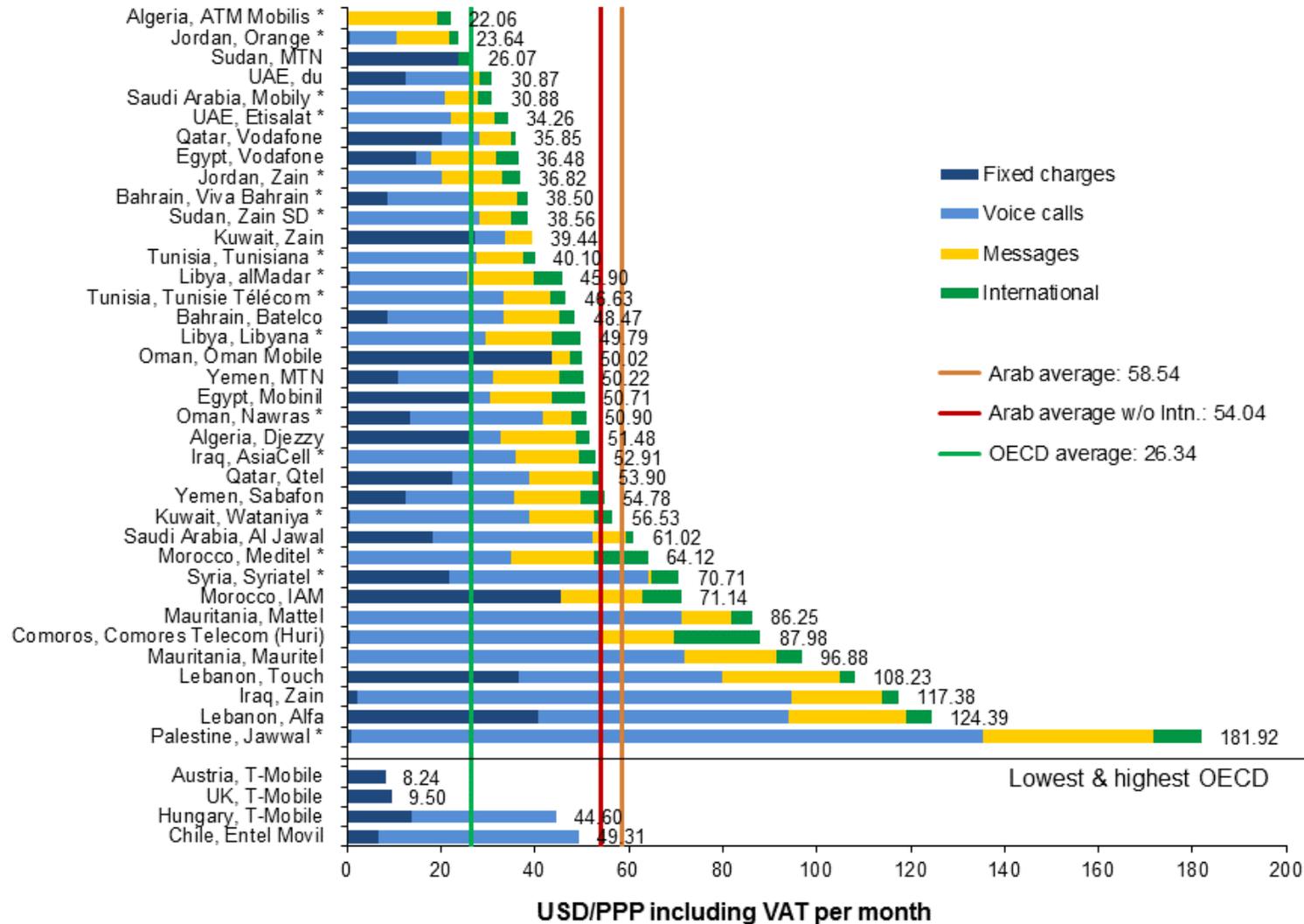
Please note:  
No data for Djibouti and Somalia.  
No international data for Zain, Kuwait.  
Selective discounts included.  
\* marks pre-paid tariffs.



# 2010 OECD mobile basket

## 100 calls/month

100 calls 2010 basket  
Tariffs as of May 2012



Please note:  
No data for Djibouti and Somalia.  
No international data for Zain, Kuwait.  
Selective discounts included.

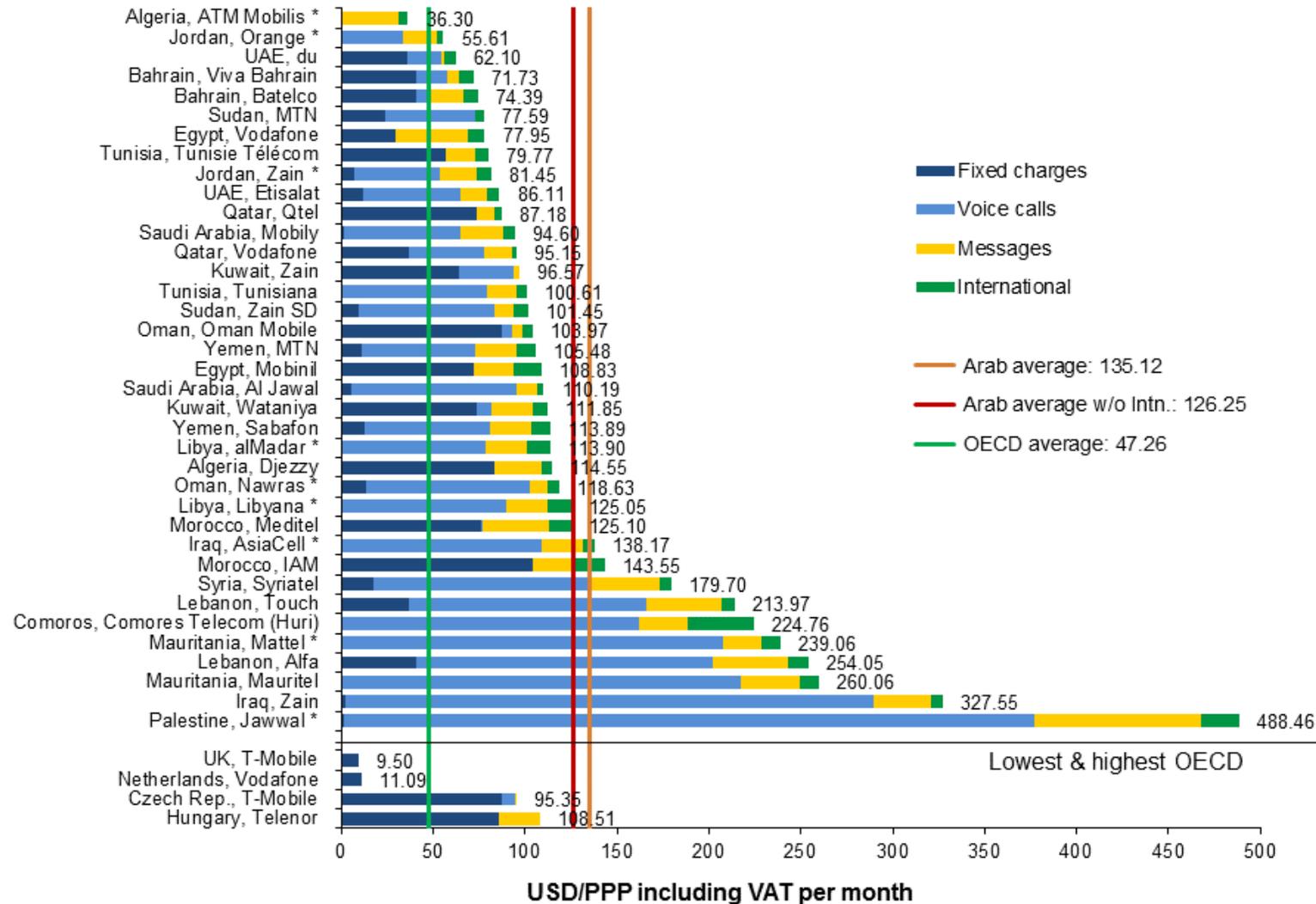
\* marks pre-paid tariffs.



# 2010 OECD mobile basket

## 300 calls/month

300 calls 2010 basket  
Tariffs as of May 2012



Please note:  
No data for Djibouti and Somalia.  
No international data for Zain, Kuwait.  
Selective discounts included.

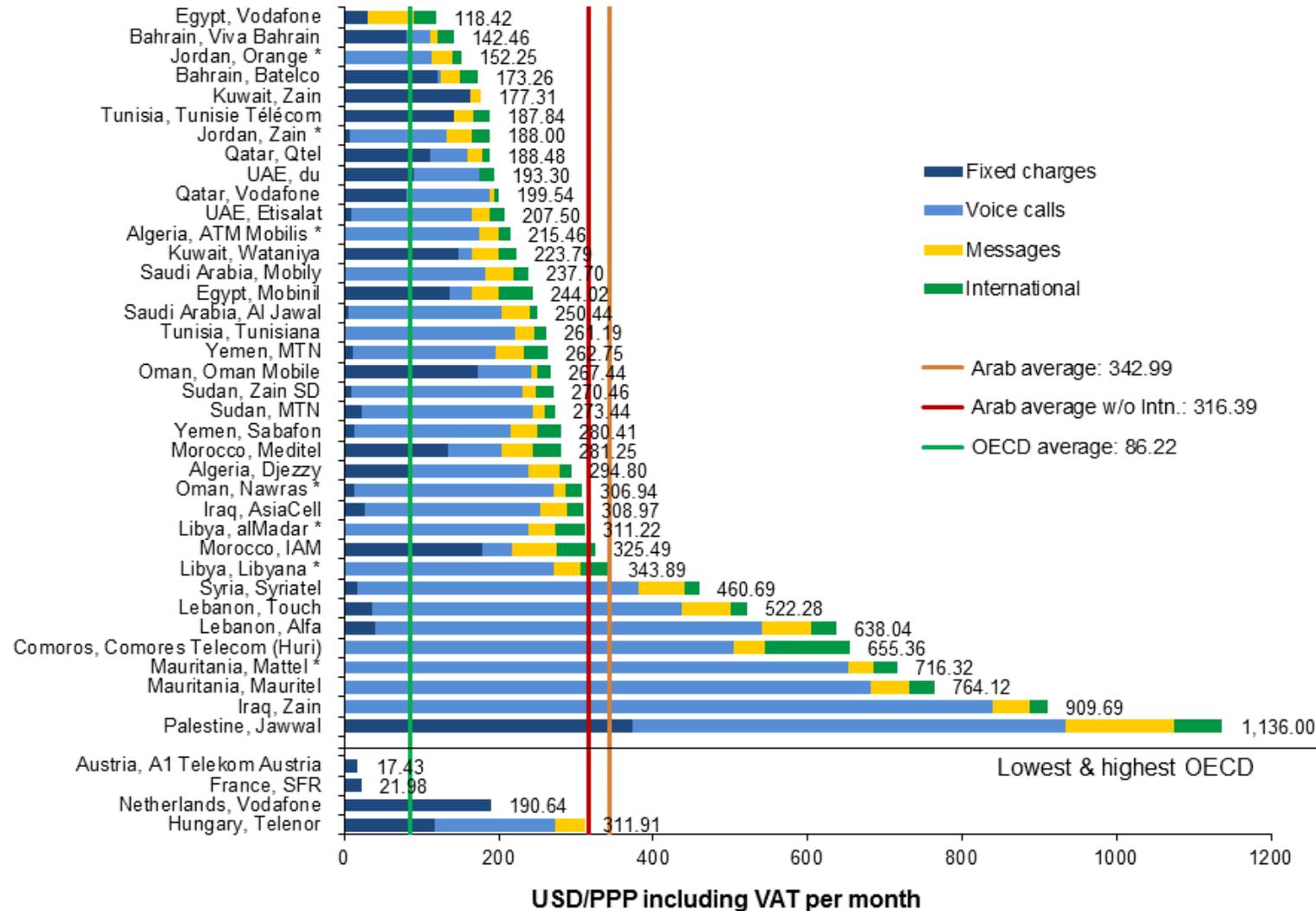
\* marks pre-paid tariffs.



# 2010 OECD mobile basket

## 900 calls/month

900 calls 2010 basket  
Tariffs as of May 2012



Please note:  
No data for Djibouti and Somalia.  
No international data for Zain, Kuwait.  
Selective discounts included.

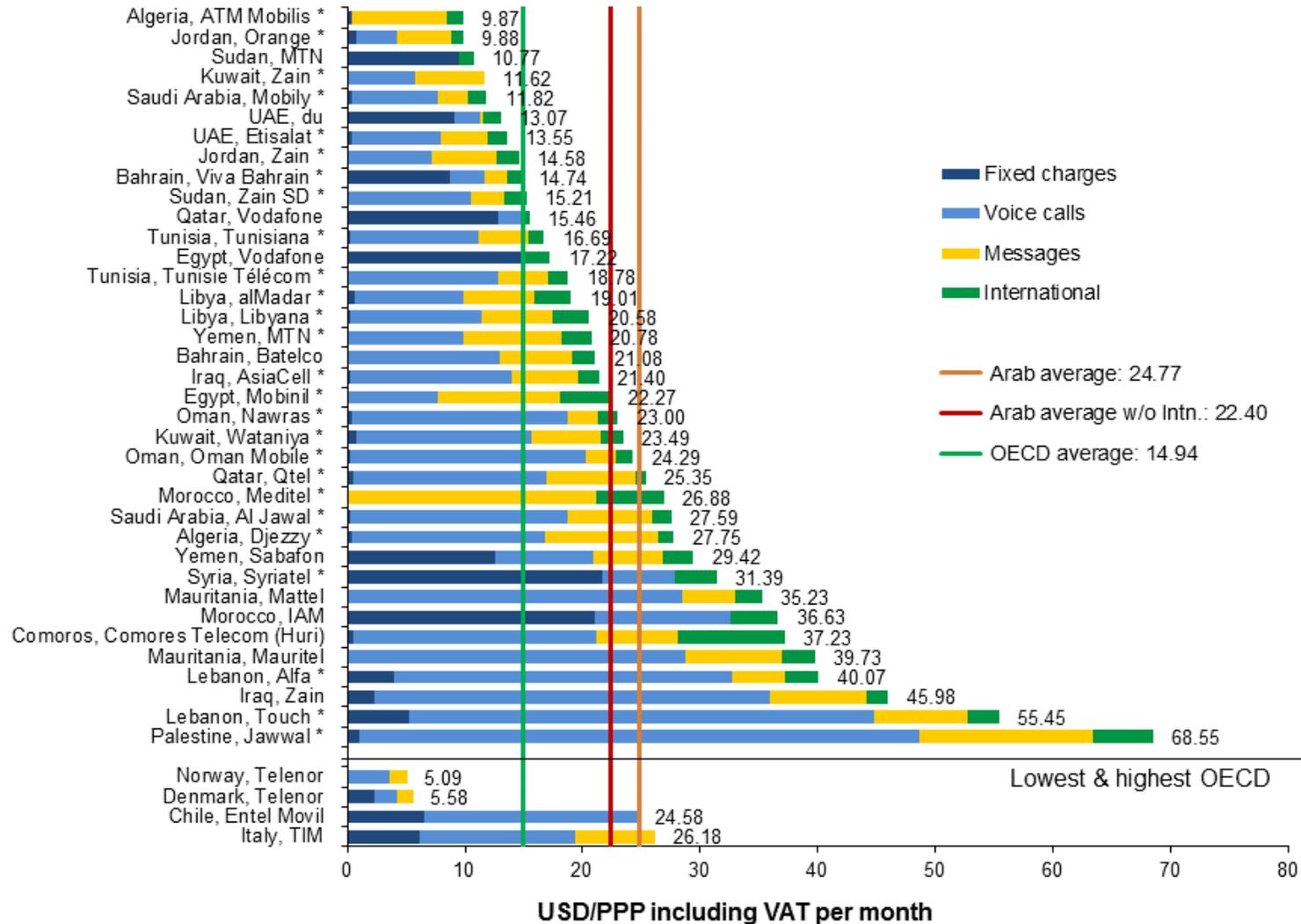
\* marks pre-paid tariffs.



# 2010 OECD mobile basket

## 40 calls/month prepaid

40 calls prepaid 2010 basket  
Tariffs as of May 2012

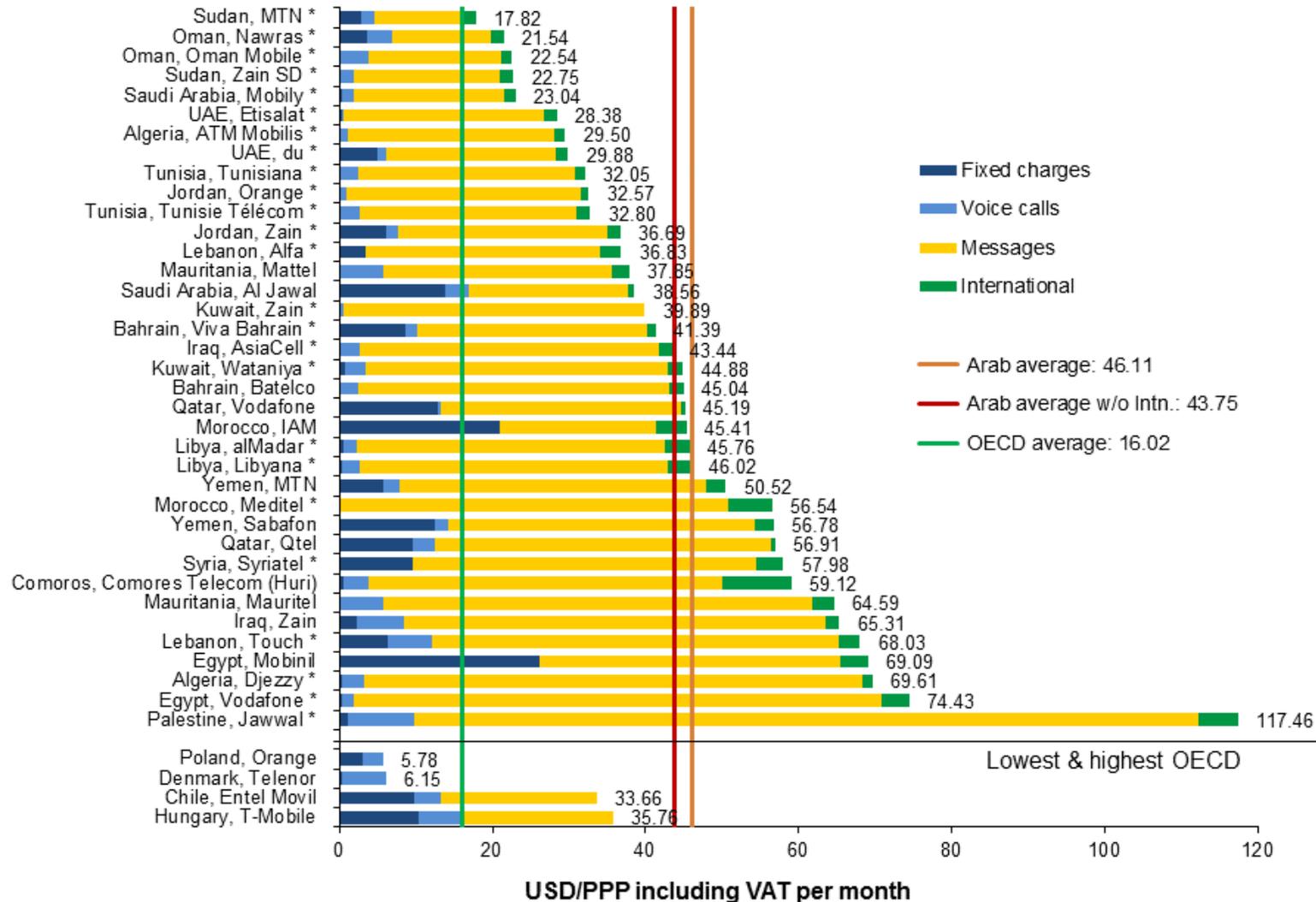


Please note:  
No data for Djibouti and Somalia.  
No international data for Zain, Kuwait.  
Selective discounts included.  
\* marks pre-paid tariffs.



# 2010 OECD mobile basket 400 messages/month

400 messages 2010 basket  
Tariffs as of May 2012



Please note:  
 No data for Djibouti and Somalia.  
 No international data for Zain, Kuwait.  
 Selective discounts included.

\* marks pre-paid tariffs.



# Observations from mobile basket results

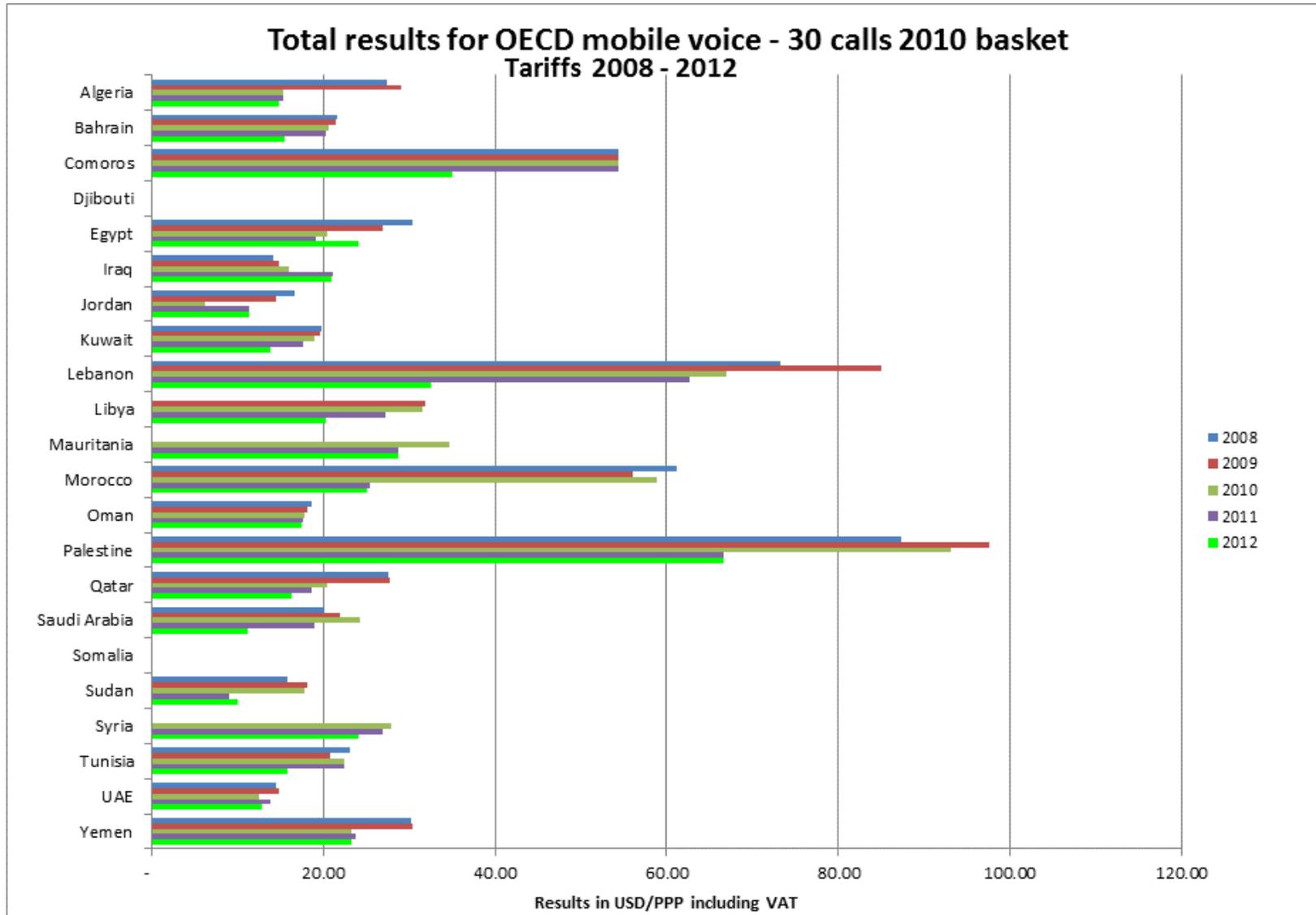
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- The cheapest countries throughout are :
  - Sudan, Jordan, Algeria, UAE and Saudi Arabia
    - The exact order of these may vary with usage level
    - With the exception of the 400 messages basket, where Jordan ranks 7<sup>th</sup>, Jordan and Sudan are among the top 5 for all baskets
    - Four of these five, Sudan, Jordan, Algeria and UAE were in the top five in 2011
  - Similar to the 2011 results, the cheapest countries for mobile are less likely to have the best PSTN results
- For low usage (the 30 calls basket, 40 calls prepaid basket and 400 messages basket), with pre-paid packages, only a handful of the Arab countries have price levels below the OECD average
- For medium to high usage (the 300 and 900 call baskets, and to a lesser extent, the 100 call basket), with post-paid packages, most Arab countries are above the OECD average
- The average result across all mobile baskets for the Arab countries is consistently higher than the OECD average. In some cases it is more than double, most notably the 100, 300, 900 calls basket and the 400 messages basket.
- Except for a few of the more expensive carriers and countries, broadly speaking, the Arab countries have relatively uniform price levels for mobile services
- The number of tariff packages offered by the Arab operators has increased steadily, with the average number of packages per operator increasing from 10.9 in 2011, to 15.6 in 2012. While this is a reasonable increase, it remains relatively modest compared to the OECD average of 56 packages per operator

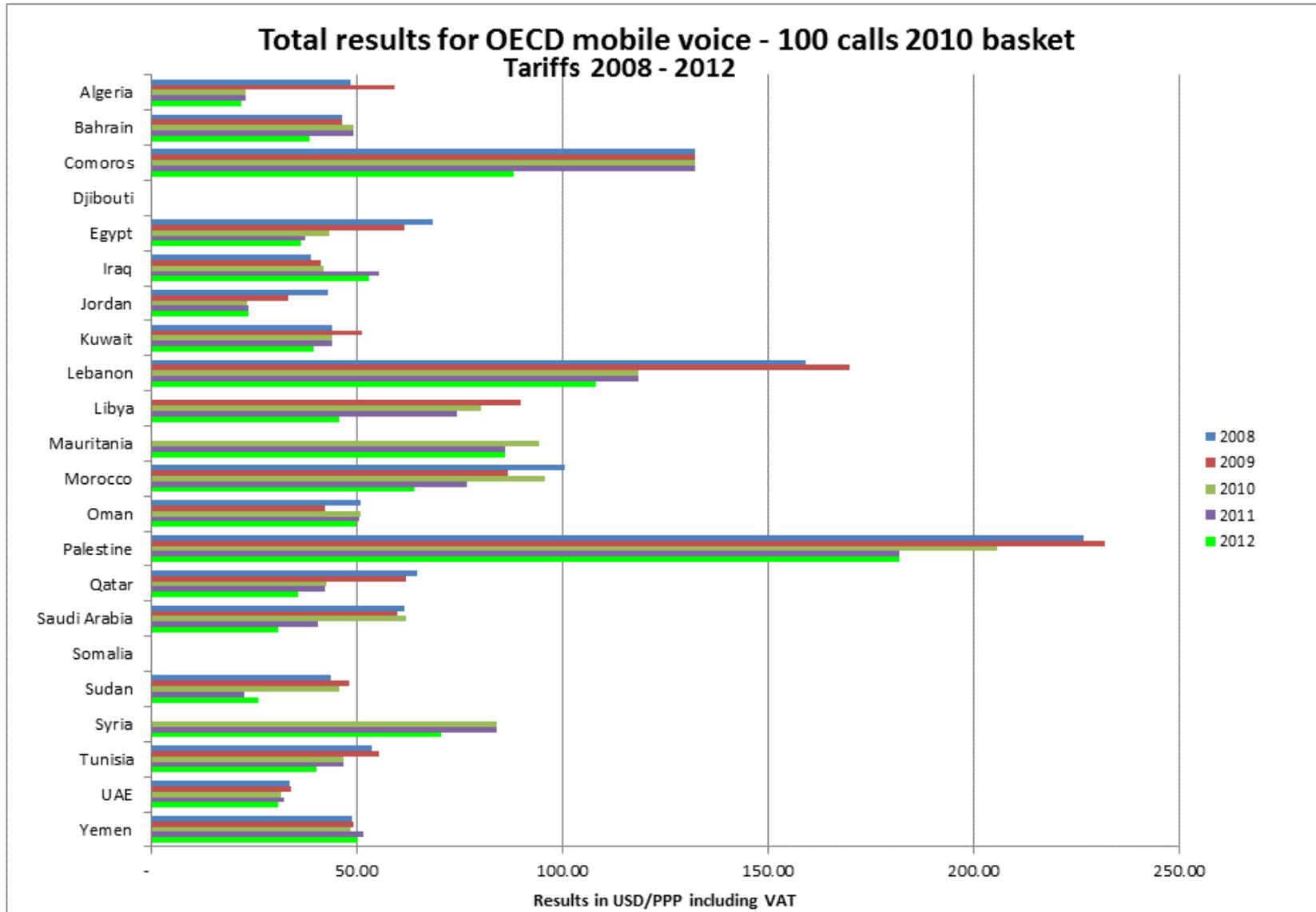


# Mobile time series analysis (using OECD 2010 baskets)

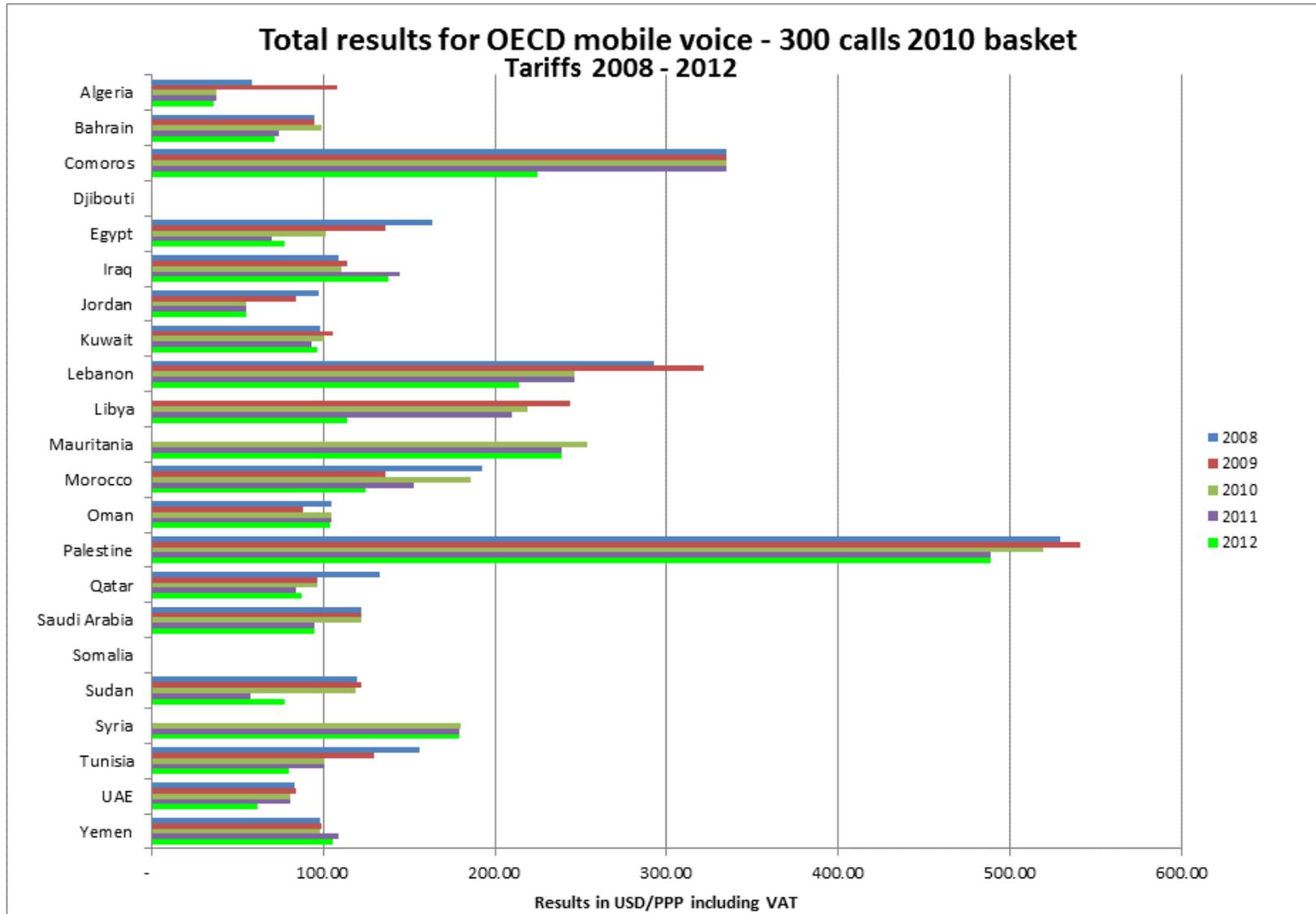
# 2010 OECD mobile baskets time series, 30 calls/month



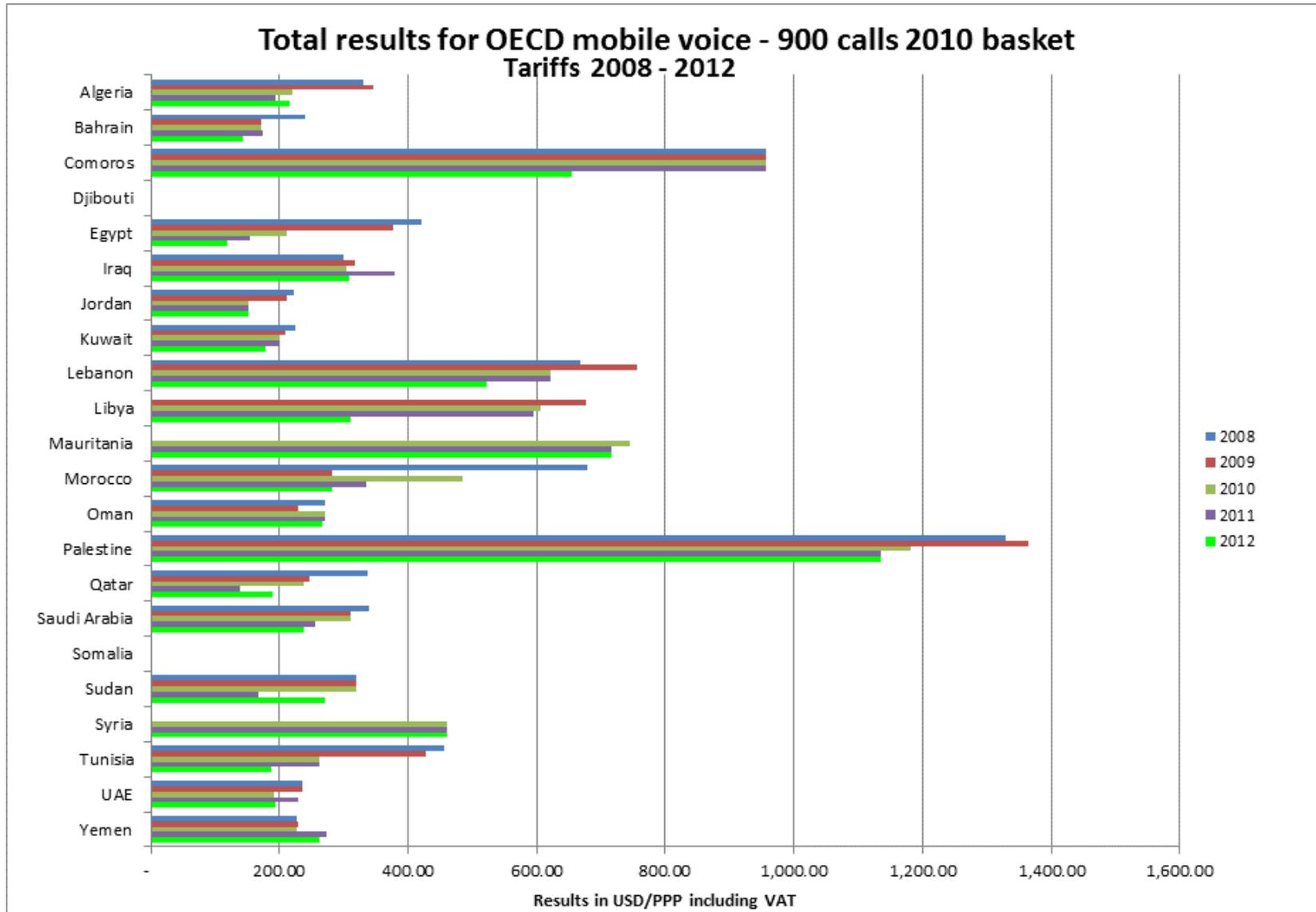
# 2010 OECD mobile baskets time series, 100 calls/month



