

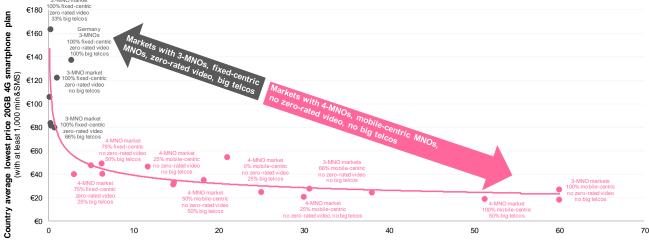


Tight oligopoly mobile markets in EU28 in 2016

Fixed-line broadband interest, zero-rating video and big telco ownership impedes competition

Rewheel / Digital Fuel Monitor-PRO research note, 5th December 2016





Key findings

- Fixed-line broadband interest, zero-rating video and big telco ownership impedes competition in mobile markets
- Fixed-centric operators sell 8 times less gigabytes for €30 than mobile-centric operators

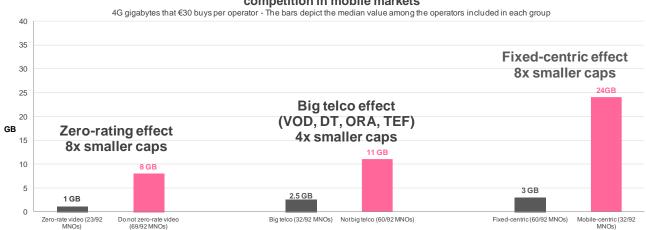
Country average

- Operators that zero-rate video sell 8 times less gigabytes for €30 than operators that do not zero-rate video
- Operators that are owned by EU's big telcos (Vodafone, Deutsche Telekom, Orange and Telefonica) sell 4 times less gigabytes for €30 than operators that are not owned by big telcos

gigabytes that €30 buys in 4G smarthone plans (with at least 1,000 min&SMS)

- The gap between the gigabytes sold for an affordable price by mobile-centric operators versus fixed-centric operators has grown considerably during 2016
- The gap between the gigabytes sold for an affordable price by operators that do not zero-rate video versus operators that do has grown considerably during 2016

Fixed-line broadband interest, zero-rating video & big telco ownership impedes competition in mobile markets



Big telco groups Vodafone, Deutsche Telekom, Orange, Telefonica.
4G.ITE smartphone monthly rolling plans with atleast 1,000 minutes & SMSs. Operator main, sub-brands and MVNOs included in some plans tethering/hotspot/funccionality is not allowed. Unlimited plans were assinged a finite volume of 60GB

