RBB Economics

Joint dominance considerations in relation to pricing incentives in the Dutch retail broadband market

RBB Economics, 9 April 2015

1. Introduction

The Dutch telecom regulator ACM has preliminary concluded that absent the regulation of Unbundled Local Loop ("ULL") access, the retail market for broadband internet access would carry the risk of convergence to a duopoly structure, raising tacit coordination concerns.

In earlier reports prepared for KPN we have discussed whether or not the conditions for tacit coordination would likely be fulfilled, and concluded that they would not.[1] In addition we explained why KPN would continue to have incentives to provide wholesale access on a voluntary basis in the absence of regulation. In our comments on the draft ACM decision, we have also shown that the case made for joint dominance in the draft decision is highly questionable and does not rest on any evidence.

The present short note, prepared at the request of KPN, focusses on the likely pricing incentives of the operators active on the market for broadband internet access in the Netherlands in the absence of regulation.

This note was largely prepared prior to publication of ACM's amended draft decision of 31 March 2015 that was notified to the European Commission. Since ACM did not materially change its analysis, this note remains unchanged in most respects, but we have added some references to the amended draft decision. For example, ACM now explicitly states that ACM has not intended to suggest a risk of stifling innovation (contrary to our reading of the original draft decision). Since a reduction of innovation could be an expected focal point in cases of joint dominance as we pointed out in our earlier reports we kept this aspect of innovation in our analyses. In addition it should be noted in this regard that innovation typically results in a reduced likelihood of tacit coordination. ACM does not address in the decision as notified how tacit coordination would be likely in the absence of coordination on innovation efforts.

ACM's starting point for evaluating 'a risk of joint SMP' is that KPN 'would not offer voluntary access at competitive conditions' (par. 1599 of the draft decision as notified to the European Commission) and that 'no voluntary access is offered' (par. 1603). This note does not analyse the question whether this conclusion has been proven sufficiently (see our note of 24 October 2014). It must be clear however that ACM's further analyses would fail entirely if this presumption would be proven wrong.

The purpose of this note is to assess, based on factual evidence, whether KPN and Ziggo would likely have incentives to increase retail prices and stifle innovation[2] in the absence of regulation and in the absence of voluntary access.

There are many theoretical duopoly models that seek to explain pricing incentives in a duopoly market structure. The outcome of such models, which may range from pricing at marginal costs

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[1] RBB Economics, It takes two to tango - Is there a risk of joint dominance in the Dutch broadband market?, 24 October 2014 and RBB Economics, Joint dominance on the Dutch retail market for internet access? A response to ACM's draft market analysis decision on unbundled access, 11 December 2014

to monopoly pricing, is however highly dependent on the exact modelling assumptions and have typically limited predictive power.

In the Dutch market with two infrastructures (cable and copper/fibre), high sunk costs, and the capacity for both networks to, in principle, serve the entire market (i.e. no restriction of capacity), one would expect that both operators compete fiercely for market share on the basis of both quality and price.

In this note we show that (a) this is a rather accurate description of the market as it currently functions, (b) that the present market structure may already be considered as a duopoly, though with limited competition from some smaller operators, and therefore that (c) current market conditions and pricing incentives are likely to be the best prediction for the market conditions and pricing incentives that would prevail in the absence of ULL regulation and the smaller competitors that such regulation enables.