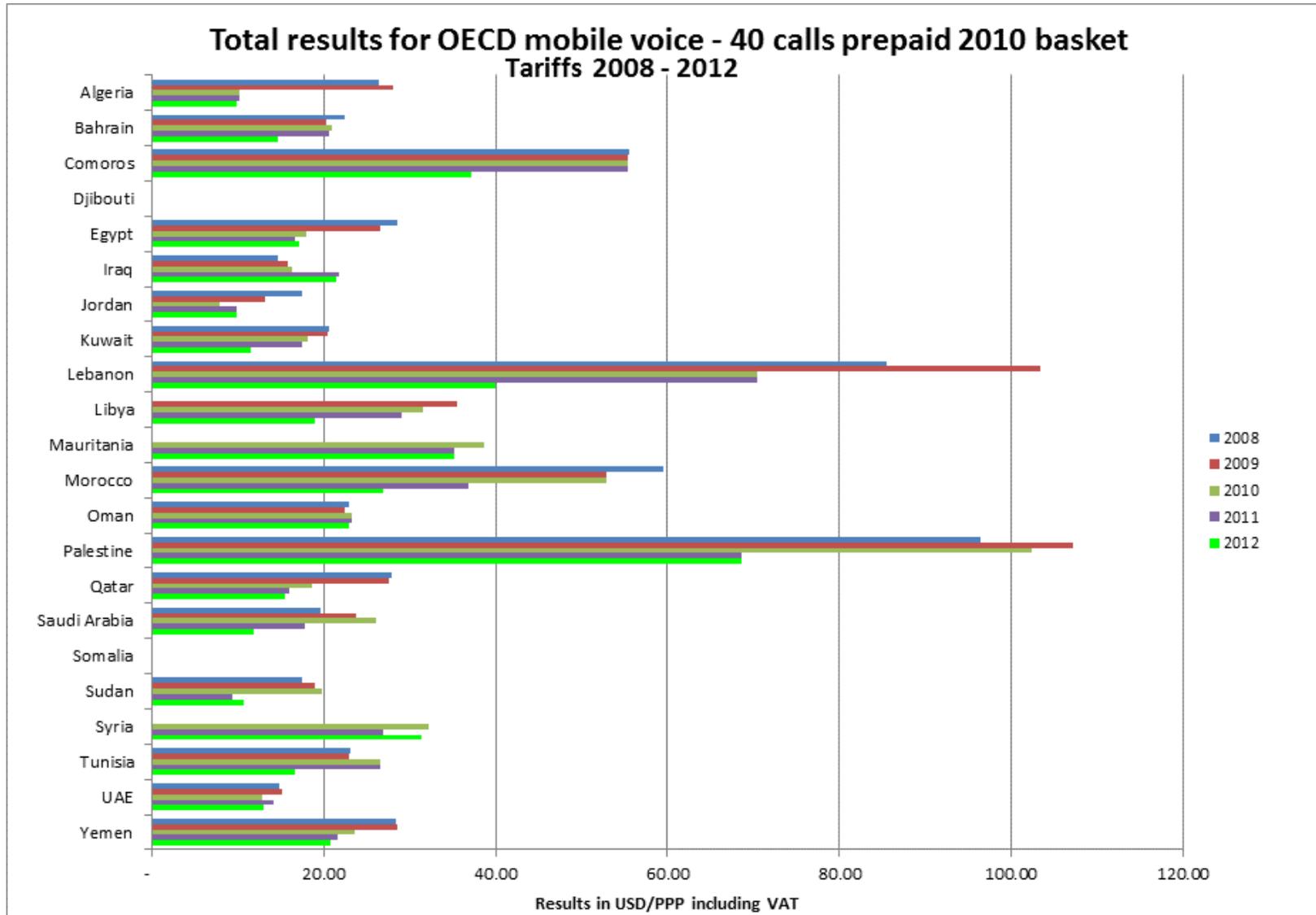
# 2010 OECD mobile baskets time series, 300 calls/month



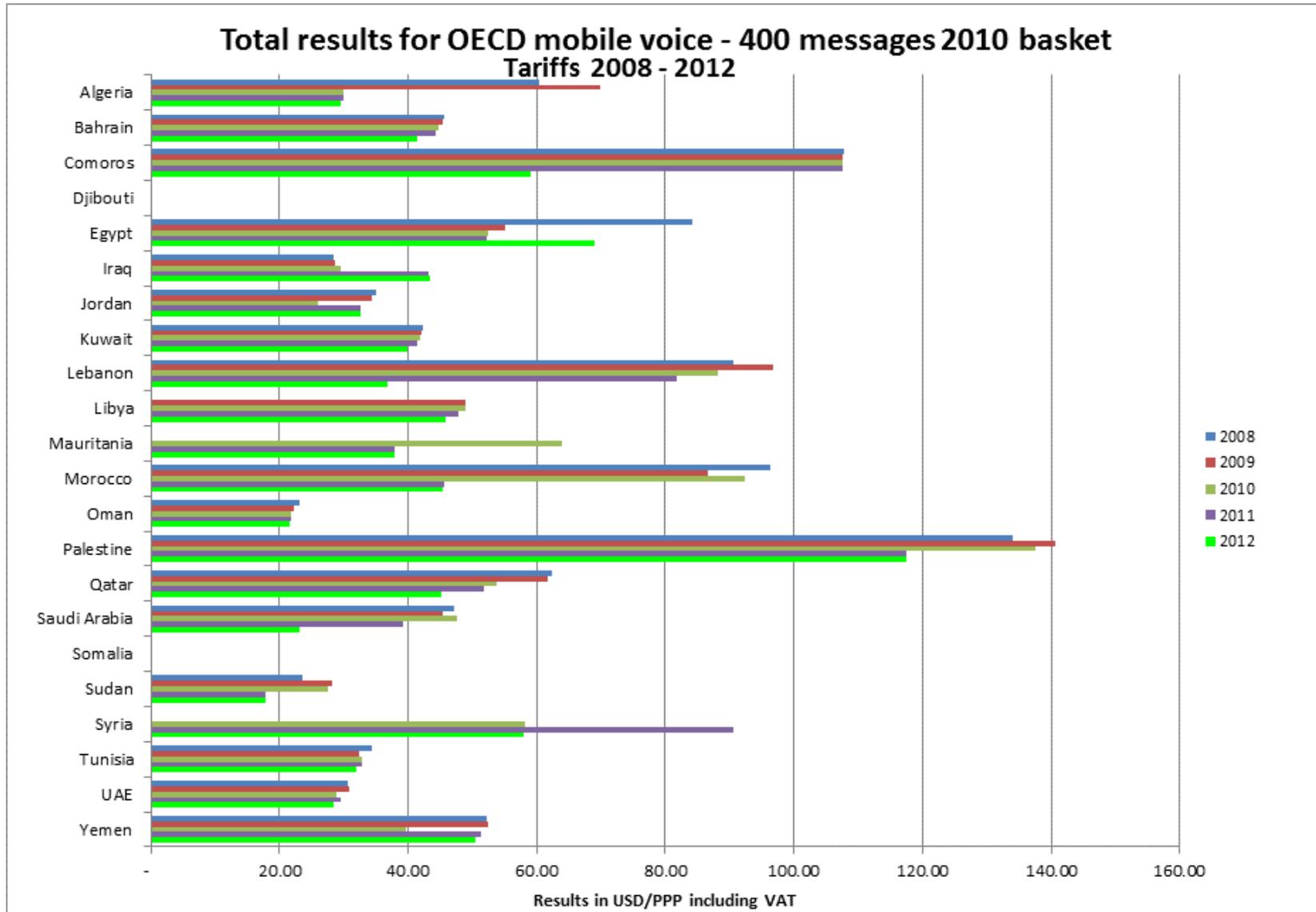
# 2010 OECD mobile baskets time series, 900 calls/month



# 2010 OECD mobile baskets time series, 40 calls/month prepaid



# 2010 OECD mobile baskets time series, 400 messages/month



# Observations from mobile time series results (1)

- Changes affecting the mobile basket results 2011-2012:
  - Algeria: A change in (and slight reduction in number of) packages offered
  - Bahrain: Zain Bahrain was replaced by Viva Bahrain. Changes were made to packages by Batelco, including the introduction of a new package, Super 0, with no upfront connection or monthly rental, but higher per minute charges, which reduced costs for the lowest usage basket.
  - Comoros: Package change, with introduction of connection charge plus monthly allowance, plus usage charge changes, resulting in cost reductions across all baskets, some of which were very significant.
  - Egypt: Etisalat was replaced by Vodafone Egypt, based on market share considerations; Mobinil introduced new packages which included monthly minute allowances.
  - Iraq: Introduction of pricing for second operator, Zain, plus, for AsiaCell, a reduction the number of packages from 4 to 2 (now 1 pre- and 1 post-paid), plus a change in prices and allowances.
  - Kuwait: Change in packages, most notably for Zain Kuwait, which greatly extended range of packages available, with a greater mix of upfront costs and included minutes.
  - Lebanon: Increase in number of packages available from both operators, including the number of pre-paid packages, offering lower minimum charges, resulting in more favourable results for all users.
  - Libya: Removal of minimum monthly charges (AlMadar), plus a significant reduction in all call charges for both operators, resulting in much lower costs across all baskets
  - Morocco: A change in packages offered, including a large increase in number of packages available from both operators – 131 in total, up from 75 in 2011
  - Oman: Small reductions in connection charges for some packages, resulting in modest reductions across all baskets
  - Qatar: Change in packages, and introduction of some new packages (Vodafone), plus increase in SMS allowance (selected packages Qtel) and increase in call charges for some call types on some packages (both Qtel and Vodafone)
  - Saudi Arabia: Introduction of new packages, including, notably, a new option under the Mobile 7ala range offers – 7ala National plus bonus based on R30 top-up, which returns the cheapest result across 4 of the 6 baskets.
  - Sudan: A mix of increased (connection) and decreased (call) charges, plus the introduction of some new packages
  - Syria: Introduction of a new prepaid option with higher recharge cost but correspondingly higher allowance; a number of increases and decreases to call charges, depending on call type, a reduction in the cost of both voicemails and SMSs.
  - Tunisia: Introduction of new packages, including a range of post-paid packages from Tunisie Telecom, with a higher rental than existing packages, but a higher corresponding allowance, plus a new pre-paid package from Tunisiana, with no minimum commitment, and attractive call charges, resulting in lower costs, in some cases significant, across all baskets
  - UAE: Reductions to the 30 calls, 40 calls pre-paid and 400 messages basket were due to connection charge reductions in existing packages (both operators), while reductions in the remaining baskets were as a result of the introduction of new packages from operator du.
  - Yemen: Sabafon introduced a new pre-paid package with a lower minimum per year commitment, however, this did not impact the result which saw modest reductions across all baskets. These were caused by reductions in some call charges for some packages, and corresponding increases for others.



# Observations from mobile time series results (2)

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- The majority of operators across the Arab countries changed and extended their mobile tariff offerings; the average number of packages offered in the Arab countries now stands at just under 16 per operator - an increase of 43% since 2011.
- Most countries experienced decreases across all baskets, some of which were very substantial. A handful of countries remained static over the previous year, and there were a few, relatively small increases.
- The changes are as a result of a number of factors, such as packages no longer being available, and being replaced by alternate packages, either from the same or other operators, or as a result of a rebalancing of tariff elements in the packages
  - Whilst this resulted in decreases in many countries across most of the baskets, in a number of cases the basket cost increased
- Although both the Arab and the OECD averages have fallen in the past year, the Arab countries have seen a much more dramatic decrease, particularly for the higher usage baskets. By contrast, the decreases in the OECD averages have been much more modest, with the exception of the 300 and 900 calls basket, where the decreases were slightly more substantial, although not to the same degree as the decrease in the Arab average.



# Mobile ranking tables, 2008-2012

# Mobile OECD 30 calls/month basket ranking

Total results for OECD mobile voice 30 calls basket  
Results in USD/PPP including VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	27.49	29.06	15.32	15.32	14.91
Bahrain	21.62	21.50	20.72	20.37	15.46
Comoros	54.46	54.34	54.34	54.34	35.00
Djibouti					
Egypt	30.35	26.86	20.48	19.17	24.12
Iraq	14.21	14.84	16.10	21.17	21.02
Jordan	16.60	14.54	6.22	11.35	11.35
Kuwait	19.80	19.70	19.00	17.73	13.80
Lebanon	73.28	85.04	66.87	62.64	32.63
Libya		31.86	31.55	27.28	20.27
Mauritania			34.64	28.73	28.73
Morocco	61.15	56.07	58.87	25.38	25.08
Oman	18.61	18.18	17.76	17.74	17.50
Palestine	87.35	97.61	93.03	66.58	66.58
Qatar	27.63	27.78	20.48	18.69	16.44
Saudi Arabia	20.08	21.96	24.36	19.08	11.23
Somalia					
Sudan	15.83	18.10	17.76	9.09	10.08
Syria			27.96	26.87	24.11
Tunisia	23.06	20.80	22.52	22.52	15.89
UAE	14.53	14.85	12.57	13.93	12.94
Yemen	30.30	30.43	23.30	23.78	23.31

Arab average	32.73	33.53	30.19	26.09	22.02
OECD average	N/A	N/A	16.64	14.99	14.35

■ Below Arab average  
■ Above Arab average

Ranking for OECD mobile 30 calls basket

	2008	2009	2010	2011	2012
Algeria	10	12	3	4	6
Bahrain	8	8	10	10	7
Comoros	14	15	17	18	19
Djibouti	-	-	-	-	-
Egypt	13	10	8	9	15
Iraq	1	2	4	11	12
Jordan	4	1	1	2	3
Kuwait	6	6	7	5	5
Lebanon	16	17	19	19	18
Libya	-	14	15	16	11
Mauritania	-	-	16	17	17
Morocco	15	16	18	14	16
Oman	5	5	6	6	10
Palestine	17	18	20	20	20
Qatar	11	11	9	7	9
Saudi Arabia	7	9	13	8	2
Somalia	-	-	-	-	-
Sudan	3	4	5	1	1
Syria	-	-	14	15	14
Tunisia	9	7	11	12	8
UAE	2	3	2	3	4
Yemen	12	13	12	13	13

■ 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  
Comparable OECD data is not available for 2008 and 2009



# Mobile OECD 100 calls/month basket ranking

Total results for OECD mobile voice 100 calls basket  
Results in USD/PPP including VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	48.60	59.18	22.89	22.89	22.06
Bahrain	46.44	46.36	49.16	49.16	38.50
Comoros	132.30	132.19	132.19	132.19	87.98
Djibouti					
Egypt	68.35	61.80	43.20	37.36	36.48
Iraq	38.96	41.17	42.06	55.50	52.91
Jordan	42.93	33.53	23.34	23.64	23.64
Kuwait	44.04	51.33	44.21	44.21	39.44
Lebanon	159.28	169.83	118.59	118.59	108.23
Libya		89.77	80.30	74.32	45.90
Mauritania			94.31	86.25	86.25
Morocco	100.53	86.93	95.83	76.66	64.12
Oman	50.87	42.20	50.83	50.70	50.02
Palestine	226.45	231.65	205.69	181.92	181.92
Qatar	64.64	62.00	42.75	42.21	35.85
Saudi Arabia	61.64	59.86	61.90	40.78	30.88
Somalia					
Sudan	43.68	48.12	45.85	22.73	26.07
Syria			84.19	84.10	70.71
Tunisia	53.83	55.32	46.72	46.72	40.10
UAE	33.60	34.22	31.65	32.50	30.87
Yemen	48.81	49.18	48.68	51.62	50.22

Arab average	74.41	75.26	68.22	63.70	56.11
OECD average	N/A	N/A	31.60	27.78	26.34

■ Below Arab average  
■ Above Arab average

Ranking for OECD mobile 100 calls basket

	2008	2009	2010	2011	2012
Algeria	7	10	1	2	1
Bahrain	6	5	11	10	8
Comoros	15	16	19	19	18
Djibouti	-	-	-	-	-
Egypt	13	12	6	5	7
Iraq	2	3	4	13	14
Jordan	3	1	2	3	2
Kuwait	5	8	7	8	9
Lebanon	16	17	18	18	19
Libya	-	15	14	14	11
Mauritania	-	-	16	17	17
Morocco	14	14	17	15	15
Oman	9	4	12	11	12
Palestine	17	18	20	20	20
Qatar	12	13	5	7	6
Saudi Arabia	11	11	13	6	5
Somalia	-	-	-	-	-
Sudan	4	6	8	1	3
Syria	-	-	15	16	16
Tunisia	10	9	9	9	10
UAE	1	2	3	4	4
Yemen	8	7	10	12	13

■ 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  
Comparable OECD data is not available for 2008 and 2009



# Mobile OECD 300 calls/month basket ranking

Total results for OECD mobile voice 300 calls basket  
Results in USD/PPP including VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	58.44	108.63	37.96	37.96	36.30
Bahrain	94.87	94.81	98.77	74.39	71.73
Comoros	334.73	334.61	334.61	334.61	224.76
Djibouti					
Egypt	163.88	136.21	101.52	70.23	77.95
Iraq	108.88	113.88	110.88	145.00	138.17
Jordan	97.50	83.84	55.32	55.61	55.61
Kuwait	98.57	105.69	100.53	93.58	96.57
Lebanon	292.73	321.75	246.10	246.10	213.97
Libya		244.06	219.32	209.83	113.90
Mauritania			253.37	239.06	239.06
Morocco	192.17	135.99	185.81	152.93	125.10
Oman	105.15	88.16	105.11	104.98	103.97
Palestine	528.94	540.52	519.47	488.46	488.46
Qatar	132.92	96.55	96.34	84.16	87.18
Saudi Arabia	122.51	122.47	122.47	95.21	94.60
Somalia					
Sudan	120.00	122.39	118.74	58.10	77.59
Syria			180.30	179.70	179.70
Tunisia	156.36	129.63	100.99	100.99	79.77
UAE	83.50	84.12	81.26	81.26	62.10
Yemen	98.49	99.32	98.35	109.23	105.48

Arab average	164.10	164.59	158.36	148.07	133.60
OECD average	N/A	N/A	63.91	55.87	47.26

■ Below Arab average  
■ Above Arab average

Ranking for OECD mobile 300 calls basket

	2008	2009	2010	2011	2012
Algeria	1	8	1	1	1
Bahrain	3	4	6	5	4
Comoros	16	17	19	19	18
Djibouti	-	-	-	-	-
Egypt	13	14	9	4	6
Iraq	8	9	11	13	15
Jordan	4	1	2	2	2
Kuwait	6	7	7	8	10
Lebanon	15	16	17	18	17
Libya	-	15	16	16	13
Mauritania	-	-	18	17	19
Morocco	14	13	15	14	14
Oman	7	3	10	11	11
Palestine	17	18	20	20	20
Qatar	11	5	4	7	8
Saudi Arabia	10	11	13	9	9
Somalia	-	-	-	-	-
Sudan	9	10	12	3	5
Syria	-	-	14	15	16
Tunisia	12	12	8	10	7
UAE	2	2	3	6	3
Yemen	5	6	5	12	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  
Comparable OECD data is not available for 2008 and 2009



# Mobile OECD 900 calls/month basket ranking

Total results for OECD mobile voice 900 calls basket  
Results in USD/PPP including VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	330.42	346.11	220.43	193.19	215.46
Bahrain	240.48	171.42	170.86	173.26	142.46
Comoros	956.51	956.39	956.39	956.39	655.36
Djibouti					
Egypt	421.43	377.19	212.09	154.35	118.42
Iraq	299.69	317.78	303.02	379.79	308.97
Jordan	222.30	212.07	151.96	152.25	152.25
Kuwait	225.60	208.94	200.12	200.12	177.31
Lebanon	667.22	755.45	622.26	622.26	522.28
Libya		677.44	606.76	594.65	311.22
Mauritania			744.83	716.32	716.32
Morocco	678.16	282.90	485.62	335.81	281.25
Oman	270.63	229.23	270.60	270.46	267.44
Palestine	1,329.99	1,365.01	1,181.92	1,136.00	1,136.00
Qatar	336.82	245.85	238.35	138.02	188.48
Saudi Arabia	340.10	310.09	310.09	254.47	237.70
Somalia					
Sudan	319.96	319.93	319.93	168.09	270.46
Syria			461.28	460.69	460.69
Tunisia	457.20	427.53	262.35	262.35	187.84
UAE	235.19	235.80	191.80	228.22	193.30
Yemen	226.23	229.01	226.10	274.00	262.75

Arab average	444.58	426.01	406.84	383.53	340.30
OECD average	N/A	N/A	132.20	107.81	86.22

Below Arab average  
 Above Arab average

Ranking for OECD mobile 900 calls basket

	2008	2009	2010	2011	2012
Algeria	9	12	6	6	8
Bahrain	5	1	2	5	2
Comoros	16	17	19	19	18
Djibouti	-	-	-	-	-
Egypt	12	13	5	3	1
Iraq	7	10	11	14	14
Jordan	1	3	1	2	3
Kuwait	2	2	4	7	4
Lebanon	14	16	17	17	17
Libya	-	15	16	16	15
Mauritania	-	-	18	18	19
Morocco	15	8	15	13	13
Oman	6	5	10	11	11
Palestine	17	18	20	20	20
Qatar	10	7	8	1	6
Saudi Arabia	11	9	12	9	9
Somalia	-	-	-	-	-
Sudan	8	11	13	4	12
Syria	-	-	14	15	16
Tunisia	13	14	9	10	5
UAE	4	6	3	8	7
Yemen	3	4	7	12	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  
Comparable OECD data is not available for 2008 and 2009



# Mobile OECD 40 calls/month prepaid basket ranking

Total results for OECD mobile voice 40 calls prepaid basket  
Results in USD/PPP including VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	26.52	28.09	10.28	10.28	9.87
Bahrain	22.44	20.27	20.97	20.65	14.74
Comoros	55.56	55.45	55.45	55.45	37.23
Djibouti					
Egypt	28.55	26.60	18.07	16.64	17.22
Iraq	14.76	15.84	16.28	21.86	21.40
Jordan	17.54	13.23	7.94	9.88	9.88
Kuwait	20.58	20.49	18.22	17.57	11.62
Lebanon	85.42	103.40	70.43	70.43	40.07
Libya		35.54	31.51	29.13	19.01
Mauritania			38.60	35.23	35.23
Morocco	59.53	52.87	52.87	36.94	26.88
Oman	22.94	22.53	23.25	23.24	23.00
Palestine	96.30	107.15	102.31	68.55	68.55
Qatar	27.85	27.59	18.65	16.03	15.46
Saudi Arabia	19.63	23.73	26.07	17.84	11.82
Somalia					
Sudan	17.53	19.00	19.78	9.41	10.77
Syria			32.23	26.97	31.39
Tunisia	23.06	22.97	26.55	26.55	16.69
UAE	14.88	15.18	12.92	14.28	13.07
Yemen	28.49	28.60	23.66	21.72	20.78

Arab average	34.21	35.47	31.30	27.43	22.73
OECD average	N/A	N/A	16.72	15.49	14.94

■ Below Arab average  
■ Above Arab average

Ranking for OECD mobile 40 calls prepaid basket

	2008	2009	2010	2011	2012
Algeria	10	12	2	3	1
Bahrain	7	5	9	9	7
Comoros	14	16	18	18	18
Djibouti	-	-	-	-	-
Egypt	13	10	5	6	10
Iraq	1	3	4	11	13
Jordan	4	1	1	2	2
Kuwait	6	6	6	7	4
Lebanon	16	17	19	20	19
Libya	-	14	14	15	11
Mauritania	-	-	16	16	17
Morocco	15	15	17	17	15
Oman	8	7	10	12	14
Palestine	17	18	20	19	20
Qatar	11	11	7	5	8
Saudi Arabia	5	9	12	8	5
Somalia	-	-	-	-	-
Sudan	3	4	8	1	3
Syria	-	-	15	14	16
Tunisia	9	8	13	13	9
UAE	2	2	3	4	6
Yemen	12	13	11	10	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  
Comparable OECD data is not available for 2008 and 2009



# Mobile OECD 400 messages/month basket ranking

Total results for OECD mobile voice 400 messages basket

Results in USD/PPP including VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	60.33	69.75	29.91	29.91	29.50
Bahrain	45.61	45.50	44.71	44.36	41.39
Comoros	107.74	107.62	107.62	107.62	59.12
Djibouti					
Egypt	84.29	55.08	52.55	52.26	69.09
Iraq	28.47	28.64	29.43	43.16	43.44
Jordan	34.98	34.36	25.93	32.57	32.57
Kuwait	42.23	42.13	41.89	41.52	39.89
Lebanon	90.52	96.72	88.11	81.81	36.83
Libya		48.95	48.99	47.73	45.76
Mauritania			63.97	37.85	37.85
Morocco	96.41	86.65	92.42	45.72	45.41
Oman	23.13	22.21	21.79	21.78	21.54
Palestine	134.09	140.53	137.49	117.46	117.46
Qatar	62.40	61.73	53.67	51.71	45.19
Saudi Arabia	47.07	45.29	47.70	39.16	23.04
Somalia					
Sudan	23.52	28.17	27.54	17.76	17.82
Syria			58.19	90.57	57.98
Tunisia	34.39	32.30	32.90	32.90	32.05
UAE	30.59	30.79	28.78	29.63	28.38
Yemen	52.33	52.44	39.71	51.46	50.52

Arab average	58.71	57.16	53.67	50.85	43.74
OECD average	N/A	N/A	22.93	18.17	16.02

Below Arab average  
 Above Arab average

Ranking for OECD mobile 400 messages basket

	2008	2009	2010	2011	2012
Algeria	11	14	6	4	5
Bahrain	8	9	10	11	11
Comoros	16	17	19	19	18
Djibouti	-	-	-	-	-
Egypt	13	12	13	16	19
Iraq	3	3	5	10	12
Jordan	6	6	2	5	7
Kuwait	7	7	9	9	10
Lebanon	14	16	17	17	8
Libya	-	10	12	13	15
Mauritania	-	-	16	7	9
Morocco	15	15	18	12	14
Oman	1	1	1	2	2
Palestine	17	18	20	20	20
Qatar	12	13	14	15	13
Saudi Arabia	9	8	11	8	3
Somalia	-	-	-	-	-
Sudan	2	2	3	1	1
Syria	-	-	15	18	17
Tunisia	5	5	7	6	6
UAE	4	4	4	3	4
Yemen	10	11	8	14	16

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

Comparable OECD data is not available for 2008 and 2009



# Leased line basket 2012 results (using OECD 2010 baskets)

# Leased line basket, as defined by the OECD (2010 version of OECD baskets)

- 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



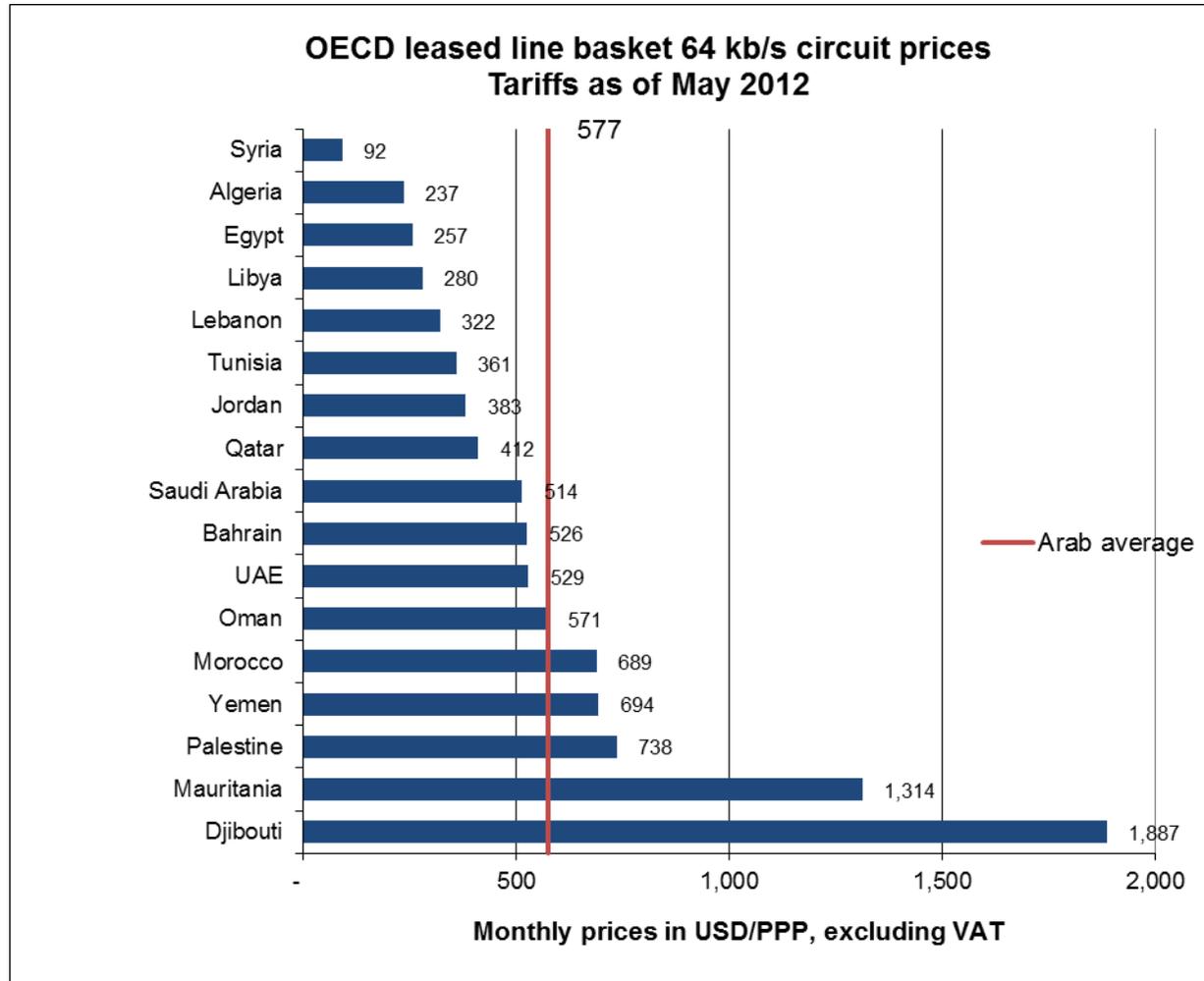
# Leased line data issues

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- Tariff data was researched from operator websites in May 2012.
  - Additional clarifications have been sought from the operators and regulators.
  - Regulators have been offered the opportunity to comment on the tariff information used in this report.
- No price data available for:
  - Comoros
  - Iraq
  - Kuwait
  - Somalia
  - Sudan
- Other countries may have data missing for specific bitrates



# 64 kb/s OECD leased line basket results

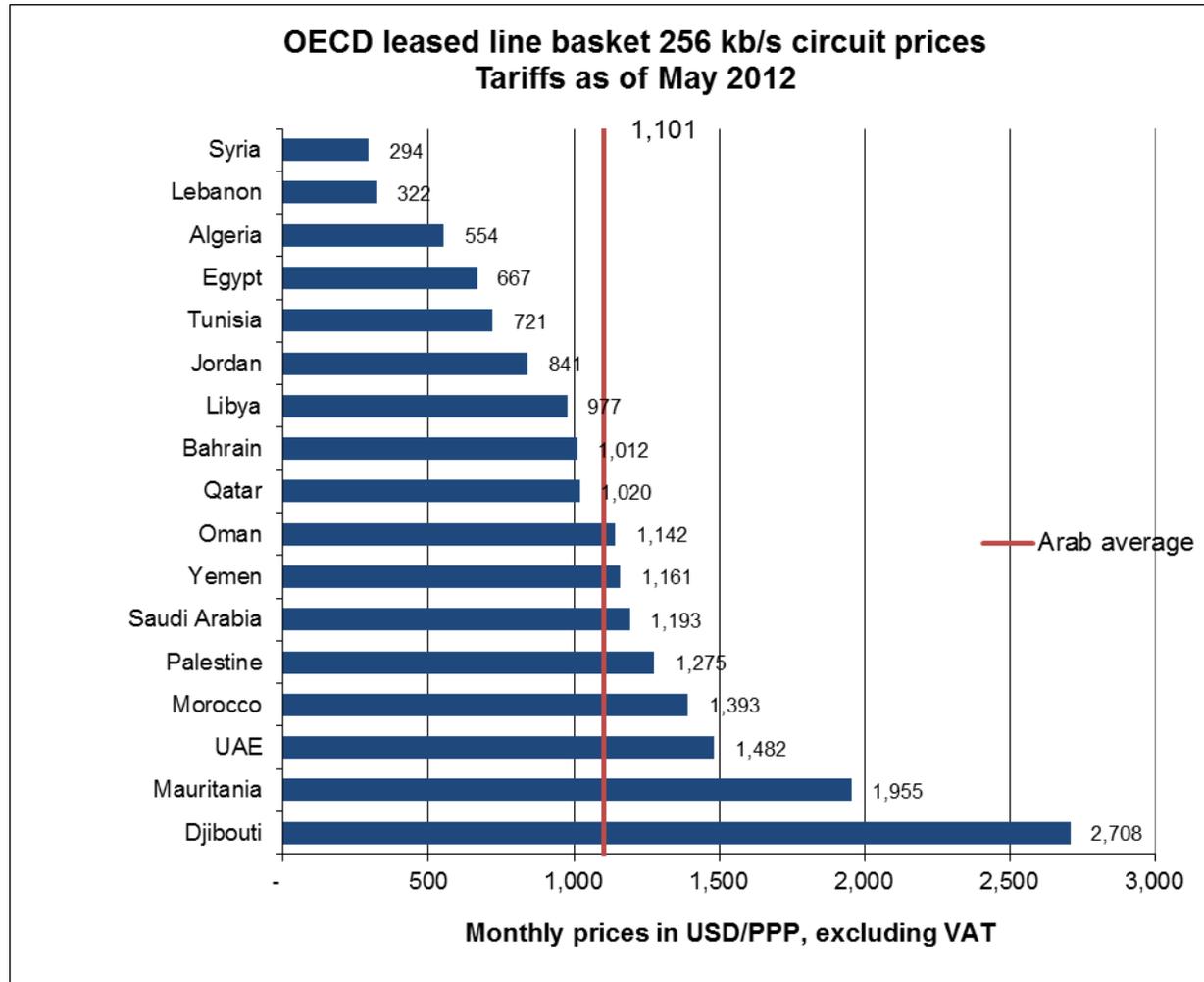


The 64 kb/s basket is no longer covered within the OECD baskets, however the standard 2010 methodology has been applied to 64 kb/s circuits for the Arab countries



Note: No equivalent OECD data exists.

