



The Competition/Investment Trade-Off Revisited? Lessons from *Hutchison 3G / Orange Austria*

Controversy around investment incentives in telecoms

The long-standing discussion about how competition in telecom markets should be best managed (that is, through a mix of traditional regulatory mechanisms – like access price regulation – and ex-post competition policy) has recently drawn new life from the debate about the need to provide the right incentives for the development and diffusion of next-generation technologies – from fibre to 4G and beyond. There has been intense lobbying from telcos, concerned by a combination of low returns and threats from competing technologies, while both the Commission and national regulators have stepped up their involvement in the sector and sought to send strong messages about future investment and the role that competition can play.

A first significant development was Commissioner Kroes' statement last year about incentives to invest in fibre networks. Supported by economic analysis in a CRA Report¹, Commissioner Kroes questioned the default preference of national regulators for access to copper networks at low prices, as such policies may significantly decrease the incentives of telcos to upgrade their networks by investing in fibre. She argued that charges for access to the new fibre networks should allow for adequate returns and that, to ensure efficient switching to new superior technology, access charges to existing copper networks should not be reduced further. This stimulated major debate, including among regulators, and highlighted the need for fresh thinking in this area.

A major controversy has been raging more recently around the plight of mobile network operators ("MNOs"). Many have been vocally highlighting in various *fora* their challenge in terms of need to invest in 4G/LTE technologies and meet consumer demand for speed, while finding it difficult to match the performance of cable/fixed and Wi-Fi, and achieving declining returns as a result of commoditisation (larger blocks of data sold on cheaper and cheaper tariffs) and strong domestic competition. While Commissioner Kroes has been relatively more open to the industry view that MNOs should be consolidated in order to improve performance, and increase the rate of investment in new data-intensive networks, DG Comp and Commissioner Almunia have taken a strong stance about the costs of "within country" MNO consolidation. The position expressed by DG Comp is scepticism that the cost of decreased competition arising from these mergers (as opposed to cross-border deals) would be matched by the benefits of increased investment.

As this position has been most recently articulated in the context of DG Comp's review of the acquisition of Orange Austria by Hutchison (H3G), it is instructive to consider this case for what it tells us about the treatment of the possible trade-off between competition and investment.

Hutchison 3G / Orange Austria as a test case

The H3G/Orange Austria transaction² was a high profile "test case" for MNO claims that the current fragmentation and high competitive intensity in national mobile markets are a threat to future investment in next-stage technologies. Faced with decreasing tariffs and ARPUs, and the prospect of making large capital commitments to accommodate rapidly increasing data traffic, European MNOs have been watching developments in Brussels to see if – and under what conditions – a "four to three" merger would be cleared by DG Comp. On its part, DG Comp was very much aware that its analysis of the transaction would be seen as a template for future "me-too" deals; and that while the structural effects of the combination were limited on conventional measures (combined headline shares in a national "mobile market" in Austria were relatively modest), clearing the transaction would have unleashed a series of copy-cat deals consolidating MNOs across the breadth of the EEA.

The analysis of market consolidation is of course distinct from the issue of setting access charges to fibre and copper networks in a way that promotes competition, but does not roll out the red carpet to "free riders" and undermine incentives to invest (the focus of our report for InfSoc). However, there is a parallel concern of ensuring that regulators' responses best favour efficient investment in new technology.

Mergers increasing "within market" concentration can lead to adverse price effects in the short term, but may also combine two weak networks to produce a higher-quality one – more economically viable – where the required investment may be less than for the two pre-merger networks. Does it follow that a more concentrated industry – one with fewer network operators – is also one with higher overall investment efficiency (e.g. more efficient quality upgrades)? There can be no *general* answer to this question. There is no consistent and systematic evidence that more concentrated industries are associated with higher levels of investment overall, or more efficient investments. In this sense, then, the stance of DG Comp is understandable: if we cannot measure to what extent MNO consolidation

¹ *Costing Methodologies and Incentives to Invest in Fibre*, July 2012, a report for DG InfSoc by a CRA team led by Prof Damien Neven.

² Case no M.6497 – *Hutchison 3G Austria / Orange Austria*. CRA were instructed by Allen & Overy as economic advisors to Mid Europa Partners and Orange Austria throughout the case.

would produce dynamic benefits, but we do know that it is likely to lead to higher prices, we want to be careful before encouraging consolidation. And even if less competition may yield more quality upgrades, what is the optimal level of quality upgrades? The systematic analysis of investment incentives should thus play a key role in the merger review process in telecoms.

