Body of European Regulators for Electronic Communications

BEREC

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FTR Benchmark snapshot (as of January 2011)

I. Introduction

This document is the first benchmark of FTR prepared by the BEREC Benchmarking Expert Working Group in cooperation with the BEREC Termination Rates Expert Working Group and the BEREC Office.

The present overview of FTR is based upon the results of a request for information sent to all NRAs at the end of September 2011, referring to data as of 1st January 2011

In this report the aim is to offer a picture of the regulated rates for interconnection services in fixed networks in the EU.

II. Assumptions

The following assumptions have been made in order to make tariffs comparable:

- When regulators use the time based interconnection regime (TBI) in a number of cases interconnection services are regulated with two distinct nominal rates: one set-up charge (billed only for each call made) and one variable per minute price. In order to obtain an homogeneous comparison across operators, a 3-minute average call duration has been assumed; set up charges are accounted for by the standard formula: (fixed set-up charge + price per minute*3)/3
- Nominal tariffs are represented in the report only in the cases where the regulator sets out the maximum price per minute that operators may charge each other.
- For those countries that have not set an average tariff and, additionally, apply distinct rates-one for the peak period, and another one for off-peak period-, a total average per operator has been calculated with the distribution of peak and off-peak traffic. When this distribution is not available, a 50% distribution for peak and 50% distribution for off-peak has been assumed[1].

[1] The 50%/50% peak/off-peak distribution was assumed for the following countries: BE, CH, CZ, IE, IS, LU, MK, NO and PL

III. FTRs Benchmark

Since interconnection services are usually defined based on the different layers, or levels of service in the network hierarchy, we refer to:

Layer 1: local level interconnection in fixed networks

Layer 2: single transit interconnection service

Layer 3: double transit interconnection service

In some cases, an additional interconnection service may also be regulated, where an additional layer is introduced. Additionally, some countries use only one or two layers of interconnection. Consequently, they only report data to the levels used or regulated by the NRA.

In the next table the interconnection prices of the listed operators are presented. For each country, the NRA has provided information on the incumbent. Peak and off- peak rates are differentiated, as well as the two main models for interconnection contracting.

III. A Time-based tariffs: FTR average per minute

TBI prices are reported in the next table. The differentiation between peak and off- peak rates is detailed, as well as the layer of interconnection. In the last column a weighted average between both (peak/ off-peak) prices is provided, using as weights the proportions of the traffic for each time period provided by the NRA.

Country	Operator	Layer	Peak	Off-peak	FTR average per minute (€ cents)
AT	A1 Telekom Austria	Layer 1	0.8200	0.4800	0.9734
		Layer 2	1.5800	0.7300	
		Layer 3	2.1600	0.7700	
BE	Belgacom	Layer 1	0.6187	0.3247	0.4717
		Layer 2	0.8747	0.4583	0.6665
		Layer 3	1.1213	0.5883	0.8548
BG[2],[3]	Bulgarian Telecommunication Company	Layer 1	0.5369	0.4346	0.5082
		Layer 2	0.5624	0.4857	0.5410
		Layer 3	1.0226	0.7158	0.9367
CH	Swisscom	Layer 2	1.0485	0.5243	0.7864
		Layer 3	0.8519	0.4260	0.6389
CY	CYTA	Layer 1	0.3400	0.3400	0.3400
		Layer 2	0.5500	0.5500	0.5500
		Layer 3	0.6300	0.6300	0.6300

[2] According CRC Decision № 237 from 17.03.2009 the charges for terminating incumbent's calls on alternative operators' fixed networks are symmetric with those charged by the incumbent operator. The termination rates for interconnection between the alternative operators' networks are limited and they cannot be higher than those applied by the incumbent (maximum rate is the price of double transit).”

[3] The indicator “FTR average per minute” refers to the second step (as of 1st of July 2010) of the glide-path introduced in Bulgaria and the peak/off-peak annual traffic distribution, but doesn’t take into account the interconnection level distribution of terminated traffic.