# 256kb/s OECD leased line basket results

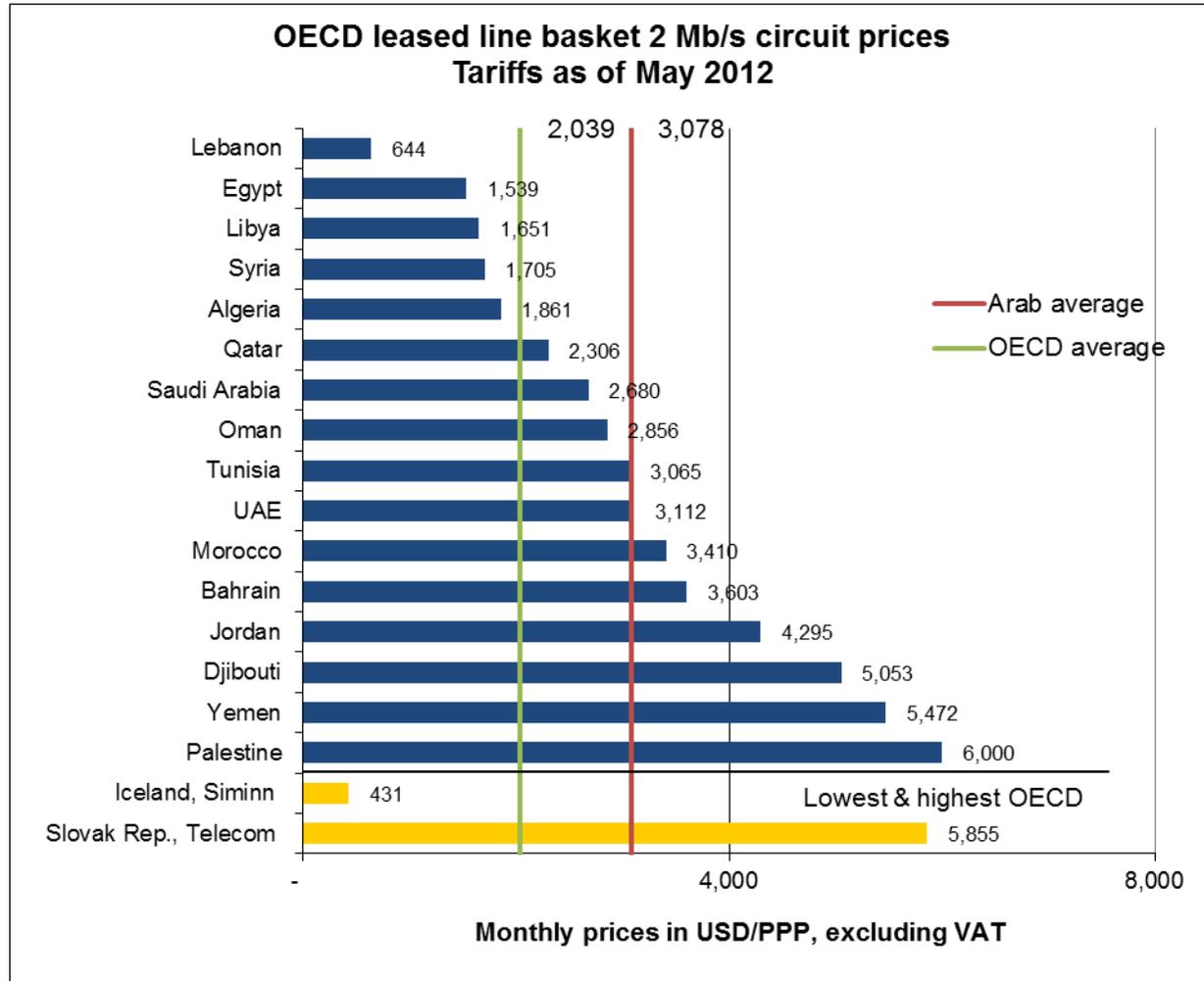


The OECD basket does not cover 256 kb/s, however the standard 2010 methodology has been applied to 256 kb/s circuits for the Arab countries



Note: No equivalent OECD data exists.

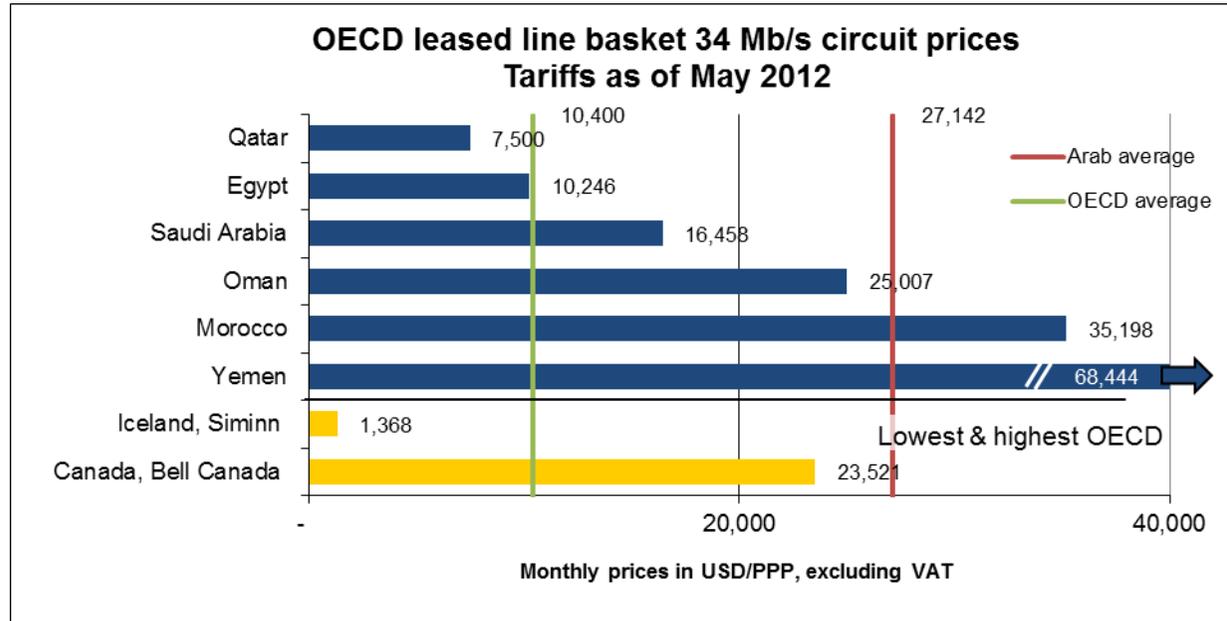
# 2 Mb/s OECD leased line basket results



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



# 34 Mb/s OECD leased line basket results



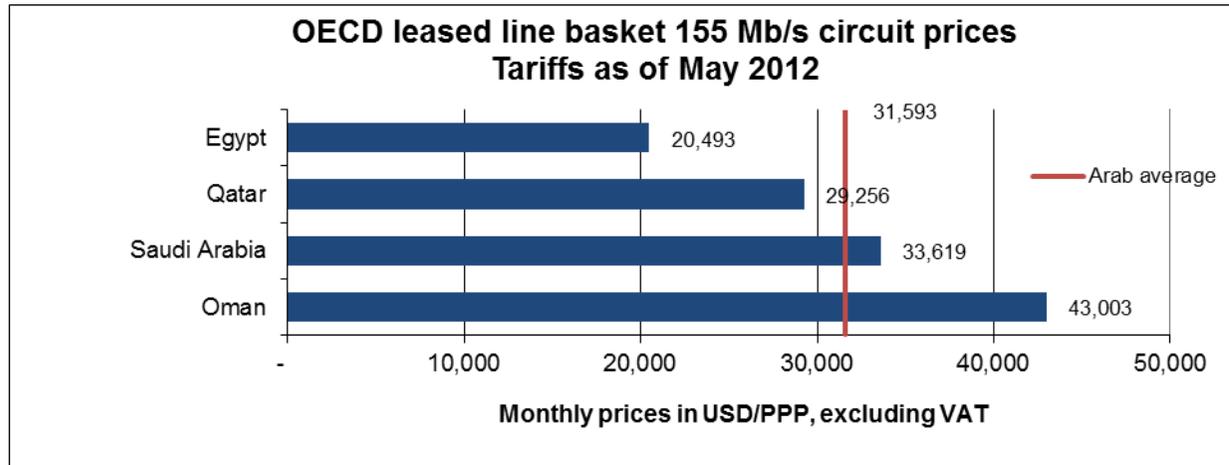
The OECD data shown represents the lowest and highest prices found in OECD countries, and the average across all 34 OECD countries.

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

Note that the horizontal axis has been manually adjusted, and the bar for Yemen is not shown fully, as this would make the other results difficult to read.



# 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

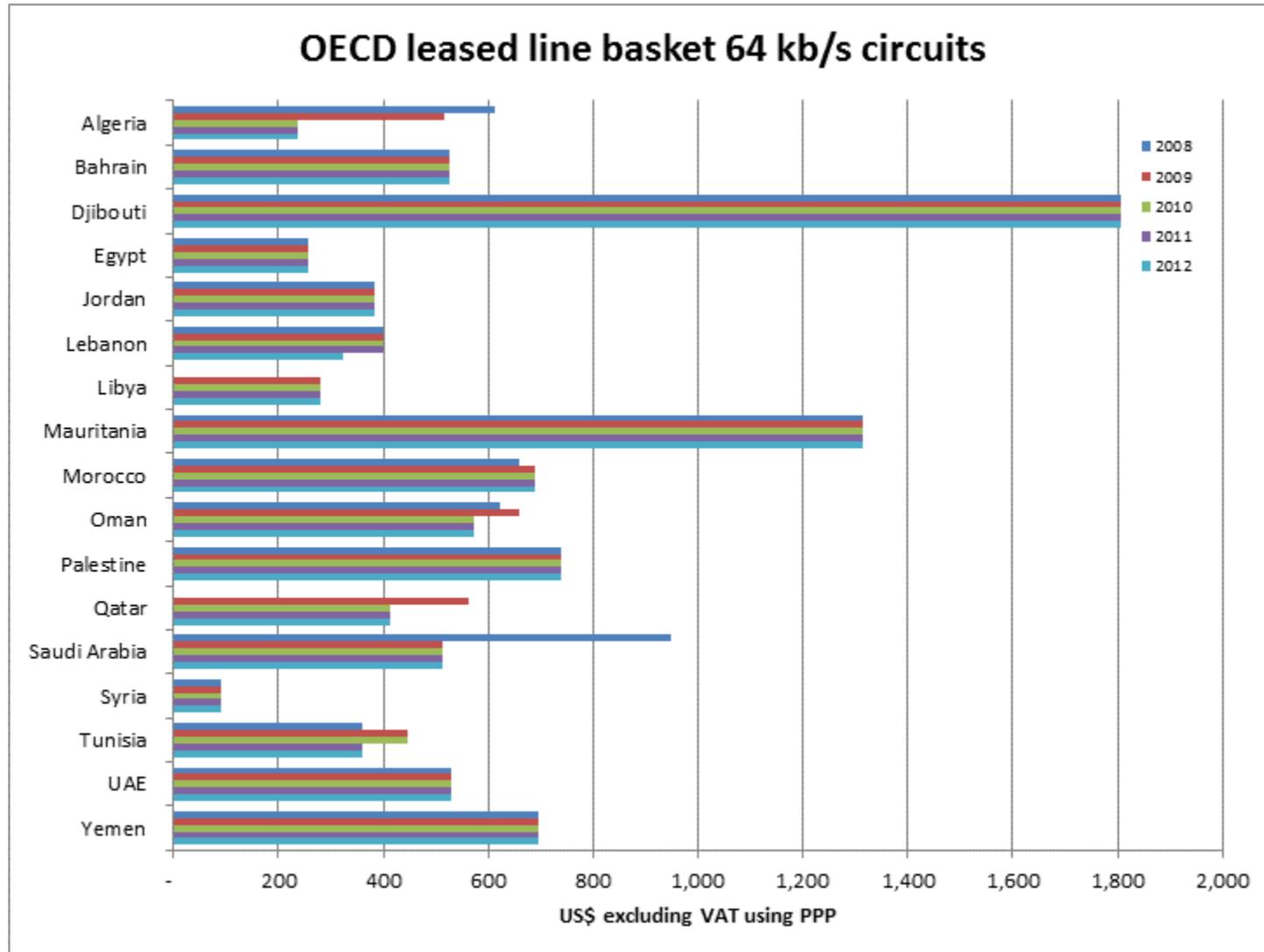
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- Algeria, Egypt, Libya, Lebanon and Syria have the lowest prices for National Leased Lines.
  - The price ranking may vary with product
- For 34 Mb/s and 155 Mb/s a lot of the prices are not available in the public domain, and have not been included.
- For 64 kb/s and 256 kb/s, the prices in Djibouti and Mauritania stands out as very high – this is no change from 2011
- 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” at this speed
  - 5 of the 16 Arab countries (less than 1/3) are below the OECD average, which is slightly better than in 2011.
- Although the 34 Mb/s average for the Arab countries is considerably higher than the OECD average at this speed, - almost 3 times – this is as a result of particularly high circuit costs in Yemen and, to a lesser extent, Morocco
  - 3 of the 6 Arab countries analysed are on par with 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 worse than shown here.

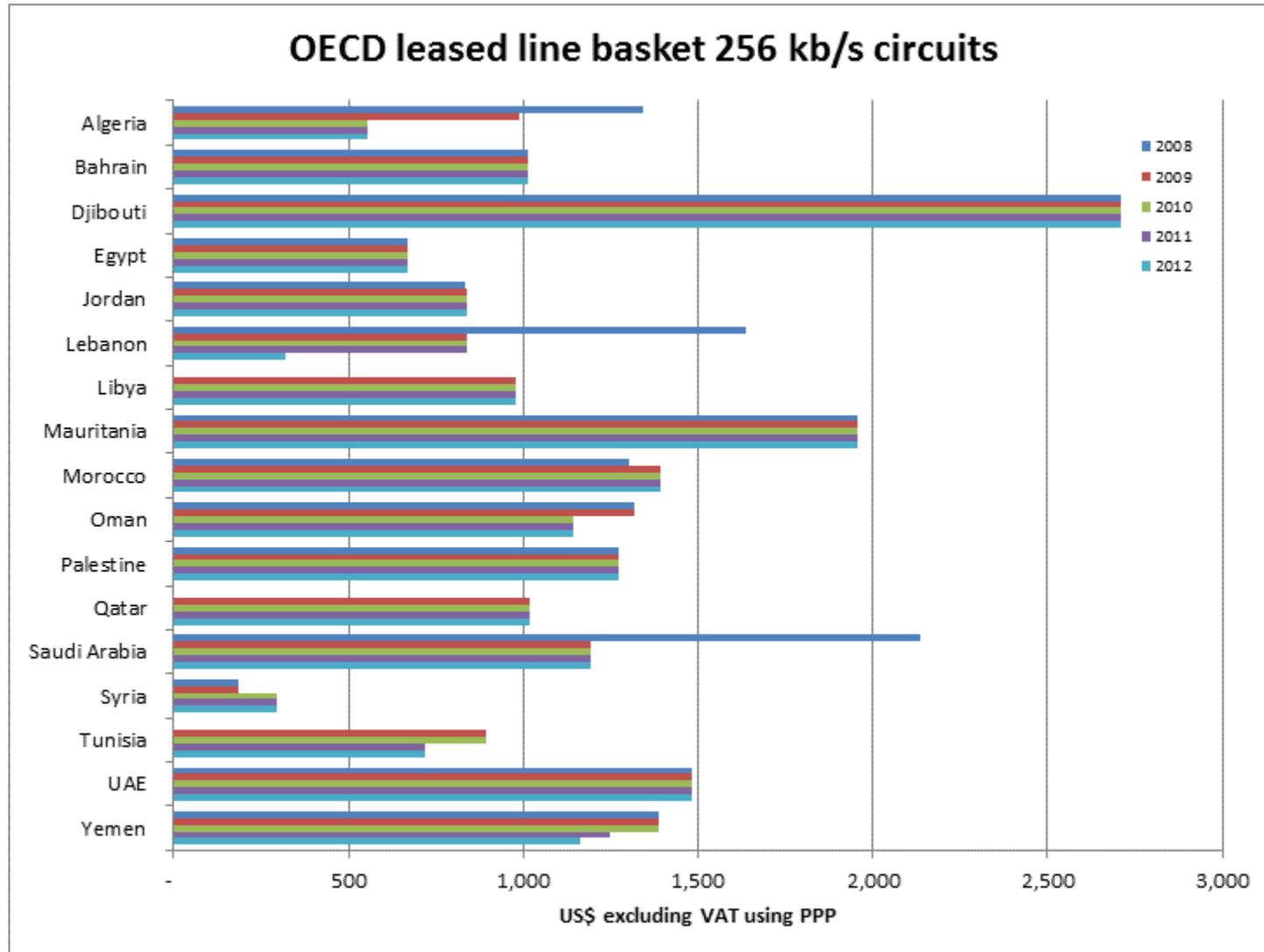


# Leased line time series analysis (using OECD 2010 baskets)

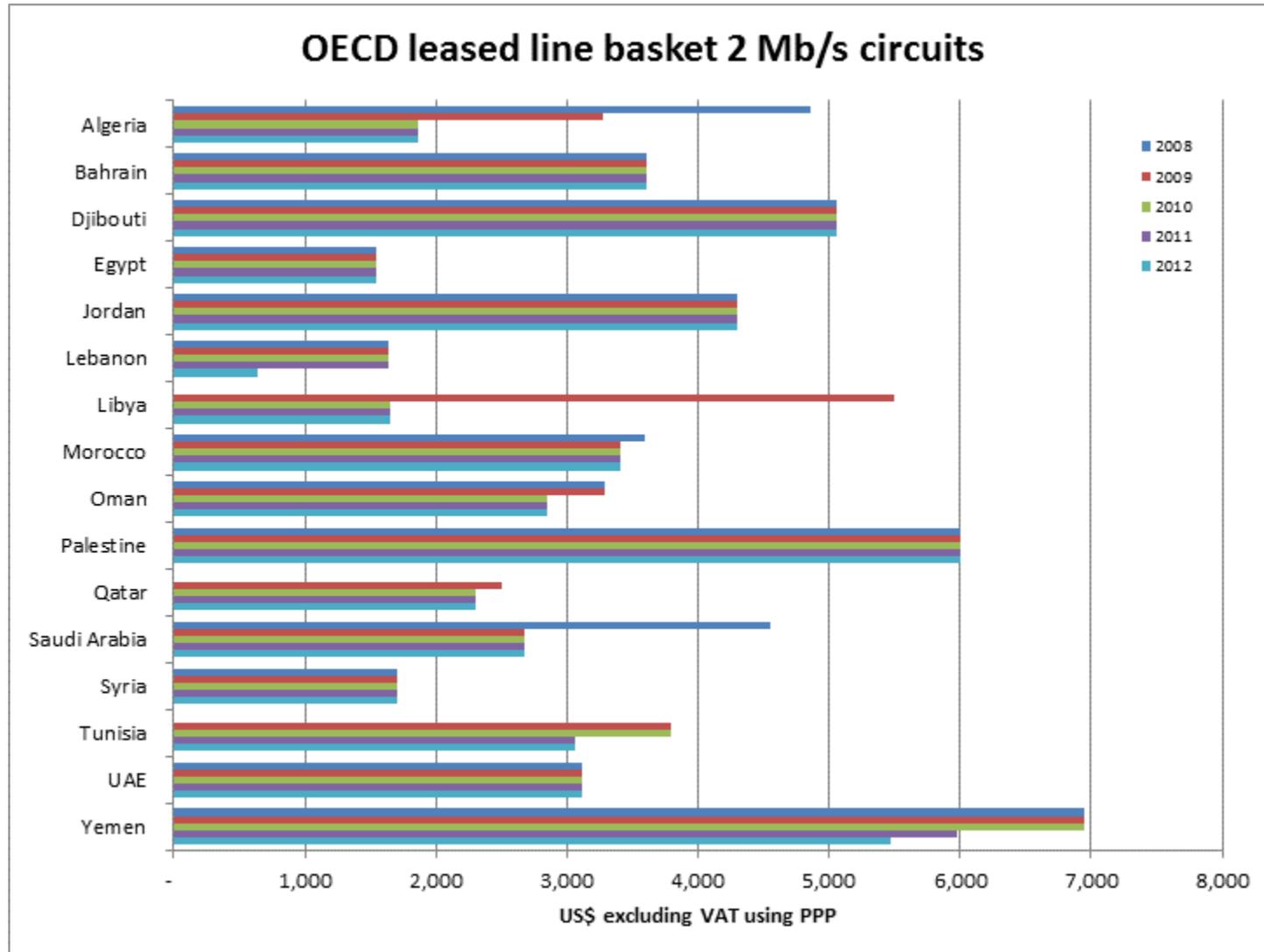
# 2010 OECD leased line baskets time series, 64 kb/s



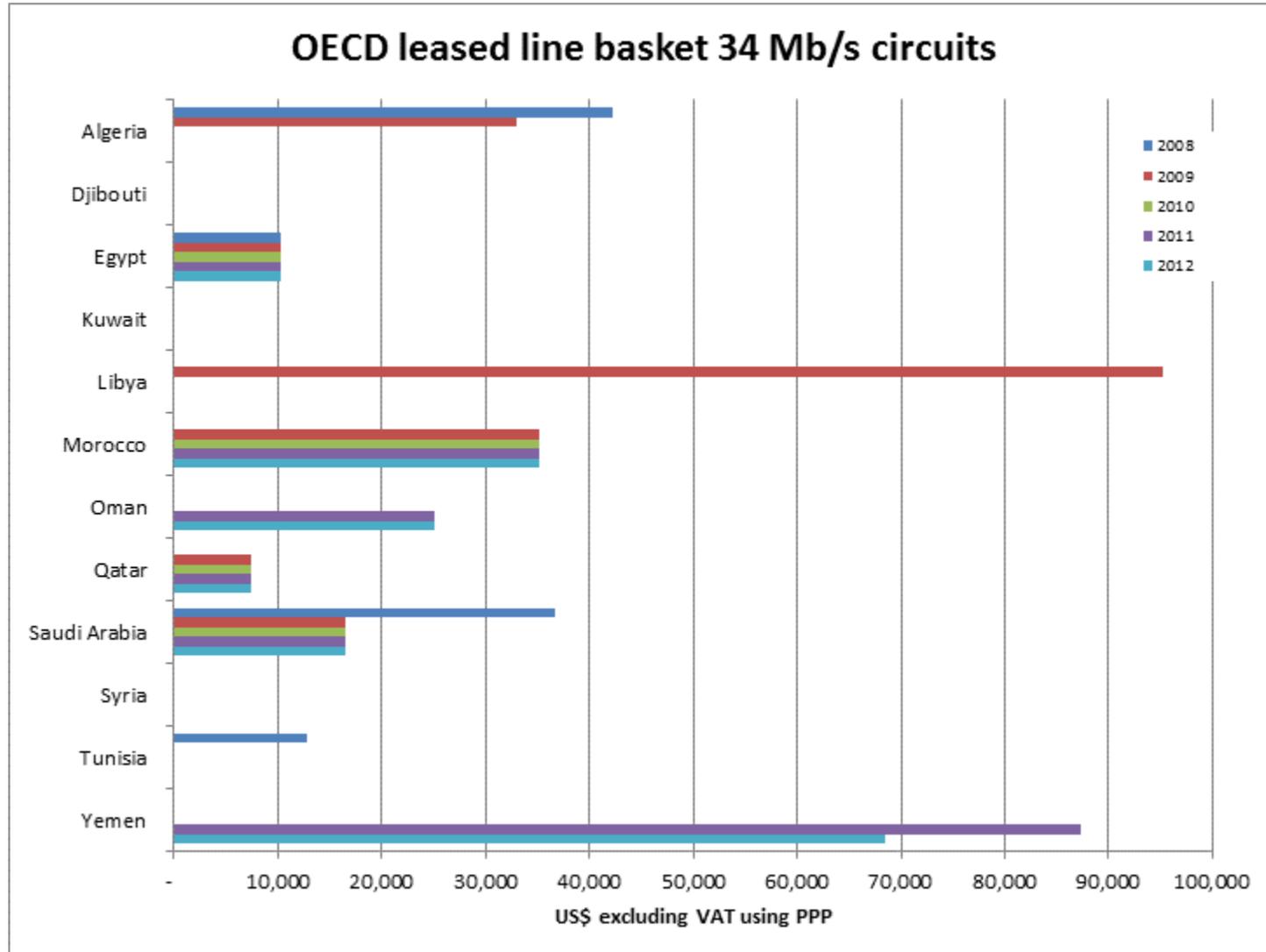
# 2010 OECD leased line baskets time series, 256 kb/s



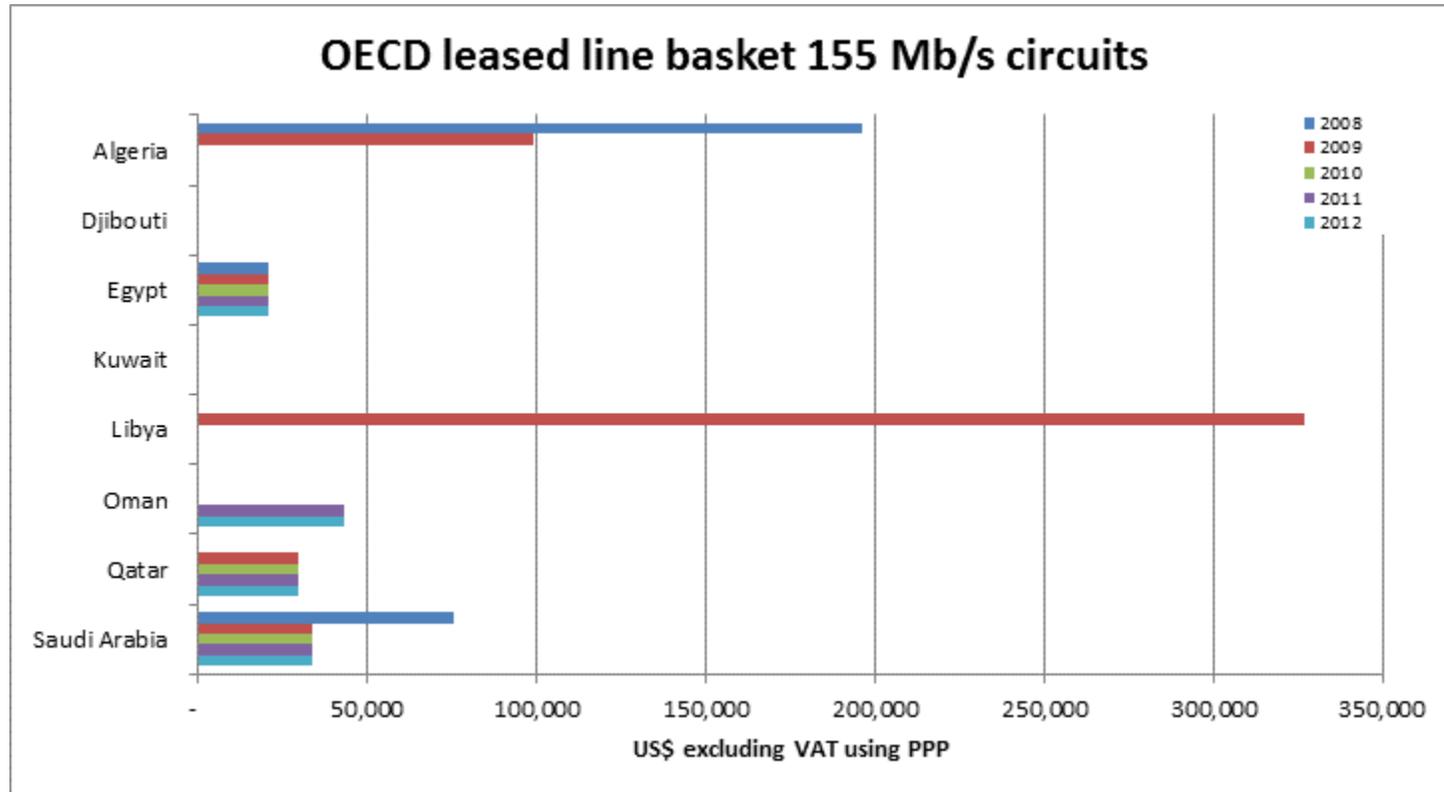
# 2010 OECD leased line baskets time series, 2 Mb/s



# 2010 OECD leased line baskets time series, 34 Mb/s



# 2010 OECD leased line baskets time series, 155 Mb/s



# Observations from leased line time series results

- Leased line prices have been generally stable, with no change to most of the operator prices.
- Price reductions occurred in only two countries between 2011 and 2012:
  - Lebanon: 64 kb/s, 256 kb/s and 2 Mb/s circuit prices were reduced
  - Yemen: 256 kb/s, 2 Mb/s and 34 Mb/s circuit prices were reduced.
  - No price changes recorded in other countries.
- The Arab average has fallen for slightly for 64 kb/s, 256 kb/s, 2 Mb/s and 34 Mb/s circuits, due to the price reductions

	2010-2011	2011-2012
64 kb/s	-1%	-1%
256 kb/s	-2%	-3%
2 Mb/s	-3%	-3%
34 Mb/s		-10%
155 Mb/s		0%

*Please note: Some changes are taken out of the table above because there are inconsistent average values due to different countries included in the average.*



# Leased line ranking tables, 2008-2012

# OECD leased line basket 64 kb/s ranking

Total results for OECD 64 kb/s leased line basket  
Results in USD/PPP excluding VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	611	516	237	237	237
Bahrain	526	526	526	526	526
Comoros					
Djibouti	1,887	1,887	1,887	1,887	1,887
Egypt	257	257	257	257	257
Iraq					
Jordan	383	383	383	383	383
Kuwait					
Lebanon	399	399	399	399	322
Libya		280	280	280	280
Mauritania	1,314	1,314	1,314	1,314	1,314
Morocco	657	689	689	689	689
Oman	622	658	571	571	571
Palestine	738	738	738	738	738
Qatar		562	412	412	412
Saudi Arabia	948	514	514	514	514
Somalia					
Sudan					
Syria	92	92	92	92	92
Tunisia	361	447	447	361	361
UAE	529	529	529	529	529
Yemen	694	694	694	694	694

Arab average	668	617	586	581	577
OECD average	N/A	N/A	N/A	N/A	N/A

■ Below Arab average  
■ Above Arab average

Comparable OECD data is not available

Ranking for OECD 64 kb/s leased line basket

	2008	2009	2010	2011	2012
Algeria	8	8	2	2	2
Bahrain	6	9	10	10	10
Comoros	-	-	-	-	-
Djibouti	15	17	17	17	17
Egypt	2	2	3	3	3
Iraq	-	-	-	-	-
Jordan	4	4	5	6	7
Kuwait	-	-	-	-	-
Lebanon	5	5	6	7	5
Libya	-	3	4	4	4
Mauritania	14	16	16	16	16
Morocco	10	13	13	13	13
Oman	9	12	12	12	12
Palestine	12	15	15	15	15
Qatar	-	11	7	8	8
Saudi Arabia	13	7	9	9	9
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	1	1	1	1	1
Tunisia	3	6	8	5	6
UAE	7	10	11	11	11
Yemen	11	14	14	14	14

■ Least expensive  
■ Most expensive



# OECD leased line basket 256 kb/s ranking

Total results for OECD 256 kb/s leased line basket  
Results in USD/PPP excluding VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	1,342	986	554	554	554
Bahrain	1,012	1,012	1,012	1,012	1,012
Comoros					
Djibouti	2,708	2,708	2,708	2,708	2,708
Egypt	667	667	667	667	667
Iraq					
Jordan	836	841	841	841	841
Kuwait					
Lebanon	1,636	838	838	838	322
Libya		977	977	977	977
Mauritania	1,955	1,955	1,955	1,955	1,955
Morocco	1,301	1,393	1,393	1,393	1,393
Oman	1,316	1,316	1,142	1,142	1,142
Palestine	1,275	1,275	1,275	1,275	1,275
Qatar		1,020	1,020	1,020	1,020
Saudi Arabia	2,136	1,193	1,193	1,193	1,193
Somalia					
Sudan					
Syria	185	185	294	294	294
Tunisia		894	894	721	721
UAE	1,482	1,482	1,482	1,482	1,482
Yemen	1,389	1,389	1,389	1,250	1,161

Arab average	1,374	1,184	1,155	1,137	1,101
OECD average	N/A	N/A	N/A	N/A	N/A

■ Below Arab average  
■ Above Arab average

Comparable OECD data is not available

Ranking for OECD 256 kb/s leased line basket

	2008	2009	2010	2011	2012
Algeria	8	7	2	2	3
Bahrain	4	8	8	8	8
Comoros	-	-	-	-	-
Djibouti	14	17	17	17	17
Egypt	2	2	3	3	4
Iraq	-	-	-	-	-
Jordan	3	4	5	6	6
Kuwait	-	-	-	-	-
Lebanon	11	3	4	5	2
Libya	-	6	7	7	7
Mauritania	12	16	16	16	16
Morocco	6	14	14	14	14
Oman	7	12	10	10	10
Palestine	5	11	12	13	13
Qatar	-	9	9	9	9
Saudi Arabia	13	10	11	11	12
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	1	1	1	1	1
Tunisia	-	5	6	4	5
UAE	10	15	15	15	15
Yemen	9	13	13	12	11

■ Least expensive  
■ Most expensive



# OECD leased line basket 2 Mb/s ranking

Total results for OECD 2 Mb/s leased line basket  
Results in USD/PPP excluding VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	4,854	3,276	1,861	1,861	1,861
Bahrain	3,603	3,603	3,603	3,603	3,603
Comoros					
Djibouti	5,053	5,053	5,053	5,053	5,053
Egypt	1,539	1,539	1,539	1,539	1,539
Iraq					
Jordan	4,295	4,295	4,295	4,295	4,295
Kuwait					
Lebanon	1,636	1,636	1,636	1,636	644
Libya		5,503	1,651	1,651	1,651
Mauritania					
Morocco	3,598	3,410	3,410	3,410	3,410
Oman	3,290	3,290	2,856	2,856	2,856
Palestine	6,000	6,000	6,000	6,000	6,000
Qatar		2,504	2,306	2,306	2,306
Saudi Arabia	4,551	2,680	2,680	2,680	2,680
Somalia					
Sudan					
Syria	1,705	1,705	1,705	1,705	1,705
Tunisia		3,798	3,798	3,065	3,065
UAE	3,112	3,112	3,112	3,112	3,112
Yemen	6,944	6,944	6,944	5,972	5,472

Arab average	3,860	3,647	3,278	3,171	3,078
OECD average	N/A	N/A	1,811	1,783	2,039

■ Below Arab average  
■ Above Arab average

Ranking for OECD 2 Mb/s leased line basket

	2008	2009	2010	2011	2012
Algeria	10	7	5	5	5
Bahrain	7	10	11	12	12
Comoros	-	-	-	-	-
Djibouti	11	13	14	14	14
Egypt	1	1	1	1	2
Iraq	-	-	-	-	-
Jordan	8	12	13	13	13
Kuwait	-	-	-	-	-
Lebanon	2	2	2	2	1
Libya	-	14	3	3	3
Mauritania	-	-	-	-	-
Morocco	6	9	10	11	11
Oman	5	8	8	8	8
Palestine	12	15	15	16	16
Qatar	-	4	6	6	6
Saudi Arabia	9	5	7	7	7
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	3	3	4	4	4
Tunisia	-	11	12	9	9
UAE	4	6	9	10	10
Yemen	13	16	16	15	15

■ Least expensive  
■ Most expensive



Comparable OECD data is not available for 2008 and 2009

# OECD leased line basket 34 Mb/s ranking

Total results for OECD 34 Mb/s leased line basket  
Results in USD/PPP excluding VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	42,180	33,064			
Bahrain					
Comoros					
Djibouti					
Egypt	10,246	10,246	10,246	10,246	10,246
Iraq					
Jordan					
Kuwait					
Lebanon					
Libya		95,208			
Mauritania					
Morocco		35,198	35,198	35,198	35,198
Oman				25,007	25,007
Palestine					
Qatar		7,500	7,500	7,500	7,500
Saudi Arabia	36,746	16,458	16,458	16,458	16,458
Somalia					
Sudan					
Syria					
Tunisia	12,778				
UAE					
Yemen				87,333	68,444

Arab average	25,488	32,946	17,351	30,290	27,142
OECD average	N/A	N/A	10,343	9,568	10,400

■ Below Arab average  
■ Above Arab average

Comparable OECD data is not available for 2008 and 2009

Ranking for OECD 34 Mb/s leased line basket

	2008	2009	2010	2011	2012
Algeria	4	4	-	-	-
Bahrain	-	-	-	-	-
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	1	2	2	2	2
Iraq	-	-	-	-	-
Jordan	-	-	-	-	-
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	6	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	5	4	5	5
Oman	-	-	-	4	4
Palestine	-	-	-	-	-
Qatar	-	1	1	1	1
Saudi Arabia	3	3	3	3	3
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	2	-	-	-	-
UAE	-	-	-	-	-
Yemen	-	-	-	6	6

■ Least expensive  
■ Most expensive



# OECD leased line basket 155 Mb/s ranking

Total results for OECD 155 Mb/s leased line basket  
Results in USD/PPP excluding VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	196,011	99,193			
Bahrain					
Comoros					
Djibouti					
Egypt	20,493	20,493	20,493	20,493	20,493
Iraq					
Jordan					
Kuwait					
Lebanon					
Libya		327,016			
Mauritania					
Morocco					
Oman				43,003	43,003
Palestine					
Qatar		29,256	29,256	29,256	29,256
Saudi Arabia	75,621	33,619	33,619	33,619	33,619
Somalia					
Sudan					
Syria					
Tunisia					
UAE					
Yemen					

Arab average	97,375	101,915	27,789	31,593	31,593
OECD average	N/A	N/A	N/A	N/A	N/A

■ Below Arab average  
■ Above Arab average

Comparable OECD data is not available

Ranking for OECD 155 Mb/s leased line basket

	2008	2009	2010	2011	2012
Algeria	3	4	-	-	-
Bahrain	-	-	-	-	-
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	1	1	1	1	1
Iraq	-	-	-	-	-
Jordan	-	-	-	-	-
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	5	-	-	-
Mauritania	-	-	-	-	-
Morocco	-	-	-	-	-
Oman	-	-	-	4	4
Palestine	-	-	-	-	-
Qatar	-	2	2	2	2
Saudi Arabia	2	3	3	3	3
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	-
UAE	-	-	-	-	-
Yemen	-	-	-	-	-