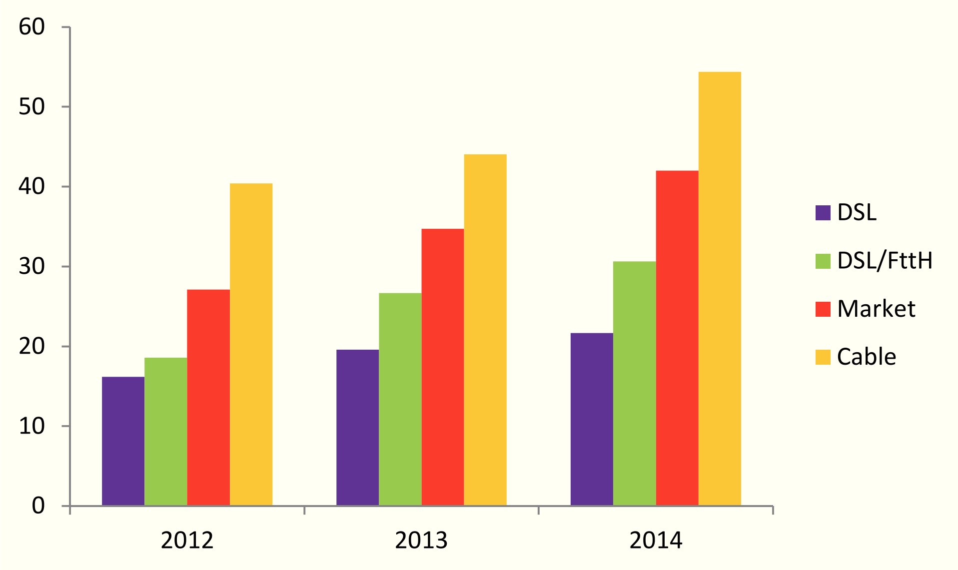
2. Evidence from the broadband market

If we look at the development of pricing and quality on the Dutch retail market for broadband access it is clear that consumers have significantly benefitted from the investments of operators, without being faced with price increases.

As show in the graph below, the average download speed of internet connections has significantly increased on the available networks. KPN's copper network has more limited upgrade capacity relative to cable, but the average increase of download speeds achieved on DSL is still high.

In addition, KPN's achieved higher growth in average speed relative to DSL only, as a result of a (changing) mix of DSL and fibre customers.

Figure 1: Average bandwidth (Mb/s, download)



Source: ACM telecom monitor, DSL is the market-average bandwidth (KPN and non-KPN) for DSL connections. DSL/FttH is the average bandwidth delivered by KPN to its customers (source KPN).

At the same time, the average revenue per broadband user (ARPU) achieved by KPN has remained stable at € 33 per month between 2011 and 2014. Blended ARPU per customer over all services increased, but that is mainly a mix effect, i.e. more customers buying a bundle of services. ARPU per Revenue Generating Unit (RGU) slightly decreased.[3] Quality adjusted prices have hence decreased – this is evident from operators increasing speeds of existing packages without increasing prices, and as a result consumers being able to trade down, i.e. to switch to a lower priced package without a reduction in speed.

[3] This is at odds with ACM's statement in paragraph 1612 that prices would be increasing.

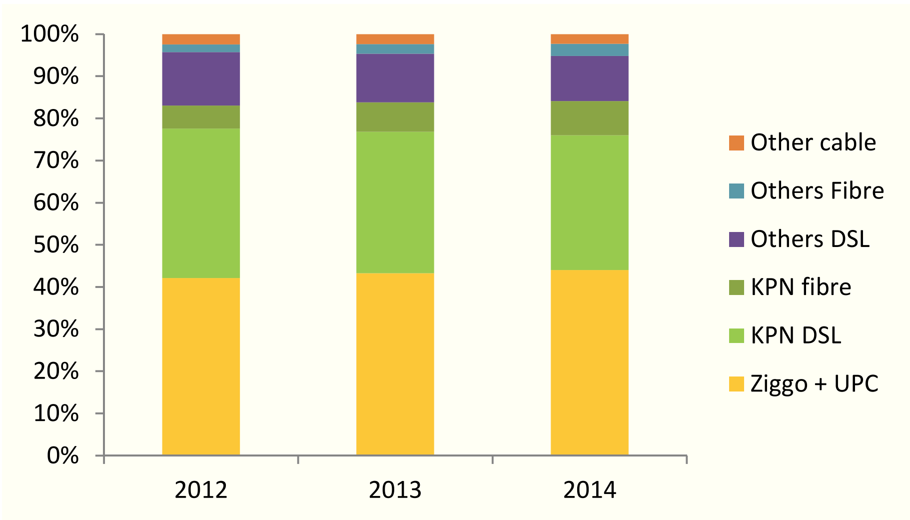
This behaviour appears consistent with the research carried out by Blauw Research for ACM, which indicates that the price elasticity of DSL in particular is high (-2.14).[4] An increase in price by KPN would likely result in significant switching to other infrastructures.

From 2012 till 2014 the share of non-integrated DSL operators, i.e. those relying on access to KPN's network, decreased from 12.7% of the market to 10.7%. This loss has not been compensated for by an increasing number of fibre customers.

At the same time, Ziggo and UPC increased their market share in broadband to a total of 44%. KPN's overall share of the market is relatively stable, though this is due to a combination of significant growth of its budget DSL brand Telfort, a decline in its KPN branded and top end XS4ALL brand DSL offerings, and strong growth in fibre.