CZ	Telefónica Czech Republic, a.s.	Layer 1	1.2102	0.6051	0.9077
		Layer 2	1.3716	0.6858	1.0287
DK	TDC	Layer 1	0.2356	0.1471	0.2240
		Layer 2	0.6515	0.4006	0.6184
		Layer 3	0.8599	0.5433	0.8181
DE	Telekom Deutschland GmbH	Layer 1	0.5400	0.3800	0.4500
EE	Elion	Layer 1	0.6349	0.4112	0.5454
		Layer 3	0.8266	0.5198	0.7039
EL	OTE	Layer 1			0.3660
		Layer 2			0.2440
		Layer 3			0.4420
ES	TELEFÓNICA	Layer 1	0.5600	0.5600	0.5600
		Layer 2	0.6700	0.6700	0.6700
		Layer 3	0.9500	0.9500	0.9500
		Layer 4	0.6500	0.6500	0.6500
FI[4]	Elisa Oyj	Layer 1	2.4000	2.4000	2.4000
	DNA Oyj	Layer 1	2.4000	2.4000	2.4000
	TeliaSonera Oyj	Layer 1	2.4000	2.4000	2.4000
	Etelä-Satakunnan Puhelin Oy	Layer 1	2.3500	2.3500	2.3500
	Ålands Telefonandelslag	Layer 1	2.2000	2.2000	2.2000
FR	France Télécom	Layer 1	0.4037	0.2490	0.4000[5]
HR	HT	Layer 1	0.5263	0.2632	0.4239
		Layer 2	0.7962	0.3981	0.6413
		Layer 3	1.5385	0.7692	1.2392
HU	Magyar Telekom	Layer 1	0.5000	0.3000	confidential
		Layer 2	0.6300	0.3700	
		Layer 3	0.6900	0.4000	
IE	Eircom	Layer 1	0.4952	0.2739	0.3845
		Layer 2	0.6398	0.3537	0.4967
		Layer 3	0.7939	0.4392	0.6166
IS	Siminn	Layer 2	0.4233	0.3033	0.3633
IT	Telecom Italia S.p.A.	Layer 1	0.3020	0.3020	0.3020
		Layer 2	0.5700	0.5700	0.5700
LV	Lattelecom	Layer 1	1.1182	1.1182	1.1182
LT	TEO LT, AB	Layer 1			0.8051
		Layer 2			1.2598
LU	EPT	Layer 1	0.7333	0.3733	0.5500
		Layer 2	0.9633	0.4833	0.7200
MK	Makedonski Telekom AD	Layer 1	0.7400	0.2500	0.4950
		Layer 2	0.9800	0.4300	0.7050
		Layer 3	1.1180	0.5100	0.8140
MT	GO plc	Layer 3	0.8000	0.6400	0.7600
NL	KPN	Layer 2	0.7200	0.7200	0.7200
NO	Telenor	Layer 1	0.6933	0.5433	0.6183
PL	TP SA	Layer 1	0.6882	0.3454	0.5168
		Layer 3	1.2051	0.6025	0.9038
PT	PTC	Layer 1	0.5400	0.3500	0.4500
		Layer 2	0.6700	0.4200	0.5800
		Layer 3	0.7800	0.4900	0.6600
RO[6]	Romtelecom	Layer 1			0.8400

[4] Original answer from Finland included 31 operators. The ones finally shown in the report are the three main operators in terms of market share, together with other two small operators with a different FTR.

[5] FTR average per minute for the incumbent includes in addition a capacity-based component: derived from a unit price of 1576.30 euros per E1 per year, divided by an average load of 2.6 million minutes per E1 per year. This capacity-based component therefore accounts for 0.0606 € cents a minute within the FTR average shown.