■ Least expensive  
■ Most expensive



# Fixed broadband basket 2012 results (using OECD 2010 baskets)

# Fixed broadband basket methodology

- Research covering 252 fixed broadband service offerings from the incumbent ISP\* in 19 Arab countries (275 service offerings in total)
- Costs are derived using the OECD broadband basket methodology, and are presented for the OECD low speed (> 256 kb/s), medium speed (>2.5 Mb/s) and high speed (>15 Mb/s) baskets separately, and define the minimum speed requirement for each basket. There are higher speed OECD baskets, however there are hardly any relevant services available within the Arab countries
  - Most providers do not offer services across all three categories
  - Costs shown are for both residential and business services
- Total monthly cost calculated based on two usage profiles, which are dependent on the speed of service:
  - Low speed:
    - low usage: 2 GB and 10 hours per month, in 60 minute sessions.
    - high usage: 6 GB and 30 hours per month, in 60 minute sessions.
  - Medium speed
    - low usage: 6 GB and 15 hours per month, in 60 minute sessions.
    - high usage: 18 GB and 45 hours per month, in 60 minute sessions.
  - High speed
    - low usage: 11 GB and 20 hours per month, in 60 minute sessions.
    - high usage: 33 GB and 60 hours per month, in 60 minute sessions.
- Only “actual price” results are shown in this report.
  - “Actual price” refers to the monthly cost paid by the customer, as opposed to the “Normalised” price per 1 Mb/s that can also be produced by the benchmarking system
- 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
  - Please also see the document on “AREGNET Price Benchmarking Methodology



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

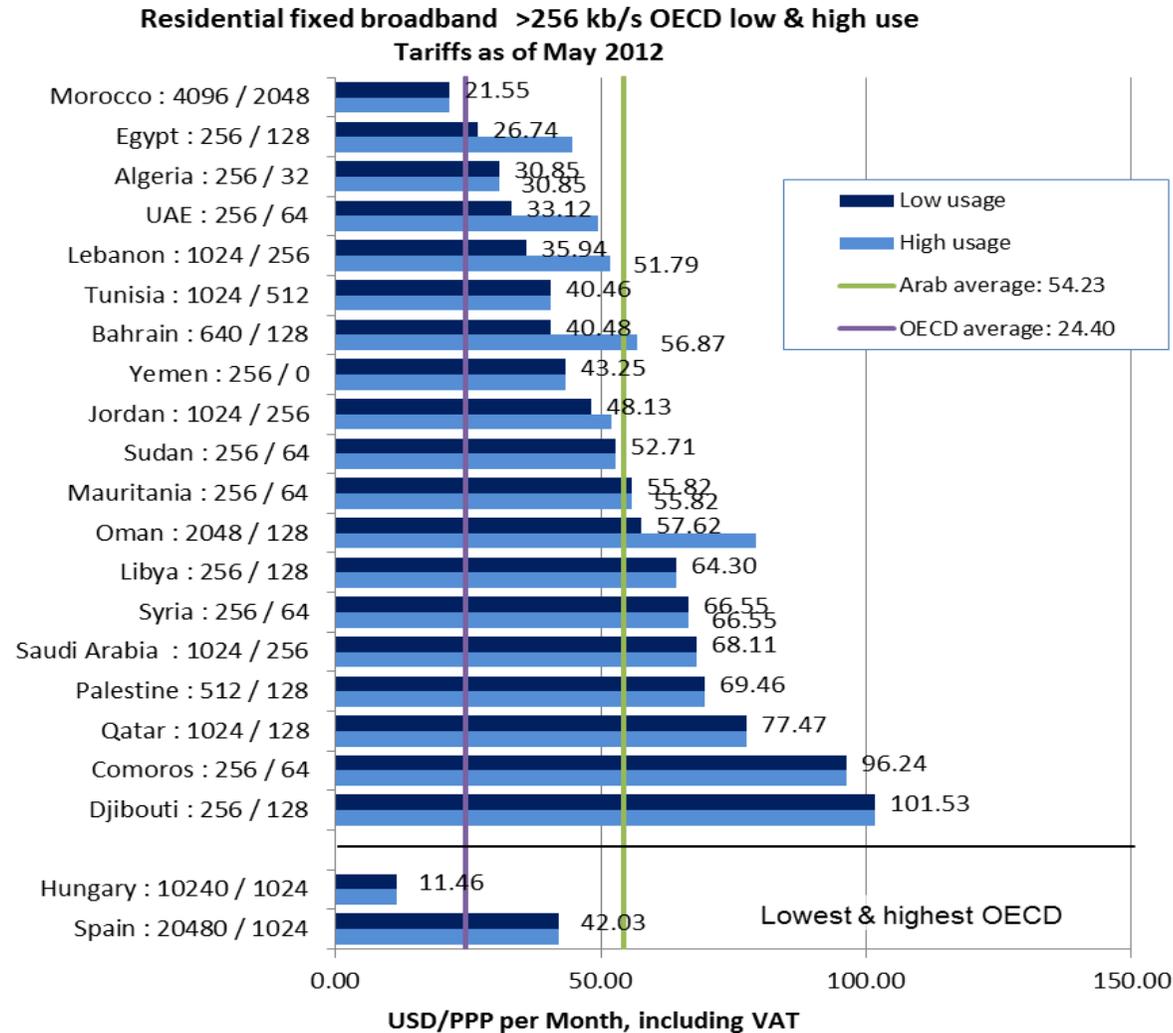
# Fixed broadband data issues

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- Tariff data was researched from operator websites in May 2012.
- Price data is not available for broadband services in:
  - Iraq
  - Kuwait
  - Somalia
- Regulators have been offered the opportunity to comment on the tariff information used in this report.
- Speeds have increased since 2011, with only one operator, Mauritel in Mauritania having an offering below 256 kb/s. Maximum speeds have increased dramatically.
  - Speeds above 2 Mb/s are available in 16 of the 19 countries, five more than in 2011 - only 3 countries, Comoros, Sudan and Yemen have broadband speeds not exceeding 2 Mb/s
  - 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 5.44 Mb/s to 6.79 Mb/s



# Residential fixed broadband low speed OECD basket > 256 kb/s



Total monthly cost calculated based on two usage baskets:

**Low usage:** 2 GB and 10 hours per month, in 60 minute sessions.

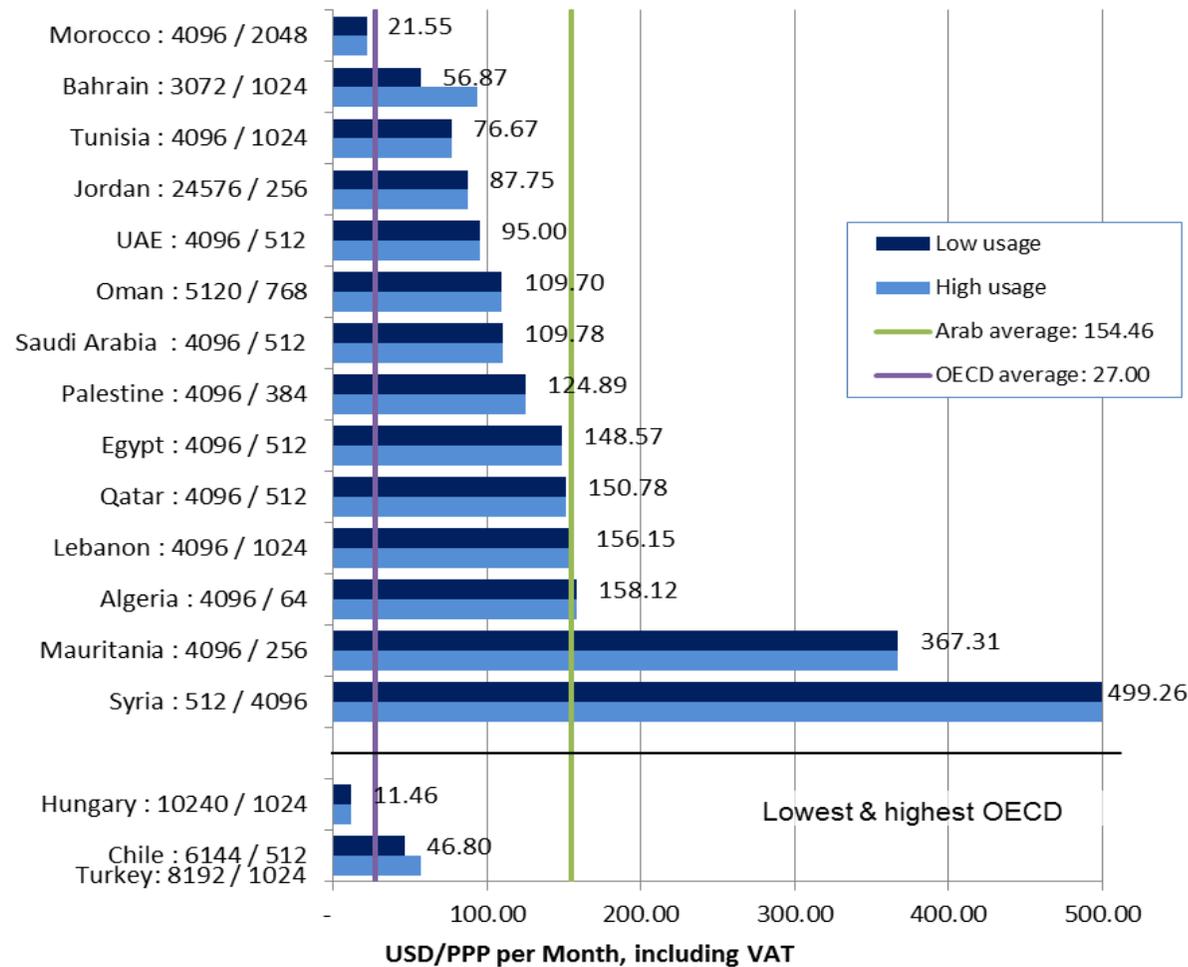
**High usage:** 6 GB and 30 hours per month, in 60 minute sessions.

Average lines are based on the low usage results.



# Residential fixed broadband medium speed OECD basket > 2.5 Mb/s

Residential fixed broadband >2.5 Mb/s OECD low & high use  
Tariffs as of May 2012



Total monthly cost calculated based on two usage baskets:

**Low usage:** 6 GB and 15 hours per month, in 60 minute sessions.

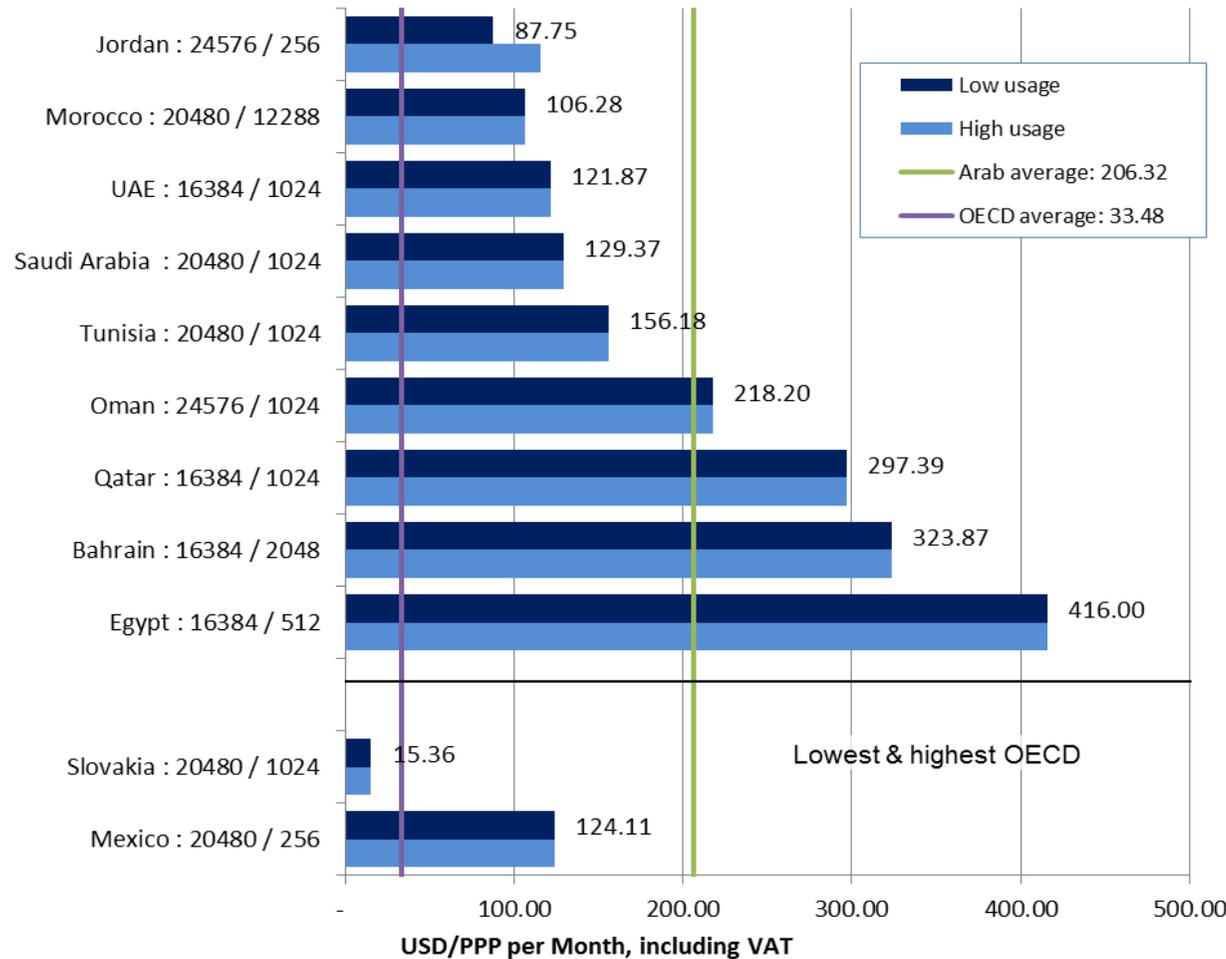
**High usage:** 18 GB and 45 hours per month, in 60 minute sessions.

Average lines are based on the low usage results.



# Residential fixed broadband high speed OECD basket > 15 Mb/s

Residential fixed broadband >15 Mb/s OECD low & high use  
Tariffs as of May 2012



Total monthly cost calculated based on two usage baskets:

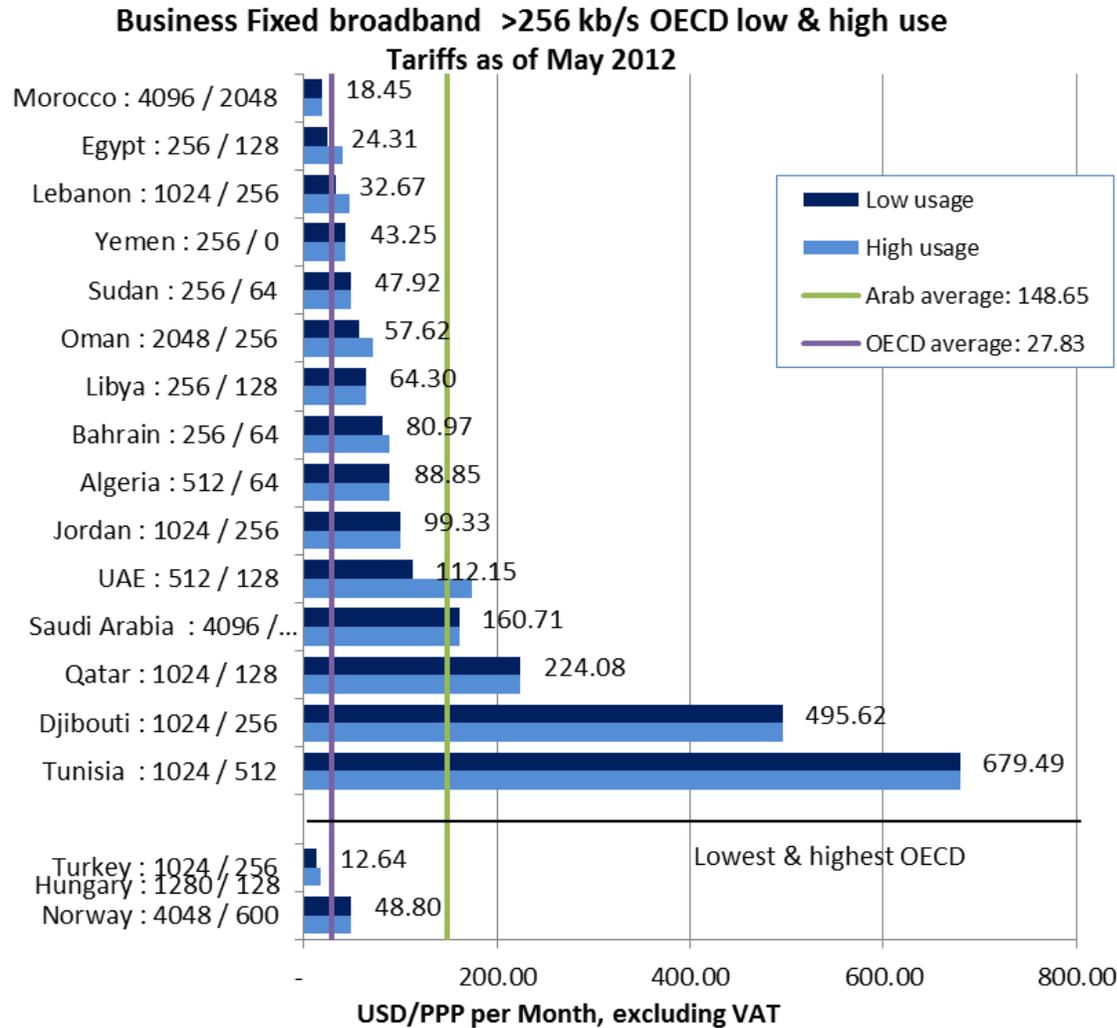
**Low usage:** 11 GB and 20 hours per month, in 60 minute sessions.

**High usage:** 33 GB and 60 hours per month, in 60 minute sessions.

Average lines are based on the low usage results.



# Business fixed broadband low speed OECD basket > 256 kb/s



Total monthly cost calculated based on two usage baskets:

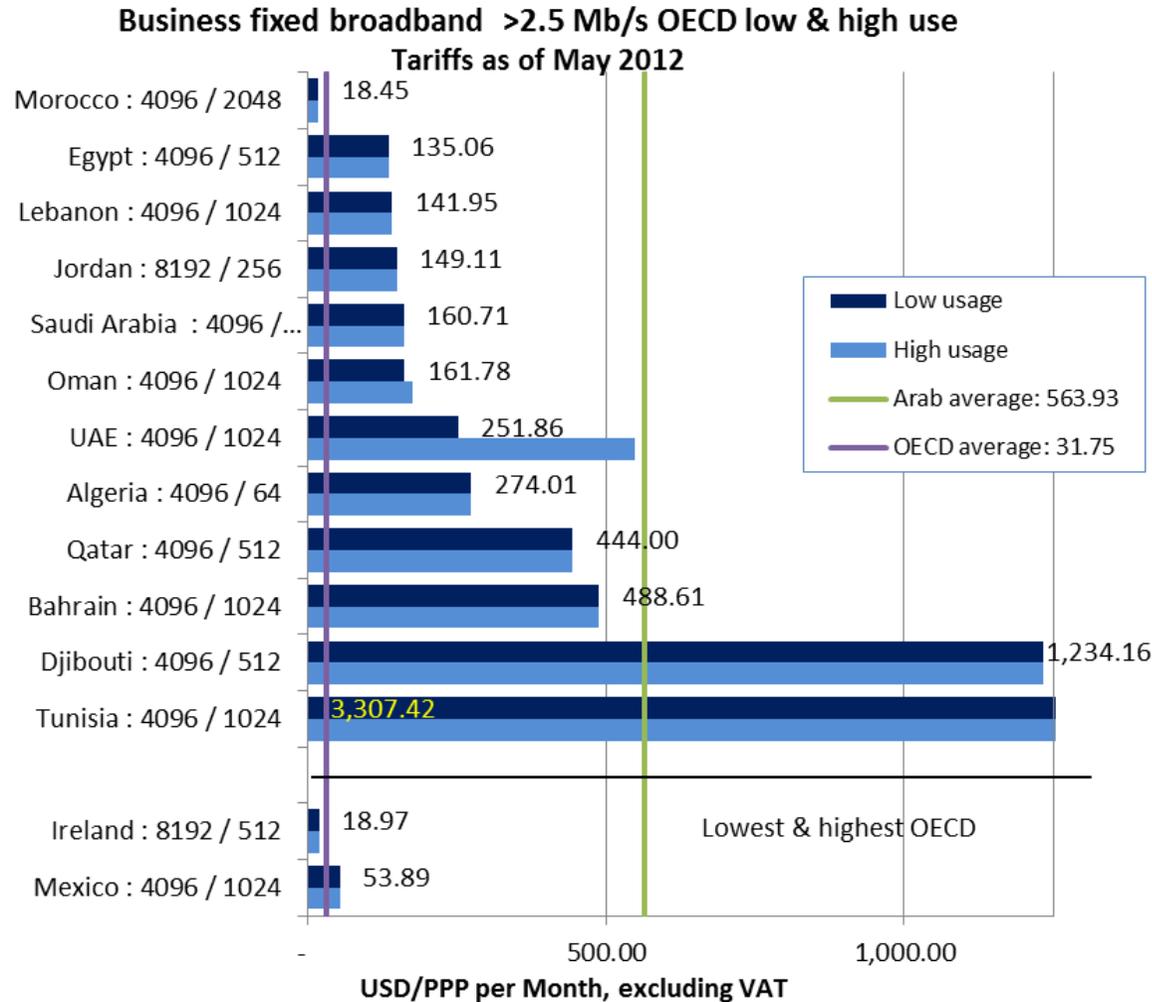
**Low usage:** 2 GB and 10 hours per month, in 60 minute sessions.

**High usage:** 6 GB and 30 hours per month, in 60 minute sessions.

Average lines are based on the low usage results.



# Business fixed broadband medium speed OECD basket > 2.5 Mb/s



Total monthly cost calculated based on two usage baskets:

**Low usage:** 6 GB and 15 hours per month, in 60 minute sessions.

**High usage:** 18 GB and 45 hours per month, in 60 minute sessions.

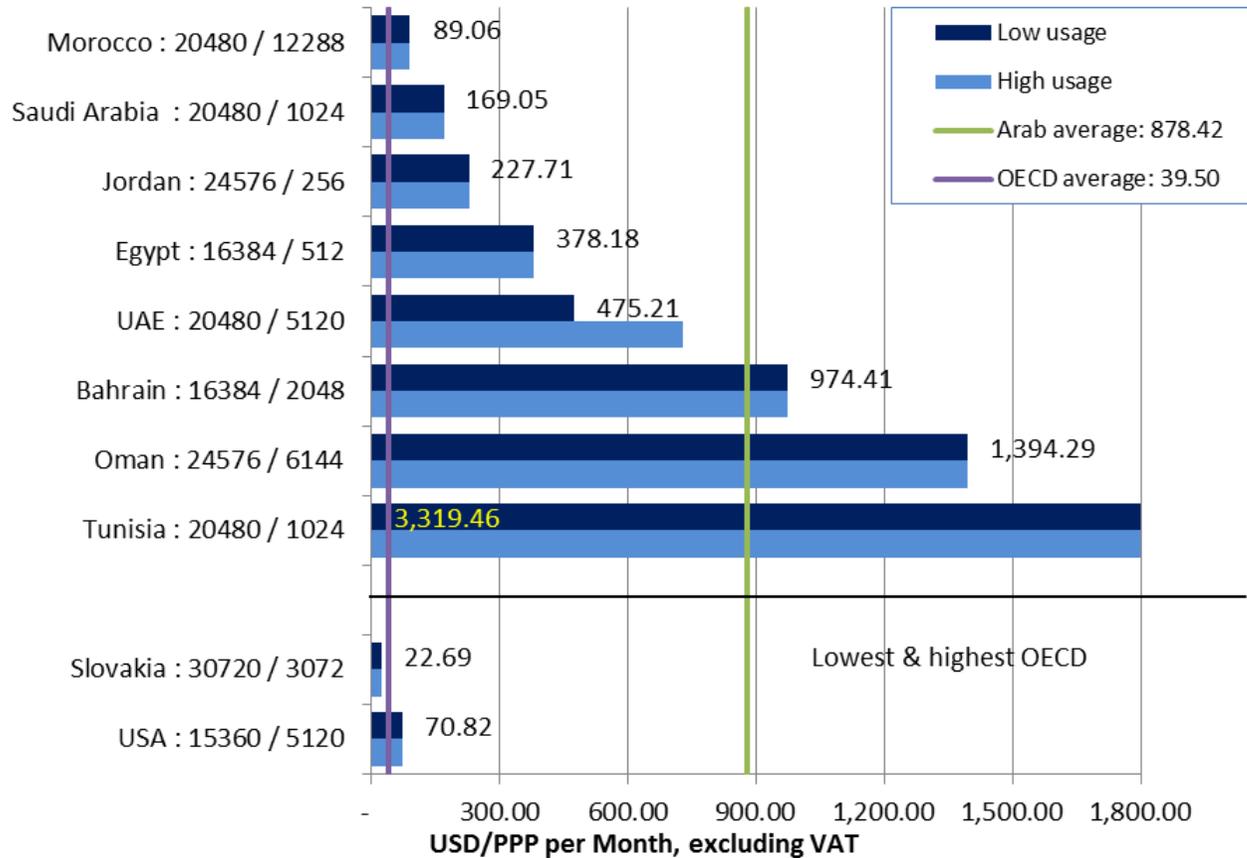
Note that the horizontal axis has been manually adjusted, and the bar for Tunisia is not shown fully, as this would make the other results difficult to read

Average lines are based on the low usage results.



# Business fixed broadband high speed OECD basket > 15 Mb/s

Business fixed broadband >15 Mb/s OECD low & high use  
Tariffs as of May 2012



Total monthly cost calculated based on two usage baskets:

**Low usage:** 11 GB and 20 hours per month, in 60 minute sessions.

**High usage:** 33 GB and 60 hours per month, in 60 minute sessions.

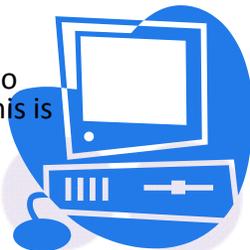
Note that the horizontal axis has been manually adjusted, and the bar for Tunisia is not shown fully, as this would make the other results difficult to read

Average lines are based on the low usage results.



# Observations from fixed broadband basket results

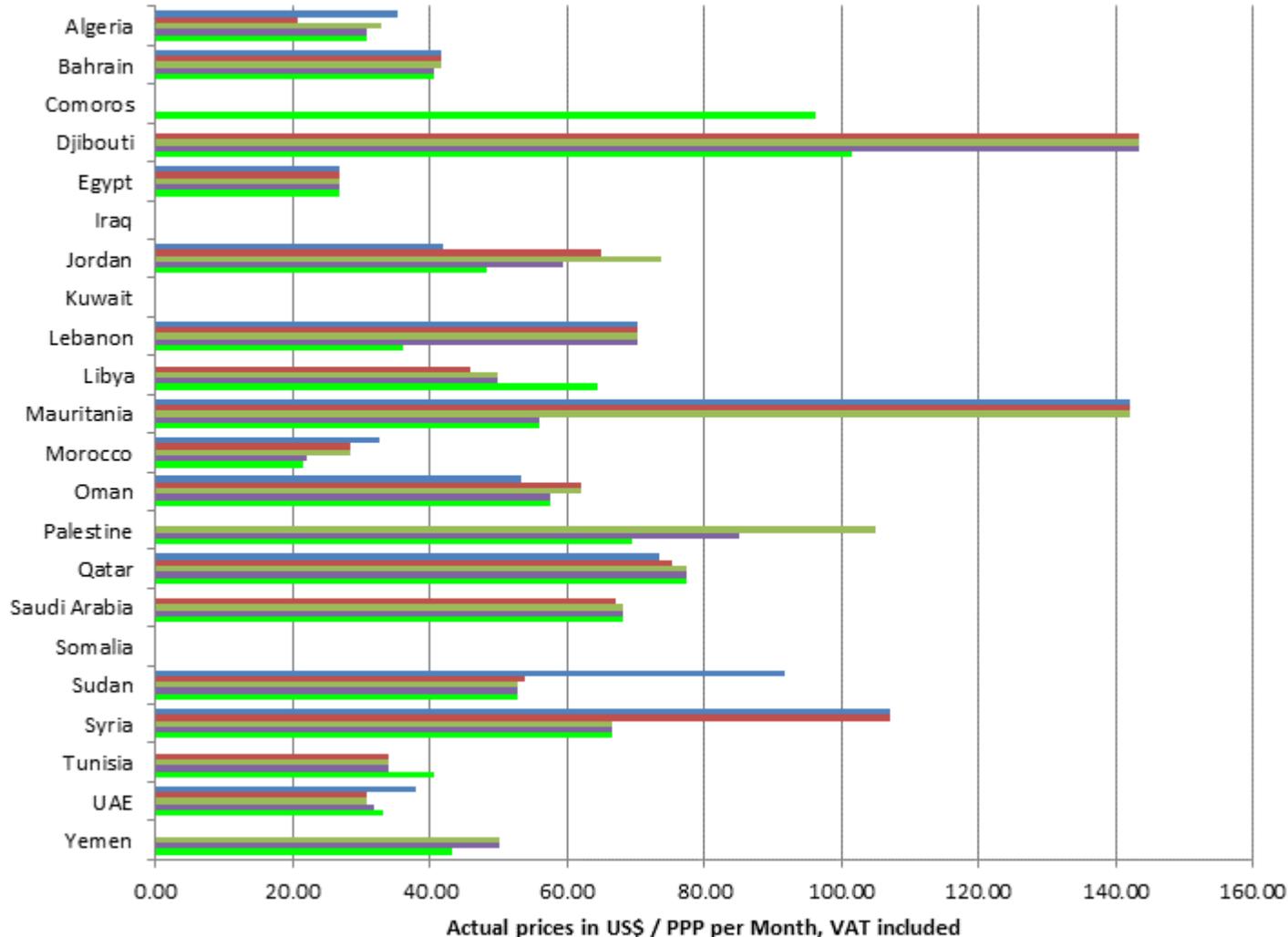
- Morocco generally has the lowest prices for residential broadband, while Morocco and Egypt generally offer the lowest prices for business services. Prices in other countries vary more with speed.
- Speeds above 4 Mb/s are now offered in 15 of the countries:
  - Algerian, Bahrain, Djibouti, Egypt, Jordan, Lebanon, Mauritania, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Syria, Tunisia, UAE.
  - There were 9 last year
  - There continues to be a wide variation in prices between countries
- Speeds below 256 kb/s have all but disappeared in Arab countries
  - Only Mauritania has 1 offer at less than 256 kb/s; ISP Mauritel also offers a range of other speeds, up to 4 Mb/s
- With the exception of Morocco, all the Arab countries are above the OECD average for the low speed basket for residential services.
  - And are significantly more expensive than the cheapest OECD country, while less than half are below or on par with the most expensive
  - Business services show a similar picture
- All Arab countries within the 2.5 Mb/s medium speed basket with the exception of Morocco are more expensive than the OECD average for residential broadband. For business broadband, only Morocco (low and high usage) and Egypt (low usage only) fall below the OECD average
  - 14 operators offer services above 2.5 Mb/s, compared to 11 in 2011
  - The Arab average residential cost is 5.7 times higher than the average OECD cost, which is slightly up on the 2011 position. For business services, this is 18 times, compared to 22 times in 2011.
  - The residential figure continues to be skewed by particularly high costs in Mauritania and Syria. For business services, while Qatar, UAE and Bahrain are comparatively expensive, the Arab average is heavily skewed by the Djibouti and Tunisian costs.
- 9 operators now offer residential service above 15 Mb/s, while 8 offer business services over 15 Mb/s
  - All are more expensive than the OECD average cost for this basket, and by some considerable way and, with the exception of Jordan and Morocco residential services, are more expensive than the most expensive OECD operator
  - Etisalat in UAE now offers fibre-based services, which are available at speeds of up to 100 Mb/s
- ISPs in 8 of the Arab countries levy usage-based charges, some of which apply at relatively low levels of usage. Compared to many OECD countries, where usage-based charges often only apply for a very few ISPs, and at quite high levels of usage, this is quite unusual.



# Fixed broadband time series analysis (2010 version of OECD baskets)

# 2010 OECD fixed broadband time series, residential low usage, low speed >256 kb/s basket

Fixed Broadband >0.25 Mb/s / 10 hours / 2 GB per month.



**Low usage:** 2 GB and 10 hours per month, in 60 minute sessions.

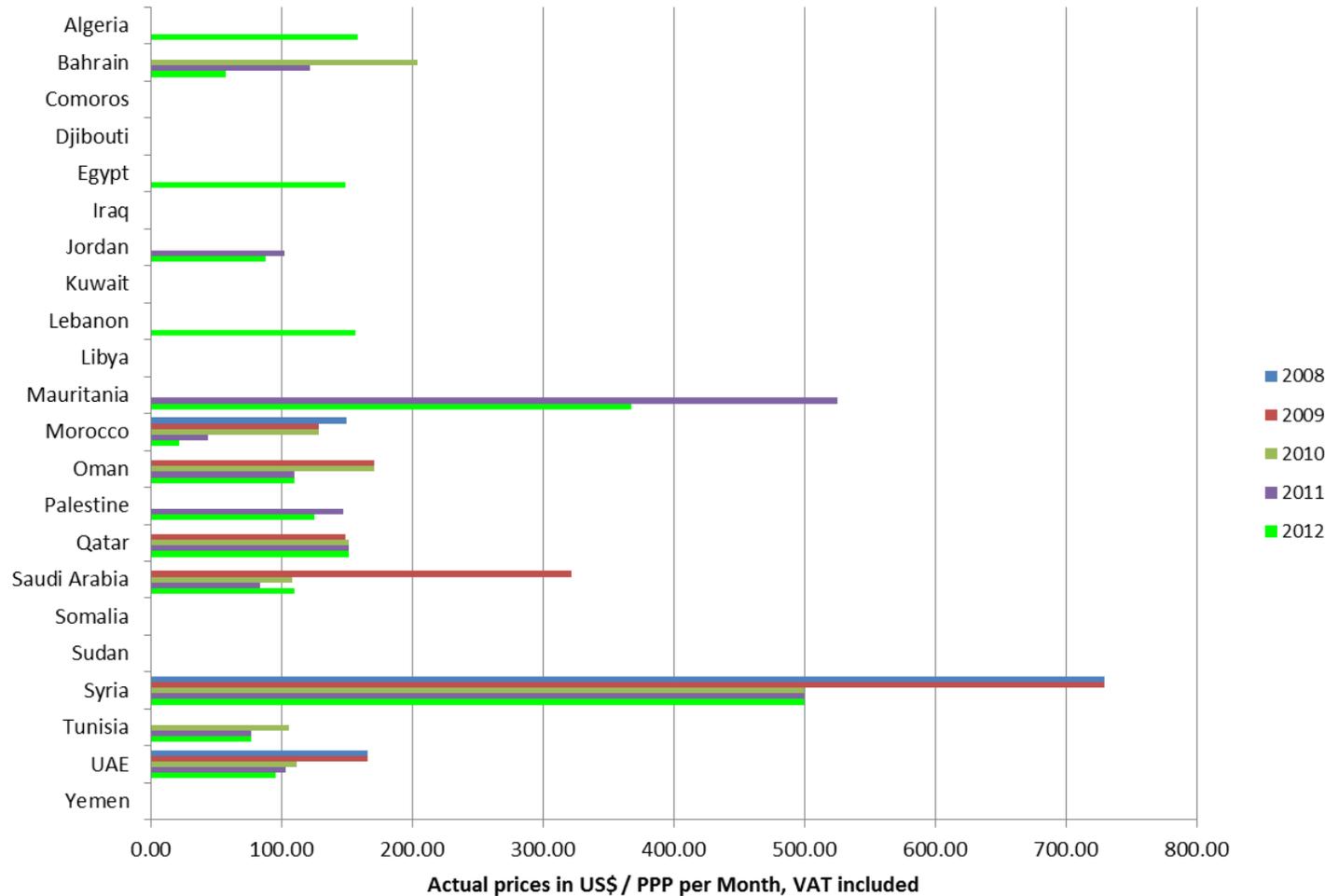
Note that the data for Djibouti (2008) and Yemen (2008 and 2009) is not shown, as this would make the other results difficult to read.

