Report for Telenet

on the Analysis of

BIPT Regarding

Markets 4 and 5

in Belgium

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Prepared by

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Summary

Telenet has commissioned this report to examine the analysis proposed by BIPT regarding Market 4 and 5 in Belgium. The Market 18 analysis is also considered where relevant in the context of that Market 4 and 5 analysis.

The conclusion of that assessment is that BIPT reached the correct conclusions regarding market definition and the SMP assessment in respect of both Market 4 and Market 5, despite certain errors and weaknesses in their analysis. The remedies proposed on Belgacom are potentially correct as regards Market 5 and the extension of bitstream remedies to include multicasting is likely to make market 5 remedies effective. However, the analysis also shows that the extension of market 5 remedies to cable in the context of Market 18 is not only incorrect but also counterproductive. If BIPT persists with the imposition of Market 5 remedies in Market 18, the resulting dispute is likely to undermine the application and enforcement of effective remedies in Market 5 itself. Of course there are several possible routes by which an entrant could enter the broadband market in order to offer services to end users, Wholesale Broadband Access (Market 5) being the one which is the subject of this analysis. As noted by the Commission[1], the relationship between the different access products/markets are as follows:

There are three types of wholesale services that a new entrant can build on to offer retail broadband services:

(i) a pure resale service, where the new entrant resells the incumbent's broadband connection to the end user and does not invest in own infrastructure, (ii) bitstream, where the new entrant builds its own backbone but relies on the incumbent's infrastructure for the lower and middle parts of the network, and (iii) local loop unbundling where the new entrant relies on the incumbent's infrastructure only for the so-called "last mile".

The ladder of investment theory implies that new entrants pass gradually from relying on (i), via (ii) to (iii). In order to undertake investments in network development, they first need to be able to develop a sufficiently large retail customer basis relying on the network infrastructure of the incumbent.'

BIPT judges that Market 4 (LLU) and Market 5 (WBA) both demonstrate SMP and impose remedies to facilitate entry. It is judged that these are sufficient since a resale option is not deemed worthy of consideration.

Access competition is weaker on Markets 4 and 5 in Belgium than would be anticipated. The reason for this result is that in the past BIPT has either chosen the wrong remedies after its market analyses or else failed to implement the chosen remedies effectively. BIPT initially imposed obligations on LLU but did not enforce the LLU remedies efficiently while placing early emphasis on bitstream. The Commission[2] identified the failure of the LLU access regime for the lack of

[1] SEC (2007) 962

[2] Case BE/2007/0735: Wholesale unbundled access (including shared access) to local loops and sub-loops for the purpose of providing broadband and voice services;

broadband competition in 2007:

Against this background, the Commission, while noting that IBPT has recently reduced the level of the prices for local loop unbundling, invites IBPT to ensure effective implementation of remedies to further enhance the provision of local loop unbundling and, in particular, to ensure that the level of local loop unbundling and bitstream prices create the appropriate incentives for alternative operators to switch from the bitstream offer to the local loop unbundling offer.

Over time, a number of things happened in the market which BIPT failed to manage. The first is that the initial failure to introduce a well priced and functioning LLU product was overtaken by technological changes when vDSL was deployed making the area of potentially viable LLU very small, even under optimum regulatory practice.

Indeed, the initial failure to establish a fit for purpose LLU product undermined the incentive to take bitstream in itself since the progression along the ladder of investment was not possible. This effect was greatly aggravated also by technology change which meant that Belgacom was now in a position to deliver a triple play product over its enhanced copper network while entrants using a bitstream access product could not. Analysis Mason identified this as the principle failure of access regulation in Belgium in their report of 2010 for ECTA[3].

The failure of the LLU access product can be put beside the parallel failure of the bitstream access product resulting from a poorly specified bitstream remedy. To put it in context, at July 2010[4] LLU lines account for 5.5% of the total DSL lines. However, the performance of one DSL product cannot be viewed in isolation from the other main access product, bitstream access. Normally, where LLU performs very badly as in Belgium one sees a correspondingly higher bitstream take up. For instance Ireland has an LLU take up rate below that of Belgium at 3.3% but as a consequence has a bitstream access rate of almost 30%. Collectively, LLU and Bitstream based access lines account for less than 15% of all DSL based access lines in Belgium. Regarding DSL only, entrants hold 14.3% of all active lines in Belgium. This is the worst in EU 15 and Belgium officially ranks 18th in EU27. However it should be noted that in Member States such as Lithuania, Romania and Bulgaria which are ranked after Belgium, entrant operators outside the cable community rely much more on FTTH\B which is normally self-supplied. In fact Romania has so much self supply that markets 4 and 5 has no SMP (accepted by Commission). This suggests that, correcting for such anomalies, Belgium would actually rank worse.

It is a shockingly bad performance by any measure. This is the unfortunate track record of BIPT in selecting and implementing remedies in Belgium and it is against this background that one must assess (a) the enhancement of the bitstream remedy which looks long overdue (b) the very unorthodox extension of Market 5 remedies to Market 18 which makes no sense in itself and is likely to consume an enormous

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Case BE/2007/0736: Wholesale broadband access

[3] http://www.ectaportal.com/en/upload/Press%20Releases/2010/Europes_Digital_Deficit.pdf

[4] Based on CoCom data available here http://circa.europa.eu/Public/irc/infso/cocom1/library?l=/public_documents_2010&vm=detailed&sb=Title

proportion of BIPT's resources. If BIPT persists with regulating Telenet in the manner proposed, there is every indication that enforcement will suffer leading to continuing failure on Market 5.

We now turn in turn to each of the relevant elements in BIPT's market 4 analysis and BIPT's market 5 analysis in particular, to highlight those areas of strength and weakness.

Market Definition

Markets are defined by reference to demand and supply substitution to identify the scope of both product and geographic market.

From a demand perspective, BIPT's analysis suggests that the retail market is evolving and that the importance of bundled or clustered products is growing over time.

However, BIPT does not identify a cluster retail market which includes voice, television and broadband but rather the traditional retail broadband market. Given the results of BIPT's consumer survey, this the correct approach since relatively few consumers choose products because of the ability to simultaneously obtain other products. By extension, the wholesale market that is identified as providing the inputs to supply the identified retail market is the traditional wholesale market[5] and not a new wholesale market.

Within that Market 5 analysis of the traditional broadband market, the product market definition identified by BIPT contradicts itself in a number of important aspects as regards demand characteristics. This is the case particularly as concerns the interpretation of the chain substitution effects between different products with a material impact on the market defined.

On the one hand BIPT[6] judge that there are separate residential and business market based on a series of criteria which notably include demand characteristics such as speed, contention rates (and the ability to support VPNs etc).

In a subsequent assessment of whether there is a chain of substitution effect on the market in terms of speed (and technologies) precisely the opposite conclusion is drawn[7].

While it may be that there are certain business customers who are not willing to switch, what is required in terms of the practice of the Commission is for products to be considered close or effective substitutes for market definition purposes. It is not required that all customers would switch between the products in question. What is decisive is whether a sufficient number of consumers would switch between the products in response to small but significant price changes, to the extent that the relevant price increase would not be profitable owing to the resulting loss of sales.

[5] As per the Recommendation on Relevant Markets, see OJ L 344, 28.12.2007, p. 65
[6] See paras 123-128
[7] See paras 177-183

If a separate business market would exist at the retail level, it must be defined much more narrowly than it is currently or else the corresponding chain substitution identified between different technologies could not simultaneously exist. Elsewhere, other NRAs that have specified separate business and residential markets have specified much more narrow business markets[8]. The implication is that the wholesale market that is identified for regulation ought to be broader than that specified.

The conclusion is that BIPT fundamentally defines the correct wholesale market and any criticisms will not affect the outcomes of this analysis.

Direct substitution of DSL based WBA and Cable based WBA is not viable

It is clear that with respect to Market 4, the unbundling of cable continues to be unrealistic and that demand for such a product does not exist. The exclusion of alternative fixed access network leaves Belgacom in an unassailable position on the market. The conclusion of BIPT regarding market 4 is correct and matches very closely the position of the European Commission:

Moreover, the unbundling of cable networks at this stage does not appear technologically possible, or economically viable, so that an equivalent service to local loop unbundling cannot be provided over cable networks[9].

While market definition in the context of market 5 is more complex, BIPT are again correct in their assessment that there is no direct substitutability between DSL and Cable based WBA products. However, BIPT could strengthen their conclusions by acknowledging the lack of demand for cable based bitstream products.