The investment case

The H3G/OA transaction involved the combination of the assets of the third and fourth largest MNOs in the Austrian market. Investment incentives and constraints were at the core of the parties' motivation for the operation. By most accounts, OA's mobile network (historically focused on voice, and tie-ins with high-end devices such as the iPhone) was still functional, but would soon need significant investments to maintain acceptable quality levels (both coverage and speed) and deal with the rise in digital data traffic. By contrast, H3G – a more recent entrant which had benefited from a remedy extracted by the Commission from the earlier consolidation of T-Mobile and tele.ring – had based its commercial strategy on the aggressive pricing of data and was running out of capacity (including spectrum) to accommodate the demand that such a strategy had generated.

The transaction would have allowed to pool and more efficiently use the parties' respective spectrum assets, as well as coordinate their network-improving efforts. An additional twist was provided by reported financial constraints faced by OA – where arguably the returns the parents could expect to make remaining in the Austrian market did not compare well to those redeploying resources to other projects. There were doubts – publicly expressed – as to whether adequate future investment would have been made in the MNO.

Substantive merger review

In its review of the transaction, DG Comp was sceptical of the “more efficient investment” angle. It did not ultimately consider the financial constraints of OA as truly binding, and argued that the threat that parents would stop investing in an asset because returns were below their preferred hurdle rate was not credible: future investments depend on there being profitable opportunities, and not on generating enough cash *ex ante* to fund them.

In addition, DG Comp pointed to there being no systematic evidence that greater concentration is associated with greater investment in mobile markets, and the recent experience of markets where consolidation has occurred is if anything consistent with greater exercise of market power (possibly through coordination). Price increases in mobile markets are hardly surprising given the explosion of data plans at very low rates. However calls by the largest mobile operators in Europe to allow for consolidation of fragmented markets at the very time of the Commission's review of the merger did not help the mood music.

As the structural implications of the merger were limited (a combined share in the 20-30% range does not normally spell “danger territory” for a merger) there was an obvious line of defence around “no SIEC” arguments relying on

constraints from the remaining competitors. The substantive debate focused in the end on a structural analysis, albeit with elements of novelty: the Commission not only explored “closeness of competition” between the parties at the level of market segment (using e.g. number portability data), but also used for the first time in a Phase II investigation “price pressure indices” such as UPPs and GUPPIs to generate a prediction of potential price increases resulting from the transaction.

Use of UPPs in Phase II analysis

Having previously shied away from using these tools (well established instead with the UK agencies), the Commission used diversion ratios retrieved from the number portability data and margins from the parties to conclude that the merger would have generated material incentives to increase tariffs.

The problem with the use of these tools was not that they are only to be conceived as “screens” and should not be relied upon in an in-depth merger investigation. After all, the “next step up” would be full-blown merger simulation, a difficult exercise in markets with systematic price discrimination such as mobile telephony. The real issue is that the standard GUPPI or UPP analysis only accounts for *price competition* between parties. This needs to be carefully considered in an industry such as (mobile) telephony where investments in service quality are an important dimension of competition. The missing piece in the analysis is that *network quality also matters to consumer choice*, and even just to *preserve* that quality requires investment. This was particularly relevant in the H3G/OA transaction, where the most significant merger synergies were indeed about improvements in the parties' network capacity to carry ever more traffic (especially data) at ever faster speed.

At a minimum, the UPP formula thus needs to be modified to account for what economists call the endogenous choice of product quality (via network investments). In effect, the relevant notion of margins to be employed in “first-order” pricing pressure analyses needs to include the costs (both opex and capex) of improving network quality and the corresponding synergies. In practice, the question that needs to be answered is *what is the magnitude of the investment-related synergies that would be needed to alleviate the upward price pressure generated by the merger?* The UPP test can be suitably modified along this logic to account for investments in network quality.³ The key point is that, by failing to account for the endogenous nature of product quality, the standard pricing pressure indices may lead to significantly *overestimating* the potential adverse effects of mergers.

A missed opportunity?

Overall, the investment dimension did not play the role it could have had in the review of the merger. The “price pressure” analyses which were relied upon by the

³ We have termed this modified test a “Downward Hedonic Pressure” test, where “hedonic” is standard economic terminology for “quality adjusted”. See V. Sorana, *A Downward Hedonic Pressure Test for Unilateral Effects in Merger Analysis*, CRA research note, available on request.

Commission did not allow for this dimension; there was also general scepticism that a merger can be argued to lead to greater investment overall; and an expectation that if OA ultimately had to stay in the market, its parents would have found the means to invest in network improvement – because that would have been the rational choice relative to letting OA wither on the vine.

This feels like a missed opportunity. The absence of a clear causal relationship between concentration and investment, even in telecom markets, does not mean we should dismiss such a link in the case of a specific transaction. Of course antitrust regulators cannot rely on hand-wavy claims made qualitatively by parties. But together with the recognition of the importance of preserving “innovation” and indeed “investment” in antitrust review, it is important for merger assessment to better tackle dynamic effects.