- 2008
- 2009
- 2010
- 2011
- 2012



# 2010 OECD fixed broadband time series, residential low usage, medium speed >2.5 Mb/s basket

## Fixed Broadband >2.5 Mb/s / 15 hours / 6 GB per month.

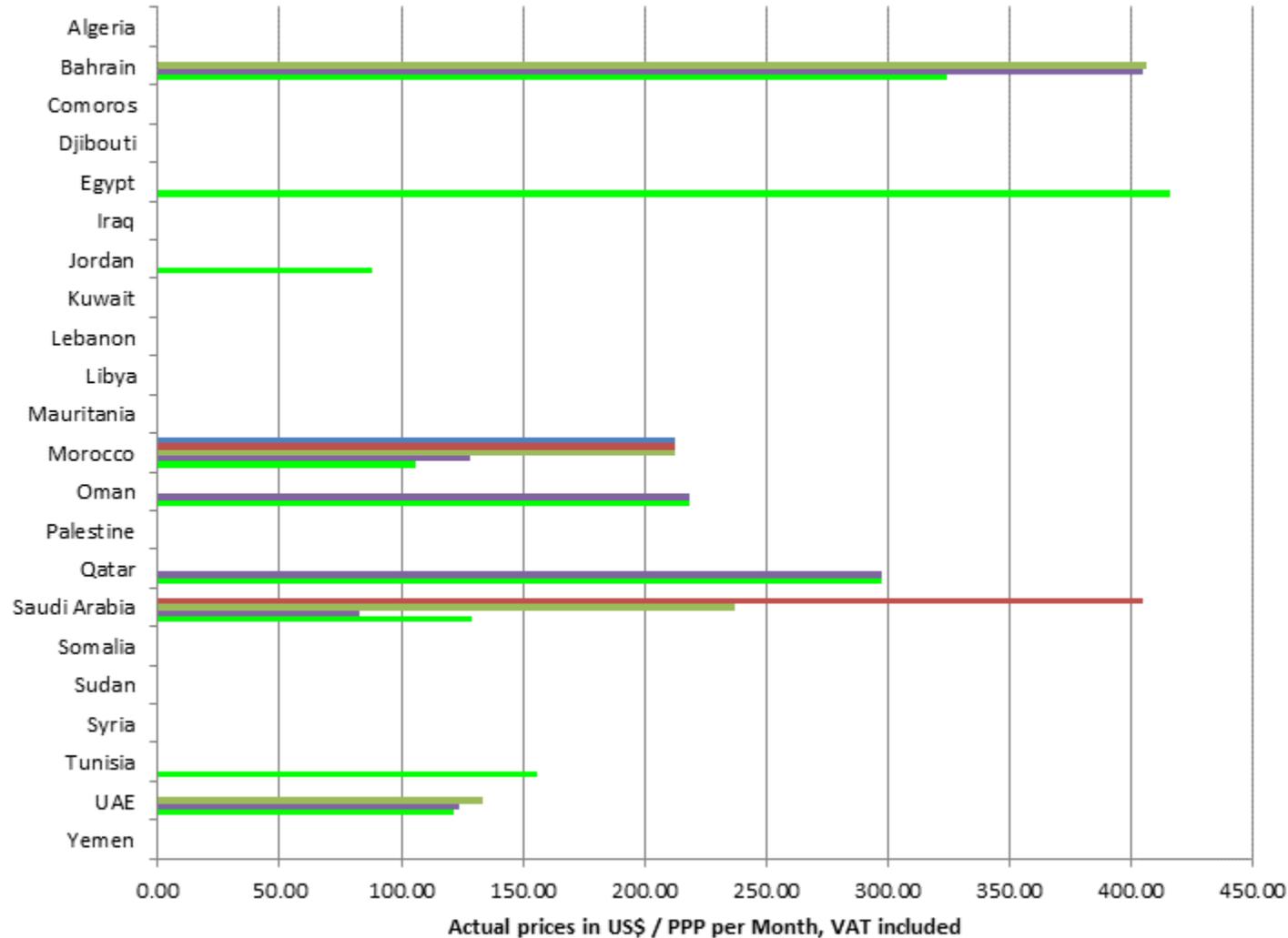


**Low usage:** 6 GB and 15 hours per month, in 60 minute sessions.



# 2010 OECD fixed broadband time series, residential low usage, high speed >15 Mb/s basket

Fixed Broadband >15 Mb/s / 20 hours / 11 GB per month.

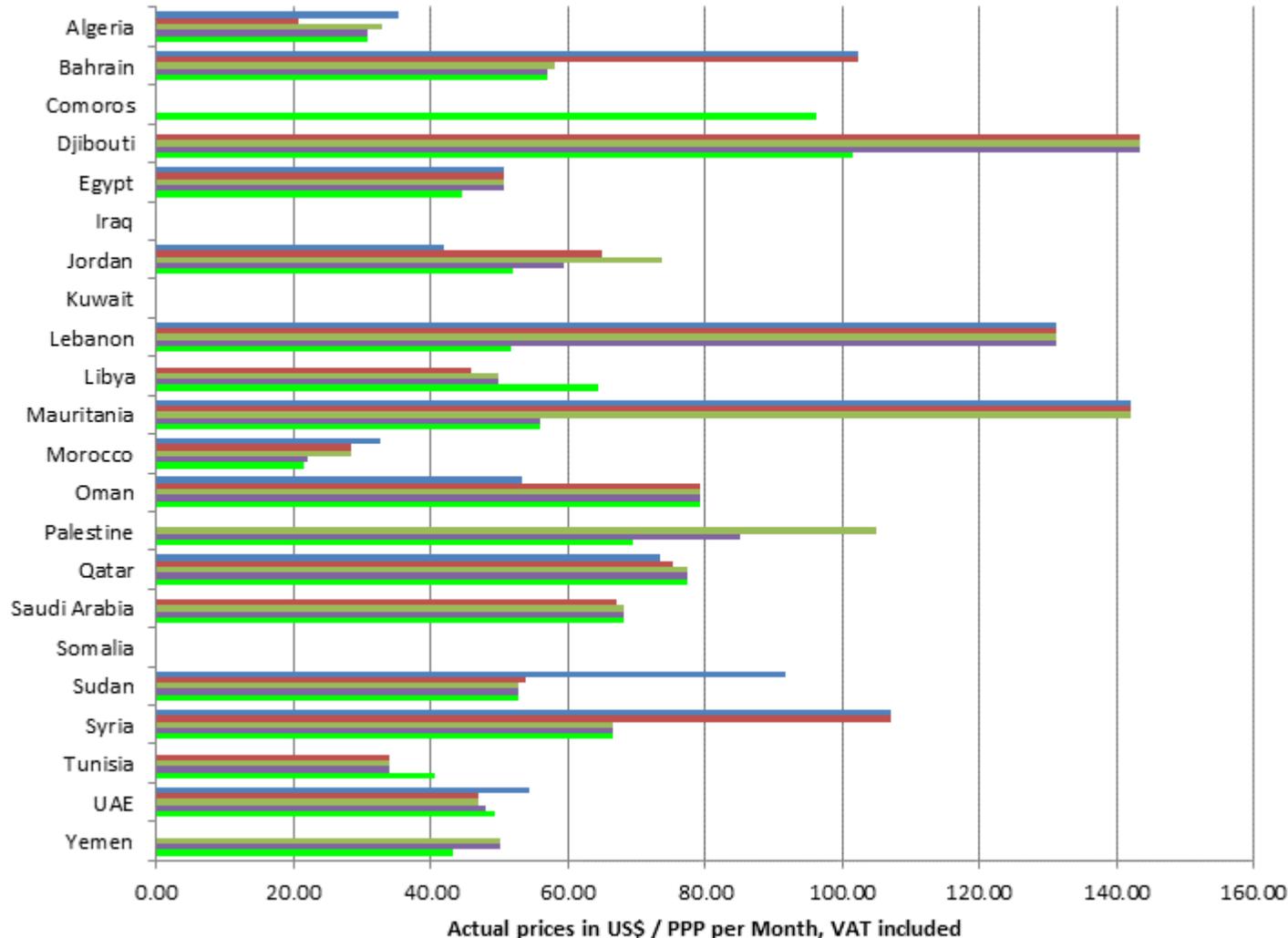


**Low usage:** 11 GB and 20 hours per month, in 60 minute sessions.



# 2010 OECD fixed broadband time series, residential high usage, low speed >256 kb/s basket

Fixed Broadband >0.25 Mb/s / 30 hours / 6 GB per month.



**High usage:** 6 GB and 30 hours per month, in 60 minute sessions.

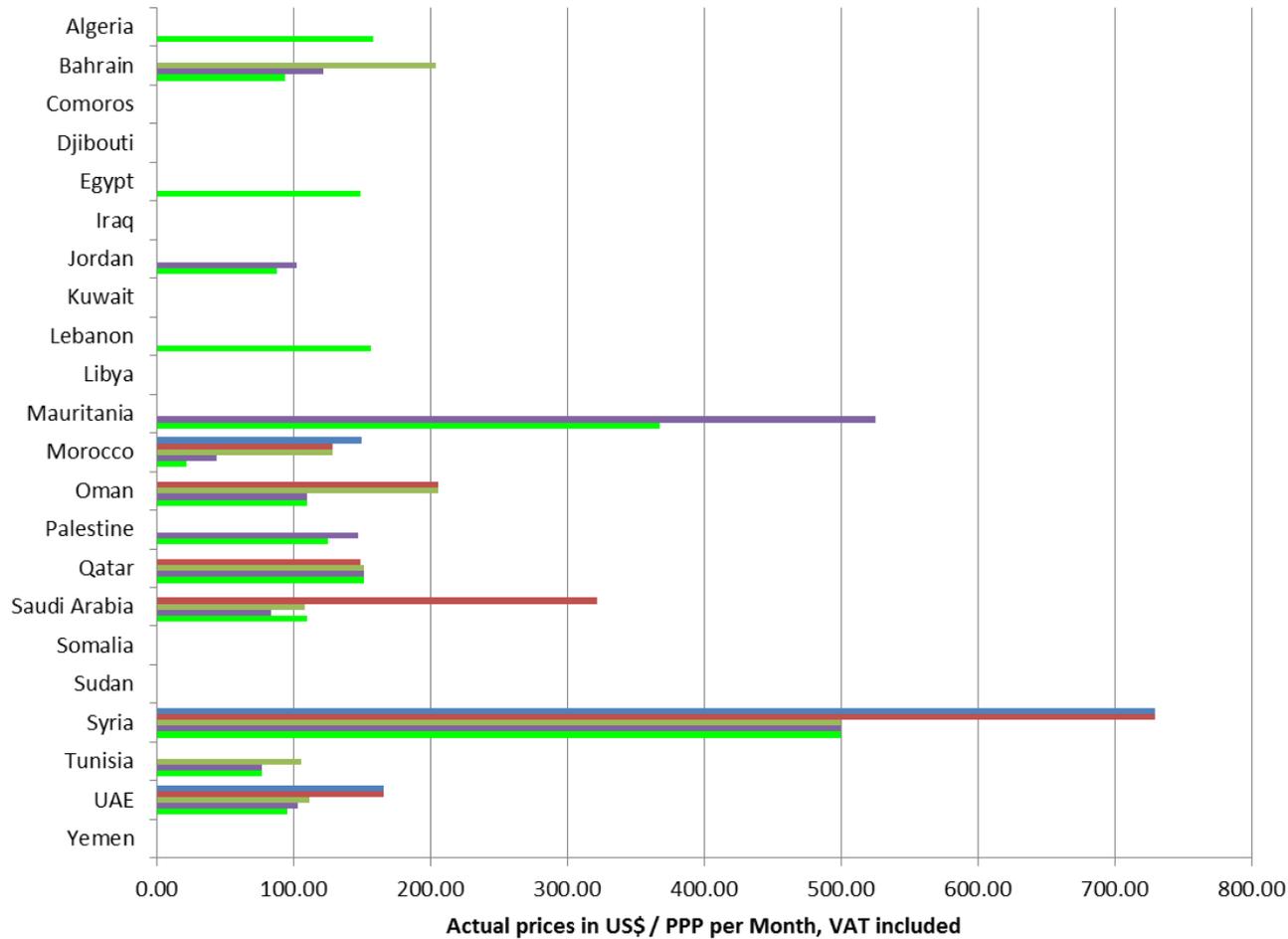
Note that the bars for Djibouti (2008) and Yemen (2008 and 2009) are not shown, as this would make the other results difficult to read.

- 2008
- 2009
- 2010
- 2011
- 2012



# 2010 OECD fixed broadband time series, residential high usage, medium speed >2.5 Mb/s basket

Fixed Broadband >2.5 Mb/s / 45 hours / 18 GB per month.



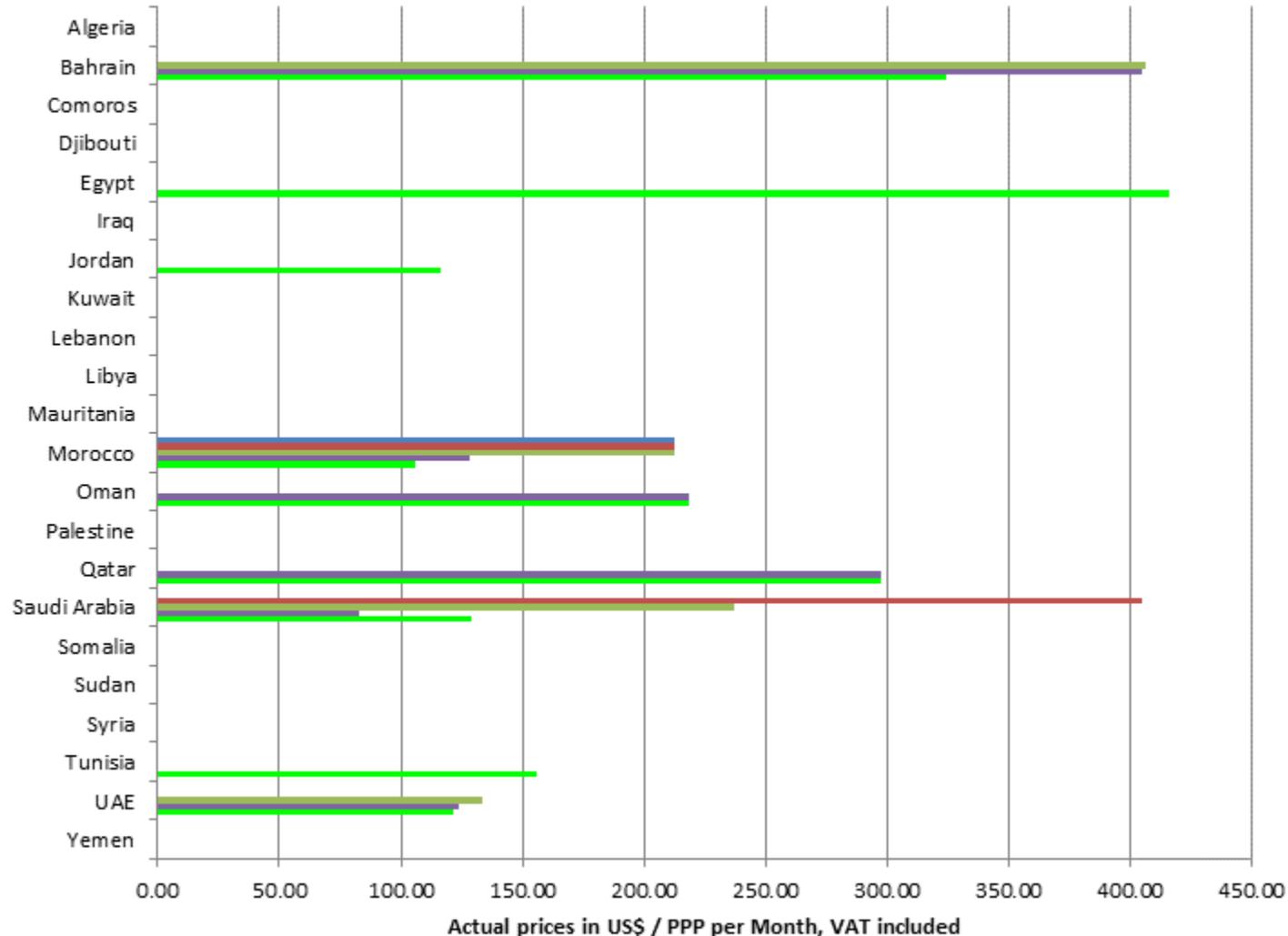
**High usage:** 18 GB and 45 hours per month, in 60 minute sessions.

■ 2008  
■ 2009  
■ 2010  
■ 2011  
■ 2012



# 2010 OECD fixed broadband time series, residential high usage, high speed >15 Mb/s basket

Fixed Broadband >15 Mb/s / 60 hours / 33 GB per month.

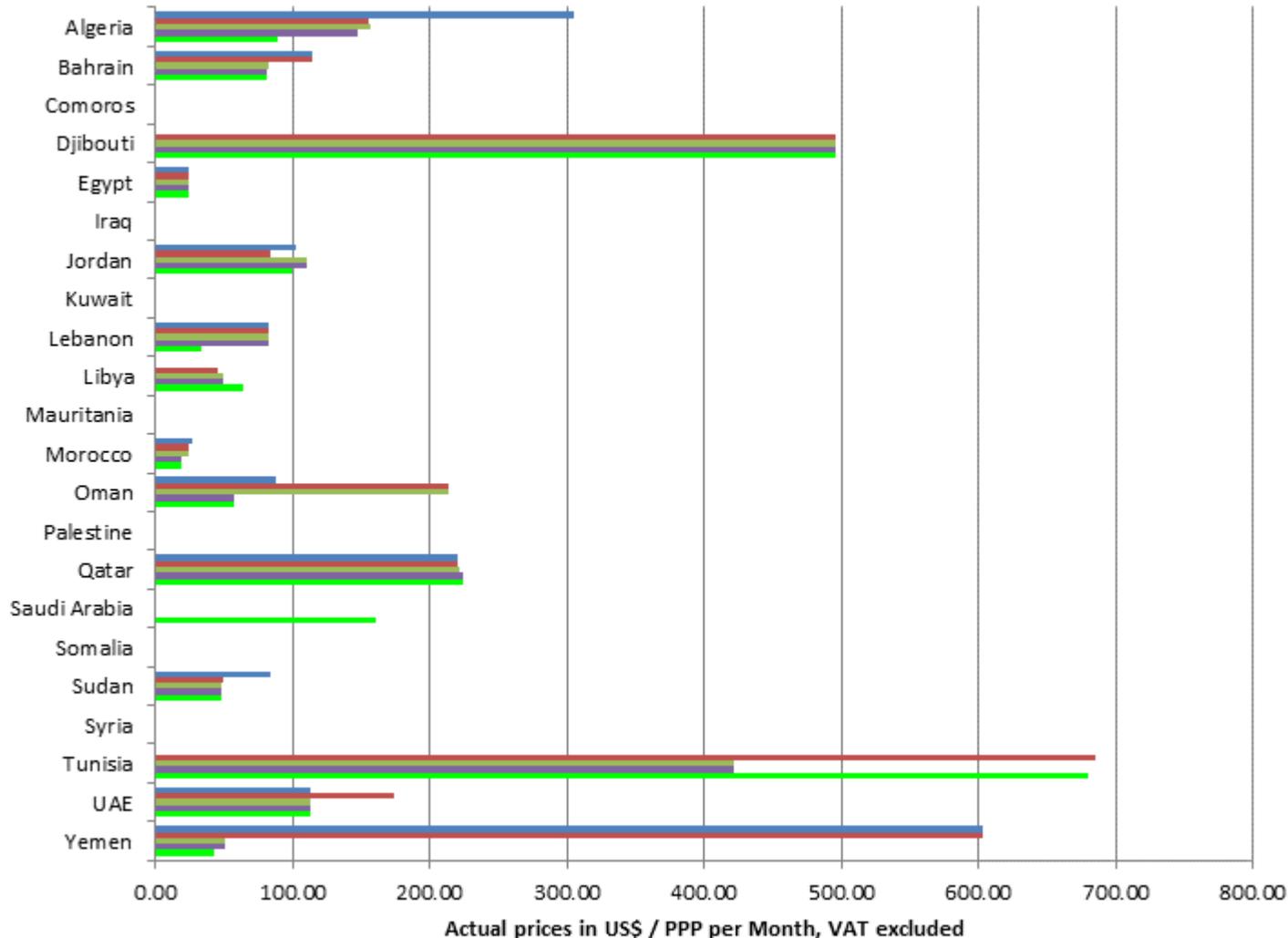


**High usage:** 33 GB and 60 hours per month, in 60 minute sessions.



# 2010 OECD fixed broadband time series, business low usage, low speed >256 kb/s basket

Fixed Broadband >0.25 Mb/s / 10 hours / 2 GB per month.



**Low usage:** 2 GB and 10 hours per month, in 60 minute sessions.

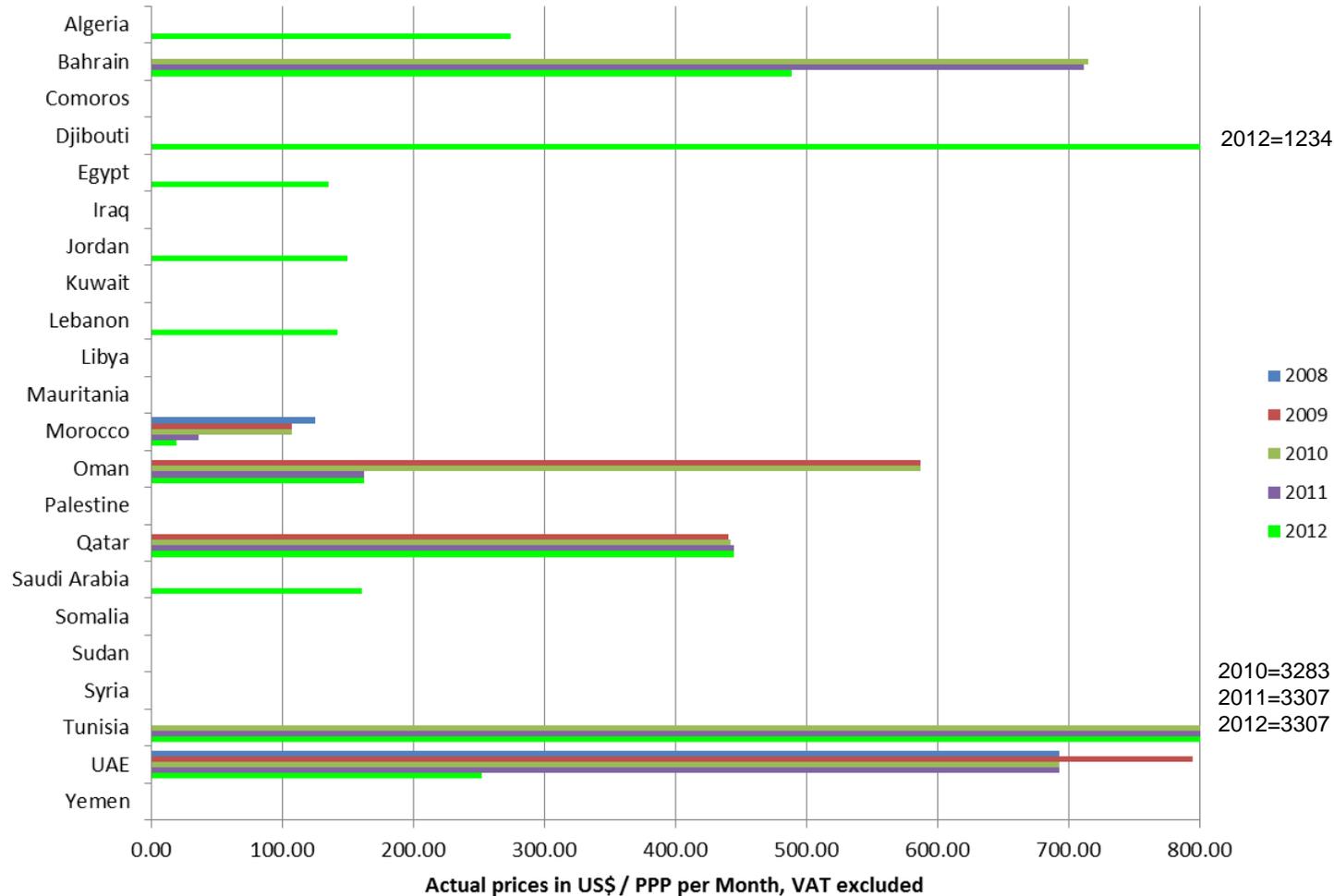
Note that bar for Djibouti (2008) is not shown, as this would make the other results difficult to read.

- 2008
- 2009
- 2010
- 2011
- 2012



# 2010 OECD fixed broadband time series, business low usage, medium speed >2.5 Mb/s basket

## Fixed Broadband >2.5 Mb/s / 15 hours / 6 GB per month.



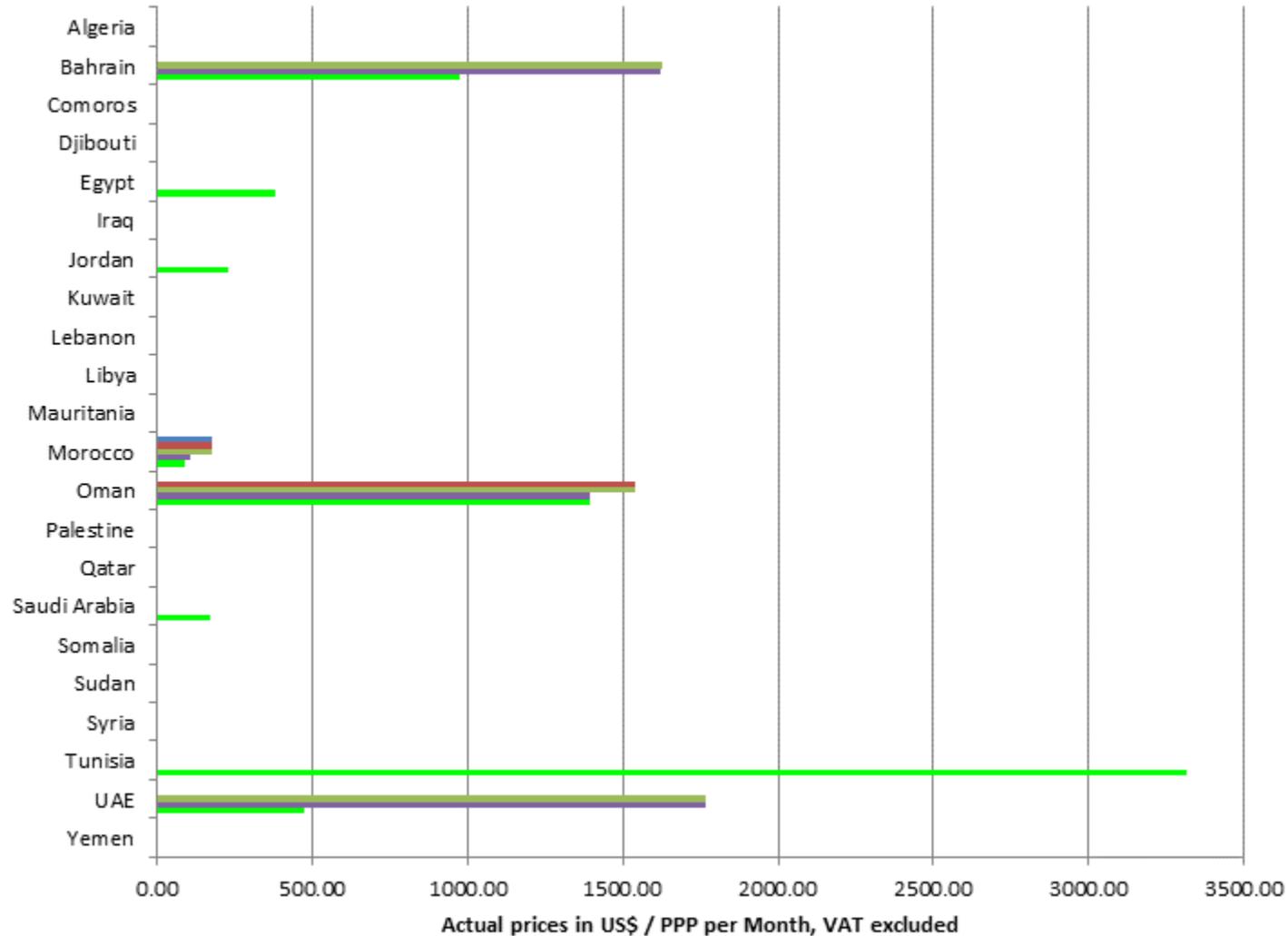
**Low usage:** 6 GB and 15 hours per month, in 60 minute sessions.

Note that the horizontal axis has been manually adjusted, and the bars for Djibouti (2012) and Tunisia (2010, 2011, 2012) are not shown fully, as this would make the other results difficult to read.



# 2010 OECD fixed broadband time series, business low usage, high speed >15 Mb/s basket

Fixed Broadband >15 Mb/s / 20 hours / 11 GB per month.



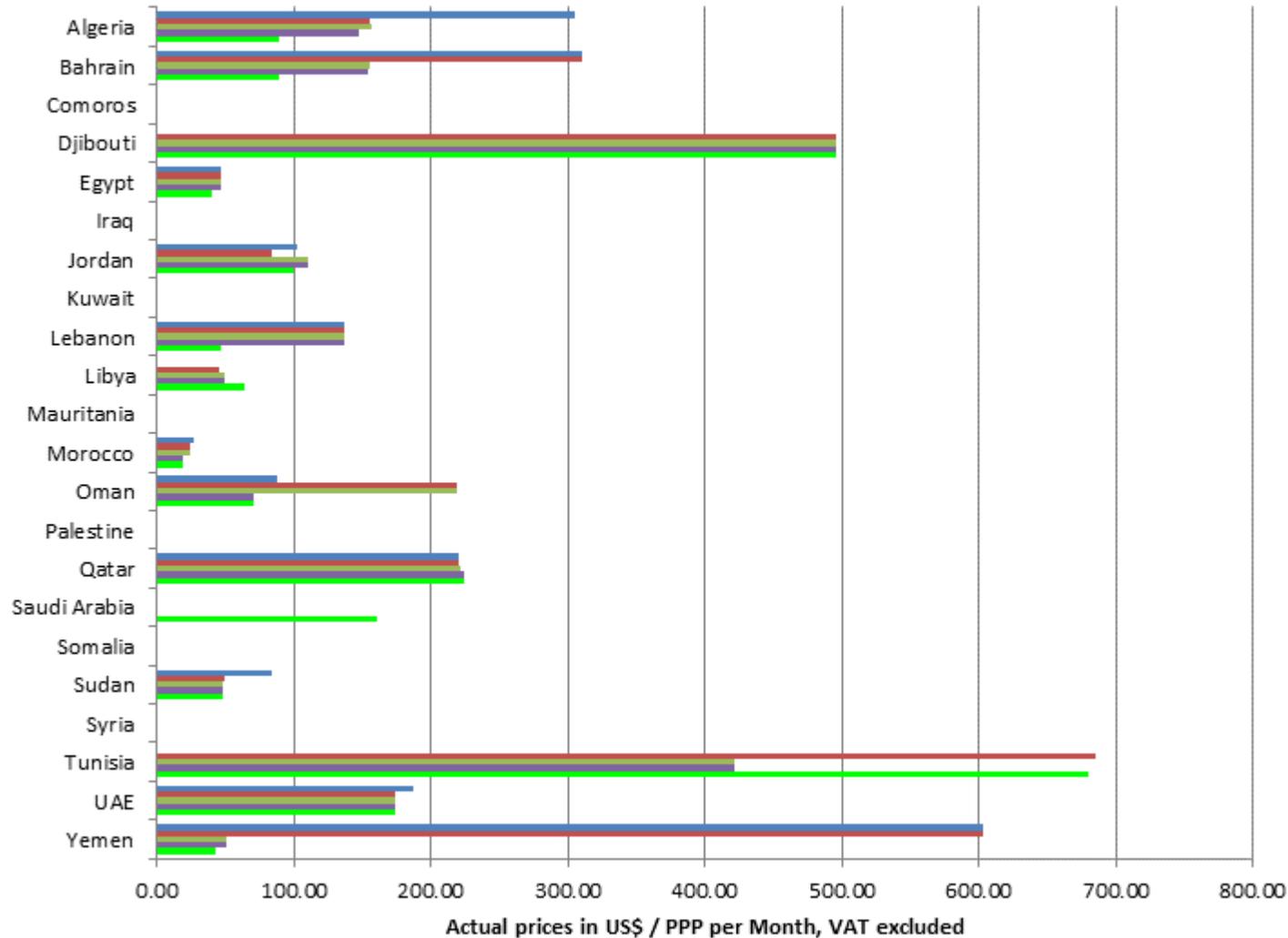
**Low usage:** 11 GB and 20 hours per month, in 60 minute sessions.

- 2008
- 2009
- 2010
- 2011
- 2012



# 2010 OECD fixed broadband time series, business high usage, low speed >256 kb/s basket

Fixed Broadband >0.25 Mb/s / 30 hours / 6 GB per month.



**High usage:** 6 GB and 30 hours per month, in 60 minute sessions.

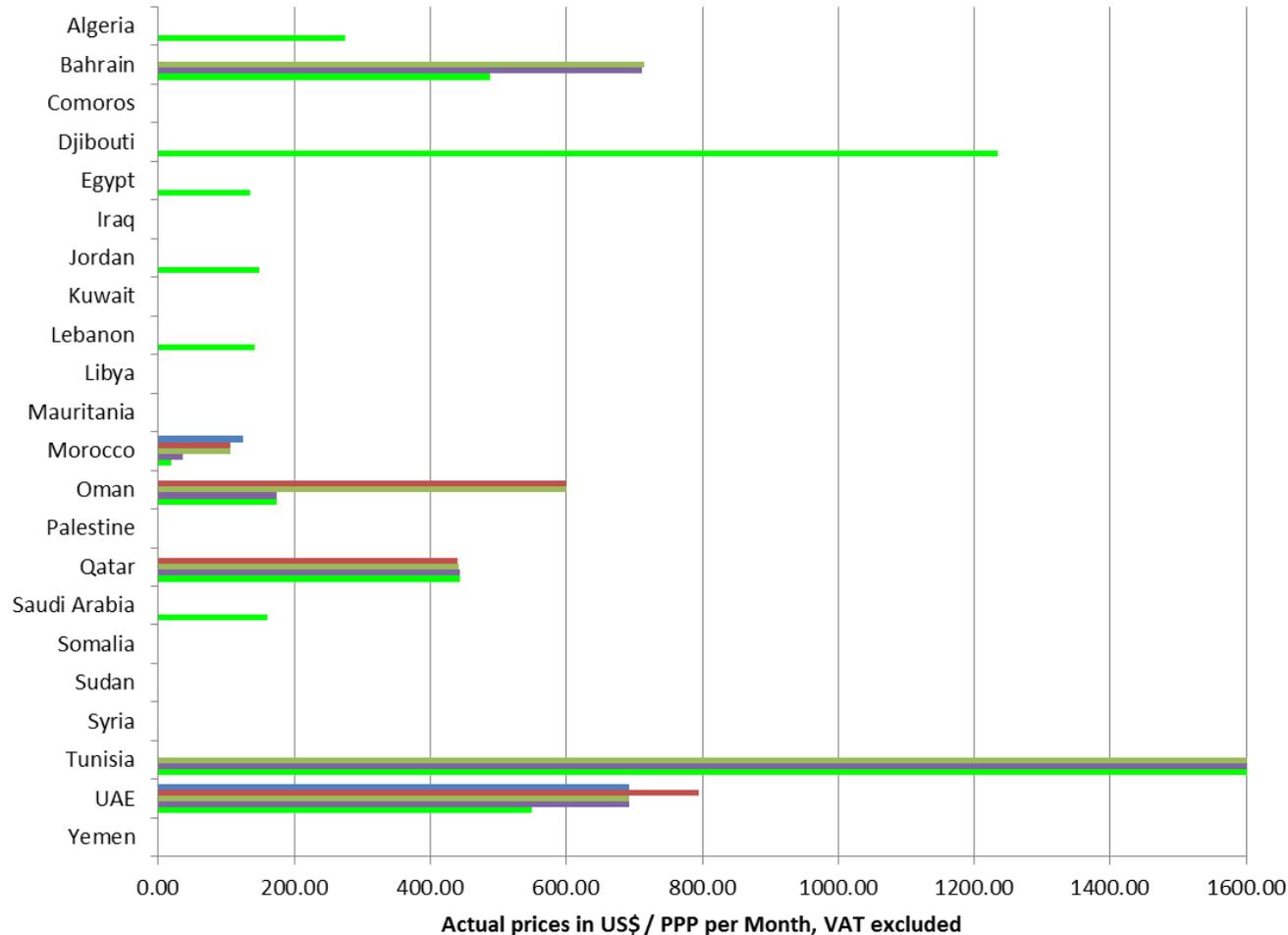
Note that the bar for Djibouti (2008) is not shown, as this would make the other results difficult to read.

