Analysis of Large-screen Mobile Broadband Prices in the EU 2014

A Comparative Quantitative Study

Abstract

This study provides a comprehensive quantitative analysis of large-screen mobile broadband prices in the European Union. Large-screen mobile broadband is defined as the dedicated mobile broadband service used with laptops, netbooks or tablets, usually with USB sticks or data cards.

The research was conducted by Infrapont Ltd. in March 2014 and covers all publicly advertised post-paid contracts offered to residential customers in the 27 European member states, totalling 334 publicly available offers made by 92 European mobile network operators.

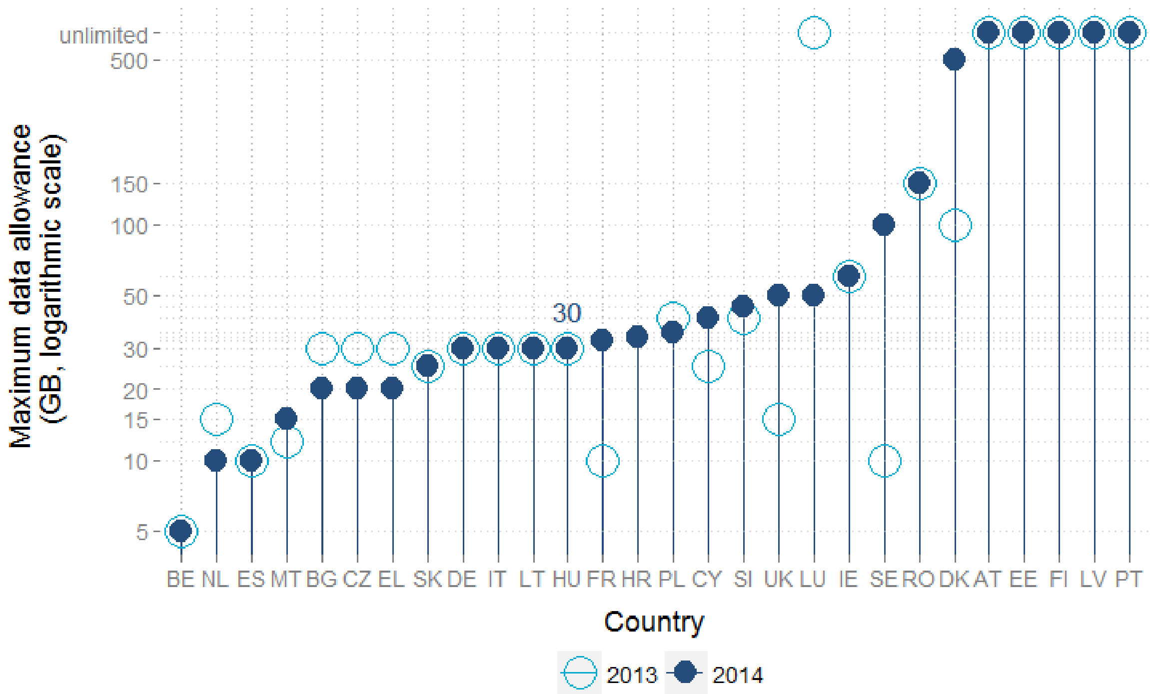
The main focus of the study is to present a detailed analysis of price levels and the relative position of European countries with respect to these prices.

- First, the study introduces the main features of European mobile operators' large-screen mobile broadband offers and defines the representative baskets for different consumption patterns.
- Then, chapter 3 shows the results of simple basket price comparisons based on both the lowest price and the average price on each national market.
- Chapter 4 presents the overall price rankings according to the Large-screen Mobile Broadband Comparative Price Index, developed by Infrapont for cross-country and inter-temporal comparisons.
- In the last chapter, the study presents a short analysis examining the relationships between the price levels and several other key factors, such as the number of players on the market and the presence of various types of operators, and other variables measuring the overall level of economic development and the specific characteristics of the national mobile markets.

THE MAIN CHARACTERISTICS OF THE OFFERED PLANS

The range of the data allowance provided in the offered plans is quite diverse across markets, with respect to both the median and the maximum.

Figure 1: Maximum data allowance (GB), March 2013 - March 2014



Source: Infrapont, based on operators' homepages

- In more densely populated Western European countries the highest offer is characterized by a lower data allowance compared to the other Member States.
- In countries where 4G (LTE) technology was introduced earlier the monthly data allowance is usually higher.
- The highest data allowances and the unlimited offers are typically found in the Baltics and Scandinavia, Portugal, and Austria.
- There are changes from 2013 and 2014 but no trend appears: the maximum data allowance increased in some countries (like Denmark, Sweden, France Cyprus, Slovenia and Malta), but decreased in a few others (like the Netherlands, Bulgaria, Czech Republic, Greece, and Luxembourg).