es: September 2016 . Source: DFMonitor.e

2016 tight oligopoly index country rankings

2016					2015				
Index					Index				
rank	Country	Index	Competition outcome	Oligopoly classification	rank	Country	Index	Competition outcome	Oligopoly classification
		100% (max)					100% (max)		
28	Germany	90%	Non-competitive	Tight oligopoly	28	Germany	90%	Non-competitive	Tight oligopoly
27	Greece	83%	Non-competitive	Tight oligopoly	27	Bulgaria	81%	Non-competitive	Tight oligopoly
26	Portugal	80%	Non-competitive	Tight oligopoly	26	Greece	80%	Non-competitive	Tight oligopoly
25	Hungary	80%	Non-competitive	Tight oligopoly	25	Hungary	80%	Non-competitive	Tight oligopoly
24	Slovak Republic	76%	Non-competitive	Tight oligopoly	24	Malta	77%	Non-competitive	Tight oligopoly
23	Czech Republic	73%	Non-competitive	Tight oligopoly	23	Portugal	73%	Non-competitive	Tight oligopoly
22	Romania	71%	Non-competitive	Tight oligopoly	22	Czech Republic	73%	Non-competitive	Tight oligopoly
21	Malta	68%	Non-competitive	Tight oligopoly	21	Netherlands	73%	Non-competitive	Tight oligopoly
20	Belgium	63%	Non-competitive	Tight oligopoly	20	Slovakia	73%	Non-competitive	Tight oligopoly
19	Luxemburg	63%	Non-competitive	Tight oligopoly	19	Romania	69%	Non-competitive	Tight oligopoly
18	Spain	63%	Non-competitive	Tight oligopoly	18	Cyprus	68%	Non-competitive	Tight oligopoly
17	Cyprus	60%	Non-competitive	Tight oligopoly	17	Spain	66%	Non-competitive	Tight oligopoly
		59%		Threshold	16	Croatia	64%	Non-competitive	Tight oligopoly
16	Bulgaria	57%	Sub-competitive	Sub-competitive oligopoly	15	Belgium	63%	Non-competitive	Tight oligopoly
15	Croatia	56%	Sub-competitive	Sub-competitive oligopoly			59%		Threshold
14	Italy	56%	Sub-competitive	Sub-competitive oligopoly	14	France	58%	Sub-competitive	Sub-competitive oligopoly
13	Austria	53%	Sub-competitive	Sub-competitive oligopoly	13	Austria	56%	Sub-competitive	Sub-competitive oligopoly
12	Slovenia	50%	Sub-competitive	Sub-competitive oligopoly	12	Italy	56%	Sub-competitive	Sub-competitive oligopoly
11	Ireland	50%	Sub-competitive	Sub-competitive oligopoly	11	Luxemburg	51%	Sub-competitive	Sub-competitive oligopoly
10	Netherlands	49%	Sub-competitive	Sub-competitive oligopoly	10	Slovenia	50%	Sub-competitive	Sub-competitive oligopoly
9	United Kingdom	47%	Sub-competitive	Sub-competitive oligopoly	9	Ireland	50%	Sub-competitive	Sub-competitive oligopoly
8	France	45%	Sub-competitive	Sub-competitive oligopoly	8	UK	47%	Sub-competitive	Sub-competitive oligopoly
		43%		Threshold			43%		Threshold
7	Denmark	34%	Effective competition	Competitive oligopoly	7	Denmark	41%	Effective competition	Competitive oligopoly
6	Poland	34%	Effective competition	Competitive oligopoly	6	Poland	41%	Effective competition	Competitive oligopoly
5	Sweden	28%	Effective competition	Competitive oligopoly	5	Sweden	28%	Effective competition	Competitive oligopoly
4	Estonia	17%	Effective competition	Competitive oligopoly	4	Finland	20%	Effective competition	Competitive oligopoly
3	Lithuania	17 %	Effective competition	Competitive oligopoly	3	Estonia	17%	Effective competition	Competitive oligopoly
2	Latvia	13%	Effective competition	Competitive oligopoly	2	Latvia	13%	Effective competition	Competitive oligopoly
1	Finland	13%	Effective competition	Competitive oligopoly	1	Lithuania	13%	Effective competition	Competitive oligopoly
		0% (min)					0% (min)		

Context - BEREC's report on oligopoly analysis and regulation

BEREC published in December 2015 a report on oligopoly analysis and regulation. Fixed-mobile convergence, bundling and consolidation were according to BEREC trends that lead to oligopolistic market settings and may result in sub- or on-competitive market outcomes, high prices and consumer harm. Whereas in monopolies and collusive oligopolies effective competition is impeded due to single or joint dominance in tight oligopolies the non-competitive outcomes are the result of unilateral, non-coordinated effects i.e. the shared economic incentive of the oligopolists to raise prices close to monopoly levels. While European competition law addresses non-coordinated anti-competitive effects (e.g. in the cases of 4 to 3 mobile mergers) the current electronic communication framework does not explicitly address market failure of this kind (sub-or non-competitive outcomes in tight oligopolies). National regulatory authorities and the European Commission have currently no regulatory tools in their hands to remedy effective competition in tight oligopolies. Hence, according to BEREC, the review of the regulatory framework regarding the treatment of oligopolies must take into consideration the case for potential ex ante intervention not only in collusive (joint dominance) but also in tight oligopolies.