- 2008
- 2009
- 2010
- 2011
- 2012



# 2010 OECD fixed broadband time series, business high usage, medium speed >2.5 Mb/s basket

## Fixed Broadband >2.5 Mb/s / 45 hours / 18 GB per month.



**High usage:** 18 GB and 45 hours per month, in 60 minute sessions.

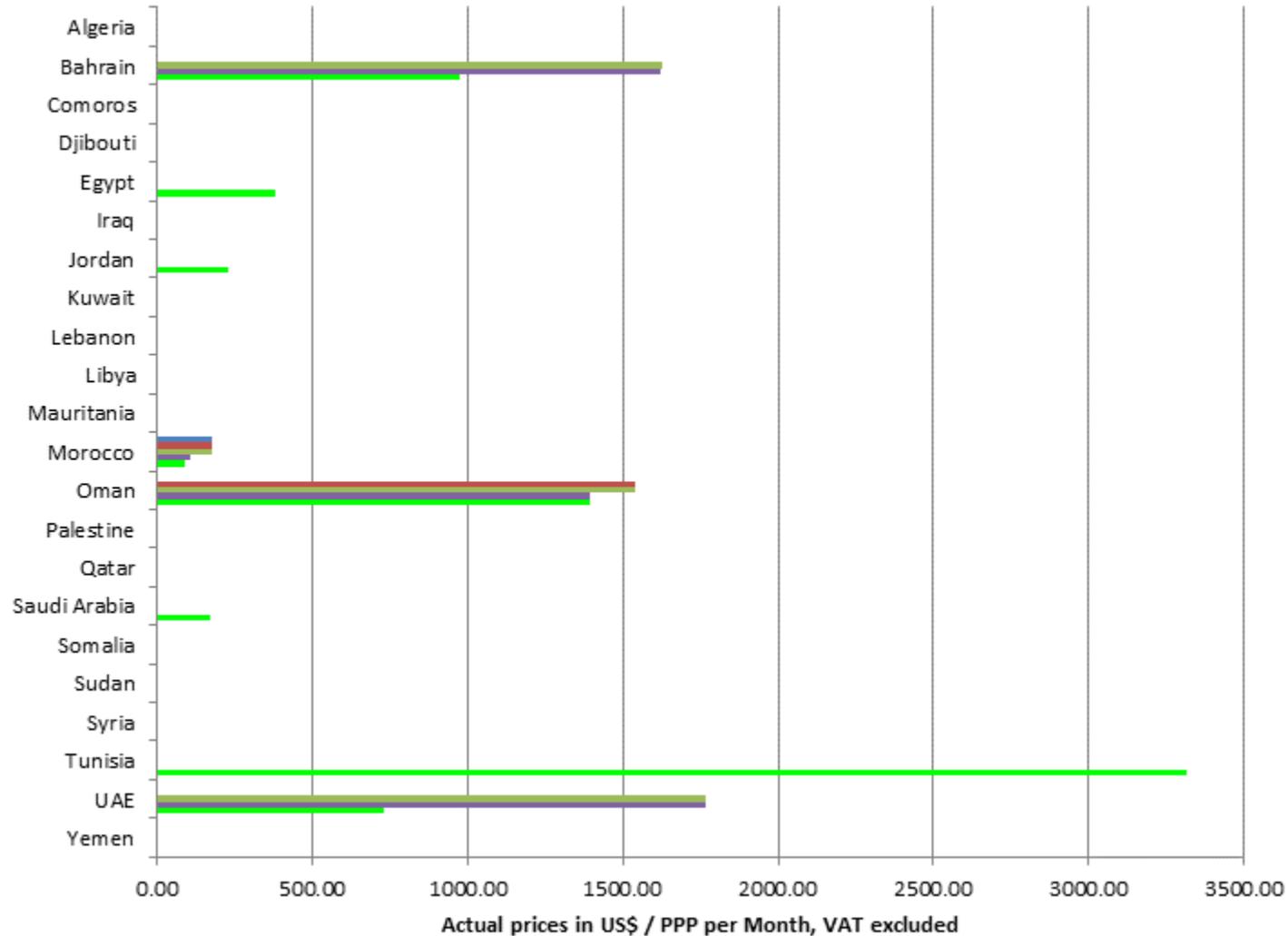
Note that the horizontal axis has been manually adjusted, and the bars for Tunisia (2010 and 2011) are not shown fully, as this would make the other results difficult to read

2010=3283  
2011=3307  
2012=3307



# 2010 OECD fixed broadband time series, business high usage, high speed >15 Mb/s basket

Fixed Broadband >15 Mb/s / 60 hours / 33 GB per month.



**High usage:** 33 GB and 60 hours per month, in 60 minute sessions.

- 2008
- 2009
- 2010
- 2011
- 2012



# Observations from fixed broadband time series results

- There were price changes in a number of Arab countries:
  - Algeria: Introduction of new residential and business @ Nis Plus packages, which resulted in reduced charges for low speed business broadband, as well as giving customers access to higher speeds
  - Bahrain: Introduction of new, lower priced residential and business packages, resulting in a relatively significant cost decrease for the mid and high usage baskets.
  - Djibouti: removal of the lowest speed offering (128 kb/s), with higher speeds being offered at previously lower speed costs, resulting in a cost reduction in the mid usage basket
  - Jordan: Introduction of new residential and business plans, plus a decrease in overage charge for selected existing packages, resulting in a cost reduction for some baskets. Increase in offerings at higher speeds means that Jordan appears in more basket results for 2012
  - Lebanon: Changes to packages, including removal of lower speed (256 kb/s and 512 kb/s) packages, removing distinction between residential and business offerings, lowering rental and overage charges for selected speeds.
  - Libya: Increase in rental charge, with corresponding increase in volume allowance (from 7 to 10 GB) and decrease in overage charge, resulting in an overall increase in costs
  - Mauritania: reduction in monthly rental charges for 2 Mb/s and 4 Mb/s services.
  - Morocco: Removal of lower speed services – services now have a minimum download speed of 4 Mb/s compared to 1 Mb/s last year, plus overall reduction in rental charges (e.g. the price for the 4 Mb/s service is the same as the price for the 1 Mb/s service in 2011)
  - Palestine: 8 Mb/s services were added to the portfolio, and both installation and monthly rental charges were reduced on all other services.
  - Saudi Arabia: change to services offered, plus the introduction of a 200 Mb/s service (highest speed in 2011 was 100 Mb/s)
  - Tunisia: Discontinuation of lower speed (512 kb/s) service, making the lowest available service speed now 1 Mb/s. This results in an increase in the lower speed basket, as, beyond discontinuation of the 512 kb/s service, plus introduction of a 20 Mb/s service, prices remain unchanged over 2011.
  - UAE: An increase in the router price, resulting in a small increase in some baskets. Higher speed services, up to 100 Mb/s, available for business users.
  - Yemen: Introduction of a 2 Mb/s service with a lower rental than the previous highest speed service of 1Mb/s, resulting in a cost reduction. Rental of speeds below 2 Mb/s reduced.
- Prices of both residential and business broadband services in Arab countries have continued to fall over the past year
  - The overall average decrease across the baskets for residential services was 9%, while the decrease for business services was 14%
- Data shown covers both residential and business prices separately. Prices for business services are typically much higher than residential services, and generally less available, although the number of business services available has shown a marked increase since 2011.
  - The average business basket result is 597 USD, more than 4 times the average residential basket result (145 USD).
- Similar to 2011, about half of the countries have seen price reductions in some way



# Fixed broadband ranking tables, 2008-2012

# Fixed broadband OECD residential low usage, low speed >256 kb/s basket ranking

Total results for OECD low usage low speed residential broadband basket, >256 kb/s

Results in USD/PPP including VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	35.20	20.61	32.80	30.85	30.85
Bahrain	41.61	41.61	41.61	40.48	40.48
Comoros					96.24
Djibouti	561.89	143.38	143.38	143.38	101.53
Egypt	26.74	26.74	26.74	26.74	26.74
Iraq					
Jordan	41.92	65.01	73.60	59.45	48.13
Kuwait					
Lebanon	70.29	70.29	70.29	70.29	35.94
Libya		45.85	49.77	49.77	64.30
Mauritania	142.13	142.13	142.13	55.82	55.82
Morocco	32.73	28.50	28.50	22.14	21.55
Oman	53.28	61.96	61.96	57.62	57.62
Palestine			104.88	85.02	69.46
Qatar	73.31	75.33	77.47	77.47	77.47
Saudi Arabia		66.95	68.11	68.11	68.11
Somalia					
Sudan	91.83	53.90	52.71	52.71	52.71
Syria	107.05	107.05	66.55	66.55	66.55
Tunisia		34.07	34.07	34.07	40.46
UAE	38.04	30.78	30.78	31.79	33.12
Yemen	602.39	603.01	50.08	50.08	43.25

Arab average	137.03	95.13	64.19	56.80	54.23
OECD average	N/A	N/A	N/A	31.75	24.40

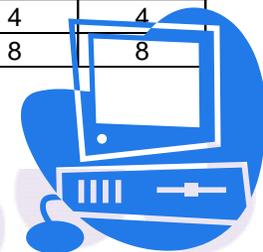
■ Below Arab average  
■ Above Arab average

Ranking for OECD low usage low speed residential broadband basket, >256 kb/s

	2008	2009	2010	2011	2012
Algeria	3	1	4	3	3
Bahrain	5	6	6	6	7
Comoros	-	-	-	-	18
Djibouti	13	16	18	18	19
Egypt	1	2	1	2	2
Iraq	-	-	-	-	-
Jordan	6	10	14	12	9
Kuwait	-	-	-	-	-
Lebanon	8	12	13	15	5
Libya	-	7	7	7	13
Mauritania	12	15	17	10	11
Morocco	2	3	2	1	1
Oman	7	9	10	11	12
Palestine	-	-	16	17	16
Qatar	9	13	15	16	17
Saudi Arabia	-	11	12	14	15
Somalia	-	-	-	-	-
Sudan	10	8	9	9	10
Syria	11	14	11	13	14
Tunisia	-	5	5	5	6
UAE	4	4	3	4	4
Yemen	14	17	8	8	8

■ Least expensive  
■ Most expensive

Comparable OECD data is not available for 2008, 2009 and 2010



# Fixed broadband OECD residential low usage, medium speed >2.5 Mb/s basket ranking

Total results for OECD low usage medium speed residential broadband basket, >2.5 Mb/s

Results in USD/PPP including VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria					158.12
Bahrain			203.54	121.45	56.87
Comoros					
Djibouti					
Egypt					148.57
Iraq					
Jordan				102.18	87.75
Kuwait					
Lebanon					156.15
Libya					
Mauritania				525.23	367.31
Morocco	149.23	128.05	128.05	43.32	21.55
Oman		170.46	170.46	109.70	109.70
Palestine				146.45	124.89
Qatar		148.64	150.78	150.78	150.78
Saudi Arabia		321.15	107.70	82.93	109.78
Somalia					
Sudan					
Syria	729.47	729.47	499.26	499.26	499.26
Tunisia			105.06	76.67	76.67
UAE	165.11	165.11	111.46	102.84	95.00
Yemen					

Arab average	347.94	277.15	184.54	178.26	154.46
OECD average	N/A	N/A	N/A	37.03	27.00

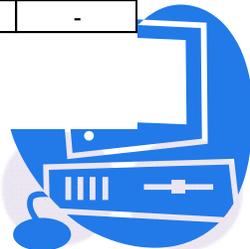
■ Below Arab average  
■ Above Arab average

Ranking for OECD low usage medium speed residential broadband basket, >2.5 Mb/s

	2008	2009	2010	2011	2012
Algeria	-	-	-	-	12
Bahrain	-	-	7	7	2
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	9
Iraq	-	-	-	-	-
Jordan	-	-	-	4	4
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	11
Libya	-	-	-	-	-
Mauritania	-	-	-	11	13
Morocco	1	1	4	1	1
Oman	-	4	6	6	6
Palestine	-	-	-	8	8
Qatar	-	2	5	9	10
Saudi Arabia	-	5	2	3	7
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	3	6	8	10	14
Tunisia	-	-	1	2	3
UAE	2	3	3	5	5
Yemen	-	-	-	-	-

■ Least expensive  
■ Most expensive

Comparable OECD data is not available for 2008, 2009 and 2010



# Fixed broadband OECD residential low usage, high speed >15 Mb/s basket ranking

Total results for OECD low usage high speed residential broadband basket, >15 Mb/s

Results in USD/PPP including VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria					
Bahrain			405.96	404.83	323.87
Comoros					
Djibouti					
Egypt					416.00
Iraq					
Jordan					87.75
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco	212.78	212.78	212.78	128.05	106.28
Oman				218.20	218.20
Palestine					
Qatar				297.39	297.39
Saudi Arabia		404.50	237.30	129.37	129.37
Somalia					
Sudan					
Syria					
Tunisia					156.18
UAE			133.25	123.53	121.87
Yemen					

Arab average	212.78	308.64	247.32	216.90	206.32
OECD average	N/A	N/A	N/A	41.10	33.48

■ Below Arab average  
■ Above Arab average

Comparable OECD data is not available for 2008, 2009 and 2010

Ranking for OECD low usage high speed residential broadband basket, >15 Mb/s

	2008	2009	2010	2011	2012
Algeria	-	-	-	-	-
Bahrain	-	-	4	6	8
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	9
Iraq	-	-	-	-	-
Jordan	-	-	-	-	1
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	1	1	2	2	2
Oman	-	-	-	4	6
Palestine	-	-	-	-	-
Qatar	-	-	-	5	7
Saudi Arabia	-	2	3	3	4
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	5
UAE	-	-	1	1	3
Yemen	-	-	-	-	-

■ Least expensive  
■ Most expensive



# Fixed broadband OECD residential high usage, low speed >256 kb/s basket ranking

Total results for OECD high usage low speed residential broadband basket, >256 kb/s

Results in USD/PPP including VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	35.20	20.61	32.80	30.85	30.85
Bahrain	102.33	102.33	58.19	56.87	56.87
Comoros					96.24
Djibouti	599.55	143.38	143.38	143.38	101.53
Egypt	50.51	50.51	50.51	50.51	44.57
Iraq					
Jordan	41.92	65.01	73.60	59.45	51.89
Kuwait					
Lebanon	131.16	131.16	131.16	131.16	51.79
Libya		45.85	49.77	49.77	64.30
Mauritania	142.13	142.13	142.13	55.82	55.82
Morocco	32.73	28.50	28.50	22.14	21.55
Oman	53.28	79.32	79.32	79.32	79.32
Palestine			104.88	85.02	69.46
Qatar	73.31	75.33	77.47	77.47	77.47
Saudi Arabia		66.95	68.11	68.11	68.11
Somalia					
Sudan	91.83	53.90	52.71	52.71	52.71
Syria	107.05	107.05	66.55	66.55	66.55
Tunisia		34.07	34.07	34.07	40.46
UAE	54.32	47.06	47.06	48.07	49.40
Yemen	602.39	603.01	50.08	50.08	43.25

Arab average	151.27	105.66	71.68	64.52	59.06
OECD average	N/A	N/A	N/A	32.31	25.25

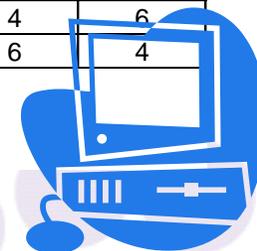
Below Arab average  
 Above Arab average

Comparable OECD data is not available for 2008, 2009 and 2010

Ranking for OECD high usage low speed residential broadband basket, >256 kb/s

	2008	2009	2010	2011	2012
Algeria	2	1	2	2	2
Bahrain	9	12	9	10	11
Comoros	-	-	-	-	18
Djibouti	13	16	18	18	19
Egypt	4	6	7	7	5
Iraq	-	-	-	-	-
Jordan	3	8	12	11	8
Kuwait	-	-	-	-	-
Lebanon	11	14	16	17	7
Libya	-	4	5	5	12
Mauritania	12	15	17	9	10
Morocco	1	2	1	1	1
Oman	5	11	14	15	17
Palestine	-	-	15	16	15
Qatar	7	10	13	14	16
Saudi Arabia	-	9	11	13	14
Somalia	-	-	-	-	-
Sudan	8	7	8	8	9
Syria	10	13	10	12	13
Tunisia	-	3	3	3	3
UAE	6	5	4	4	6
Yemen	14	17	6	6	4

Least expensive  
 Most expensive



# Fixed broadband OECD residential high usage, medium speed >2.5 Mb/s basket ranking

Total results for OECD high usage medium speed residential broadband basket, >2.5 Mb/s

Results in USD/PPP including VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria					158.12
Bahrain			203.54	121.45	93.40
Comoros					
Djibouti					
Egypt					148.57
Iraq					
Jordan				102.18	87.75
Kuwait					
Lebanon					156.15
Libya					
Mauritania				525.23	367.31
Morocco	149.23	128.05	128.05	43.32	21.55
Oman		205.18	205.18	109.70	109.70
Palestine				146.45	124.89
Qatar		148.64	150.78	150.78	150.78
Saudi Arabia		321.15	107.70	82.93	109.78
Somalia					
Sudan					
Syria	729.47	729.47	499.26	499.26	499.26
Tunisia			105.06	76.67	76.67
UAE	165.11	165.11	111.46	102.84	95.00
Yemen					

Arab average	347.94	282.93	188.88	178.26	157.07
OECD average	N/A	N/A	N/A	37.75	28.07

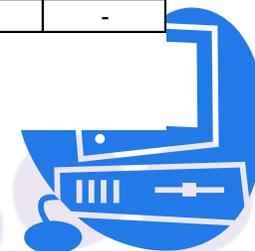
■ Below Arab average  
■ Above Arab average

Ranking for OECD high usage medium speed residential broadband basket, >2.5 Mb/s

	2008	2009	2010	2011	2012
Algeria	-	-	-	-	12
Bahrain	-	-	6	7	4
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	9
Iraq	-	-	-	-	-
Jordan	-	-	-	4	3
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	11
Libya	-	-	-	-	-
Mauritania	-	-	-	11	13
Morocco	1	1	4	1	1
Oman	-	4	7	6	6
Palestine	-	-	-	8	8
Qatar	-	2	5	9	10
Saudi Arabia	-	5	2	3	7
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	3	6	8	10	14
Tunisia	-	-	1	2	2
UAE	2	3	3	5	5
Yemen	-	-	-	-	-

■ Least expensive  
■ Most expensive

Comparable OECD data is not available for 2008, 2009 and 2010



# Fixed broadband OECD residential high usage, high speed >15 Mb/s basket ranking

Total results for OECD high usage high speed residential broadband basket, >15 Mb/s

Results in USD/PPP including VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria					
Bahrain			405.96	404.83	323.87
Comoros					
Djibouti					
Egypt					416.00
Iraq					
Jordan					116.05
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco	212.78	212.78	212.78	128.05	106.28
Oman				218.20	218.20
Palestine					
Qatar				297.39	297.39
Saudi Arabia		404.50	237.30	129.37	129.37
Somalia					
Sudan					
Syria					
Tunisia					156.18
UAE			133.25	123.53	121.87
Yemen					

Arab average	212.78	308.64	247.32	216.90	209.47
OECD average	N/A	N/A	N/A	41.50	34.10

Below Arab average  
 Above Arab average

Ranking for OECD high usage high speed residential broadband basket, >15 Mb/s

	2008	2009	2010	2011	2012
Algeria	-	-	-	-	-
Bahrain	-	-	4	6	8
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	9
Iraq	-	-	-	-	-
Jordan	-	-	-	-	2
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	1	1	2	2	1
Oman	-	-	-	4	6
Palestine	-	-	-	-	-
Qatar	-	-	-	5	7
Saudi Arabia	-	2	3	3	4
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	5
UAE	-	-	1	1	3
Yemen	-	-	-	-	-

Least expensive  
 Most expensive

Comparable OECD data is not available for 2008, 2009 and 2010

# Fixed broadband OECD business low usage, low speed >256 kb/s basket ranking

Total results for OECD low usage low speed business broadband basket, >256 kb/s

Results in USD/PPP excluding VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	305.52	155.33	156.62	146.62	88.85
Bahrain	114.48	114.48	82.09	80.97	80.97
Comoros					
Djibouti	1,175.55	495.62	495.62	495.62	495.62
Egypt	24.31	24.31	24.31	24.31	24.31
Iraq					
Jordan	101.64	83.59	109.81	109.81	99.33
Kuwait					
Lebanon	81.91	81.91	81.91	81.91	32.67
Libya		45.85	49.77	49.77	64.30
Mauritania					
Morocco	27.28	23.75	23.75	18.29	18.45
Oman	88.00	213.86	213.86	57.62	57.62
Palestine					
Qatar	219.92	219.92	221.95	224.08	224.08
Saudi Arabia					160.71
Somalia					
Sudan	83.48	49.00	47.92	47.92	47.92
Syria					
Tunisia		685.50	421.48	421.48	679.49
UAE	112.15	173.87	112.15	112.15	112.15
Yemen	602.39	603.01	50.08	50.08	43.25

Arab average	244.72	212.14	149.38	137.19	148.65
OECD average	N/A	N/A	N/A	37.08	27.83

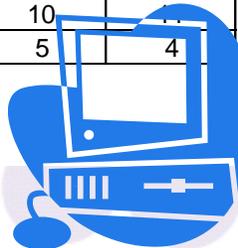
■ Below Arab average  
■ Above Arab average

Comparable OECD data is not available for 2008, 2009 and 2010

Ranking for OECD low usage low speed business broadband basket, >256 kb/s

	2008	2009	2010	2011	2012
Algeria	10	8	10	11	9
Bahrain	8	7	7	7	8
Comoros	-	-	-	-	-
Djibouti	12	12	14	14	14
Egypt	1	2	2	2	2
Iraq	-	-	-	-	-
Jordan	6	6	8	9	10
Kuwait	-	-	-	-	-
Lebanon	3	5	6	8	3
Libya	-	3	4	4	7
Mauritania	-	-	-	-	-
Morocco	2	1	1	1	1
Oman	5	10	11	6	6
Palestine	-	-	-	-	-
Qatar	9	11	12	12	13
Saudi Arabia	-	-	-	-	12
Somalia	-	-	-	-	-
Sudan	4	4	3	3	5
Syria	-	-	-	-	-
Tunisia	-	14	13	13	15
UAE	7	9	9	10	11
Yemen	11	13	5	5	4

■ Least expensive  
■ Most expensive



# Fixed broadband OECD business low usage, medium speed >2.5 Mb/s basket ranking

Total results for OECD low usage medium speed business broadband basket, >2.5 Mb/s

Results in USD/PPP excluding VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria					274.01
Bahrain			715.21	711.27	488.61
Comoros					
Djibouti					1,234.16
Egypt					135.06
Iraq					
Jordan					149.11
Kuwait					
Lebanon					141.95
Libya					
Mauritania					
Morocco	124.36	106.71	106.67	35.94	18.45
Oman		587.08	587.08	161.78	161.78
Palestine					
Qatar		439.84	441.87	444.00	444.00
Saudi Arabia					160.71
Somalia					
Sudan					
Syria					
Tunisia			3,282.58	3,307.42	3,307.42
UAE	693.05	794.71	693.05	693.05	251.86
Yemen					

Arab average	408.71	482.09	971.08	892.25	563.93
OECD average	N/A	N/A	N/A	43.31	31.75

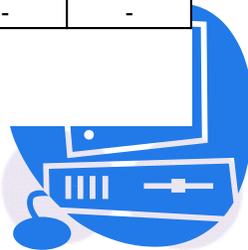
■ Below Arab average  
■ Above Arab average

Comparable OECD data is not available for 2008, 2009 and 2010

Ranking for OECD low usage medium speed business broadband basket, >2.5 Mb/s

	2008	2009	2010	2011	2012
Algeria	-	-	-	-	8
Bahrain	-	-	5	5	10
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	11
Egypt	-	-	-	-	2
Iraq	-	-	-	-	-
Jordan	-	-	-	-	4
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	3
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	1	1	1	1	1
Oman	-	3	3	2	6
Palestine	-	-	-	-	-
Qatar	-	2	2	3	9
Saudi Arabia	-	-	-	-	5
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	6	6	12
UAE	2	4	4	4	7
Yemen	-	-	-	-	-

■ Least expensive  
■ Most expensive



# Fixed broadband OECD business low usage, high speed >15 Mb/s basket ranking

Total results for OECD low usage high speed business broadband basket, >15 Mb/s

Results in USD/PPP excluding VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria					
Bahrain			1,626.08	1,622.14	974.41
Comoros					
Djibouti					
Egypt					378.18
Iraq					
Jordan					227.71
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco	177.31	177.31	177.31	106.55	89.06
Oman		1,541.85	1,541.85	1,394.29	1,394.29
Palestine					
Qatar					
Saudi Arabia					169.05
Somalia					
Sudan					
Syria					
Tunisia					3,319.46
UAE			1,765.92	1,765.92	475.21
Yemen					

Arab average	177.31	859.58	1,277.79	1,222.22	878.42
OECD average	N/A	N/A	N/A	61.38	39.50

- Below Arab average
- Above Arab average

Comparable OECD data is not available for 2008, 2009 and 2010

Ranking for OECD low usage high speed business broadband basket, >15 Mb/s

	2008	2009	2010	2011	2012
Algeria	-	-	-	-	-
Bahrain	-	-	3	3	6
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	4
Iraq	-	-	-	-	-
Jordan	-	-	-	-	3
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	1	1	1	1	1
Oman	-	2	2	2	7
Palestine	-	-	-	-	-
Qatar	-	-	-	-	-
Saudi Arabia	-	-	-	-	2
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	8
UAE	-	-	4	4	5
Yemen	-	-	-	-	-

- Least expensive
- Most expensive

# Fixed broadband OECD business high usage, low speed >256 kb/s basket ranking

Total results for OECD high usage low speed business broadband basket, >256 kb/s

Results in USD/PPP excluding VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria	305.52	155.33	156.62	146.62	88.85
Bahrain	310.37	310.37	154.64	153.51	89.06
Comoros					
Djibouti	1,175.55	495.62	495.62	495.62	495.62
Egypt	45.92	45.92	45.92	45.92	40.52
Iraq					
Jordan	101.64	83.59	109.81	109.81	99.33
Kuwait					
Lebanon	137.25	137.25	137.25	137.25	47.08
Libya		45.85	49.77	49.77	64.30
Mauritania					
Morocco	27.28	23.75	23.75	18.29	18.45
Oman	88.00	218.20	218.20	70.64	70.64
Palestine					
Qatar	219.92	219.92	221.95	224.08	224.08
Saudi Arabia					160.71
Somalia					
Sudan	83.48	49.00	47.92	47.92	47.92
Syria					
Tunisia		685.50	421.48	421.48	679.49
UAE	186.50	173.87	173.87	173.87	173.87
Yemen	602.39	603.01	50.08	50.08	43.25

Arab average	273.65	231.94	164.78	153.20	156.21
OECD average	N/A	N/A	N/A	37.43	28.30

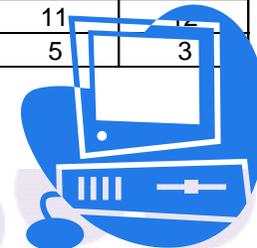
■ Below Arab average  
■ Above Arab average

Comparable OECD data is not available for 2008, 2009 and 2010

Ranking for OECD high usage low speed business broadband basket, >256 kb/s

	2008	2009	2010	2011	2012
Algeria	9	7	9	9	8
Bahrain	10	11	8	10	9
Comoros	-	-	-	-	-
Djibouti	12	12	14	14	14
Egypt	2	3	2	2	2
Iraq	-	-	-	-	-
Jordan	5	5	6	7	10
Kuwait	-	-	-	-	-
Lebanon	6	6	7	8	4
Libya	-	2	4	4	6
Mauritania	-	-	-	-	-
Morocco	1	1	1	1	1
Oman	4	9	11	6	7
Palestine	-	-	-	-	-
Qatar	8	10	12	12	13
Saudi Arabia	-	-	-	-	11
Somalia	-	-	-	-	-
Sudan	3	4	3	3	5
Syria	-	-	-	-	-
Tunisia	-	14	13	13	15
UAE	7	8	10	11	12
Yemen	11	13	5	5	3

■ Least expensive  
■ Most expensive



# Fixed broadband OECD business high usage, medium speed >2.5 Mb/s basket ranking

Total results for OECD high usage medium speed business broadband basket, >2.5 Mb/s

Results in USD/PPP excluding VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria					274.01
Bahrain			715.21	711.27	488.61
Comoros					
Djibouti					1,234.16
Egypt					135.06
Iraq					
Jordan					149.11
Kuwait					
Lebanon					141.95
Libya					
Mauritania					
Morocco	124.36	106.71	106.67	35.94	18.45
Oman		600.10	600.10	174.80	174.80
Palestine					
Qatar		439.84	441.87	444.00	444.00
Saudi Arabia					160.71
Somalia					
Sudan					
Syria					
Tunisia			3,282.58	3,307.42	3,307.42
UAE	693.05	794.71	693.05	693.05	549.57
Yemen					

Arab average	408.71	485.34	973.25	894.42	589.82
OECD average	N/A	N/A	N/A	54.11	32.64

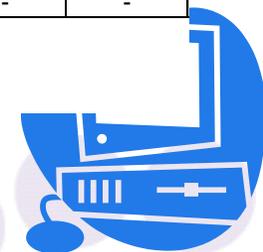
■ Below Arab average  
■ Above Arab average

Comparable OECD data is not available for 2008, 2009 and 2010

Ranking for OECD high usage medium speed business broadband basket, >2.5 Mb/s

	2008	2009	2010	2011	2012
Algeria	-	-	-	-	7
Bahrain	-	-	5	5	9
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	11
Egypt	-	-	-	-	2
Iraq	-	-	-	-	-
Jordan	-	-	-	-	4
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	3
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	1	1	1	1	1
Oman	-	3	3	2	6
Palestine	-	-	-	-	-
Qatar	-	2	2	3	8
Saudi Arabia	-	-	-	-	5
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	6	6	12
UAE	2	4	4	4	10
Yemen	-	-	-	-	-

■ Least expensive  
■ Most expensive



# Fixed broadband OECD business high usage, high speed >15 Mb/s basket ranking

Total results for OECD high usage high speed business broadband basket, >15 Mb/s

Results in USD/PPP excluding VAT, lowest per country

	2008	2009	2010	2011	2012
Algeria					
Bahrain			1,626.08	1,622.14	974.41
Comoros					
Djibouti					
Egypt					378.18
Iraq					
Jordan					227.71
Kuwait					
Lebanon					
Libya					
Mauritania					
Morocco	177.31	177.31	177.31	106.55	89.06
Oman		1,541.85	1,541.85	1,394.29	1,394.29
Palestine					
Qatar					
Saudi Arabia					169.05
Somalia					
Sudan					
Syria					
Tunisia					3,319.46
UAE			1,765.92	1,765.92	729.36
Yemen					

<b>Arab average</b>	177.31	859.58	1,277.79	1,222.22	910.19
<b>OECD average</b>	N/A	N/A	N/A	62.29	40.44

■ Below Arab average  
■ Above Arab average

Comparable OECD data is not available for 2008, 2009 and 2010

Ranking for OECD high usage high speed business broadband basket, >15 Mb/s

	2008	2009	2010	2011	2012
Algeria	-	-	-	-	-
Bahrain	-	-	3	3	6
Comoros	-	-	-	-	-
Djibouti	-	-	-	-	-
Egypt	-	-	-	-	4
Iraq	-	-	-	-	-
Jordan	-	-	-	-	3
Kuwait	-	-	-	-	-
Lebanon	-	-	-	-	-
Libya	-	-	-	-	-
Mauritania	-	-	-	-	-
Morocco	1	1	1	1	1
Oman	-	2	2	2	7
Palestine	-	-	-	-	-
Qatar	-	-	-	-	-
Saudi Arabia	-	-	-	-	2
Somalia	-	-	-	-	-
Sudan	-	-	-	-	-
Syria	-	-	-	-	-
Tunisia	-	-	-	-	8
UAE	-	-	4	4	5
Yemen	-	-	-	-	-

■ Least expensive  
■ Most expensive

# Mobile broadband basket 2012 results

# Mobile broadband data issues

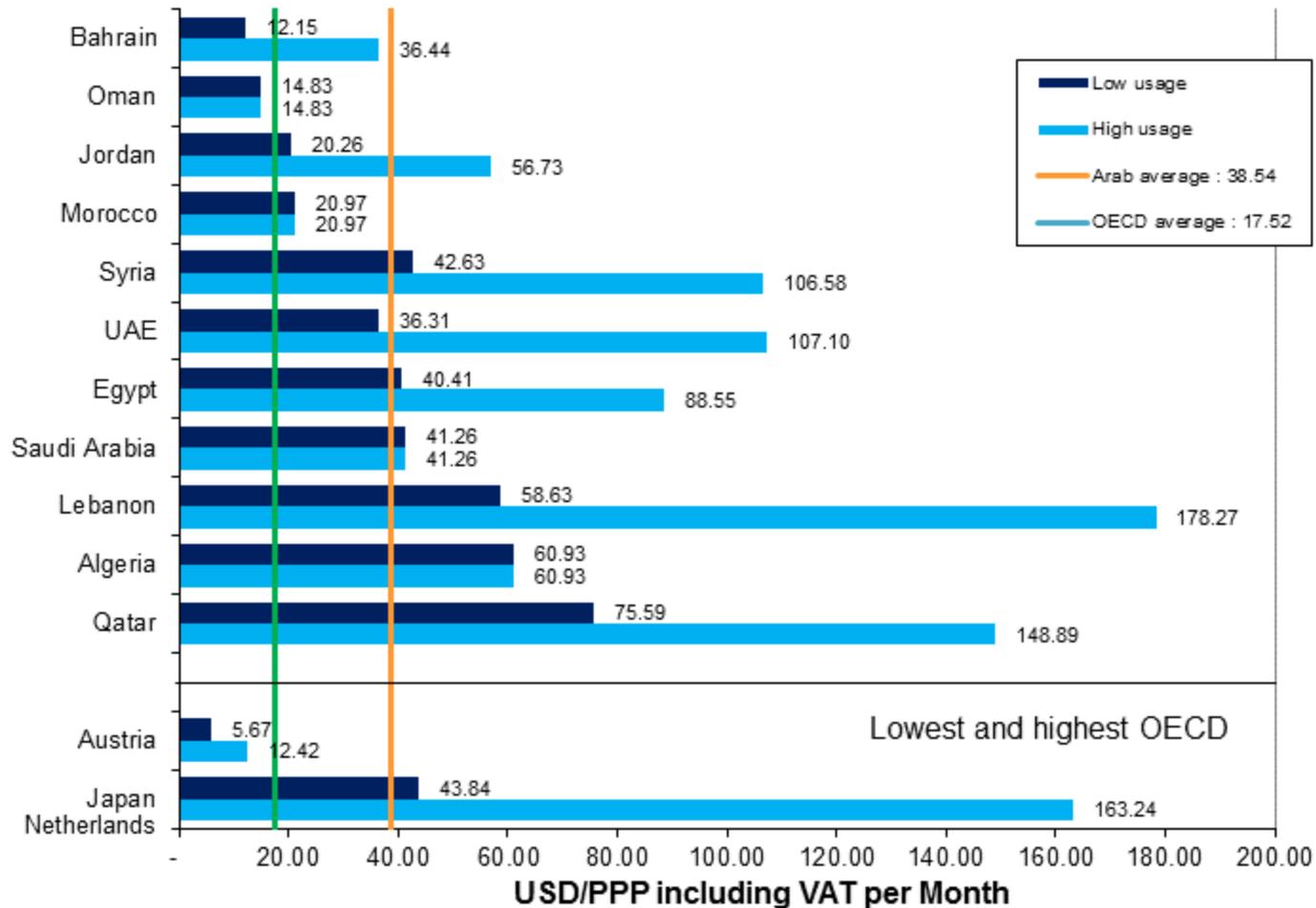
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- Tariff data was researched from operator websites in May 2012.
  - Data collected refers to dedicated mobile broadband packages (i.e. not mobile broadband over a mobile handset).
- No data was available for: Comoros, Iraq, Libya, Mauritania, Palestine, Somalia, Sudan, Tunisia and Yemen
- For countries where data was available, up to two operators were considered
- Total monthly cost calculated based on two usage baskets from the new range of OECD baskets:
  - **Low usage:** 1 GB and 5 hours per month.
  - **High usage:** 5 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.
- Results were compared to the recent OECD results covering 33 OECD countries (excl. South Korea), 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)