The joint share of Ziggo, UPC and KPN on the Dutch broadband market slightly increased to little over 84% in 2014 from 83% in 2012.

Figure 2: Market shares broadband - Netherlands



Source: Telecompaper, RBB calculations

Whilst we do not want to underplay the relevance of the players other than UPC, Ziggo and KPN, developments in subscriber numbers strongly suggest that a major part of the competitive dynamic in the market is not the result of the smaller DSL competitors seeking to expand aggressively, but rather from intense competition between KPN and the cable operators.

If anything, this suggests that also in the absence of ULL obligations, KPN and the cable operators are likely to continue to compete fiercely.

KPN needs to respond to the quality difference of DSL relative to cable, by (a) continuing investments via its hybrid strategy of maximising DSL speeds and gradually switching to fibre

[4] Blauw Research, Consumentenonderzoek Aanschaf- en overstapgedrag vast internet, 12 March 2014.

(the upgrades of DSL and cable cause a diminishing premium of fibre) and by (b) keeping price sensitive customers on board through cheap DSL offers through its Telfort brand, which in the short run also helps KPN to compensate for the quality disadvantage of DSL. This may also explain why Tele2 and other smaller operators have seen declining market shares: as KPN is forced to price aggressively to compete with the cable operators, there is less scope for such smaller operators to differentiate themselves.[5]

In the draft decision as notified on 31 March, ACM states, in paragraph 1611, that also Tele2, Vodafone and M7 introduced several innovations in the last years, with material influence on competition. Looking at table A1 of the Oxera report,[6] it should be concluded that these innovations are merely innovations in the mobile market. Non-mobile 'innovations' were not new but followed earlier innovations of KPN (e.g. 500 Mbps over FTTH introduced by Vodafone, FTTH launched by Tele2, 50/5 Mbps VDSL Internet launched by CanalDigitaal)

In addition, it is difficult to see why KPN would have incentives in the current market environment to not provide access to third parties

The result of such a strategy would be that (a) KPN would lose significant wholesale revenues which (b) would likely result in a significant loss of subscribers without (c) KPN being able to increase its retail tariffs.

As is also evidenced by the high price elasticity of DSL subscribers, a price increase implemented by KPN is unlikely to be profitable, regardless of whether KPN would foreclose third parties or not.

If KPN would pursue a foreclosure strategy without a retail price increase, and force third parties out of the market and their subscribers to switch, a high percentage of those switching subscribers are likely to choose a cable operator. This implies that, as we described in our earlier report of October 2014 that the loss of wholesale revenues is unlikely to be compensated by an increase in retail revenues, which would result in a loss-making foreclosure strategy, or, put differently an incentive to continue to provide access.[7]

In the draft decision as notified, ACM suggests that foreclosure would be profitable as it would allow KPN and Ziggo to increase prices jointly. What is lacking however in ACM's assessment is a consistent sequence of strategic actions that would result to the assumed outcome of ACM.

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[5] This is also evidenced by stable to declining margins at KPN. Between 2011 and 2014 the EBITDA margin of KPN's consumer residential business declined from 27.3% in Q1 2011 to 20% in Q4 2014. See Factsheet KPN 2012-2014, http://corporate.kpn.com/investor-relaties/publicaties.htm.

[6] A review of ACM's findings of joint significant market power in the retail Internet access market, 11 December 2014

[7] As shown in our report of 11 December, ACM does not provide any evidence in its draft decision that shows the presence of an incentive to foreclose. The presence of such incentive is simply assumed by ACM. This is not only true for the incentive to offer a combined ULL and WBT wholesale offer, but would be particularly true for a voluntary WBT-only offer. The draft decision suggests that because KPN would offer voluntary WBT access, and not ULL, this shows that, in the absence of regulation, no ULL access would be offered. However, this comment is irrelevant for the joint dominance assessment which – wrongly - assumes the absence of voluntary access altogether as a result of the incentives that KPN would have to not provide any type of access to third parties.

The theory of harm is in other words, that KPN would first foreclose third parties, in the anticipation that after foreclosure, KPN and Ziggo would be able to tacitly coordinate, allowing KPN to increase prices in order to render foreclosure profitable. We do not find this particularly credible:

- KPN would have to incur the costs of a foreclosure strategy without having any certainty of recoupment through a price increase resulting from tacit coordination that would follow in a second stage. This is much more indirect and much more uncertain relative to a typical foreclosure scenario in which KPN would not have to rely on Ziggo.