In order for a market to be defined it does not need to exist in practice. Many hypothetical markets have been identified for the purpose of application of regulatory remedies. A hypothetical market can be said to exist where two conditions are met; there is potential demand and there is potential supply. If this cable WBA market potentially exists it could be a direct substitute for DSL based WBA (potentially).

The supply of some sort of third party WBA product on cable networks may be technically possible but the WBA product will be functionally very restricted compared to WBA over DSL. This is acknowledged by BIPT in section 5.2.3.4. Again from a supply perspective cable will be a very high cost solution for a variety of reasons again acknowledged by BIPT. One implication is that there is no ladder of investment available to entrants if BIPT subsequently imposes a resale obligation on Telenet.

The analysis of BIPT rightly emphasises the speed and cost of migration from DSL to a cable based supply. However, the analysis could be improved by greater reference to the technical constraints inherent in third party access and the technical constraints on the subsequent service delivery.

[8] Cases AT/2009/0970 NL/2008/0827

[9] Explanatory memorandum of the Recommendation - SEC(2007) 1483

From a demand perspective, there is no evidence of any meaningful potential demand in the past nor is any likely to evolve in the future. Despite the assertions of BIPT in relation to broadband resale in the context of Market 18 (which Telenet disputes and the available evidence suggests that such demand is very unlikely to exist) there is no suggestion or evidence that there exists any meaningful demand for bitstream on Telenet's network. The high cost of switching that would be involved in Belgium is consistent with the findings in other Member States. Even if such high switching costs did not exist, the fact that

- the unit costs of a cable based WBA product are likely to be much higher than DSL based WBA
- that it would have far less functionality and the uncertainty arising from the fact that indirect factors (like the customer discontinues his TV-subscription or the network owner) may terminate the possibility of delivering broadband over cable to a specific customer

casts doubt on whether any meaningful demand for cable based broadband access would ever emerge.

The fact that there is no meaningful demand for access to Telenet's network is very important in the context of deciding whether a potential market exists and should be highlighted by BIPT.

The conclusion is that BIPT is right to conclude that no direct substitution is possible between DSL and cable based access products in Market 4 and Market 5. The failure to recognise the lack of demand for cable based access products is a weakness in the analysis.

The indirect constraint coming from cable is neither sufficient to put it in the same market as DSL based bitstream nor to constrain Belgacom

The dangers of having weak constraints from cable automatically taken into account at the market definition stage risks distorting the SMP assessment and understating the real extent of market power at the wholesale level. Potentially the wholesale market share of Belgacom could oscillate between 58% and close to 100% depending on the scope of the product market definition.

The treatment of indirect constraints in Market 5 is an issue that has been dealt with at length by NRAs in their National analysis and in the subsequent Commission decisions. BIPT's analysis of this factor amounts to something of an abridged version since two elements (wholesale share of demand and retail margins) are bundled together whilst a third element (the retail elasticity of demand) is at best dealt with in a superficial manner.

BIPT should consider separately each of the economic conditions that might imply indirect constraints are sufficiently strong, or effective, so as to justify their inclusion in the defined market. In the event that they are not sufficiently strong as to be part of the defined market then the impact of indirect effects is considered within the SMP assessment.

The factors that need to be considered in assessing the strengths of indirect constraints are the following:

1. What is the wholesale share of the end user price?
2. What is the retail elasticity of demand?
3. What are the retail margins?
4. If the retail supplier using the wholesale input raises its prices, how likely is it that the incumbent would capture the lost retail sales if they did not raise their own prices?

These factors align more or less perfectly with the criteria identified by the Commission in its case practice in Spain, UK, Netherlands and Finland.

An examination of each of these factors in turn shows that:

1. The wholesale share of end-user retail prices are low and are universally below [ ]for DSL based competitors. Therefore, any DSL wholesale price increase would be much diluted at the retail layer.
2. Evidence from the Belgian market shows that Belgacom retail products earn a price premium over competitors and that their market share is stable over time, implying that retail price elasticity is low.
3. The best estimates of retail margins available suggest that the retail margin for stand alone broadband is over [ ] but that that share might fall to [ ] for broader products (i.e. voice and broadband based on a 'Naked' input); in any event there is significant scope of retail operators to absorb the (diluted) wholesale price increases at the retail level such that retail customers may never become aware of any wholesale price change.
4. The evidence available suggests that Belgacom group would capture not less than its market share in the event that retail competitors raised prices in response to a wholesale price increase.

Based on Article 7 practice in Market 5 regarding these criteria, indirect constraints coming from cable on the wholesale DSL product market are rightly judged to be weak by BIPT.

The conclusion therefore is that BIPT's assessment that the indirect constraints are not sufficiently strong to constrain Belgacom's SMP is correct.

The Geographic scope of the WBA market is National

BIPT's assessment of the geographic scope of the market is correct. There is no evidence that Belgacom adopts different strategies in different parts of Belgium. There is uniform pricing enacted by Belgacom with no regional variation (not even based on local promotions) and the service functionality provided does not vary by region.

It is true that historically Telenet had a more developed network than other Belgian cable networks and that Telenet has a consequently higher market share in Flanders (and Belgacom a lower market share than it has nationally). However, this regional difference in market share has not affected Belgacom's behaviour on the market. On

the contrary, Belgacom's acts entirely the same on the WBA market throughout Belgium with no regional variation in pricing and sales and marketing are also delivered uniformly.

BIPT's finding of national broadband markets is therefore correct.

Dangers inherent in the proposed remedies for the Belgian market

A previous analysis of BIPT drew comments from the European Commission[10] that noted that the most likely reason for any failure at the retail level resulted from a failure of LLU implementation in Belgium:

One reason for the rather stagnant retail competition could be the fact that the Belgian market is characterised by a low presence of operators relying on local loop unbundling. In this respect, it is worth noting that the growth of local loop unbundling only started to show some developments in 2006 and remains significantly low at a level of around 1% of unbundled lines.

However, since this letter was issued, LLU in Belgium has not grown significantly such that today approximately 3% of all access lines in Belgium are based on LLU (Full or Shared). In the period between July 2007 and July 2010 there has been no radical change in the number of new lines unbundled in Belgium. Such a result may be explained by a number of factors, the relatively high price of unbundling in Belgium today at an estimated €11.10 versus an EU average of €9.75 is undoubtedly an important consideration[11]. However, it is also clear that the early migration to vDSL in the Belgacom network and the resulting need for entrants to deploy (or buy) network to street cabinets will adversely affect the desirability and effectiveness of LLU as the remedy of first resort.

Against such a poor LLU performance, a significantly better bitstream take up rate might be expected. This has not occurred in Belgium. In fact, BIPT's review of the take up rates (see figure 5.18 of BIPT's report) is quite misleading. In fact, there is nothing 'typical' about bitstream performance in Belgium. The performance of bitstream must be considered in the broader context of wholesale DSL access. The countries selected by BIPT in their figure 5.18 are selected below and the relative performance of DSL entry products can be judged in July 2010. While Belgium's performance in terms of bitstream does not look unusual in isolation, viewed in the wider context of competitive access based on wholesale DSL, Belgium's performance represents a significant regulatory failure.