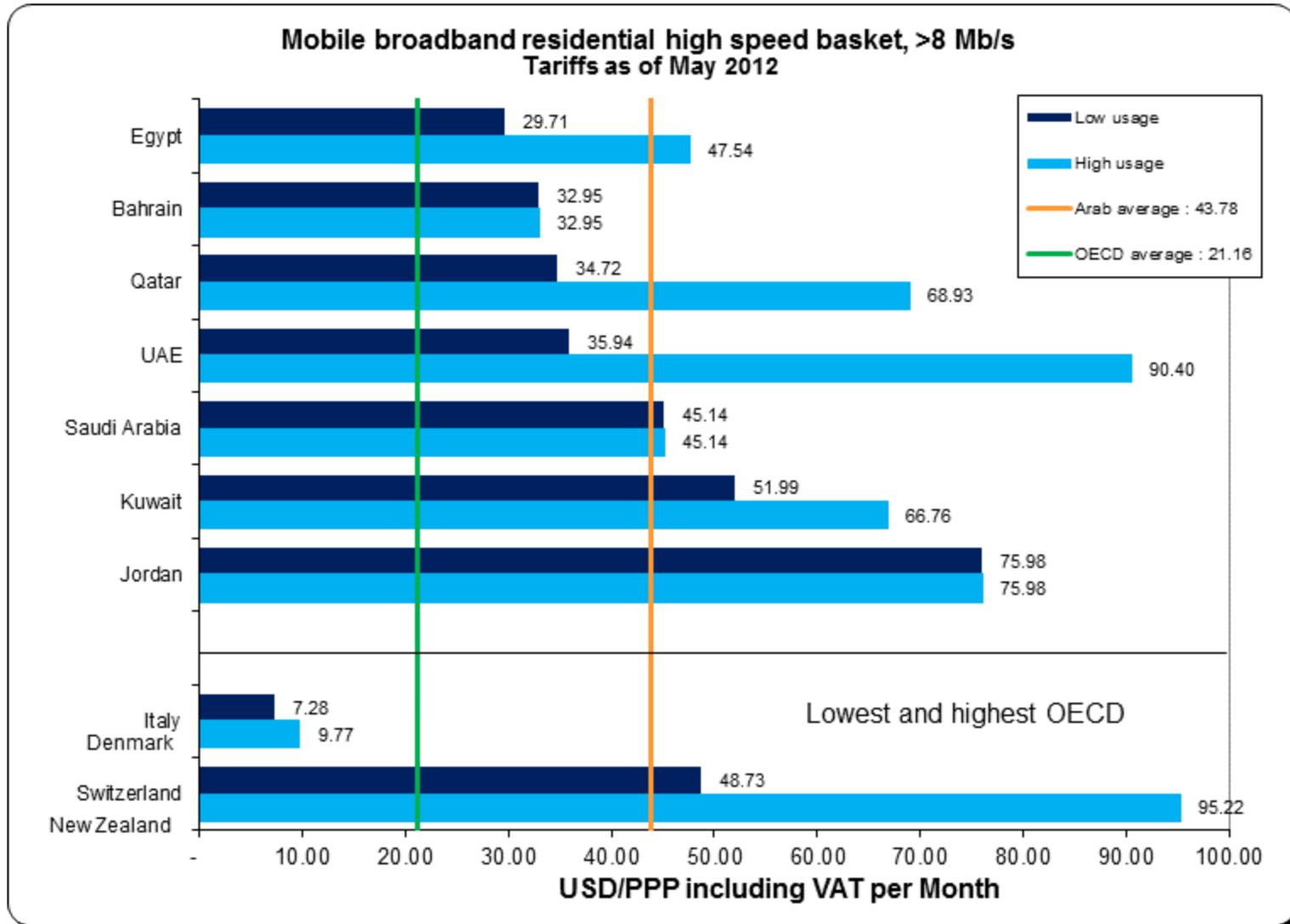
Mobile broadband residential medium speed basket, 2-8 Mb/s  
Tariffs as of May 2012



Mobile broadband is much more likely to vary with usage than fixed broadband



# Residential high speed mobile broadband (>8 Mb/s)

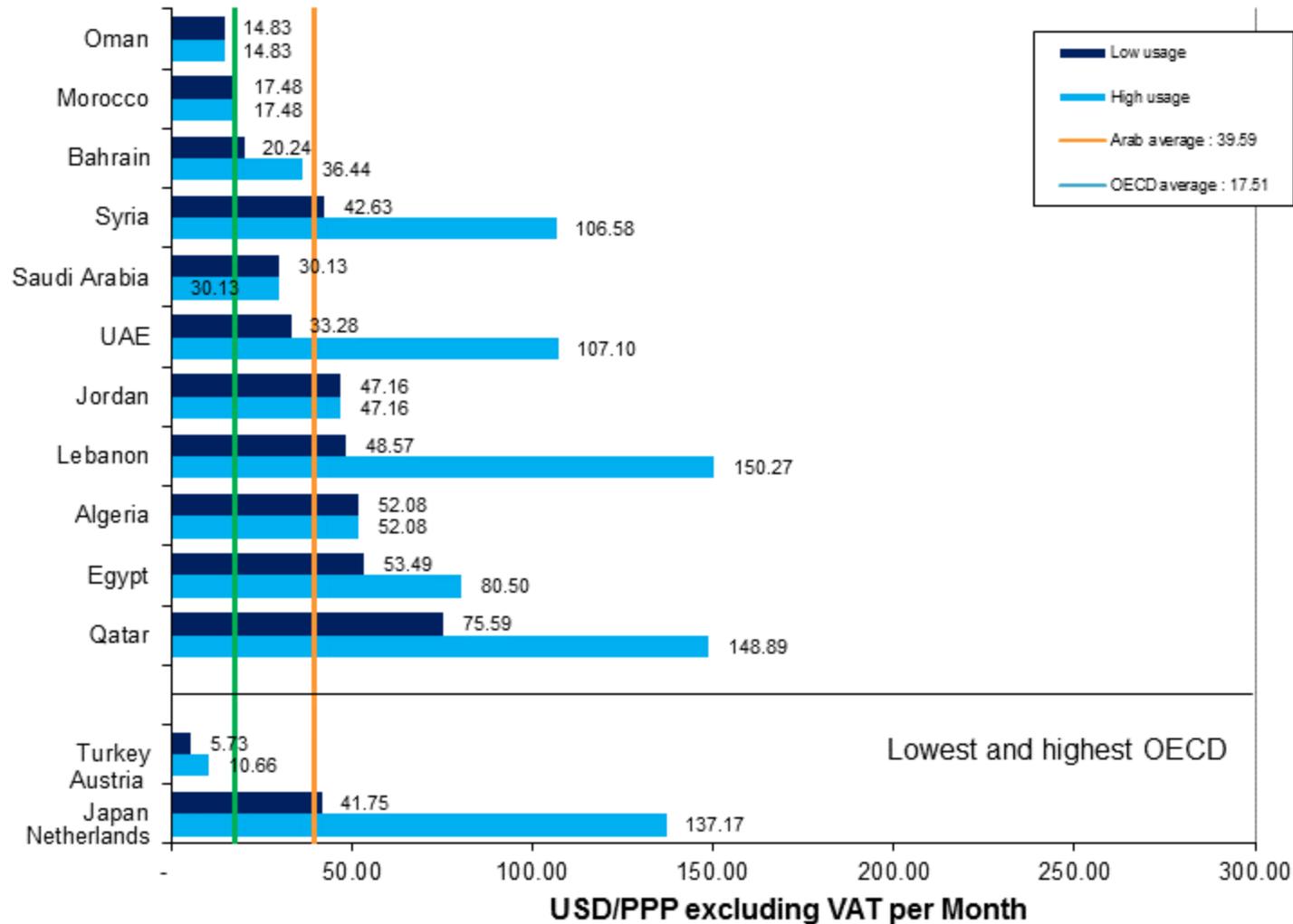


Fewer Arab providers offer speeds above 8 Mb/s



# Business medium speed mobile broadband (2-8 Mb/s)

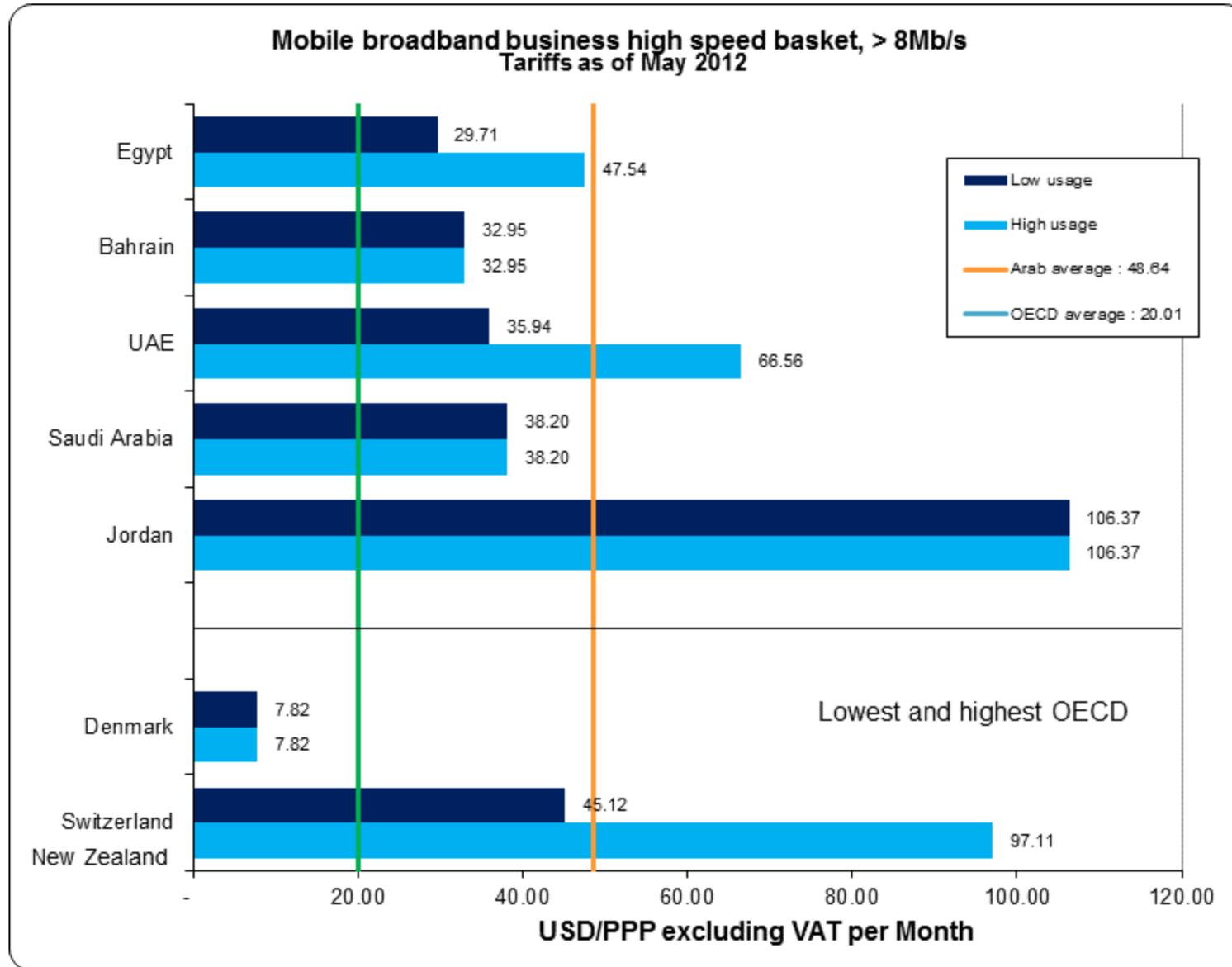
Mobile broadband business medium speed basket, 2-8 Mb/s  
Tariffs as of May 2012



Mobile broadband is much more likely to vary with usage than fixed broadband



# Business high speed mobile broadband (>8 Mb/s)



Fewer Arab providers offer speeds above 8 Mb/s

Mobile broadband is much more likely to vary with usage than fixed broadband



# Observations from mobile broadband basket results

- Similar to 2011, mobile broadband services are not available in over half of the Arab countries
  - The average advertised download speed is just over 11 Mb/s, up from just over 8 Mb/s in 2011
  - Higher speeds are much more commonplace in some countries than last year, with speeds in excess of 7.2 Mb/s available in seven of the Arab countries.
  - Very low speeds of < 1Mb/s have all but disappeared in the Arab countries. Only Djibouti (which didn't have any mobile broadband service last year) has a low speed – 0.5 Mb/s – service.
- Bahrain is consistently among the least expensive countries for low usage mobile broadband, for both business and residential offerings, but falls down the rankings for the mid-speed basket at high usage, due to the impact of usage charges.
- Oman is very competitively positioned, where it has service (speeds below 8 Mb/s), while Egypt compares favourably for high speed, low usage baskets.
- Apart from Bahrain (low usage) and Oman for residential medium speed services, and Oman and Morocco for medium speed business services, no Arab country falls below the OECD (low usage) average, although several are not significantly higher
- The average cost of mobile broadband services in the Arab countries is between 2.0 and 2.43 times more expensive than the OECD average

	<b>Arab/OECD average</b>			
	<b>Low usage</b>		<b>High usage</b>	
	2-8 Mb/s	>8Mb/s	2-8 Mb/s	> 8Mb/s
Arab/OECD residential	2.09	2.07	2.00	1.89
Arab/OECD business	2.15	2.43	2.11	1.98

- There is now much more parity between business and residential services in the Arab countries across all speeds, similar to OECD countries.

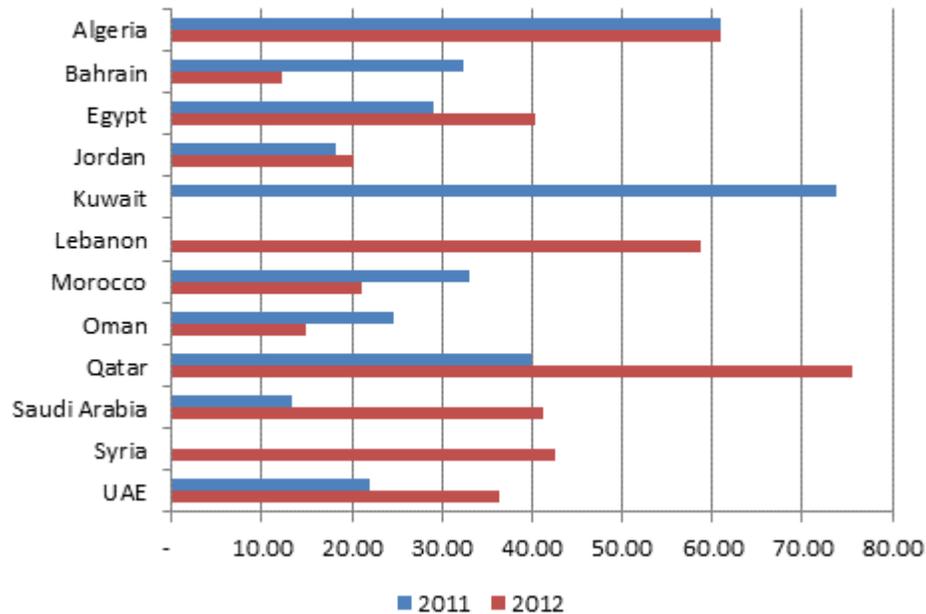
	2-8 Mb/s	>8Mb/s
Arab business/residential	1.03	1.11
OECD business/residential	1.00	0.95



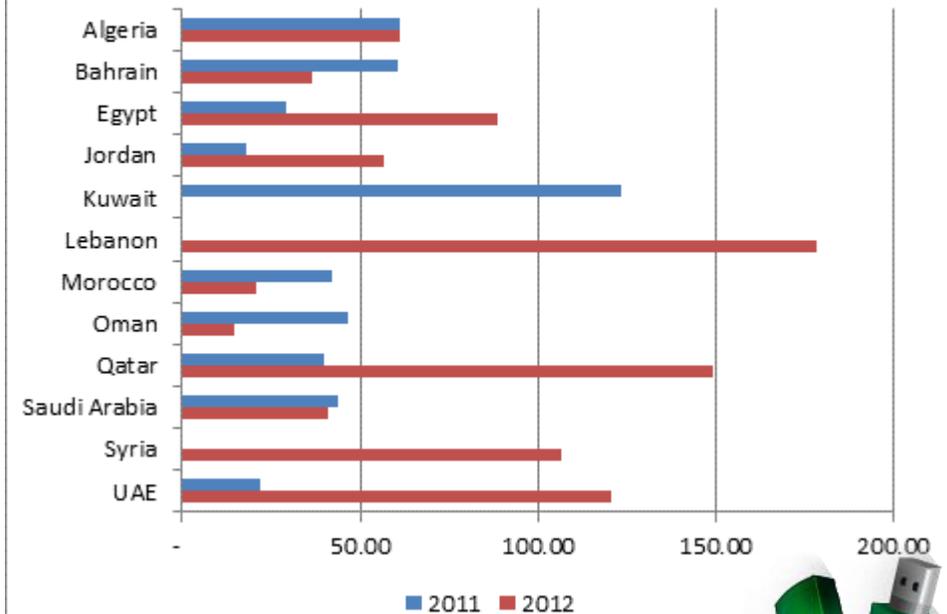
# Mobile broadband time series, 2011-2012

# Residential Mobile Broadband, Medium speed time series

**Residential Medium speed (2-8 Mb/s), Low usage (1 GB)**

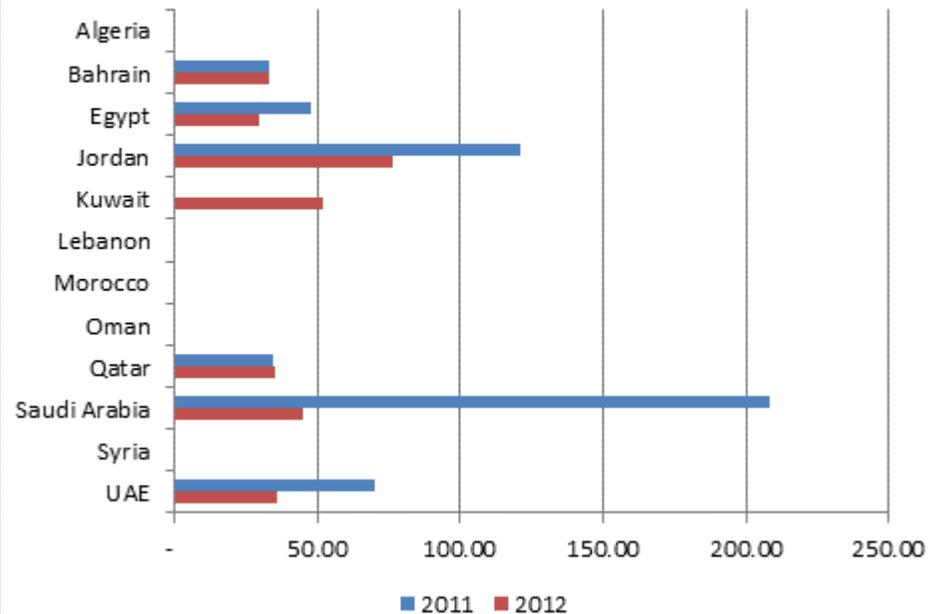


**Residential Medium speed (2-8 Mb/s), High usage (5 GB)**

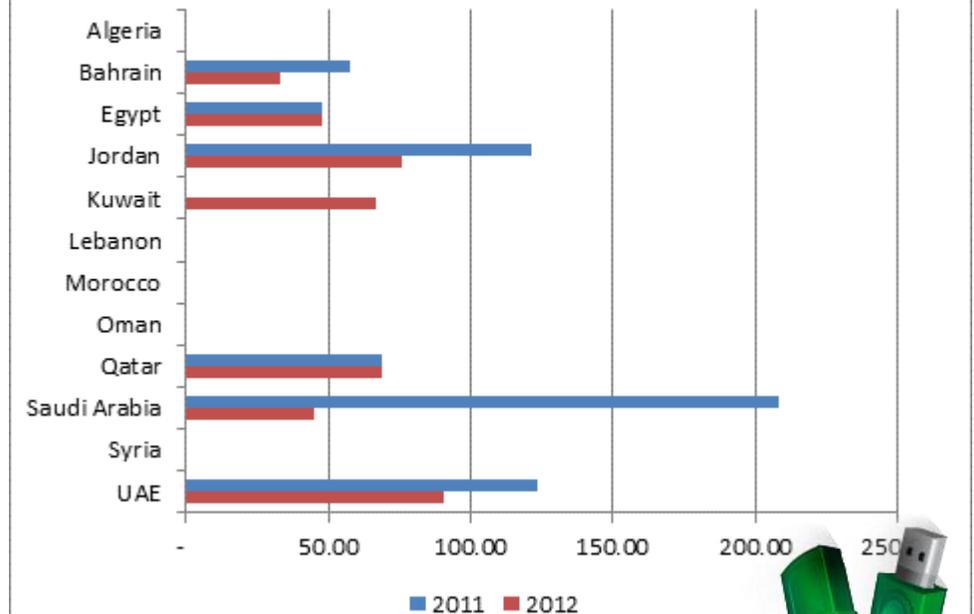


# Residential Mobile Broadband, High speed time series

**Residential High speed (>8 Mb/s),  
Low usage (1 GB)**

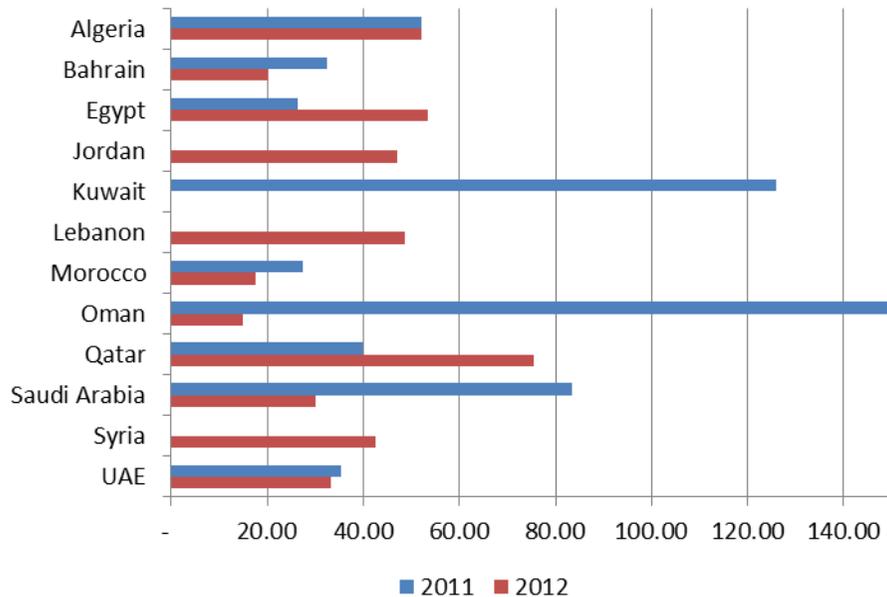


**Residential High speed (>8 Mb/s),  
High usage (5 GB)**

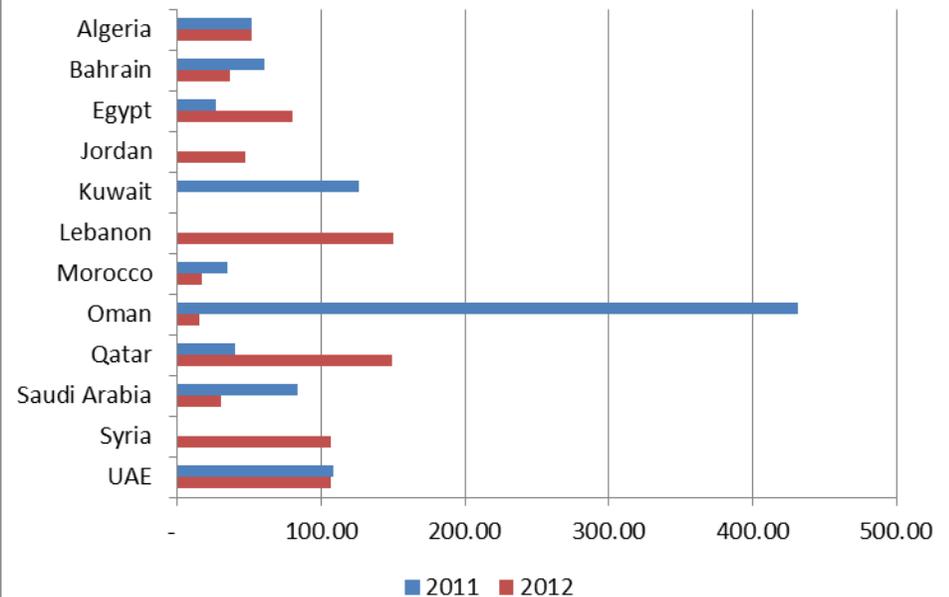


# Business Mobile Broadband, Medium speed time series

**Business Medium speed (2-8 Mb/s),  
Low usage (1 GB)**



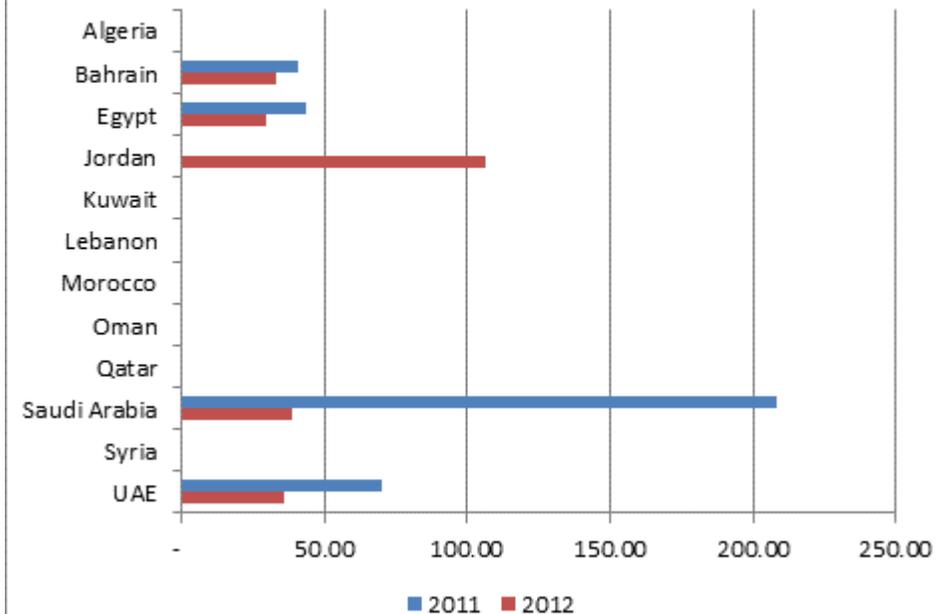
**Business Medium speed (2-8 Mb/s),  
High usage (5 GB)**



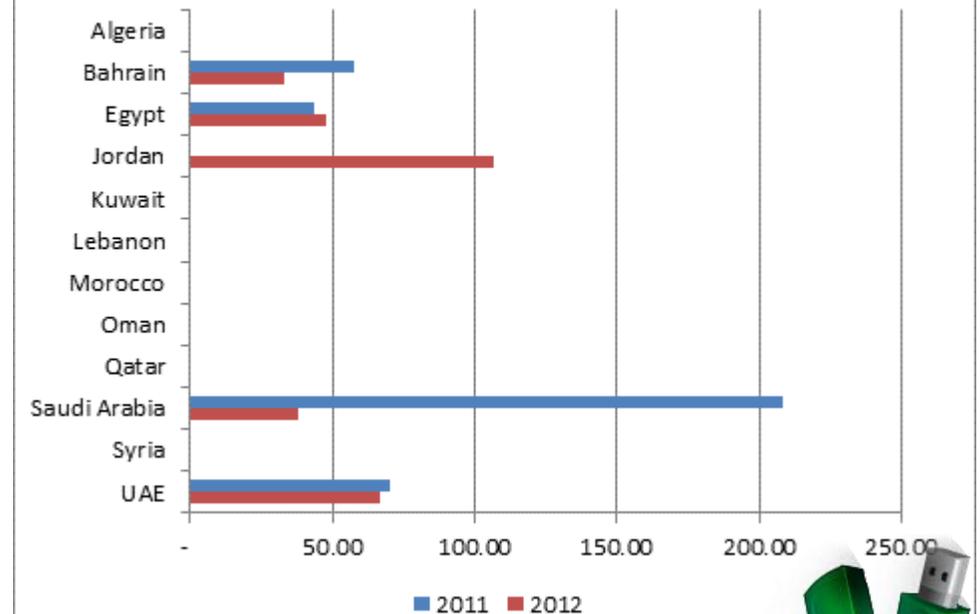
For Oman the 2011 entry has been truncated as it is much higher than other results.

# Business Mobile Broadband, High speed time series

**Business High speed (>8 Mb/s), Low usage (1 GB)**



**Business High speed (>8 Mb/s), High usage (5 GB)**



# Observations from mobile broadband time series results

- There were price and service changes in most of the Arab countries:
  - Bahrain: Introduction of new packages, including unlimited packages (with FUP and throttling), increase of services speeds for some services, e.g. 21 Mb/s to 42 Mb/s, with no corresponding rental increase
  - Egypt: Change in service offerings, including wider range of unlimited packages (with FUP and throttling)
  - Jordan: Increase in service speeds and included allowances, introduction of new packages, introduction of business-specific offerings
  - Kuwait: Change in service offerings, including new allowances for pre-paid services, ranging from 500 MB to 10 GB.
  - Morocco: Changes to some packages, including allowance changes, plus removal of some lower speed services, with higher speed services being offered at same cost as previously available lower speed offerings.
  - Oman: Increase in number of services offered (almost double) to include a broader range, including smaller and higher bundles, plus an increase in allowances on some services, as well as a reduction in some rental charges
  - Qatar: Changes to some packages, mainly in the form of changes to connection charges.
  - Saudi Arabia: Increase in number of services offered (almost double), including range of higher speed services with large monthly allowances (5GB and above), as well as a number of unlimited offerings, plus several pure business plans.
  - UAE: Change in plans offered, including increase in speeds of service and lower rental charges for comparable offers.
- Prices in Arab countries have generally come down significantly over the last year, particularly for business services and high speed residential services
- The average residential and business baskets results are broadly comparable at just over 40 USD.



# Mobile broadband ranking tables, 2012

# Residential medium speed mobile broadband (2-8 Mb/s) ranking

	Residential Medium speed (2-8 Mb/s)			
	Low usage (1 GB)		High usage (5 GB)	
	2011	2012	2011	2012
Algeria	60.93	60.93	60.93	60.93
Bahrain	32.39	12.15	60.73	36.44
Egypt	29.12	40.41	29.12	88.55
Jordan	18.24	20.26	18.24	56.73
Kuwait	73.88		123.13	
Lebanon		58.63		178.27
Morocco	32.94	20.97	42.15	20.97
Oman	24.71	14.83	46.41	14.83
Qatar	39.95	75.59	39.95	148.89
Saudi Arab	13.35	41.26	43.70	41.26
Syria		42.63		106.58
UAE	21.98	36.31	21.98	107.10

Average	34.75	38.54	48.63	78.23
	Below average			
	Above average			

	Residential Medium speed (2-8 Mb/s)			
	Low usage (1 GB)		High usage (5 GB)	
	2011	2012	2011	2012
Algeria	9	10	9	6
Bahrain	6	1	8	3
Egypt	5	6	3	7
Jordan	2	3	1	5
Kuwait	10		10	
Lebanon		9		11
Morocco	7	4	5	2
Oman	4	2	7	1
Qatar	8	11	4	10
Saudi Arab	1	7	6	4
Syria		8		8
UAE	3	5	2	9

Lowest price
Highest price



# Residential high speed mobile broadband (>8 Mb/s) ranking

	Residential High speed (>8 Mb/s)			
	Low usage (1 GB)		High usage (5 GB)	
	2011	2012	2011	2012
Algeria				
Bahrain	32.95	32.95	57.24	32.95
Egypt	47.54	29.71	47.54	47.54
Jordan	121.26	75.98	121.26	75.98
Kuwait		51.99		66.76
Lebanon				
Morocco				
Oman				
Qatar	34.21	34.72	68.42	68.93
Saudi Arab	208.36	45.14	208.36	45.14
Syria				
UAE	70.13	35.94	123.08	90.40

Average	85.74	43.78	104.32	61.10
	Below average			
	Above average			

	Residential High speed (>8 Mb/s)			
	Low usage (1 GB)		High usage (5 GB)	
	2011	2012	2011	2012
Algeria				
Bahrain	1	2	2	1
Egypt	3	1	1	3
Jordan	5	7	4	6
Kuwait		6		4
Lebanon				
Morocco				
Oman				
Qatar	2	3	3	5
Saudi Arab	6	5	6	2
Syria				
UAE	4	4	5	7

Lowest price
Highest price



# Business medium speed mobile broadband (2-8 Mb/s) ranking

	Business Medium speed (2-8 Mb/s)			
	Low usage (1 GB)		High usage (5 GB)	
	2011	2012	2011	2012
Algeria	52.08	52.08	52.08	52.08
Bahrain	32.39	20.24	60.73	36.44
Egypt	26.47	53.49	26.47	80.50
Jordan		47.16		47.16
Kuwait	126.00		126.00	
Lebanon		48.57		150.27
Morocco	27.45	17.48	35.13	17.48
Oman	431.93	14.83	431.93	14.83
Qatar	39.95	75.59	39.95	148.89
Saudi Arab	83.34	30.13	83.34	30.13
Syria		42.63		106.58
UAE	35.35	33.28	108.62	107.10

Average	95.00	39.59	107.14	71.95
	Below average			
	Above average			

	Business Medium speed (2-8 Mb/s)			
	Low usage (1 GB)		High usage (5 GB)	
	2011	2012	2011	2012
Algeria	6	9	4	6
Bahrain	3	3	5	4
Egypt	1	10	1	7
Jordan		7		5
Kuwait	8		8	
Lebanon		8		11
Morocco	2	2	2	2
Oman	9	1	9	1
Qatar	5	11	3	10
Saudi Arab	7	4	6	3
Syria		6		8
UAE	4	5	7	9

Lowest price
Highest price



# Business high speed mobile broadband (>8 Mb/s) ranking

	Business High speed (>8 Mb/s)			
	Low usage (1 GB)		High usage (5 GB)	
	2011	2012	2011	2012
Algeria				
Bahrain	40.60	32.95	57.24	32.95
Egypt	43.22	29.71	43.22	47.54
Jordan		106.37		106.37
Kuwait				
Lebanon				
Morocco				
Oman				
Qatar				
Saudi Arab	208.36	38.20	208.36	38.20
Syria				
UAE	70.14	35.94	70.14	66.56

Average	90.58	48.64	94.74	58.33
	Below average			
	Above average			

	Business High speed (>8 Mb/s)			
	Low usage (1 GB)		High usage (5 GB)	
	2011	2012	2011	2012
Algeria				
Bahrain	1	2	2	1
Egypt	2	1	1	3
Jordan		5		5
Kuwait				
Lebanon				
Morocco				
Oman				
Qatar				
Saudi Arab	4	4	4	2
Syria				
UAE	3	3	3	4