Rewheel's "Tight oligopoly mobile markets in EU28 in 2015" study

In our "Tight oligopoly mobile markets in EU28 in 2015" comprehensive study that was released² in January 2016 we examined a number of factors that may give rise to non-coordinated effects and could impede effective competition in mobile oligopolies resulting in sub- or non-competitive outcomes and consumer harm. We measured the intensity of the effect of the factors in question in the form of high or excessive mobile internet access prices and restrictive or very restrictive gigabyte caps using a comprehensive international benchmark among EU28 countries. Having observed the effect of the factors and their relative weights we synthesized a country level tight oligopoly index and ranked the EU28

^{1/}http://berec.europa.eu/eng/document_register/subject_matter/berec/reports/5581-berec-report-on-oligopoly-analysis-and-regulation

²http://www.dfmonitor.eu/insights/2016_jan_premium_tightoligopoly_eu28/

mobile markets. The tight oligopoly index compiled by the factors that were shown to affect mobile internet access prices and gigabyte caps was shown to be a reliable predictor of country average mobile internet access price level. In the final step we propose a set of effective ex ante regulatory and merger control measures to remedy the significant impediment of effective competition in mobile tight oligopolies.

"Tight oligopoly mobile markets in EU28 in 2016" study update

Herein we re-measure the intensity of the effect of the factors that were shown in our first study to lead to high or excessive mobile internet access prices and restrictive or very restrictive gigabyte caps. Using the latest September 2016 prices and data caps reported in the DFMonitor 2H2016 release³ we carry out a comparison among the 92 mobile network operators that are present in the EU28 mobile markets. We grouped the operators by their market position and by their type based on the factors that were shown in our first study to lead to high or excessive mobile internet access prices and restrictive or very restrictive gigabyte caps. The results of the latest comparison re-confirm our earlier key findings. Fixed-line broadband interest, zero-rating video and big telco ownership impedes competition in mobile markets. The competition impediment effect caused by the fixed-line broadband interest, zero-rating video and big telco ownership is significant both when measured as a blended effect and as well when isolated. Similarly, the presence of a 4th mobile network operator leads to lower mobile internet access prices and higher gigabyte caps. Moreover, our analysis showed that the gap between the gigabytes sold for an affordable price by mobile-centric operators versus fixed-centric operators has grown considerably during 2016. Similarly, the gap between the gigabytes sold for an affordable price by operators that do not zero-rate video versus operators that do has grown considerably during 2016. In the final step we propose a set of ex ante regulatory and merger control measures to remedy the significant impediment of effective competition in tight oligopoly mobile markets.

³http://www.dfmonitor.eu/insights/2016_oct_pro_2h2016_release/

Table of Contents

1	1	Theory of harm	5
	1.1	Factors that may give rise to non-coordinated effects and lead to non-competitive outcomes and consumer harm	in
	tigh	ht mobile oligopolies	5
	1.2	2 Factors that impede competition in mobile markets	8
2	ľ	Methodology	10
	2.1	1 Mobile internet access prices and data caps in EU28 markets	10
	2.2	2 Plans with unlimited data volume	10
	2.3	3 Gigabytes for €30	10
	2.4	4 Mobile-centric versus fixed-centric operators and operator groups	11
	2.5	Operators and operator groups that zero-rate video	11
3	F	Findings	12
	3.1	The dependency of price and data cap size on operator market share position	12
	3.2	The dependency of price and data cap size on fixed-line broadband interest, zero-rated video and big telco	
	ow	vnership	13
	3.3	Data caps of mobile-centric versus data caps of fixed-centric operators	14
	3.4	Data caps of operators that zero-rate video versus data caps of operators that do not zero-rate video	15
	3.5	Intensity of the isolated competition impediment effect caused by the fixed-line broadband interest and big telco	
	ow	vnership factors	16
	3.6	Intensity of the isolated competition impediment effect caused by the zero-rated video factor	18
	3.7	Fixed-line broadband interest, zero-rating video and big telco ownership impedes competition in mobile markets	20
	3.8	Tight oligopoly index country rankings in 2016	21
4	F	Remedies	25
	4.1	1 Efficient spectrum allocation and usage is the key to effective competition in mobile markets	25
	4.2	2 Ex ante regulatory remedies	28
	4.3	3 Merger control remedies	29