Figure 1 below shows that wholesale DSL access products have the lowest take up of any of the BIPT selected countries. In fact in a broader context, Belgium's performance is the worst in EU 15 and Belgium officially ranks 18th in EU27. However it should be noted that in Member States such as Lithuania, Romania and

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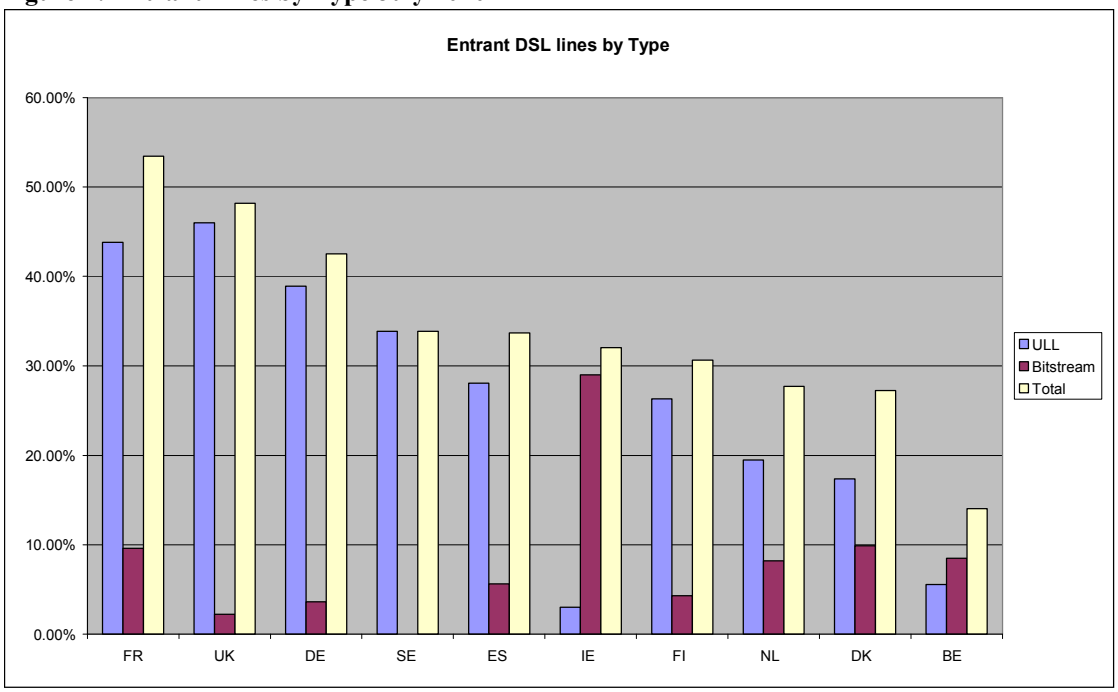
10 http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/belgiquebelgi/registeredsnotifications/be20070735-0736/be-2007-0735-0736/_EN_1.0_&a=d

11 See CoCom July2010 data for a cross country comparison http://circa.europa.eu/Public/irc/infso/cocom1/library?l=/public_documents_2010/cocom10-29_final/_EN_1.0_&a=d

Bulgaria which are ranked after Belgium, entrant operators outside the cable community rely much more on FTTH\B which is normally self-supplied. In fact Romania has so much that markets 4 and 5 have no SMP (a conclusion which was not challenged by the European Commission Article 7 review). This suggests that correcting for such anomalies Belgium would actually rank worse. The conclusion therefore is that DSL remedies were either incorrectly specified or ineffectively policed and implemented in the past.

Figure 1: Entrant Lines by Type July 2010



Why then would BIPT seek to switch the focus of attention onto another, untired and unproven network which BIPT says itself in its Market 5 analysis cannot give comparable access to entrants? The imposition of a broadband resale product as a remedy in Market 18 is inevitably based on a suggestion that opening access to a cable based broadband product might create a competitive dynamic that would drive the retail broadband market in Belgium. This suggestion has principally been championed by Belgacom in the past though recently France Telecom's and KPN's subsidiaries in Belgium have sought to use the possibility of regulation as leverage in their commercial negotiation. That Belgacom was historically the main protagonist seeking to have the Telenet network opened up diminishes the credibility of its argument that access to the Telenet network is likely to satisfy some pent-up demand. If a large number of third party operators were to appear willing to take access from Telenet, then Belgacom would have no interest to see Telenet's network opened since that would create competition to Belgacom on the wholesale market.

However, Belgacom realise that there is in fact no demand for access to the Telenet network and that a requirement to put such a wholesale access product in place would (a) weaken Telenet by imposing unnecessary direct costs while at the same time diverting as much as [ ] of Telenet's internal system developers, thereby undermining Telenet's ability to bring new and innovative services to market and (b) grant Belgacom a further reprieve from the effective implementation of LLU access or

bitstream access remedies. Telenet can understand why Belgacom would seek such an outcome for its own commercial advantage but cannot see any reason for BIPT to support such an intervention in Market 18.

What therefore would constitute an appropriate remedy in Market 5? Telenet has observed that the competitive entrant community in Belgium issued a report[12] in March 2010 which identified the inadequate remedies placed on Belgacom and the policing and enforcement of those remedies on the market as the reason that competition has not performed as well in Belgium as might have been expected:

The ability of alternative operators to compete against bundles depends on the ability to obtain wholesale inputs which would allow a similar offer. LLU is one such product, and is being successfully used in France, for example: but (as noted above) unbundlers have not been able to make progress in Belgium. However, one 'rung' of the ladder of investment is missing because the incumbent offers no support for the multicast functionality needed to deliver TV on its wholesale bitstream products.

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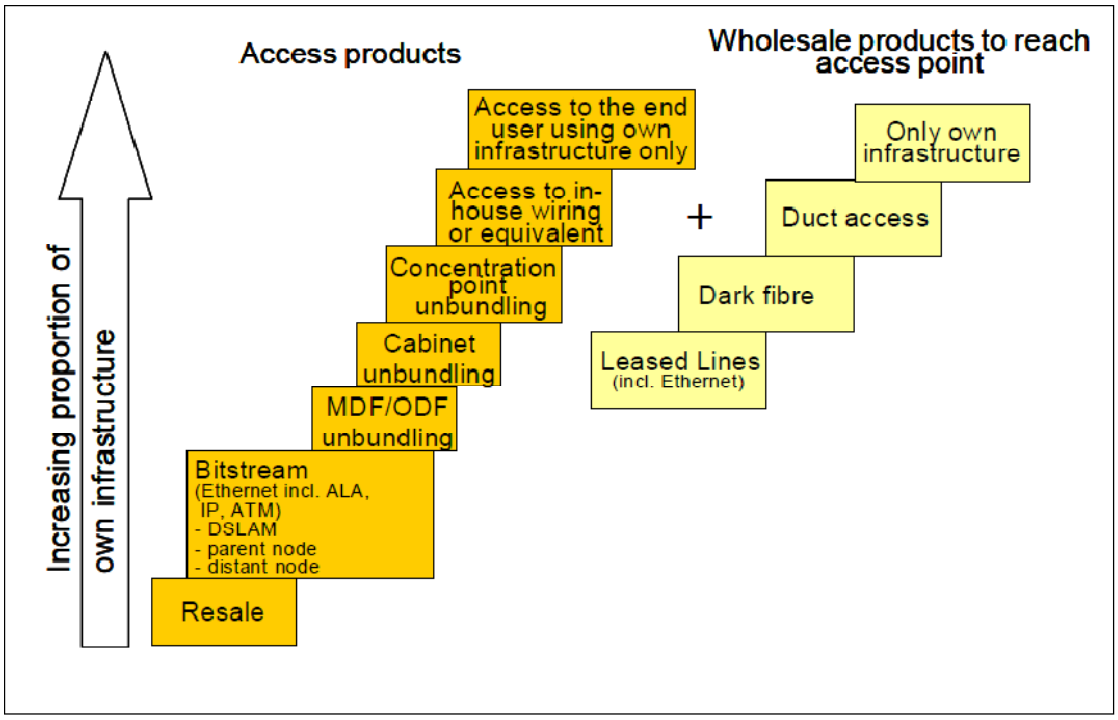
- *or by requiring the provision of a more capable bitstream product through 'traditional' remedies (e.g. obligation to supply, price control).* ***Such an approach requires detailed supervision and past delays, if repeated, would make this an ineffective option****. [emphasis added]*

Should broadband resale be imposed? As noted above by the European Commission, the lowest level in the value chain (before the retail market itself) is a broadband resale product. If BIPT believes that Bitstream is not going to be an effective remedy then it ought to then examine the need for, and desirability of a broadband resale product. BIPT's analysis of the existing resale product offering (only in the context of whether its inclusion in the defined market would affect the SMP outcomes) does not lead on to a consideration that bitstream and LLU are unable to constrain Belgacom's SMP and that remedies lower down the value chain need to be included.

Resale as a competitive entry mechanism is also a pretty poor vehicle in any event. As noted by BEREC and illustrated clearly in their revised NGA Ladder of Investment[13] replicated below, resale remains the lowest point on the ladder of investment and is normally followed by migration to bitstream and so on.

[12] http://www.ectaportal.com/en/upload/Press%20Releases/2010/Europes_Digital_Deficit.pdf
[13] BEREC : BoR (10) 08 BEREC Report on NGA wholesale products



The Commission also recently noted that these *'Resale lines are not significant anymore at EU level with the unbundlers climbing the ladder of investment to the benefit of more investment intensive forms of competition.'* . As an access product, resale was important at a certain point in the market's evolution but as access products (and delivery processes) improved it went into steep decline. In terms of metrics, resale lines represented 44.21%[14] of all access lines in 2004 but by mid-2010, resale lines represented 3.1 %[15] of all broadband lines.