Lowest price
Highest price



# PSTN call cost comparison

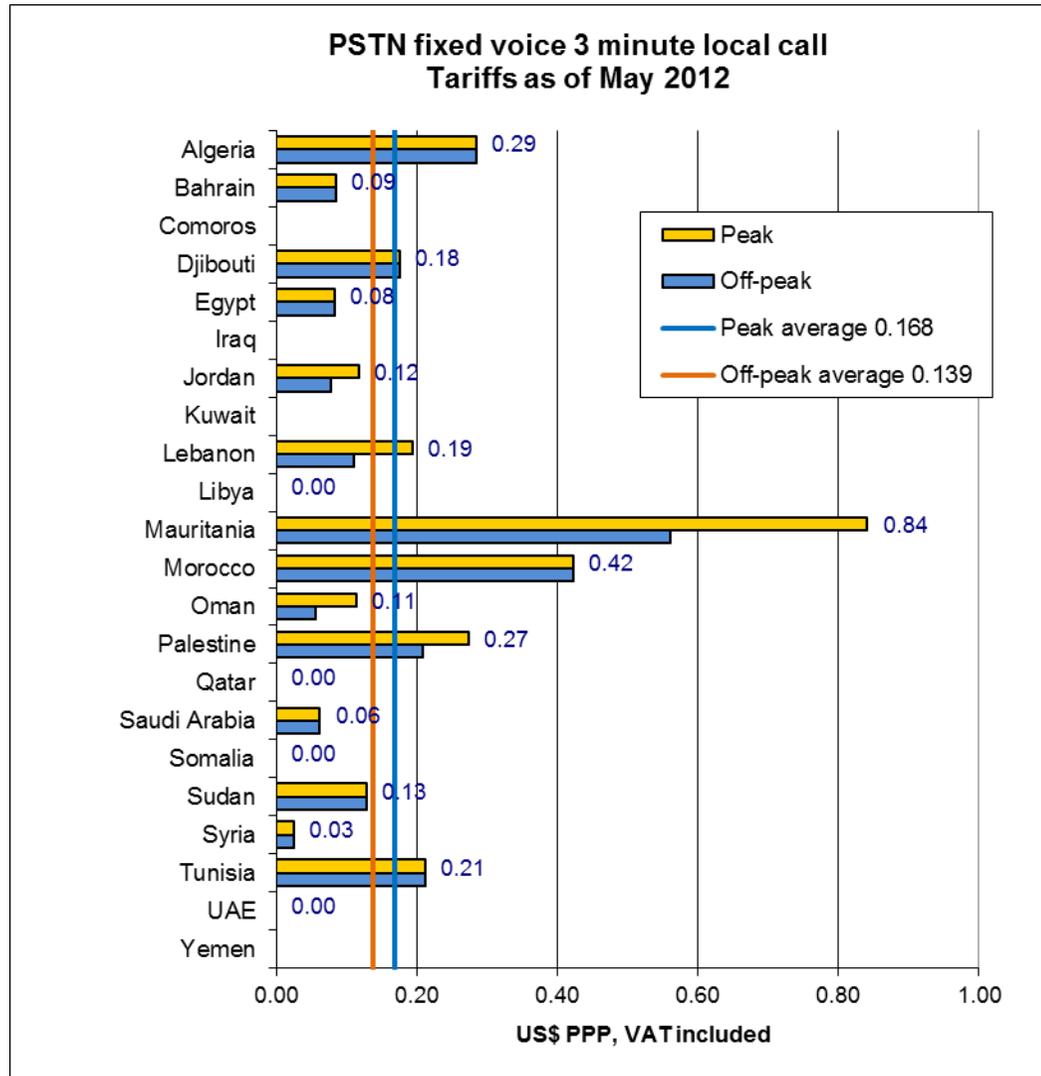
# Call cost comparison data issues

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- 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

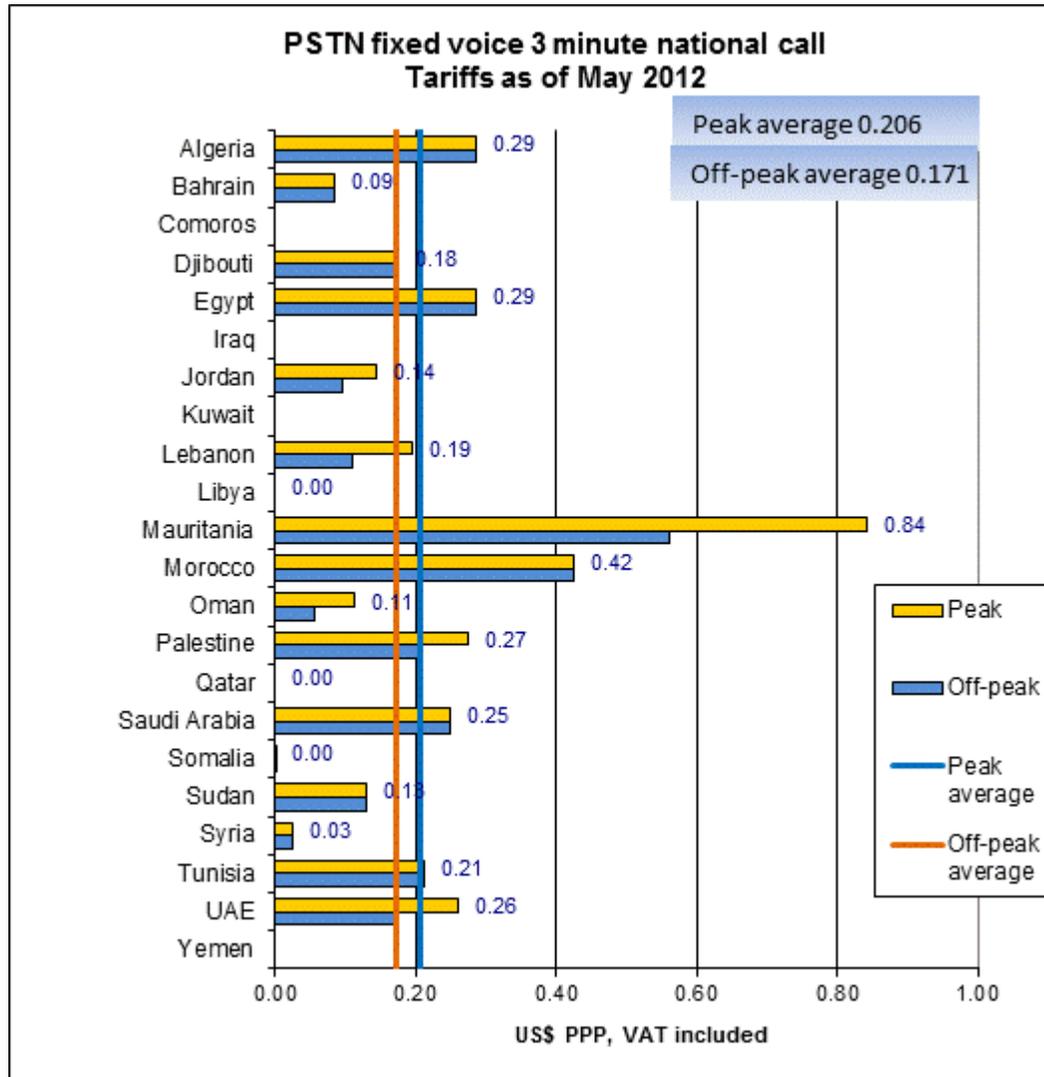


Many of the countries continue to have the same prices for peak and off peak calls.

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



# National call comparison

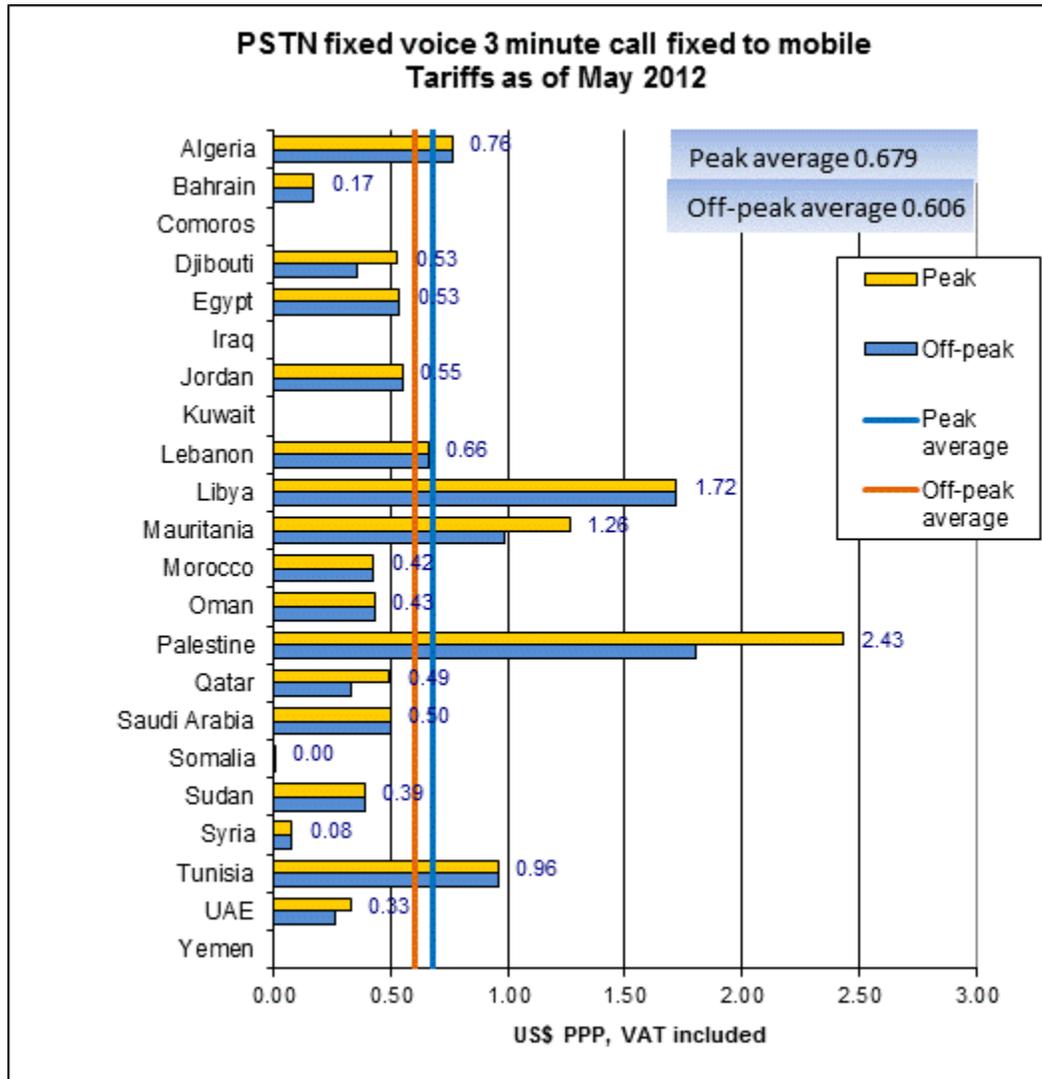


Similar to local calls, many of the countries continue to have the same prices for peak and off peak calls.

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



# Fixed to mobile (F2M) call comparison

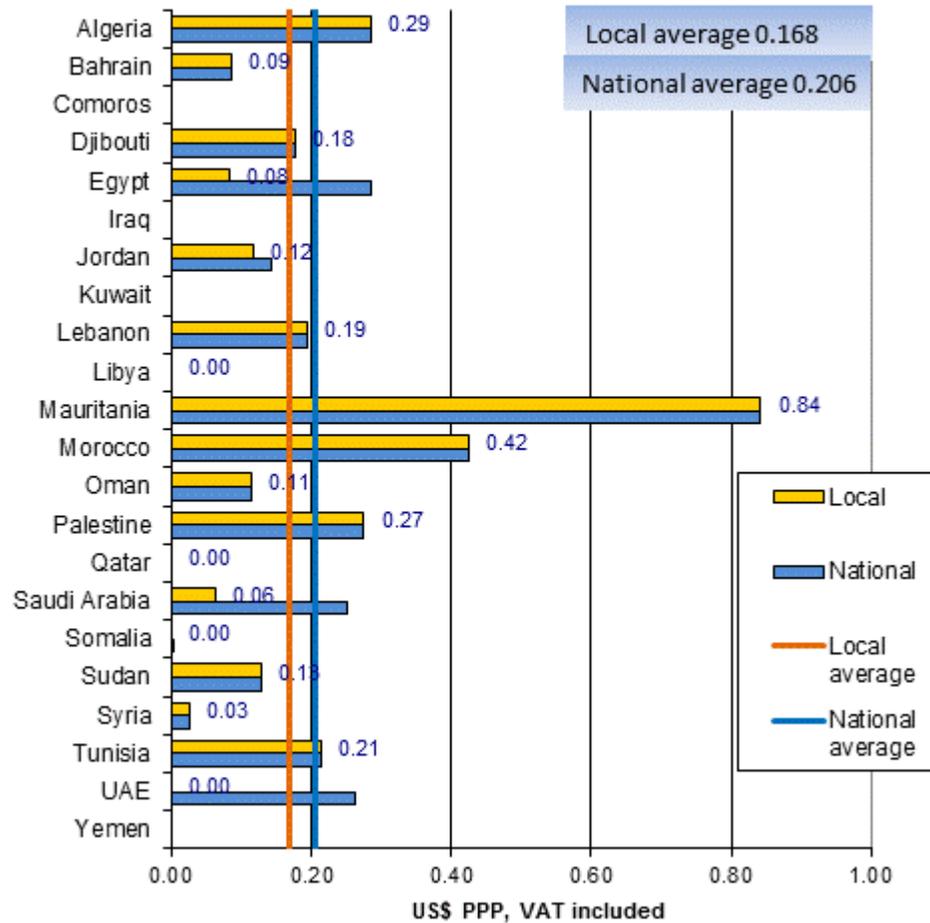


Countries with call cost of 0.00 have free calling included in the monthly rental.



# Local vs. national PSTN

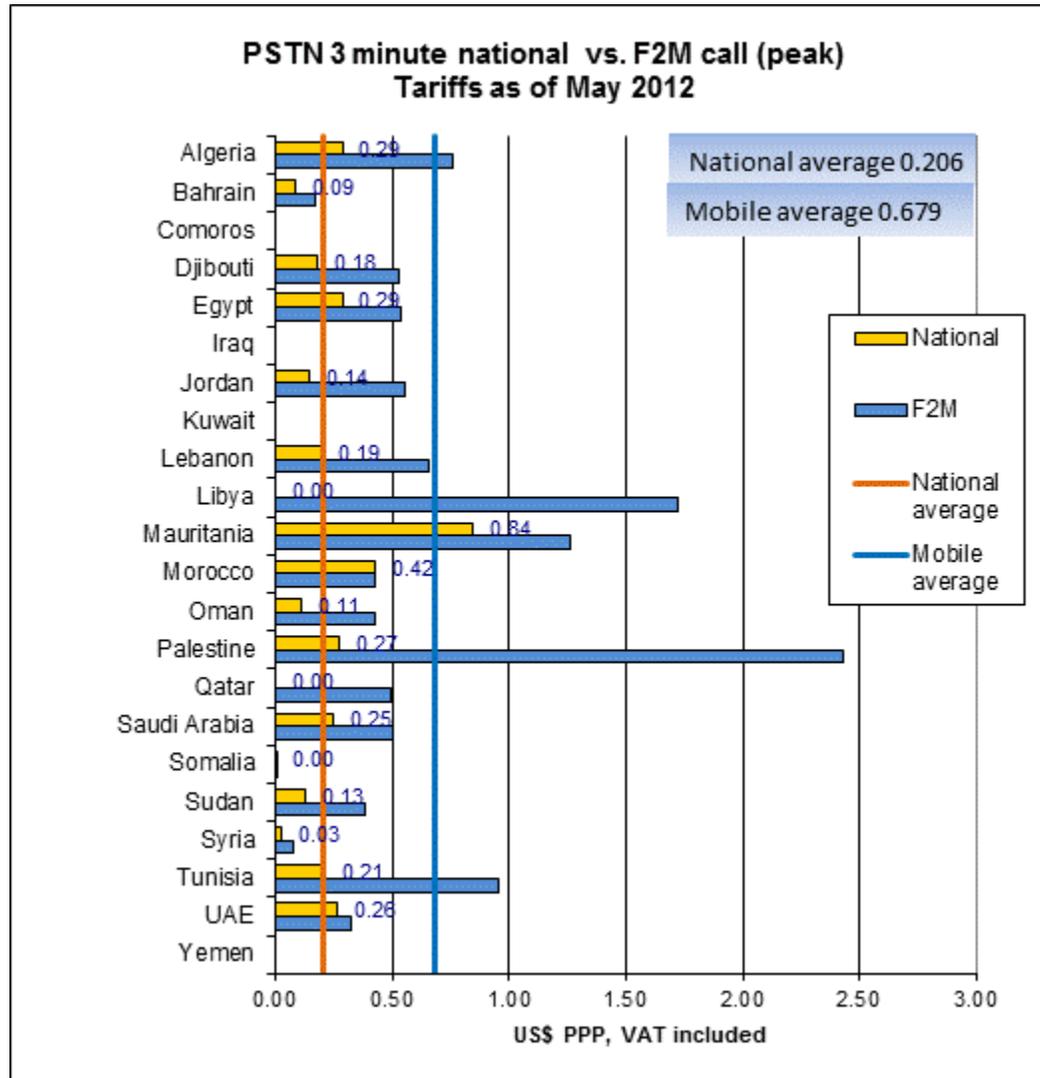
**PSTN fixed voice 3 minute local vs. national call (peak )  
Tariffs as of May 2012**



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



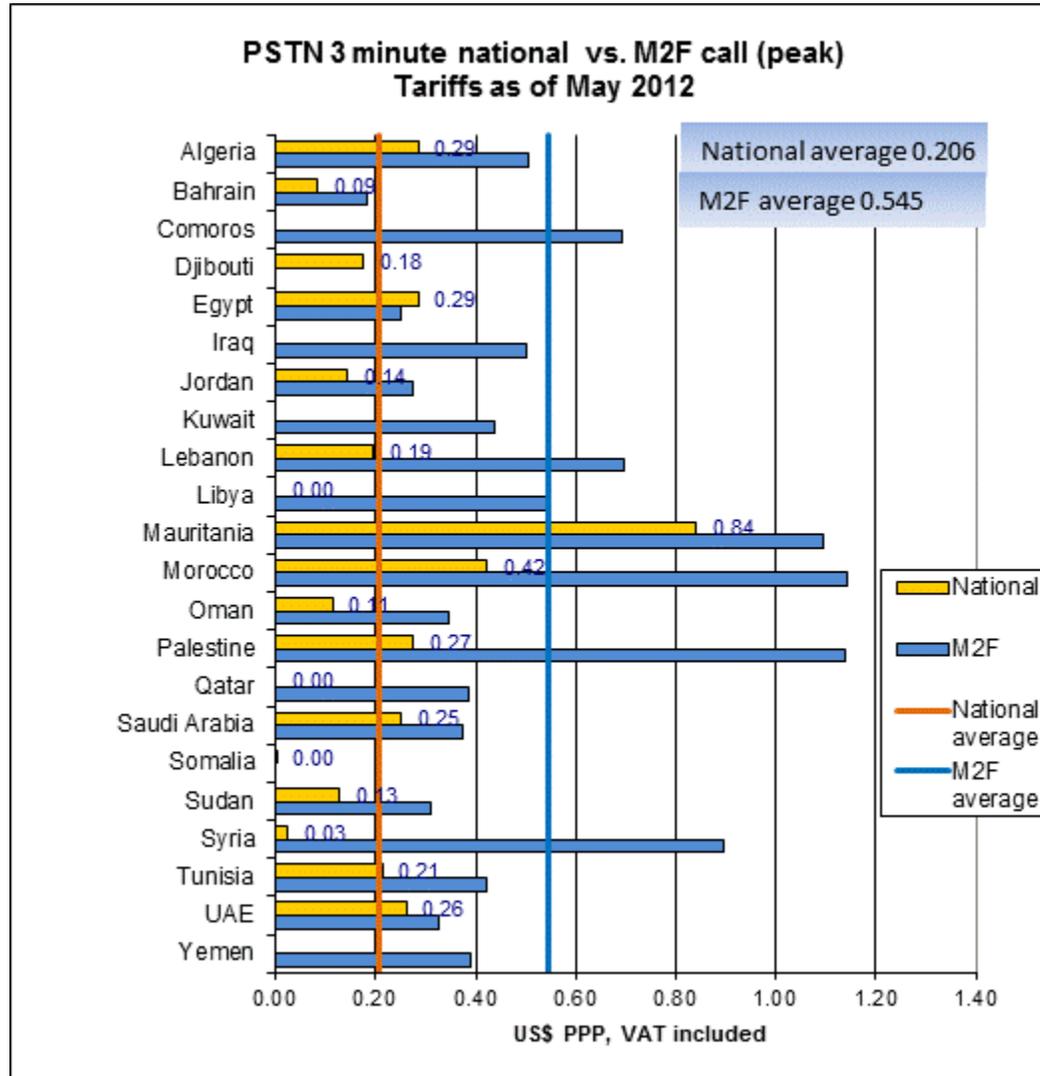
# National PSTN vs. fixed-to-mobile (F2M)



The ratio of national to fixed to mobile charges varies dramatically across the Arab countries, with fixed to mobile calls being on average 3.3 times more expensive than national calls.



# National PSTN vs. mobile-to-fixed (M2F)

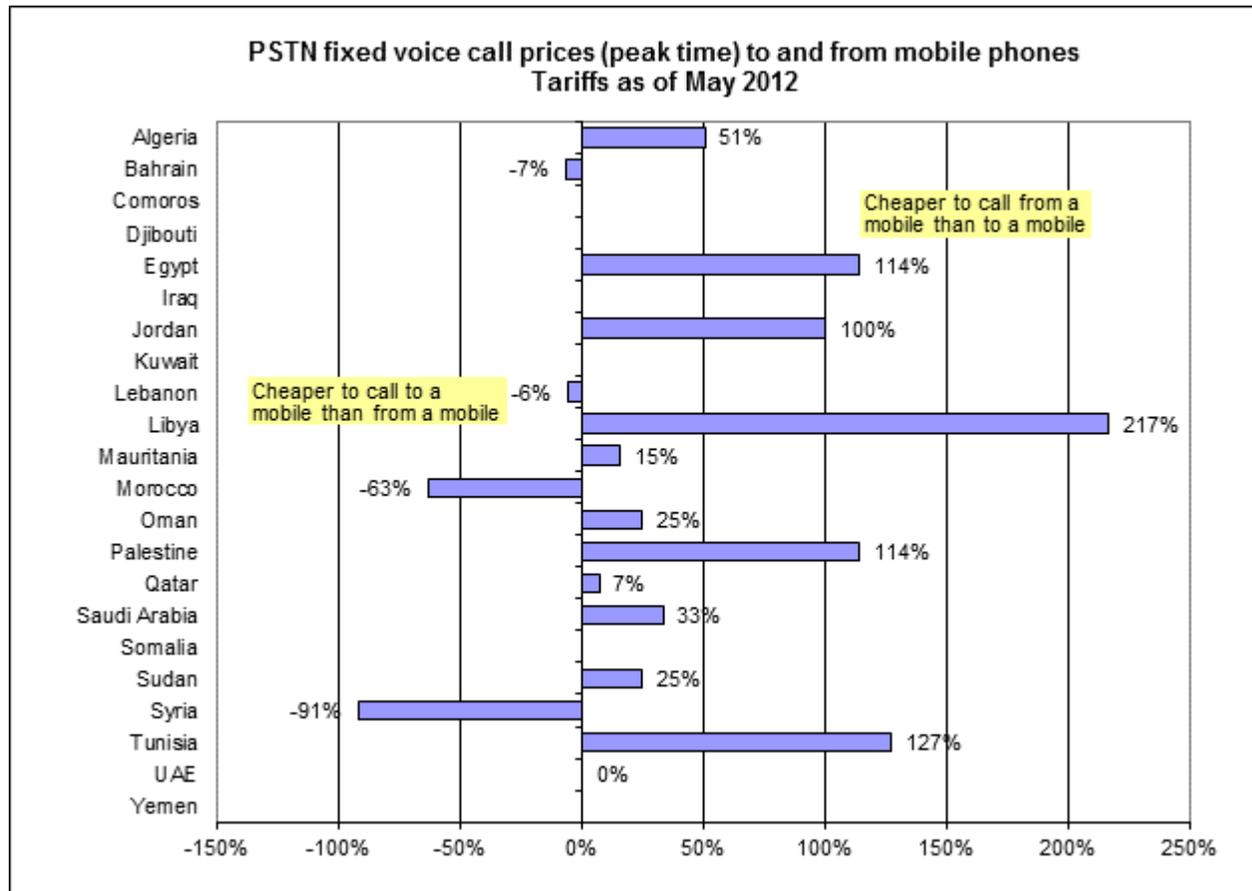


The ratio of national to mobile-to-fixed varies dramatically across the Arab countries, with fixed to mobile calls being on average 2.6 times more expensive than national calls. Mobile to fixed calls are generally cheaper than fixed-to-mobile calls.



# 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.

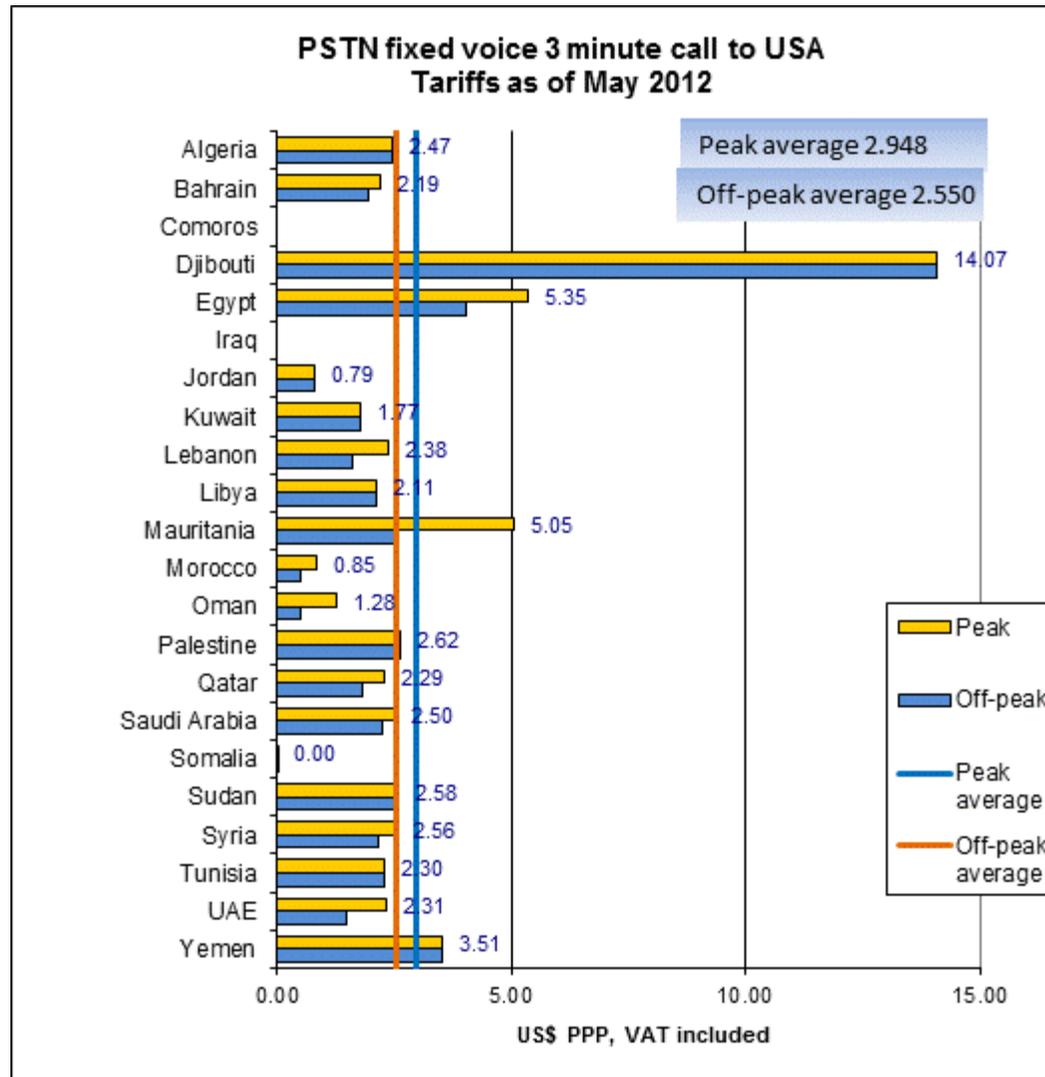


2012 To/From mobile		
	Peak	Off-peak
Algeria	51%	51%
Bahrain	-7%	-7%
Comoros		
Djibouti		
Egypt	114%	114%
Iraq		
Jordan	100%	100%
Kuwait		
Lebanon	-6%	16%
Libya	217%	217%
Mauritania	15%	-10%
Morocco	-63%	-56%
Oman	25%	25%
Palestine	114%	59%
Qatar	7%	-24%
Saudi Arabia	33%	33%
Somalia		
Sudan	25%	25%
Syria	-91%	-87%
Tunisia	127%	127%
UAE	0%	0%
Yemen		
Average	-18%	-13%

+ means F2M higher than M2F  
- means F2M lower than M2F



# International call comparison (call to USA)

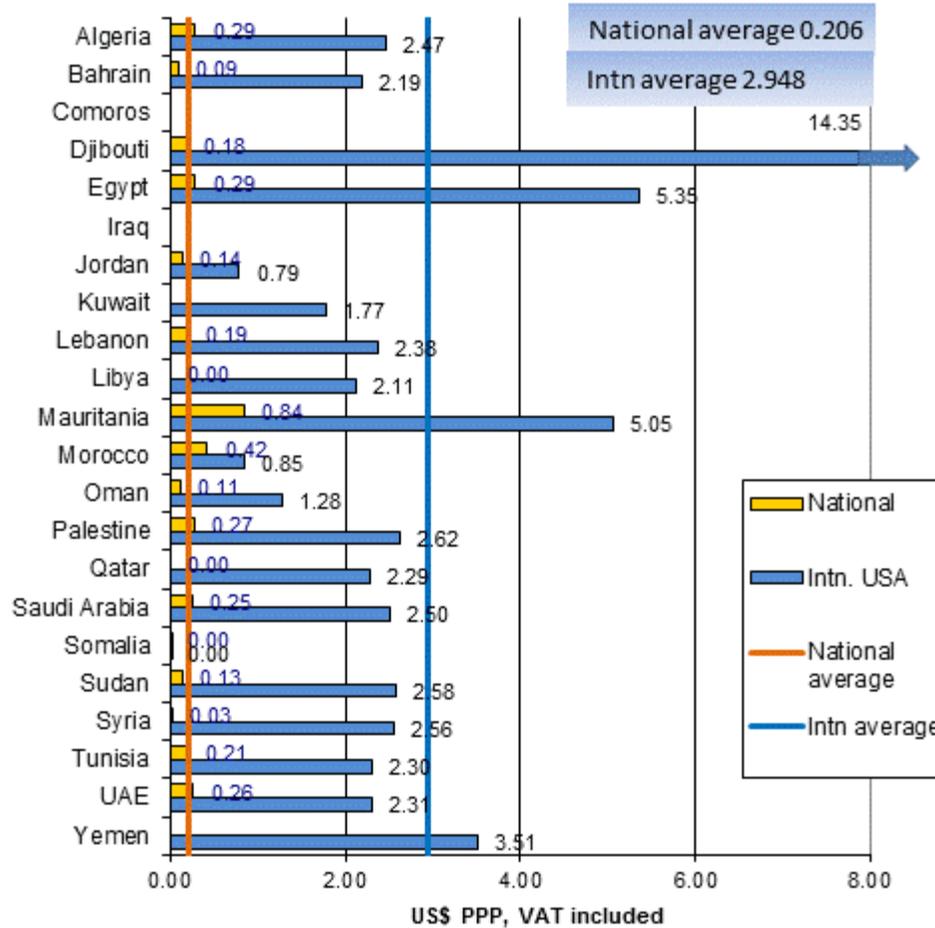


In many countries, there is no or little difference between peak and off-peak calling internationally (to the USA)



# National vs. international to USA

**PSTN fixed voice 3 minute National vs. International (peak)  
Tariffs as of May 2012**



International calls (to the USA) are significantly more expensive than national calls in the Arab countries – on average just over 14 times more expensive



## Call costs 2011 - 2012

---

- There have not been many changes in call charges between 2011 – 2012 for the countries covered:
  - Local calls: No changes recorded
  - National calls: No changes recorded
  - Fixed to mobile: Decrease registered in Morocco
  - International (to USA): Increase in Sudan; decreases in Morocco, Oman, Palestine



## Observations from the call cost comparison

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- 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 2011, 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 2011, and indicate that rebalancing of call charges has still not taken place in many countries in the region



# Summary of main findings from the benchmarking study

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- Fixed voice telephony
  - Prices are on average higher in Arab countries than in OECD countries; international call charges in particular, are significantly higher than in OECD countries
  - There is a wide spread of price levels between the Arab countries, and notably, Arab countries in North Africa are more expensive than the Arab countries in the Middle East
  - Although there has been some rebalancing, there is still a lot of room for more, with Arab countries generally displaying low fixed and high usage costs
  - While prices have gone down over the last year in some countries, on average, reductions have been relatively small, with greater reductions seen in the overall OECD average.
  - The lack of rebalancing will make it difficult for the incumbent operators to perform in a competitive market
- Mobile telephony
  - Price levels in many Arab countries compare reasonably well with OECD countries, especially for low and medium usage
  - Prices are fairly uniform throughout the region, although costs in some countries and for some operators are very high, most notably in Comoros Iraq, Lebanon, Mauritania and Palestine
  - Many countries have reduced prices, and in some cases quite substantially, over the last year and introduced more calling plans, although the average number of plans per operator – currently 16 - is still well below the OECD average
- Leased Lines
  - Prices for high speed circuits are generally higher than in OECD countries, with very little change since 2011
  - There continues to be a wide spread of prices between the Arab countries
- Fixed Broadband
  - Price levels are generally higher, sometimes significantly so, in Arab countries than in OECD countries, and for some operators, usage charges continue to be levied
  - The speed range offered is lower in Arab countries, although speeds are increasing – with speeds below 256 kb/s having all but disappeared, and 8 operators now offering speeds above 15 Mb/s.
  - The higher charges and usage-based charges will inhibit broadband penetration
- Mobile broadband
  - Mobile broadband services are still not widely available across the Arab countries
  - Mid speed services, 2-8 Mb/s, are more prevalent in the Arab countries, although average speeds have seen a significant increase since 2011, with the average advertised speed standing at just over 11 Mb/s in 2012, up from 8 Mb/s in 2011
  - The majority of Arab countries are more expensive than the comparable OECD average (for low usage), although some are not significantly more expensive. Furthermore, there is much greater parity between business and residential service pricing, compared to 2011.
- Generally prices in Arab countries have gone down, but since prices have gone down in other parts of the world as well the gap between prices in Arab countries and prices in OECD countries remains.

# Appendix

# Exchange rates and VAT

## Exchange rates and VAT

Related to:	US\$	US\$ PPP	%	Currency
Algeria	0.013540	0.027080	17.0 %	DZD
Bahrain	2.671900	4.048333	0.0 %	BHD
Comoros	0.002633	0.004619	0.0 %	KMF
Djibouti	0.005627	0.011723	19.0 %	DJF
Egypt	0.166400	0.594286	10.0 %	EGP
Iraq	1.000000	2.631579	0.0 %	USDx
Jordan	1.414800	2.620000	16.0 %	JOD
Kuwait	3.595400	4.925205	0.0 %	KWD
Lebanon	0.000673	0.001201	10.0 %	LBP
Libya	0.805200	2.013000	0.0 %	LYD
Mauritania	0.003461	0.009354	0.0 %	MRO
Morocco	0.116500	0.211818	20.0 %	MAD
Oman	2.603900	4.339833	0.0 %	OMR
Palestine	0.261700	1.308500	14.5 %	ILS
Qatar	0.274900	0.366533	0.0 %	QAR
Saudi Arabia	0.266700	0.416719	0.0 %	SAR
Somalia	1.000000	3.333333	0.0 %	SOS
Sudan	0.377800	0.858636	10.0 %	SDG
Syria	0.016200	0.042632	0.0 %	SYP
Tunisia	0.638900	1.419778	18.0 %	TND
UAE	0.272300	0.363067	0.0 %	AED
Yemen	0.004683	0.013008	10.0 %	YER
UK	1.607900	1.362627	17.5 %	GBP
USA	1.000000	1.000000	10.0 %	USD
France	1.287000	1.119130	19.6 %	EUR

Prices for services in Iraq are given in US\$

Exchange rates taken from the Oanda web service on the 15 May 2012  
 PPPs are based on World Bank CPL data based on 2005 (latest available).

# Purchasing Power Parities (PPP)

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- 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.

# Acronyms and definitions used in the context of this report

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- 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.