One step could be relying on measures of upward price pressure that are extended (as mentioned above) to allow for quality-increasing investment. These may be preferable to more complete merger simulation models seeking to account for both price and the investment decisions by market participants. Such approaches remain technically challenging, and require access to data (such as information on rivals’ investments and customers’ sensitivity to network quality improvements) that are not easily available – especially to the merging parties. But given the importance of ensuring sufficient investment in new technologies going forward, it is useful to give weight to manageable steps (such as “hedonic GUPPIs”) that can make the analysis informative in this respect.

Counterfactual and network sharing

The reluctance to take on board arguments about network investments might also be partly explained by the Commission’s belief that whatever pro-investment benefits the merger might have, such benefits would not in fact be merger-specific as they could be attained through looser “network-sharing” agreements between otherwise independent parties.

While this is an argument worth considering, there are at least two counters to it. First, as a matter of logic, network sharing does involve precisely some form of consolidation at the network level. A full merger would also imply consolidation *downstream*, at the retail level – but this could be potentially addressed with an MVNO remedy offered on favourable terms. There is also no definitive evidence at this stage that such arrangements would be successful in providing the same investment-related efficiencies as a full merger, nor that they could provide such efficiencies without also facilitating coordination of pricing across supposedly independent parties. At the very least, the jury is still out on this. On the one hand, the UK has favoured network sharing and the experience to date is indeed that the market has remained highly competitive. At the same time, the French Competition Authority has recently announced that it will look at such network-sharing agreements with suspicion.

More needs to be done again to take a serious look at investment incentives and their relationship with full consolidation vs the “half-way house” of network sharing.

Until we know more about the effects of such agreements, it seems risky to hold them out as a virtuous alternative against which mergers are judged.

Remedies and the shape of things to come...

The H3G/OA merger was eventually approved subject to a significant package of remedies. Whether these remedies will prove in future to be binding and effective remains to be seen. But given the keen watch the industry had been keeping on the case, as a test of the Commission’s mettle to prevent consolidation that might be problematic, its broader interest was a “signal” for future deals.

The remedies discussion highlighted two important points. First, that the structure of MVNO deals that is considered “good for competition” is not in line with the concern of most MVNOs to limit their entry risk. While MVNOs in the main want “pay as you go” deals in which access prices are entirely variable, other structures are viewed more favourably (e.g. a fixed part and a small variable component), which come closer to mimicking the price incentives of a full blown MNO. While economically correct, this is less attractive to MVNOs (such as, in practice, cable companies) who in the main wish just to enter these deals to enable them to offer a triple/quadruple play deal to their customers. The Commission’s dim view of pure “pay as you go” deals also possibly reflected a concern that these tend to attract players whose main focus is not to compete hard on the mobile market – and therefore indeed the reduction of competition arising from the merger cannot be fully restored with an MVNO deal, however attractive the unit fee. This is plausible, though experience across Europe suggests that in fact this needs not be the case: for instance Virgin in the UK obtained such a deal (originally with T-Mobile, who needed to fill their capacity) at low rates, and this arguably led to strong competition.

The reality remains that a structural remedy, and MNO-type entry, are extremely hard to engineer in these markets – where declining profitability has become endemic and competition looking forward is tough with fixed networks and Wi-Fi. In the end a further remedy was fashioned to exploit certain specific circumstances in the Austrian market – namely the imminent spectrum auction for new frequencies. The remedy involved some divestment of spectrum by the parties to a forthcoming (unspecified) entrant, bolted together with a “reservation of spectrum” by the regulator to the same entrant – if one indeed materialises. At least on their face, these remedies were felt to provide at least the potential for a new entrant to be able to obtain the assets required to come into the market. Whether there will be anyone actually knocking at the door in Austria, and how the outcome of the spectrum auction in Austria will be affected by this measure, remain to be seen.

Conclusions

The question of how best to incentivise investment in the transition to next-stage technologies in telecoms (4G, fibre) is centre-stage in the debate between industry and regulators. The European Commission has taken up an active role in making recommendations to NRAs on the regulation of access pricing to old and new technologies. The question of investment incentives should also be central

to the assessment of mergers which can allow not only for better deployment of existing assets to address bottlenecks, but are driven by efforts to increase the efficiency of future investments. Economic analysis can be deployed to explicitly account for the need to invest to maintain network quality, when considering the effects of the merger on the incentive to increase prices. These tools need to be developed further by the academic and competition community, and used proactively to improve our collective ability to incorporate dynamic considerations about investments into merger analysis.

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