The evidence therefore suggests that the remedy is not likely to make a material impact on the market and that BIPT may be correct not to waste time and resources implementing it in Market 5.

However, it is against that backdrop that one must consider the decision to impose a broadband resale obligation on Telenet in the Market 18 analysis. The cost of implementing this regulation is clearly high for Telenet, hence our opposition. However, the cost of intervening in this way also implies an important opportunity cost for BIPT in terms of the market 5 remedies proposed. Since a disproportionate effort by BIPT's will inevitably be focussed on implementing an ineffective remedy (as decided by BIPT in its market 5 analysis) on Telenet in Market 18, this materially reduces BIPT's resources to implement and police effective obligations on Belgacom (where SMP has properly been identified) and which could actually facilitate more competitive entry.

The very real concern which arises therefore is that BIPT will expend enormous resources imposing a dead-end remedy in Market 18 which BIPT has already decided

14 http://circa.europa.eu/Public/irc/infso/cocom1/library?l=/publicsdocuments2004/cocom04-20_broadband/_EN_1.0_&a=d

15 http://circa.europa.eu/Public/irc/infso/cocom1/library?l=/public_documents_2010/cocom10-29_final/_EN_1.0_&a=d

is not required in its Market 5 analysis. BIPT has identified a market failure on the broadband market and has assigned an SMP designation to Belgacom in both markets 4 and 5. It has imposed ULL and Bitstream (now with multicasting functionality) remedies on Belgacom. If there remained a need to control SMP then it is possible for BIPT to impose further obligations on Belgacom. However, BIPT has decided that such an obligation is not necessary even though such an obligation on the DSL network could be easily mandated and combined with a basic broadcasting product (if required) rather than being initiated on a cable network. Such a solution also allows for progress for competitive entrants along a ladder of investment.

There is no justification for imposing remedies on Telenet for which there is no demand and which ultimately will not address the issues of SMP on the Belgian market. To do so will undermine competitive access for another market review period which would really be a lost opportunity given that the DSL based access and implementation proposals have been greatly improved.

The conclusion is that BIPT's remedies in the Market 4 and Market 5 analysis are fundamentally at odds and inconsistent with the interventions being proposed for Market 18. This suggests that the remedies being imposed in Market 4 and 5 should be reconsidered to see if there is a need for a regulated DSL broadband resale product.

Product market definition

Market definition seeks to identify in a systematic way the competitive constraints that undertakings face. The purpose is to identify the actual and/or potential competitors of the undertakings that are capable of constraining their behaviour and of preventing them from behaving independently. The market definition arrived at can depend on the relative weight given to demand-side and supply-side substitutability, and can also depend on the prospective time horizon considered.

The SSNIP test seeks to identify the smallest market within which a hypothetical monopolist or cartel could impose a small but significant non-transitory increase in price and defines this as the relevant market. Effectively it asks whether such a monopolist or cartel could sustain a price increase of 5-10% for at least one year on a *ceteris paribus* assumption that 'the terms of sale of all other products are held constant'. If sufficient numbers of consumers are likely to switch to alternative products as to make the price increase unprofitable, then the firm or cartel lacks the power to raise price. The relevant market therefore needs to be expanded. The next closest substitute is added and the process is repeated until the point is reached where a hypothetical cartel or monopolist could profitably impose a 5-10% price increase. The range of products or the geographic area so defined constitutes the relevant market.

Demand-side substitution

Demand-side substitution is the most obvious and often the most direct form of a competitive constraint between two products and is normally determinative of the extent of the product market. It exists whenever a rise in the price of one product relative to the other would cause customers to switch their purchases from the product whose price has risen to the product whose relative price has fallen. For two products to be demand-side substitutes it is necessary not only for customers to be able to switch between them, but that they would actually do so in the event of a relative price change. It could be the case that products which are functionally equivalent are have different perceptions associated with them such that even if a cable and DSL based service were functionally equivalent, end-users would not be prepared to switch between them.

Supply-side substitution

Supply-side substitution is often a less effective form of substitution, but under certain circumstances may be as important as demand-side substitution; this is often the case in telecoms markets where the same basic physical infrastructure is used to deliver different end-user products. In essence two products are supply-side substitutes if the supplier of one of the products already owns all of the important assets needed to produce the other and can easily and cheaply switch production from one product to the other.

For a rival firm to provide a genuine source of supply-side substitution it is not sufficient for that firm to have just some of the assets required, if this means that significant additional investments are required in the other productive assets needed.

For example, it may be possible for a firm physically to produce the products of another firm using pre-existing production assets, however, the successful sale of these products may also require marketing assets (e.g. an established brand) or distribution assets (e.g. shops). In this case, the ability to produce the product is insufficient to be able to regard the supplier as an effective source of supply-side substitution since the investments needed to create a brand and a distribution network are likely to be significant and largely sunk. For the products of a firm to be regarded as supply-side substitutes it is not only necessary for production of the relevant products to be possible without the need for new investments, it must also be possible within a relatively short period of time. This is often taken as a period of up to one year.

A related issue can be diversion of development resources which can be significant in the context of developing a third party cable access product. In such circumstances, significant and often non-replicable product development resources (in IT for instance) can impose considerable costs on the development of a substitute product which would in effect, eliminate such a product from a supply-side consideration.

Direct substitution of DSL and Cable based WBA

The Commission advises that '*The starting point for the identification of markets susceptible to ex ante regulation is the definition of retail markets over a given time horizon, taking into account demand-side and supply-side substitutability. Having defined retail markets, which are markets involving the supply and demand of end-users, it is then appropriate to identify the corresponding wholesale markets which are markets involving the demand and supply of products to a third party wishing to supply end-users.*'[16]

Therefore, the first issue to be resolved is the nature and specification of the retail broadband market in Belgium since it is the supply of the retail market that informs the wholesale market definition.

At the retail level BIPT[17] judge that there are separate residential and business market based on a series of criteria which notably include demand characteristics such as speed, contention rates (and the ability to support VPNs etc).

In a subsequent assessment of whether there is a chain of substitution effect on the market in terms of speed (and technologies) precisely the opposite conclusion is drawn[18].

If a separate business market would exist at the retail level, it must be defined much more narrowly than it is currently or else the corresponding chain substitution identified between different technologies could not simultaneously exist. Elsewhere, other NRAs that have specified separate business and residential markets have specified much more narrow business markets[19]. The implication is that the wholesale market that is identified for regulation ought to be broader than that specified.

Once the retail market is specified then the question that arises is 'in the presence of entry barriers and the other criteria being met, what wholesale inputs must be made available to third parties so that they can offer services to end-users? While there is little doubt that both cable and PSTN based broadband products compete directly at the retail level, however it cannot be inferred that both technologies can supply viable wholesale inputs, in much the same way that cable networks cannot supply a viable alternative to unbundled local loops on the PSTN.

In order for a market to be defined it does not need to exist in practice. Many hypothetical markets have been identified for the purpose of application of regulatory remedies. A hypothetical market can be said to exist where two conditions are met; there is potential demand and there is potential supply. If this cable WBA market

[16] Commission Recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation - C(2007) 5406
and
Explanatory memorandum of the Recommendation - SEC(2007) 1483

[17] See paras 123-128
[18] See paras 177-183
[19] Cases AT/2009/0970 NL/2008/0827

potentially exists it could be a direct substitute for DSL based WBA (potentially) and that possibility should be considered.

The supply of some sort of third party WBA product on cable networks may be technically possible but the WBA product will be functionally very restricted compared to WBA over DSL[20]. Again from a supply perspective cable will be a very high cost solution for a variety of reasons.

From a demand perspective, there is no evidence of any meaningful potential demand in the past. The high cost of switching that would be involved in Belgium is consistent with the findings in other Member States. While end-users do not observe switching costs such as modems etc, they are real and must (normally) be borne by the supplier. While demand may exist in certain areas which are not yet served by DSL or where third party access seekers have not yet invested, such un-served areas do not constitute a meaningful level of demand in the market context (in the sense that the total demand could not impact of the profitability of a putative price increase).

From a supply perspective several problem also exist beyond the speed of entry in to the market as identified by BIPT which in many ways are even stronger than the absence of demand. The first is the age-old problem which has been long recognised and which does not change even in an all-IP context. Unlike DSL networks, cable is a shared medium in the last drop. This has implication in terms of capacity management and in terms of maintaining existing levels of capacity.

