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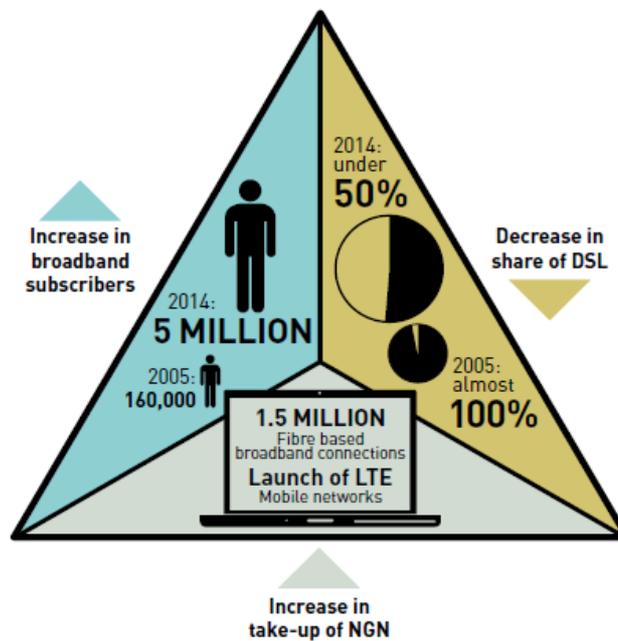
Regulating broadband in the Gulf region

LESSONS FROM BAHRAIN

Broadband internet service markets in the Gulf region have undergone dramatic changes over the last decade. Alternative broadband technologies and deployment of next generation broadband networks have increased significantly in their importance. This has created new challenges for the region's telecoms regulators, particularly in the context of upcoming regulatory market reviews.

In Bahrain, the most recent regulatory review resulted in deregulation across the majority of broadband services. This is likely to be an important point of reference in upcoming regulatory and competition cases elsewhere in the region. Having supported the TRA Bahrain during this review, Frontier Economics summarises here the key elements of our analysis and potential lessons for stakeholders in the GCC region.

Figure 1. Evolution of broadband markets in the GCC countries



Source: Frontier Economics based on data from Telegeography

WHAT HAPPENED IN BAHRAIN?

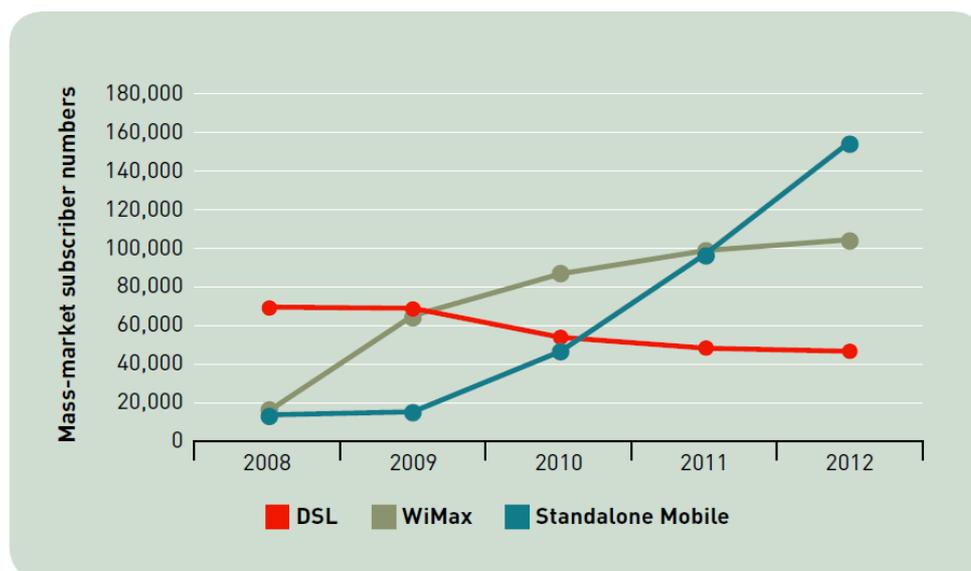
The very different evolution of the GCC broadband markets naturally raises the question of if, and to what extent, the European regulatory model is still applicable and appropriate for regulating the Gulf's broadband markets. In early 2014, TRA Bahrain ("the Authority" hereafter) announced a departure from the most commonly applied European regulatory model² by effectively deregulating 90% of the market for broadband internet services.³

² Austria is the only country in Europe where mobile broadband was found to be a part of the relevant market and there was a partial deregulation of broadband services following the competitive assessment. The UK is the other example of partial deregulation in Europe where bitstream wholesale products are not regulated in geographic areas where there are at least three alternative providers (that use both ULL and other infrastructures).