- Ziggo may respond competitively to a foreclosure strategy of KPN, i.e. by launching special offers that would increase the switching rate to Ziggo, increasing losses of a foreclosure strategy for KPN and making recoupment less likely.

- ACM still fails to explain in its draft decision how tacit coordination on pricing would work exactly: if post-foreclosure KPN would seek to increase prices and Ziggo would not follow, it would have to discipline Ziggo by decreasing prices: such risk would render a foreclosure strategy even less profitable. In addition the effect of such disciplining action would be uncertain: due to quality differences, the degree of switching to KPN may be limited. Also, aggressive retail pricing and a foreclosure strategy at the same time, to pre-empt any (temporary) competitive response from Ziggo would significantly increase the cost of a foreclosure strategy. All in all, it is difficult to see how KPN can reasonably expect not to have to compete on price and be capable to enter (let alone predict to be capable to enter) a “quiet equilibrium” in terms of pricing.

There are no substantiated reasons therefore to assume, as ACM does in its draft decision, that KPN would pursue a different pricing strategy in the absence of ULL obligations: it will likely continue to invest in its networks, it will continue to have incentives to price competitively and it will continue to have incentives to provide wholesale access.

At the same time, Ziggo will have incentives to continue to increase the speed of its network to keep up with fibre and increase the quality difference with DSL, without becoming out of line with KPN on pricing. In addition, competition from Ziggo may increase as a result of the combination of the UPC and (old) Ziggo networks as the merged (new) Ziggo can compete more effectively with KPN at the national level.

With these factors in mind, it seems unlikely to us that (a) the market structure would develop into one in which KPN and Ziggo should be considered jointly dominant and (b) that there is a high risk of prices to increase above the competitive level in the absence of ULL obligations.

3. Evidence from the TV market

Where the alternative DSL operators already have a rather limited share on the broadband market, their position is very limited on the TV market and competition has already been driven by KPN and the cable operators for quite some time. The market for the distribution of TV signals ("the TV market") can therefore serve as an important illustration of why competition between Ziggo and KPN is unlikely to reduce in the broadband market in the absence of ULL obligations.

Services offered in the TV market are an important element of the bundles offered to consumers by KPN, Ziggo and other operators. The TV market is also interlinked with the market for broadband internet access. In order to buy TV services from KPN, a broadband connection is required (IPTV). In addition, cable operators typically upsell broadband internet services on top of their TV service.

Therefore, the developments on the TV market are relevant for the assessment of the broadband market, and can provide further evidence in assessing the risk of joint dominance to emerge in the broadband market.

Between the end of 2011 and the end of 2014 KPN increased its share of the market by 5.8% points from 23.7% to 29.5%, whilst Ziggo and UPC combined lost 4.2%. Jointly KPN and Ziggo/UPC (combined) account for a share of 79% of the (digital) TV market by 2014.[8]

KPN was the first to introduce interactive TV in 2006 and has been the challenger in the TV market for around 10 years now. First as a DVB-T based operator (Digitenne) and now, offering a market leading TV product predominantly, as an IPTV operator through its DSL and fibre networks.

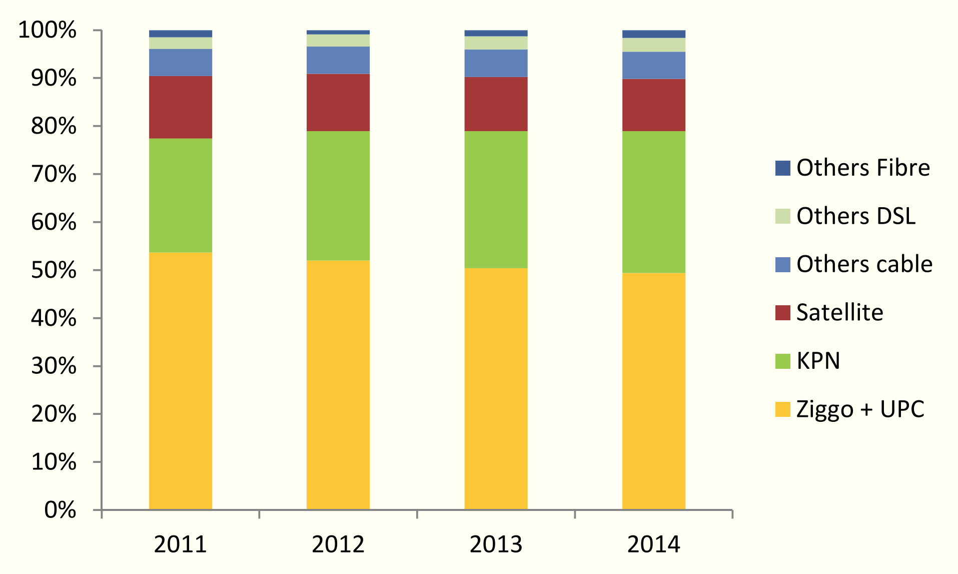
KPN has been one of the main innovators on the Dutch TV market with:

- Introducing the option to pause Live TV in 2010
- Offer a free 2nd tuner to subscribers (2011) and continuous upgrades of tuners and set-top-boxes for subscribers to align with expanded service offering
- Offer interactive TV online via its website and through Android and IOS apps in 2011
- Introducing cloud-based recording in 2011
- Introducing start-over TV (the option to view back to the beginning of an already running program) in 2013
- Offering TV Everywhere so that subscribers can catch-up TV on Wi-Fi connected devices at home (2014) and use connected outdoor devices for live and catch up-TV (2015)

[8] Source: Telecompaper, quarterly reports on the Dutch television market.

Apart from satellite operator Canal Digitaal, which has a very slowly declining share of the market, non-integrated other operators only have 3.5% of the market.

Figure 3: Market shares digital TV - Netherlands



Source: Telecompaper, RBB calculations

Although the smaller competitors in this market (excluding satellite) are even much smaller in the TV market relative to the broadband market, this has not resulted in outcomes inconsistent with competition. And again, it is difficult to see how this would radically change in the absence of the third parties that rely on access to KPN's network.

Recently, ACM rejected a request from Tele2 to analyse the TV market in more detail (with Tele2 having as its objective to secure mandated cable access).[9] In its decision to reject Tele2's request, ACM notes *inter alia,* that operators are continuously upgrading their digital TV offers with better and more services and that KPN continues to invest in upgrading and expanding its networks. ACM also notes that the switching rate is high and that price increases observed in the market are modest and are likely explained by cost increases.[10]

Hence, despite sharing many of the structural characteristics of the broadband market, including a high combined share of Ziggo and KPN, the market tends to produce competitive outcomes. There is no indication of joint dominance and tacit coordination, and ACM apparently shares this view.

The implication is that if the TV market can be very competitive, with competition taking place mainly between KPN and the cable operators, the same should apply to the retail broadband

[9] https://www.acm.nl/nl/publicaties/publicatie/14045/Afwijzing-verzoek-Tele2-om-marktanalyse-televisie/.

[10] Based on information from KPN, higher content costs payable to content/channel owners are an important source of cost increases. Between 2010 and 2014 KPN's average content cost per TV subscriber increased by 260%.

market. The market structure is not very different, there is a drive to invest and innovate in both markets to increase the quality of services offered to subscribers, and hence if the TV market does not produce outcomes that would be consistent with joint dominance, why would the retail broadband market in the absence of ULL obligations?

In addition it should be noted that the broadband and the TV market are linked, as broadband and TV services are often part of the same bundle of services of subscribers (54% of customers buy a triple play bundle[11]). This is relevant also for the incentives that KPN and the cable operators have: if the TV market is deemed competitive, it is difficult to imagine how the retail market for broadband could be characterised by joint dominance at the same time.

How can, for example, investment or pricing decisions be considered plausible focal points for tacit collusion in the broadband market, if the same networks are used to compete in the competitive market for TV services, and both services are sold to the same subscribers?

It seems much more likely that cable operators have strong incentives to continue to expand the uptake of broadband (and telephony) services by TV only subscribers, and for KPN to continue to have strong incentives to continue to expand the uptake of TV services by broadband and telephony only subscribers. This is where the operators can grow and how they can benefit from economies of scope. Pricing of bundles above the competitive level would not be in line with such incentives.

[11] Telecompaper, 15 March 2015

4. Conclusion

The available evidence from both the broadband and TV market in the Netherlands show that whilst KPN and Ziggo combined already have a share of around 80% in these two markets:

- The markets are competitive
- The competitive battle between KPN and Ziggo is the most important driver of competition in both markets
- There is no evidence of tacit coordination.

On that basis, it is difficult to see how removal of the ULL obligations would result in a sudden change in the pricing incentives of KPN, Ziggo or both in the short to medium term. It is unlikely that deregulation would, within the next three years, result in joint dominance and tacit coordination of market behaviour.