The result is twofold. The first result is that the product which could be produced is significantly less flexible than that which can be produced using a DSL network. This lack of flexibility potentially makes a cable bitstream product the equivalent of resale in the DSL lexicon (at least cable based WBA is not functionally an equivalent to DSL based WBA – see section on technical characteristics below).

The second effect concerns the cost of maintaining available capacity where that capacity is granted to third parties. In such circumstances, these costs have been estimated by others as being prohibitively high. PTS made the following observation in the Swedish market 'The costs of long-term production of a bit flow service in a cable TV network will thus be considerably higher than producing corresponding xDSL-based broadband access, which would also better fulfil the wholesale customers' requirements. The price of the cable TV-based service would thus be unattractive compared with xDSL-based broadband access. A small, but permanent price reduction of 5-10 per cent would not be enough to make a cable TV-based service attractive. The price would probably always be considerably higher than the alternatives, and still not offer the full functionality that they do.'

In the current and previous market analysis[21], BIPT acknowledged that cable networks should not be included in the relevant market for wholesale broadband access. According to BIPT at that time, there was no direct substitutability between

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[20] E.g. report by Excentris: 'Technical evaluation of wholesale broadband access on the HFC network', 23.01.09, CableEurope

21 Case BE/2007/0736: Wholesale broadband access

DSL and cable networks because there are technical and economic considerations that would prevent wholesale clients (such as ISPs) from using a wholesale offer from a cable network operator, as well as cable network operators to offer a product equivalent to bitstream. In its comments letter in response to this case, the Commission did not raise any objections to this portion of the BIPT's analysis. Telenet is not aware of any technical evolutions which alter this objective fact in the period since this notification.

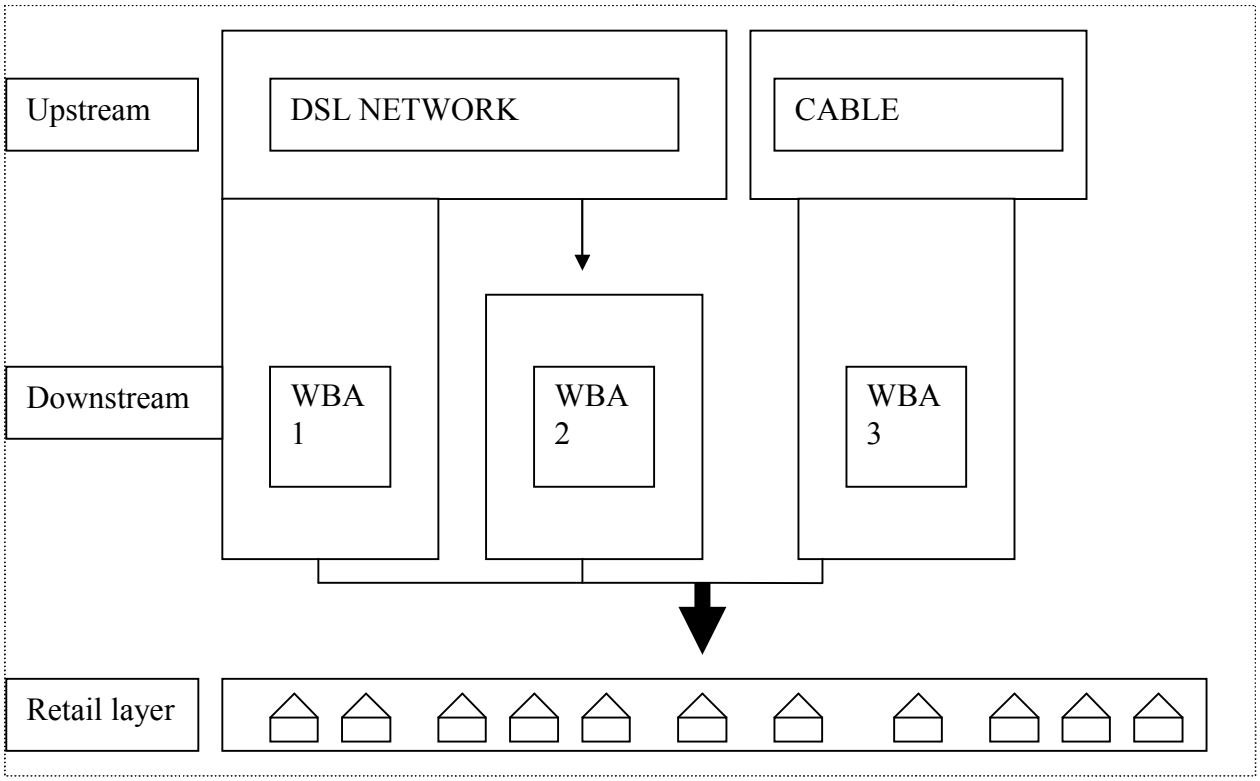
In conclusion, BIPT's finding in the current analysis that there is no direct substitution between cable and DSL based bitstream products is sound and should be maintained but the lack of demand for cable based access products should be highlighted in the analysis.

Indirect constraints

Where a single firm is the only provider of a wholesale service, and where neither wholesale demand nor wholesale supply substitution is putting a competitive constraint on the pricing behaviour, there may still be an indirect pricing constraint coming from the retail level. Under certain conditions, if the price of a wholesale input is raised, the price of the retail products that are based on the wholesale input increases as well, and retail customers may switch to other retail products based on self supplied inputs.

These indirect constraints may arise in a context of a market definition and market power assessments at the retail level which differs from the assessment of the market definition and market power a the wholesale level. Figure 1 seeks to represents a two-tiered industry with intermediate inputs supplying a retail product. In figure 1 the upstream wholesale layer supplies intermediate wholesale inputs to a downstream wholesale layer that supplies final consumers. The firm may be vertically integrated and operate at both layers, or they may operate only at one layer. Firms that are vertically integrated may self-supply only themselves internally or may also supply non-integrated firms at the intermediate wholesale layer.

Figure 2: Indirect Constraints



In figure 1 we can see a situation where there is a supplier DSL Network of an intermediate wholesale input, that is supplied to its own vertically integrated downstream retail arm WBA1 and to independent retailers WBA2. Cable is a supplier of an input serving its own vertically integrated downstream retail arm WBA3.

The firm operating at the upstream level may be constrained "directly" at that level by other firms operating at that level if its product at the intermediate layer is directly

substitutable. However, the intermediate product based on DSL and on Cable are not direct substitutable so that cannot be a source of a constraint in our example.

On the other hand the upstream firm may, alternatively, be "indirectly constrained" by competition between products at the retail level. For example, suppose that the input for WBA3 is not a substitute for the input for WBA2 and that Cable is unable or incapable within a reasonable period to begin to supply a substitute input for WBA2. In this case, there would be no direct constraint on DSL pricing of the input. However, if there is competition at the retail level (to supply final consumers) between firms using the DSL based input and firms using the cable based input, then this competition could potentially constrain the price that DSL can achieve for WBA2. The reason that there is a constraint is because any attempt by the DSL network owner to raise the price for the input will potentially put upward pressure on the retail prices of downstream firms using the DSL network as an input, compromising their ability to compete for final consumers with firms using cable as an input. Any increase in the price of wholesale DSL will then have the effect of reducing retail sales of DSL and increasing sales of Cable (even where DSL and Cable are not direct substitutes at the wholesale level). Therefore, even though the DSL network is not constrained directly by Cable, it is constrained indirectly by competition at the retail level and the ability of final consumers to switch to final products that do not use DSL as an input.

When does an indirect constraint become 'effective'?

The strength of the indirect constraint depends crucially on a number of factors as does the issue of whether an upstream firm has SMP and must be determined on the basis of the particular facts of each case. Where an upstream firm is effectively constrained in the terms and conditions it can achieve for the intermediate input by indirect competition at the downstream level, a finding that the firm does not have SMP would logically follow. However, the first issue that arises is whether the assessment of these constraints should be factored into the market definition stage or deferred to the assessment of market power or the effects on competition. These are the two alternatives which arise; either the market is confined to direct substitutes with indirect substitutes being considered at the market power assessment stage or a broad market is defined and both direct and indirect substitutes are included.