		Layer 2			0.9700
		Layer 3			1.0600
SE	TeliaSonera	Layer 1	0.3245	0.3245	0.3245
		Layer 2	0.3484	0.3484	0.3484
		Layer 3	0.3994	0.3994	0.3994
SI	Telekom Slovenije	Layer 1	0.3900	0.3900	0.3900
		Layer 2	0.6800	0.6800	0.6800
		Layer 3	0.9500	0.9500	0.9500
SK	Slovak Telekom	Layer 1	0.7700	0.1500	0.4662
		Layer 2	1.1500	0.2200	0.6943
		Layer 3	1.5100	0.2900	0.9122
UK	BT	Layer 1	0.3025	0.1396	0.2201
TK	Türk Telekom	Layer 1	0.6986	0.6986	0.6986
		Layer 2	0.8594	0.8594	0.8594
		Layer 3	1.1258	1.1258	1.1258

III.B Capacity-based tariffs: Price per 2 Mbps circuit

Following with CBI, in the next table, the prices for each 2 Mbps circuit are presented for those countries that have as well the CBI regime. Note that this regulation affects only incumbents in two countries: Portugal and Spain.

Country	Operator	Layer	2 Mbps (EUR/Month)	Total revenues (€)	Total traffic (min)	Average price per minute (€ cent)
ES	TELEFONICA	Layer 1	1,363.46	12.272.662,49	4.060.895,32	0,30
		Layer 2	2,013.63	44.693.098,01	9.072.575,49	0,49
		Layer 3	2,372.89	661.240,78	108.674,15	0,61
		Layer 4	1,820.18	7.761.793,05	1.588.339,16	0,49
PT	PTC	Layer 1	1,123.69	confidential	confidential	0.30
		Layer 2	1,690.35	confidential	confidential	0.33
		Layer 3	2,130.26	confidential	confidential	-

In the last column of previous table, the average price per minute is presented. It has been calculated as the total revenues by the incumbent obtained from selling 2 Mbps circuits to the rest of the operators for layer i (i=1,2,3,4) in 2010, divided by the total amount of (effective) minutes passed through those circuits over the same period and for the same interconnection level i.

[6] Romtelecom does not apply peak and off-peak tariffs but a single tariff, regardless of time of day.

IV. Effective weighted per minute interconnection rate-Incumbent's fixed network

In this section the effective average per minute price of each layer of interconnection service provided by each incumbent is presented, together with the simple average for Europe (horizontal line).

For those countries that only regulate interconnection with the TBI model, the average price, as detailed in table of section IV.A is used. Note that this average (per minute) price is the weighted average between the peak and off- peak rates, where the weights used are based on the distribution of traffic between both time periods.