³ "Determination of Significant Market Power and Determination of Dominant Position in the Markets for Provision of Broadband Internet Access Services from a Fixed Location", The Authority, 27 March 2014. Available at <http://www.tra.org.bh/media/document/MCD%2003%2014%20018%20Final%20SMP%20and%20Dominance%20Determination%20Broadband%20PV.pdf>

Frontier Economics supported the Authority during its review. We found that a number of key developments had taken place since the last market review in 2008. Most notably, as shown in **Figure 2** below, the take-up of new technologies had changed in the market, with DSL's influence declining and an increase in take-up of wireless technologies. Secondly, competition has evolved very differently in the markets for business and residential broadband products.

Figure 2. Evolution of subscriber numbers by technology



Source: Frontier Economics based on data from the Authority

Based on the available evidence, the Authority defined two separate retail broadband markets in Bahrain:

- The retail market for “mass-market” broadband services comprising DSL, fibre, WiMax and mobile broadband technologies, effectively covering services offered to individuals and small businesses.
- The retail market for “business” broadband services comprising DSL, fibre and WiMax, covering services likely offered to larger businesses.

These definitions hinged on both WiMax and standalone mobile broadband (which includes access via dongles, modems, USBs, tablets, etc.) being good economic substitutes for DSL in the mass market segment. Offers using these technologies matched those of DSL in terms of price, quality, speeds, data caps and other measures. Also, a survey among residential broadband subscribers indicated a high percentage of respondents would switch from fixed to mobile broadband if prices of fixed products were to increase by 5-10%. The characteristics of business DSL products, on the other hand, were matched to

some extent by business WiMax products but not as closely by any business mobile broadband product.

Furthermore, because mass market products were targeted at price sensitive customers requiring less in terms of quality of service, the market definition took account of product characteristics rather than just the nature of the end-consumer.⁴

The subsequent competition assessment found the incumbent operator, Batelco, to have SMP in the market for business broadband. The incumbent's revenue and subscriber market share remained above 25% (a threshold for SMP in the local telecoms law) since 2008 with only limited competition from other operators. In addition, a significant proportion of the competition that did exist at the retail level for business broadband relied on access to Batelco's wholesale services, indicating the importance of maintaining such access.

On the other hand, no operator, including Batelco, was found to have SMP in the market for mass broadband products. As such, the market was deregulated. Notably, in the face of competitive pressure from operators using other technologies, Batelco's market shares fell significantly in the mass-market segment since 2008. Critically, this demonstrated that strong retail market competition was not dependent on Batelco's wholesale products, meaning its obligation to offer wholesale mass market products could be ended without impacting competition.

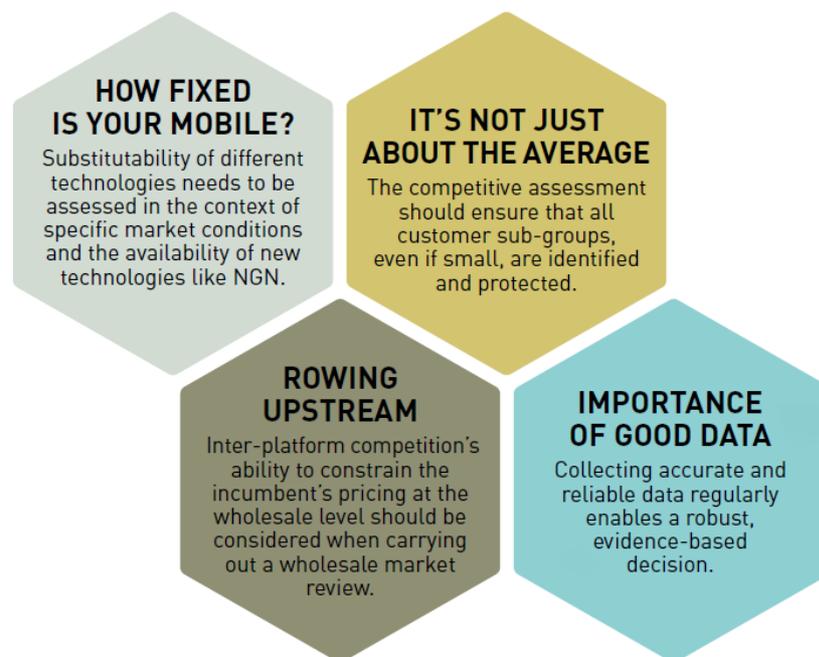
LESSONS LEARNED

There are lessons from our work in Bahrain that could be useful for individual countries in the GCC even if their markets are not identical to Bahrain⁵. This is summarised in **Figure 3** and further discussed below.