As noted above, an economic approach to market definition attempts to identify and include all relevant competitive constraints that a firm faces. Indirect constraints are reflected in the elasticity of downstream firms' demand for the upstream products and will therefore factor into the relevant upstream market under a SSNIP test if those indirect constraints are strong. The inclusion of indirect constraints which are not very strong may therefore generate market share estimates that overemphasise the range of competitive constraints on the firm under investigation. Therefore indirect constraints should only be considered for inclusion in the defined product market where those indirect constraints are very strong and their exclusion would understate the market of the firm in question.

Where there is an effective indirect constraint, the choice as to where indirect constraints are first considered (at the market definition stage or in the market power assessment) should not affect the outcome on the question of market power. The market can be defined broadly and the firm in question would not have market power within that market, or the market is defined narrowly, but the analysis recognises that the effective indirect constraint that comes from outside the market constrains the behaviour in the market.

Ultimately, from an economic perspective in either approach what is important is that the indirect constraint is strong. A real danger arises in situations where the indirect constraint is not strong and in those circumstances it will matter whether indirect constraints are included in the market definition or not. Where an indirect constraint is not strong and where it is included in the market definition, the broadening of the defined market will serve to understate the degree of market power that a firm has. In the Belgian market, the inclusion of cable in the defined market on the basis of indirect constraints has the effect of reducing Belgacom's market share of the defined market from virtually 100% to 58%. On the other hand, consideration of weak indirect constraints during the SMP assessment is likely to better reflect the actual effect on the operator concerned[22].

The conclusion is that the inclusion or exclusion of cable from the defined market could have a material impact on the outcome of the analysis.

Determining the strength of indirect constraints

It must be determined whether retail demand substitution is strong enough to prevent a hypothetical monopolist provider of the wholesale service in question from profitably and sustainably raising the wholesale price by a small but significant amount. The wholesale volume loss that would make an increase of the wholesale price unprofitable (the "*critical loss*") will depend on the wholesale price-cost margin. Where the wholesale price-cost margin is large, as in the case of local access related wholesale products, a relatively small percentage loss of wholesale volume would already suffice to make the price increase unprofitable.

This critical loss can be compared to the *actual* loss that would emerge from an increase of the price of the wholesale input. The actual impact of the wholesale price increase on wholesale demand is diluted, because it depends on retail demand substitution. The volume loss at the retail level following an increase of the wholesale price depends on four factors:

- *The induced price increase of the wholesale based retail product:* Retail prices can be regarded as being comprised of a number of input costs and one of these input costs is the cost of the wholesale service in question. If the cost of this wholesale input was to increase, and all other elements of the retail service

[22] As stated by the Commission in its decision UK/2007/0733.

remained constant, this would increase the price of the retail product which incorporates the wholesale input. The extent of the retail price therefore increase depends on the share of the wholesale input in the overall cost of the retail product.

- *The price elasticity of demand for the wholesale based retail product:* The price elasticity depends on whether the wholesale based retail product and the retail products based on self supplied inputs are close demand substitutes.

- *The retail margin:* The ability of suppliers on the retail market to absorb any price increase will ultimately depend of the retail margin that will be passed on to end users.

- *On exit, the share of end users reverting to the supplier of the wholesale input:* If the price increase cannot be absorbed and if sensitive customers switch away from the 3rd party DSL provider, if a sufficient number switch to retail products sold by the supplier of the wholesale product (because for instance it is better able to absorb the price increase) then the price increase may still be profitable.

The demand for a wholesale input is derived from the demand for the wholesale based retail product. The price elasticity of demand for the wholesale input is related to that for the retail product. If there is a high substitutability between the retail products based on DSL and cable, it is primarily the cost share that determines the level of the price elasticity of demand for the wholesale input. For example, where the share of the wholesale cost in the retail price of a product is lower than 10 %, the impact of a wholesale price increase on wholesale demand would be largely diluted because end users would see less than 10% of that price increase. The elasticity of demand for the wholesale dsl product would be less than 10 % of the elasticity of demand for the retail product. Hence, a hypothetical monopolist provider of dsl is unlikely to be constrained by retail demand substitution. Only when the share of the wholesale input in the retail price is over 50 %, does the indirect pricing constraint appears to have the potential to become large enough.

Another factor that needs to be taken into account is the margin that is enjoyed at the retail level by parties selling into the retail market. In the first instance, retail suppliers using DSL inputs bought at the wholesale level face a decision regarding how much of the wholesale price increase to pass on to end users. In circumstances where such suppliers enjoy high margins they have considerable flexibility regarding how much of the price increase to pass on to end users. At the limit, if competition at the retail level between cable and DSL based bitstream products was intense and the retail operators using DSL wholesale inputs had a high margin, they could choose to absorb the full price increase themselves such that end-users would be unaffected and no indirect constraint considerations would apply.

Finally, the retail prices charged and/or the retail margin enjoyed by the incumbent operator using its own DSL inputs may not be the same as third parties using inputs based on the DSL network. In this way the incumbent may or may not choose to pass

on the (notional) wholesale price increase even where third party operators choose to do so. When wholesale price increases are fed into retail prices and thereby passed on to end users, some end users may opt for the network of the DSL network owner rather than switch to cable based broadband products. If the price increases would result at the limit in the firm using input based on the DSL network quitting the market, if a sufficient number of that firms customers opted to join the incumbents own network then the constraint imposed indirectly by cable would be necessarily weaker.

Therefore the factors that need to be considered in assessing the strengths of indirect constraints are the following:

1. What is the wholesale share of the end user price? For a wholesale price increase to have any possibility of having a material impact a share of greater than 50% would be required.
2. What is the retail elasticity of demand? How great a price increase would be required in order to provoke retail customers to switch to alternative providers/products?
3. What are the retail margins? Do retail suppliers have sufficient capacity to absorb price increases such that price rises at the wholesale level might not be observed, or observed to a lesser extent at the retail level?
4. If the retail supplier using the wholesale input raises its prices, how likely is it that the incumbent would capture the lost retail sales if they did not raise their own prices?

Evidence regarding the strength of the indirect constraints

1. Retail price elasticity

BIPT skirt the issue of retail price elasticity of demand to a large extent. In BIPT's defence, estimating the retail elasticity of demand is notoriously difficult and requires detailed data based on observable price movements. However, a variety of methods can and are used to make inferences about the degree of price elasticity observable on the market. As noted by the Commission in its comments letter on OPTA's market 5 decision the combination of relatively stable market shares combined with the presence of price premia for those operators with stable share would indicate a lack of price sensitivity on the part of end users[23]. As outlined below, the market share of the main operators in Belgium have remained stable over time even though Belgacom enjoys a significant price premiums on all retail products (see figure 5 below). Figure 2 shows that Belgacom's overall market share has remained broadly stable since 2004 whilst Belgacom's market

23

http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/nederland/registeredsnotifications/nl20080827/nl-2008-0826-0827/_EN_1.0_&a=d

share based solely on DSL inputs in Figure 3 has also shown broad stability since 2002.