SIMPLE BASKET PRICE COMPARISONS

In the 2014 analysis two additional consumer baskets were defined compared to the six in 2013, based on the frequency distribution of the offered plans, in order to make finer basic comparisons:

- three low user baskets with 1, 2 and 3GB data allowances,
- two medium user baskets with 5 and 10GB data allowances,
- three high user baskets with 15, 20 and 30GB data allowances.

There are 8 countries where no offers fitting the 30 GB basket exist, 4 where there is no corresponding basket for 20 GB, 2 where there is no 15 GB basket and in Belgium, the largest package is still 5 GB.
We see a wide range of prices for baskets among countries: the price of the highest basket is usually more than four times higher than the lowest price.

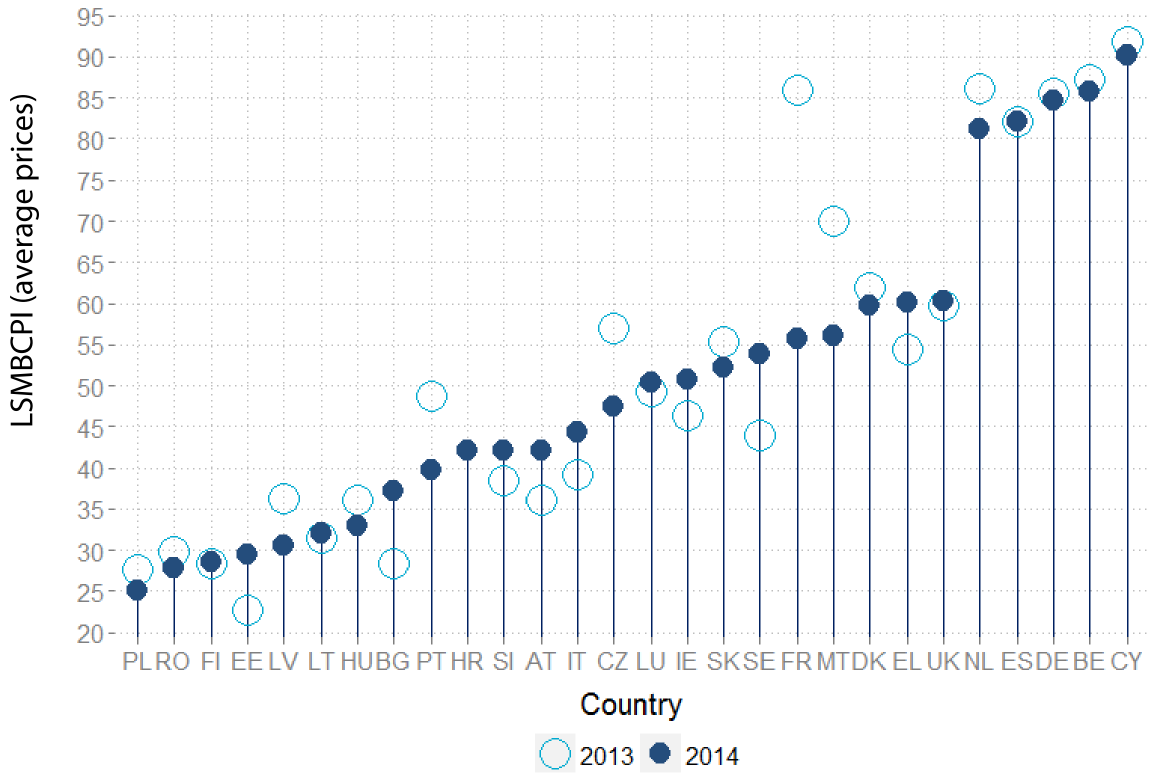
Individual basket price comparisons show that Romania, Poland, the Baltic States, Finland and Austria are the best performers, typically offering the lowest prices, while certain Western European countries, such as Belgium, the Netherlands, Spain, Germany (and also Cyprus) exhibit the highest prices in the case of most baskets.

PRICE COMPARISONS BASED ON THE LARGE-SCREEN MOBILE BROADBAND COMPARATIVE PRICE INDEX

Since the comparisons according to the eight baskets cannot provide a coherent and unified picture of the comparative level of large-screen mobile broadband prices we developed the Large-screen Mobile Broadband Comparative Price Index. This cross-country comparative price index is capable of showing the price level information in a more condensed form and is a much less distorted indicator than the simple average of the prices of the baskets.