⁴ Any product that met one or more of a defined set of criteria such as certain contention ratios, quality characteristics, identification requirements from customers, etc. would be considered part of the market for "business" broadband products. The rest would be part of the market for "mass-market" broadband.

⁵ Whilst the trend of increased demand for broadband is common across the GCC countries, there is a great degree of heterogeneity in market characteristics. Consequently, there is unlikely to be a single market definition or single conclusion on the extent of competition that would accurately apply to every broadband market in the region.

Figure 3. A summary of key lessons from the Bahraini market review



Source: Frontier Economics

HOW FIXED IS YOUR MOBILE?

Given the prevailing regulation of broadband access services, the focal product in a market review is traditionally a fixed technology such as DSL. The ability of available alternatives to act as substitutes depends on a comparison of how well characteristics such as prices, speeds, data caps, etc. meet the requirements of target customers.

In Bahrain, comparing these characteristics revealed that wireless technologies such as WiMax and standalone mobile broadband were substitutes for DSL in the mass-market segment. However, this may not always be the case. For instance:

- If the quality of DSL is poor, it increases the substitutability of WiMax and standalone mobile broadband, especially with the roll-out of LTE.
- If fibre has extensive take-up, dedicated mobile broadband may serve more as a complement because its product characteristics may not be comparable to the superior offerings of fibre.

Regulating broadband in the Gulf region

The analysis of the Bahraini market showed that markets do not evolve according to a standard pattern - mobile broadband was found to be a substitute for DSL even though it is still commonly considered to be a complement technology in most of Europe. Regulators should recognise there is no such thing as a one size fits all solution.

KNOW YOUR CUSTOMER - IT'S NOT ABOUT THE AVERAGE

The importance of having detailed data is further emphasised when it comes to analysing sub-segments of the market, be they customer or geographic segments, especially when ex-ante regulation is in place. A competitive assessment at the aggregate level only paints a picture of what the “market average” looks like. However, it is possible that competition has evolved differently in sub-segments and if these sub-segments are small, they can get lost in the average.

For instance, in Bahrain, business customers represented 10% of the total subscriber market. Consequently, when looking at various competitive measures across the entire market, it appeared that DSL and standalone mobile broadband were substitutes for all customers. DSL was no longer the primary technology in the market.

Without more detailed analysis, erroneous conclusions could have been drawn and poor regulation designed as a consequence. It is therefore important to delve into the detail and ensure that the interests of all customers are protected.

ROWING UPSTREAM

Competition at the retail level has implications for the competitive assessment at the wholesale level - the retail market does not exist in isolation. Retail competition may be dependent on the incumbent's network, which makes the regulator's role in allowing access crucial to fostering competition and protecting consumers. Therefore, any market analysis at the wholesale level needs to start by understanding the competitive dynamics at retail.

For example, competition in the retail market for business products in Bahrain was driven by wholesale access-seekers. Here, deregulation and removal of access obligations could have led to those access-seekers being forced out of the market and competition being lost.

However, the retail market for mass-market products was based almost completely on infrastructure-based competition. This limited the importance of regulated access to Batelco's network. Removing wholesale access obligations in this market all-together - as a result of deregulation - was therefore unlikely to significantly affect the competitive dynamic in the retail market.

GETTING IT RIGHT - THE IMPORTANCE OF GOOD DATA

In order to carry out any meaningful market analysis, a comprehensive dataset on key market indicators is crucial. The Authority's periodic collection of data from the operators combined with a good working relationship ensured:

- efficient, timely completion of the consultation - updating the existing dataset required only a simple data request to the operators making it easy for the operators to respond quickly; and
- active engagement from the operators - informative and useful operator interviews to better understand market competition dynamics and constructive draft determination responses.

This facilitated accurate analysis and an evidence-based decision, which then fed into a robust final determination. Without consistent and regular data collection, this would not have been possible.

CONCLUSION

Access to broadband internet services is one of the key drivers of modern knowledge-based economies. Promoting access-based competition to drive broadband availability and take-up has been one of the key features of the widely applied European fixed market liberalisation and regulatory model.

The Bahraini decision has shown that this model is not always relevant. It also demonstrates that the differences in broadband evolution across countries can significantly impact the need for regulatory intervention. Moreover, the Bahraini experience highlights the importance of understanding local circumstances, taking them into account in regulatory market reviews.

Indeed, as competition in broadband across other GCC markets is examined, this revealing review will have far-reaching implications on pivotal, regulatory decisions in the Gulf region.

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