Figure 3: Market Share 1999-2010

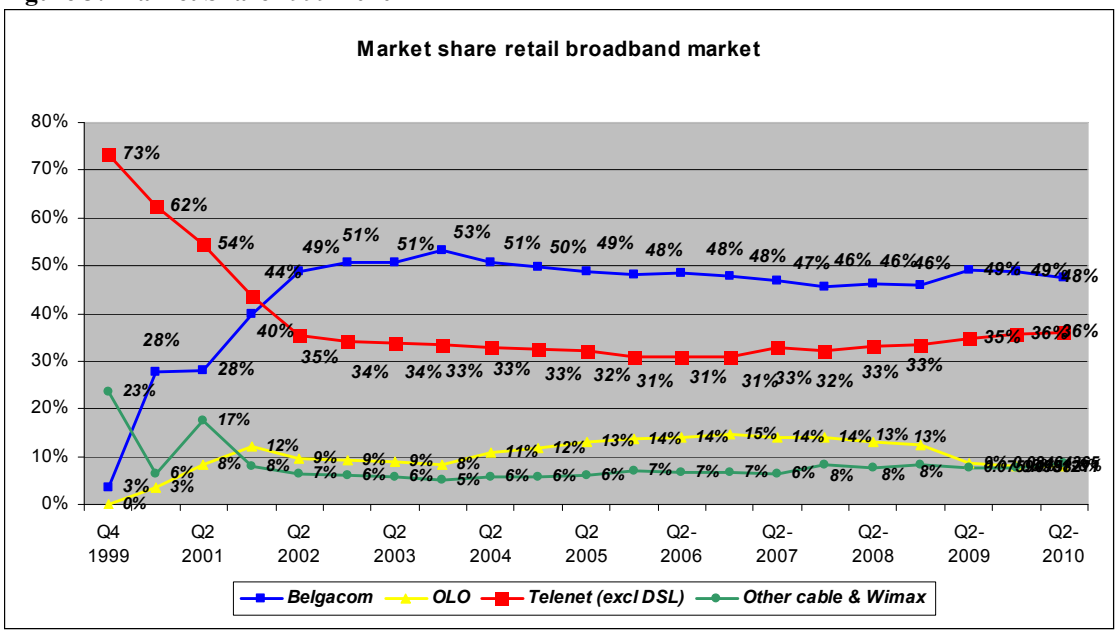


Figure 4: Belgacom Market Share 1999-2010

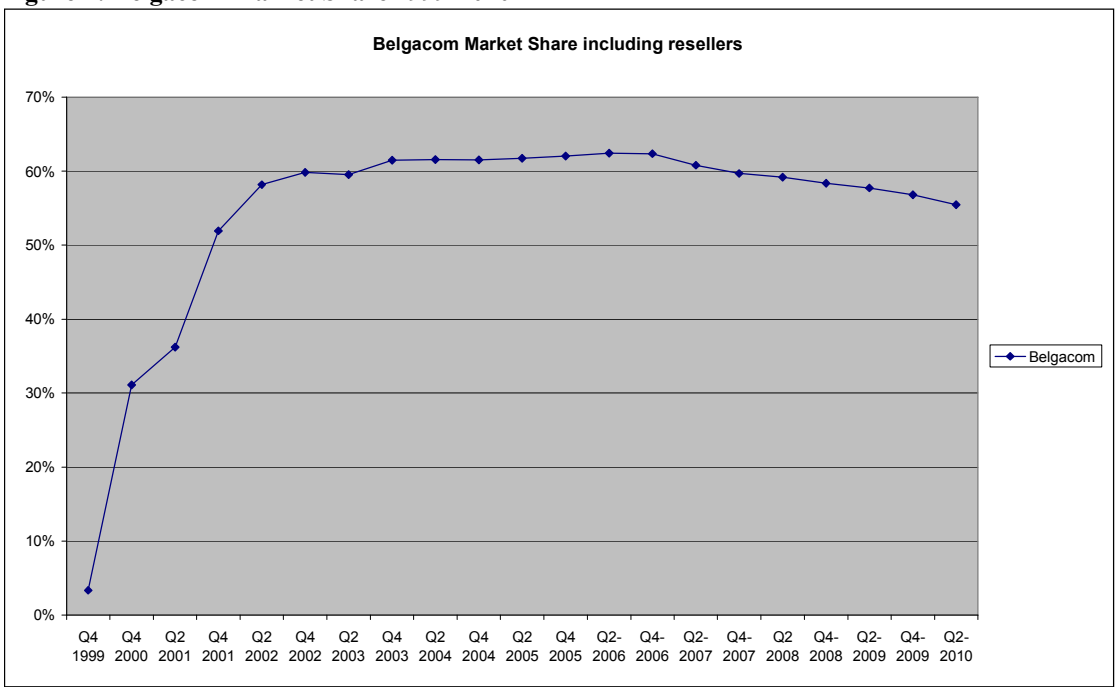


Figure 5: Telenet market share 1999 - 2010

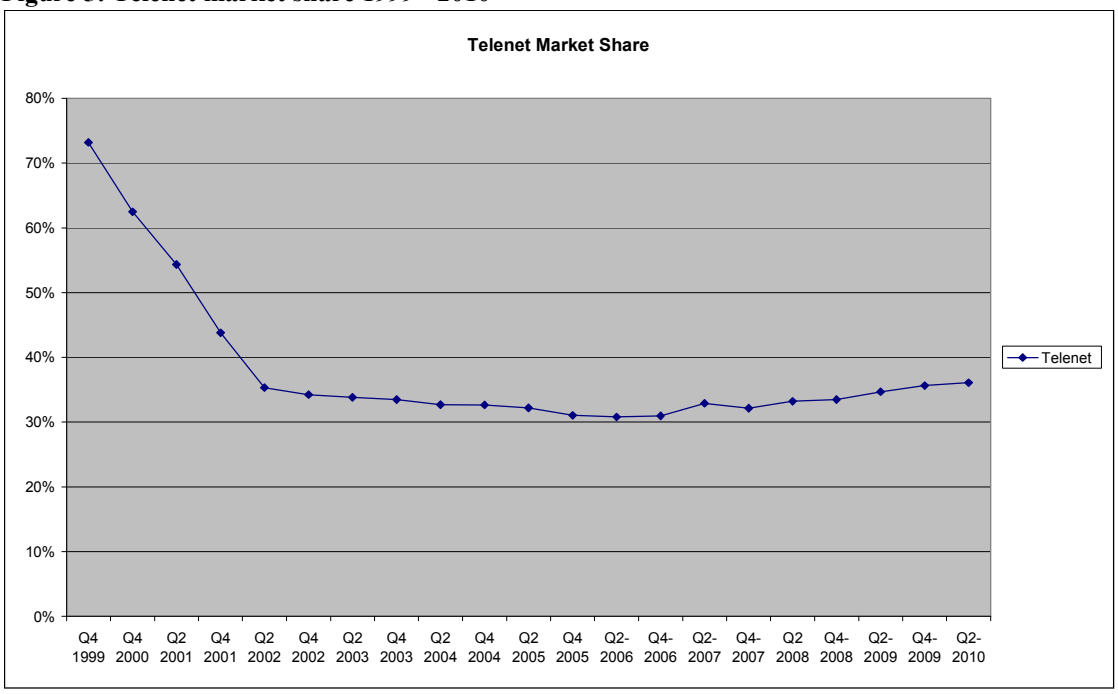


Figure 6: Per Mb Pricing in Belgium[ ]

Taken together these time trend graphs which show differences and movements in terms of prices and market shares suggest that end users do not switch even in the presence of marked price differences. This evidence is further supported by the findings of BIPT's consumer survey which found that on 13% of respondents chose their package on the basis of price.

The conclusion based on the evidence is that therefore must be that retail price elasticity of demand is relatively low.

2. Wholesale share of retail price.

The wholesale share of the end user price is based on the wholesale input costs calculated by BIPT. That cost data suggests that with input costs of [ ] and prices in the retail market ranging from observable price data from [ ] to [ ]. The implication is that with the exception of the product supplied by scarlet [ ] that for all other products the wholesale share of the retail price was less than [ ] and in some cases as little as [ ].

Table 1: Retail DSL charge 1 October 2009
[ ]

In the European Commission's comments on the Dutch case mentioned above the European Commission indicated that *'OPTA notes that the share of WBA prices in the retail prices is 64% for broadband Internet access and 49% for the bundle of broadband and fixed telephony. Especially in the latter case, it is doubtful that competitors would not be able to absorb most of a 10 % price increase in their margin.'* Similarly in a decision regarding market 5 in the Spanish market[24] the European Commission commented that '*The CMT's affirmation that an ISP could not absorb the increase of the wholesale price for the most popular 3 Mb/s products taking into account that the wholesale/retail ratio ranges from 42% to 54.2% depending on the access point is not at this stage of the procedure supported by sufficiently cogent and consistent evidence.'*

The first conclusion is that any price increase at the wholesale level will be significantly diluted at the retail level.

24 http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/espaa/registeredsnotifications/es20080804-0805/es-2008-0804-0805/_EN_1.0_&a=d

A second conclusion is that the capacity of the ISPs on the market to absorb a significant proportion of any price rise at the wholesale level is high implying that the likelihood that end users will see a wholesale price increase passed through is low.

3. Retail margins

A best estimate calculated by Telenet indicates that the retail margin on a broadband only product is in excess of [ ]%. It also follows from the section above that third parties enjoyed a gross margin that ranged between [ ] and [ ].

That data itself suggests that net retail margins are likely to be not only positive but probably quite high. Telenet's best estimate is that the net margins are likely to be in a [ ] range depending on the level and nature of the customer acquisition.

The margin on a broadband product sold as part of a bundle (together with VoIP) is estimated to be less than on the stand alone product (reflecting the relative weighting of costs on the traditional PSTN line) but is again estimated to be not less than [ ].

In such circumstances, taken together with the evidence provided in the previous section regarding the share of WBA products in end-users prices, ISPs enjoy significant opportunities to absorb some or all of any price increase imposed at the wholesale level.