The next graph shows the results of the average price based Large-screen Mobile Broadband Comparative Price Index.

Figure 2: | Large-Screen Mobile Broadband Comparative Price Index based on nominal average prices, March 2013 - March 2014



Source: Infrapont analysis

- The index-based comparison highlights that the best performers are the Baltic States, Central and Eastern European member states, Austria and Finland.
- The price levels of large and densely populated developed member states are among the highest.
- The position of several countries differs significantly in the Purchasing Power Parity-adjusted ranking compared to the nominal exchange rates comparison. The positions of the member states with low PPP values, like Bulgaria, Romania or Hungary, fall back to the midrange in this comparison as a result of the PPP adjustment. Finland is unequivocally the cheapest of the member states in the euro PPP comparison. However, the positions of the members of the most expensive group of countries did not change in the PPP ranking: Cyprus, Germany, Spain and the Netherlands comprise this group.

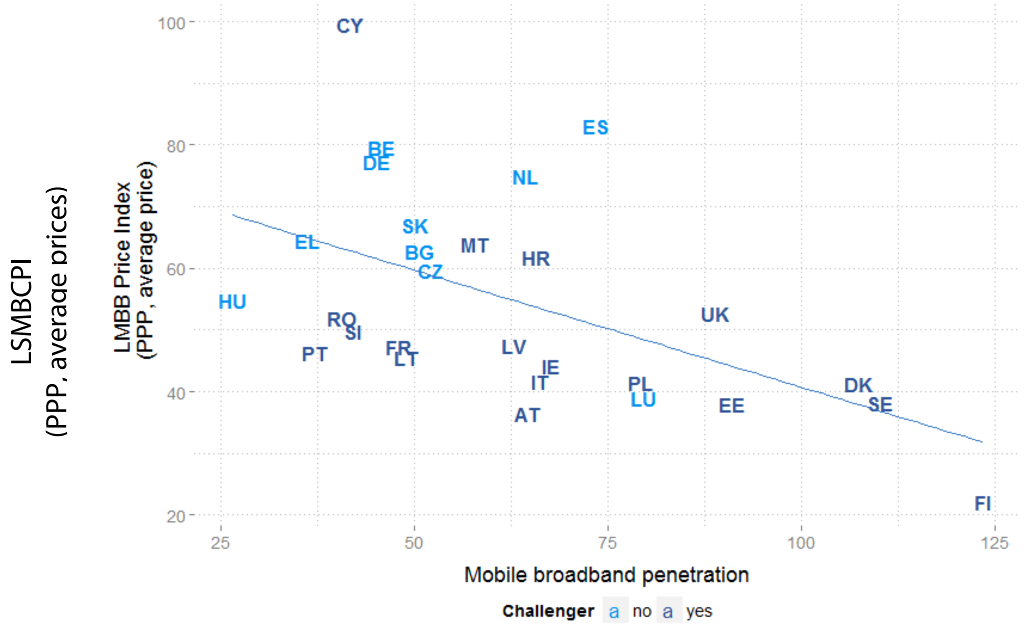
Findings

The study of stylized facts concerning the correlation between the LSMBB Comparative Price Index and different country- or market-specific characteristics with the prices suggests that there can be some factors that correlate with the prices. As we found that the price level measured by Purchasing Power Parity correlates positively with the index value, we studied the correlations between other factors and the index using the PPP-adjusted prices, thereby controlling for the price level and the studied factor together. The findings are:

- GDP per capita, population densitiy and the presence of an LTE service weakly correlate with the index.
- Mobile broadband penetration negatively correlates with the index, the correlation is around -0.5
- There is no correlation between the number of players and the index.
- The strongest (negative) correlation is found between the presence of a challenger and the index. In those markets where a challenger, defined as a player whose parent is not an incumbent in any of the EEA countries and is not a Vodafone subsidiary, is present, the index value is lower.

The next figure presents mobile broadband penetration and the presence of challenger and the Large-screen Mobile Broadband Comparative Price Index together.

Figure 3. | Large-screen Mobile Broadband Comparative Price Index, mobile broadband penetration and the presence of a challenger



Source: Infrapont analysis

Though these results are not proofs of the relevance or irrelevance of the different factors as part of explanatory variables of the price differences, these are good candidates for testing in further policy studies of mobile broadband prices.

Our basic findings suggest that large-screen mobile broadband prices cannot be well explained by a single factor, especially not by only structural measures of mobile broadband markets, like the number of operators.

Further studies are needed to analyze the causes of the large differences in the prices and the offered data allowances in the different markets.

Infrapont is a Hungarian economic consulting company specializing in regulatory and competition economics.

The 56-page study can be purchased.

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