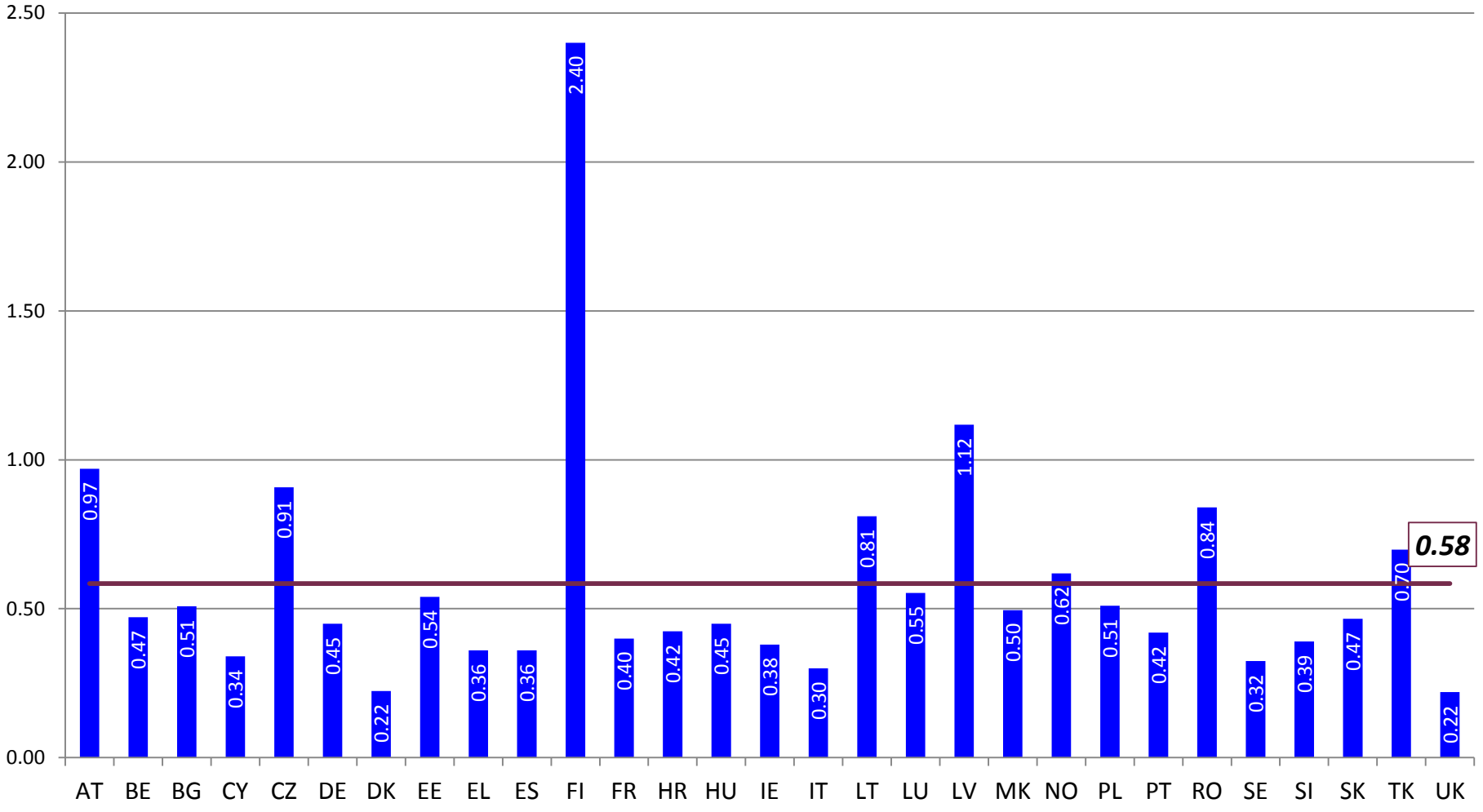
For those countries that have both the TBI and the CBI regimes given the different tariff outlays, a weighted average between the CBI and the TBI regime is provided.

In the next three graphs the effective weighted per minute interconnection rate for the incumbents is depicted for each country. Note that these are regulated rates and have been constructed as a weighted average, taking the different components into account:

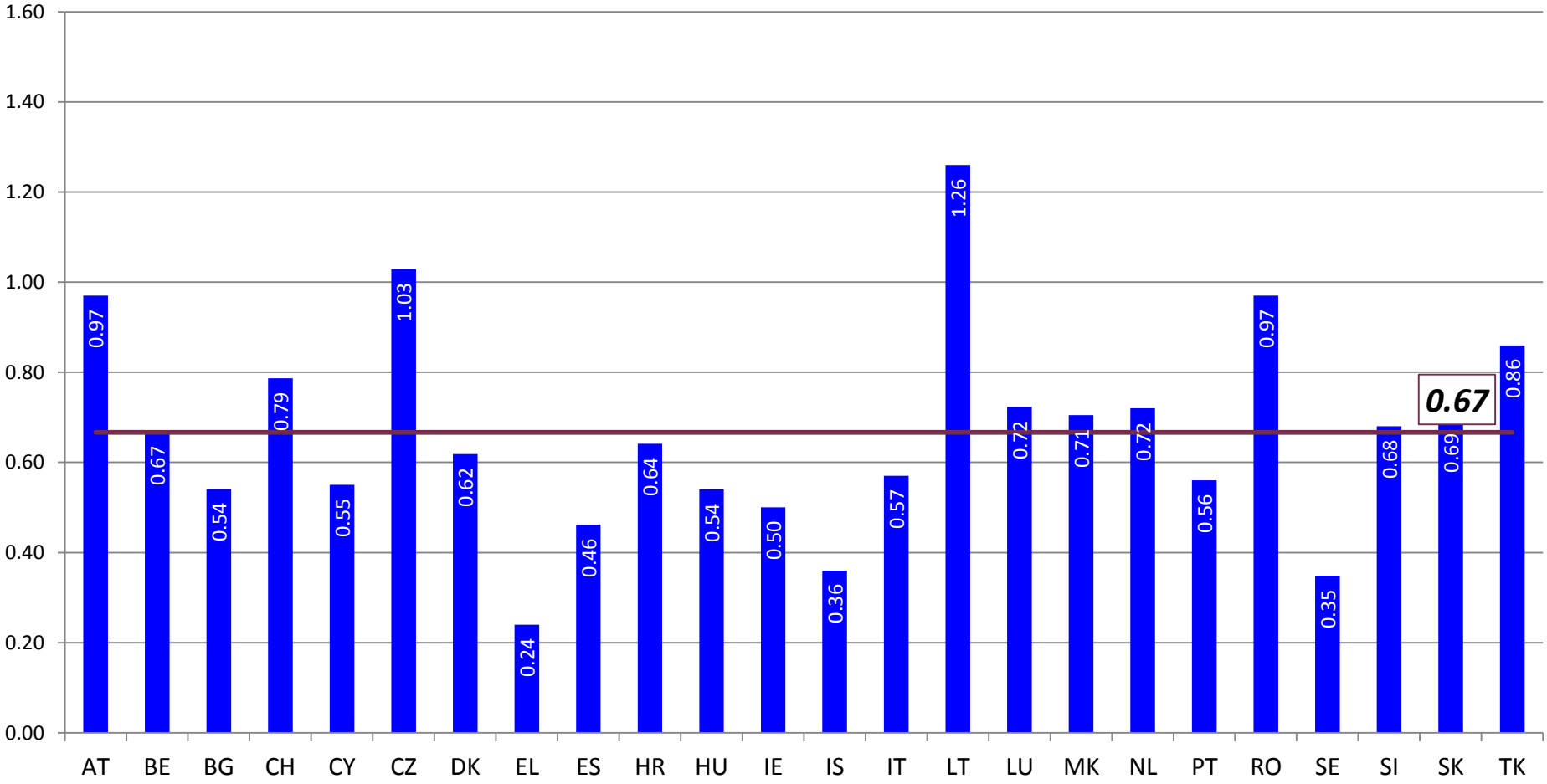
(1) Peak / off- peak rates for interconnection rates based on time (per minute charges)
(2) Set- up charge, distributed over a 3 minutes /average duration) call, for the time based interconnection model
(3) Capacity based (CBI) and time based (TBI) interconnection charges, where the per circuit price has been translated into an average per minute price taking into account the price of the 2 Mbps circuit, on the one side, and the effective volume of minutes used by an average 2 Mbps circuit over the year.

For each of these components, the weights used are based on the proportion of traffic at the wholesale level that applies to one or the other mode of interconnection (peak/ off- peak, capacity vs time based).

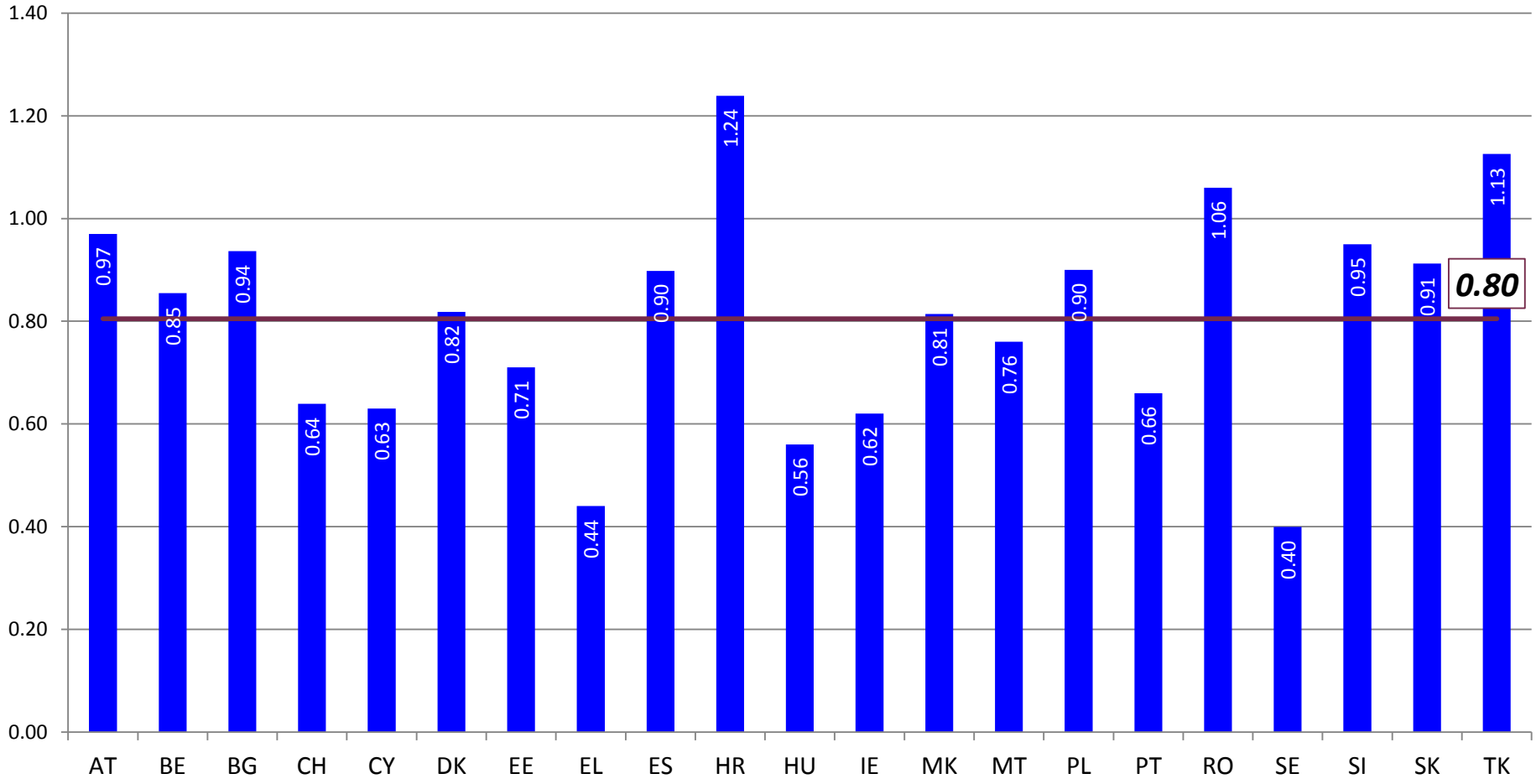
Effective weighted per minute interconnection rate - Layer 1
Incumbent's fixed network
(€ cent)



Effective weighted per minute interconnection rate - Layer 2
Incumbent's fixed network
(€ cent)



Effective weighted per minute interconnection rate - Layer 3
Incumbent's fixed network
(€ cent)



V Annex

Abbreviations

AT	Austria
BE	Belgium
BG	Bulgaria
CH	Switzerland
CY	Cyprus
CZ	Czech Republic
DK	Denmark
DE	Germany
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
HR	Croatia
HU	Hungary
IE	Ireland
IS	Iceland
IT	Italy
LT	Lithuania
LV	Latvia
LU	Luxembourg
MK	Former Yugoslav Republic of Macedonia
NL	Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovakia
UK	United Kingdom
TK	Turkey

Exchange rates

For non-Euro countries, the average exchange rate for the first quarter of the year, Q1 2011 was used for the calculation of FTR (nominal terms):

COUNTRY	EURO
BG	1.96
CH	1.32
CZ	24.79
DK	7.45
HR	7.41
HU	275.77
IS	158.8
LT	3.45
LV	0.71
MK	61.51
NO	8.05
PL	3.96
RO	4.28
SE	9.21
UK	0.86