BIPT arrive at the same conclusion regarding the wholesale share of the retail price and the retail margins as is demonstrated in figure 5.12 of their analysis.

This finding looks robust on the basis of their analysis.

4. The likely direction of 'lost' DSL customers

In the event that Belgacom raised its wholesale price for WBA, the fact that ANOs enjoy a significant margins means that there is more flexibility about whether to pass on that price increase to end users or not. In the event that it does not pass on the price increase, Telenet believes that DSL operators are likely to win back most of the broadband customers lost through third party providers.

It is very difficult to estimate where end users quitting a retail provider of DSL are likely to go. The starting presumption might be that each operator captures these customers in proportion to their market share.
[ ] The conclusion is that Belgacom would capture more than 60% of customers either directly or indirectly lost by third party operators as a result of retail price increase resulting from increases at the wholesale level.

The analysis of BIPT on this point in section 5.3.1.8.3.2 is robust and shows clearly that in the absence of regulation, an increase in the price of WBA feeding through to the retail level would lead to a switching back to Belgacom.

The conclusion is that even if a wholesale price increase did feed through to the end user prices, any switching induced would be mostly towards Belgacom itself.

Conclusion

Of the four elements identified as being important to determining the strength of indirect constraints, all evidence available suggests that those indirect constraints are likely to be very weak in the Belgian market.

The available evidence suggests that the retail price elasticity of demand is relatively low given the fact that operator's market shares are stable and that pricing is not homogeneous (some operator's pricing is clearly higher than other operators for comparable products). Survey results also show that pricing has not been a driver of consumer choices in Belgium.

The wholesale input's share of the retail market is typically less than 50% (and very close to 50% where it is above) meaning that any price increases at the wholesale level will be greatly diluted at the retail level.

This factor, taken together with the fact that retail margins are significantly positive indicates that ISPs may choose to absorb any wholesale price increase at the retail level, implying no observable retail price effect.

Finally, in the event that a price increase did filter through to the retail level, the available evidence suggests that most retail consumers are likely to opt for Belgacom's own retail arm or other DSL based operators rather than migrate en-mass to a cable operator.

In terms of the European Commission's own standards[25] for assessing the strength of indirect constraints it is clear that indirect competitive effects coming from cable based broadband products on DSL based broadband products are very weak.

BIPT's analysis of indirect constraints comes to the correct conclusion despite certain omissions.

The dangers of including cable in the defined Market

As noted already, there is a risk of market power being understated if weak or

[25] In particular as set out in
http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/uk/registeredsnotifications/uk20070733/uk-2007-0733_actepdf/_EN_1.0_&a=d
and
http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/espaa/registeredsnotifications/es20080804-0805/es-2008-0804-0805/_EN_1.0_&a=d

ineffective indirect constraints are included in the relevant market and BIPT are right to exclude cable from the defined market. If weak constraints are automatically taken into account at the market definition stage, then there is also a risk of distorting the SMP assessment and understating the real extent of market power at the wholesale level.

The European Commission has itself made this observation on a number of occasions most explicitly in UK/2007/0733 where it stated that

Ofcom appears to consider sources of indirect constraint at the wholesale market definition stage of the analysis because of a perceived risk of market power being overstated if indirect constraints are not included in the relevant market. Conversely, however, if weak constraints are automatically taken into account at the market definition stage, then there is also a risk of prejudging the SMP assessment and understating the real extent of market power at the wholesale level by including self supplied market shares for all vertically integrated competitors irrespective of whether they are actually constraining the market behaviour of the incumbent. Because any price increase at the wholesale level is diluted when it is passed through to the retail level, substitution may occur on a smaller scale in response to the smaller retail price increase. This however depends on the degree of customer responsiveness at the retail level. Thus, caution should be afforded when interpreting market shares based on indirect constraints.[26]

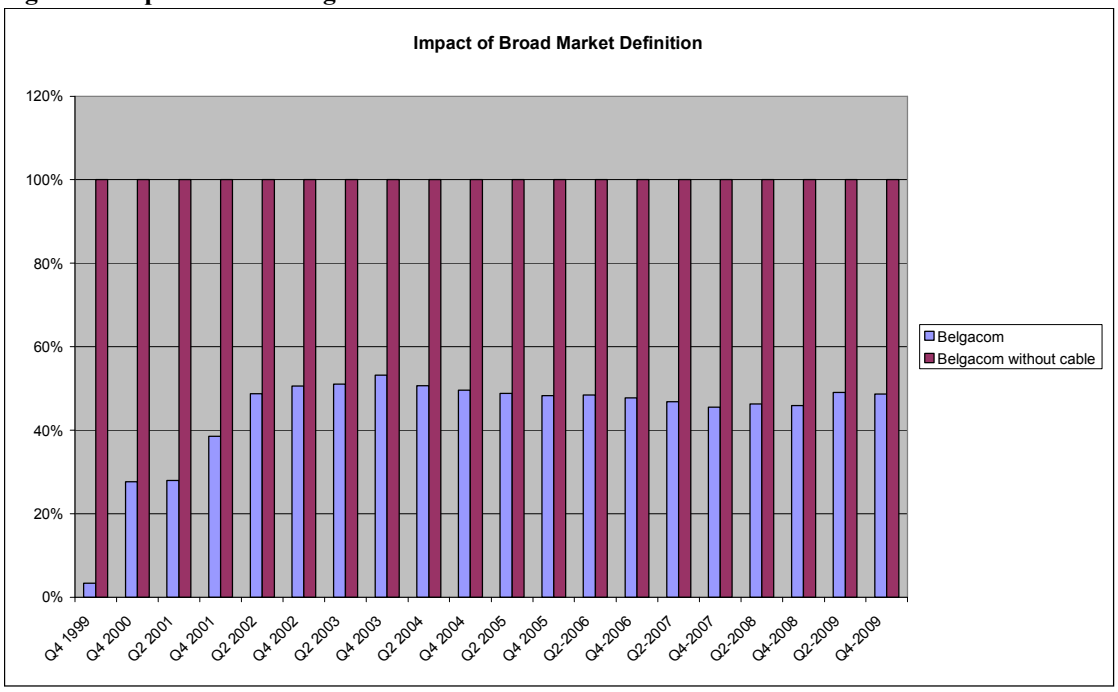
Market definition is not an end in itself but it should seek to identify in a systematic way the competitive constraints that the undertaking faces.

The purpose is to identify the actual and/or potential competitors of the undertakings that are capable of constraining their behaviour and of preventing them from behaving independently.

The reason that there is reluctance to include products which induce indirect constraints in the defined market is that to do so would over-emphasise the range of competitive constraints on the firm under investigation.

[26] Ibid

Figure 7: Impact of including cable in the market on Market Share



The fact of a potential constraint coming from cable is dependent in the first instance on the strength of that indirect constraint. If the indirect constraint is strong and potentially effective in constraining the behaviour of the DSL product then its inclusion in the defined market may be appropriate. The indirect constraint is not strong in the instant case and so its immediate effect is to dilute the potential SMP observable on the DSL market.

Finally, as observed by the European Commission in Case NL/2008/0827[27] an NRA must consider in the event of a wholesale price rise finding its way through to end users that:

…the customers of the ISPs would not switch to a significant extent to the retail arm of the integrated hypothetical monopolist, in particular if the latter does not raise its own retail prices.[19] [Footnote 19 states: For example, the hypothetical monopolist could increase its wholesale price while sustaining lower retail prices than the ISPs which purchase its wholesale product without exercising a margin squeeze and could thus gain retail customers from the ISPs while not losing customers to alternative platforms. This could make the price rise profitable.]

This point is not only important in determining the strength of the indirect constraint but also goes to the heart of what the European Commission refers to as *a risk of prejudging the SMP assessment and understating the real extent of market power* in UK/2007/0733. If cable is included in the defined market then the starting point in relation to this assessment would probably be that Belgacom would capture its market share. However, Belgacom's market share would vary from 47% to 84.5% at the retail level and would vary from 58% to 100% at the wholesale level depending on whether cable is in the market or not. Furthermore, it is appropriate to consider whether Belgacom would capture not only its DSL market share on a broad market (as an

27 http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/nederland/registeredsnotifications/nl20080827/nl-2008-0826-0827/_EN_1.0_&a=d

approximation) but also its share of the market absent cable implying that Belgacom could expect to capture as much as 85% of the lost sales. Such an analysis is likely to be lost with a broad market definition and is likely to significantly underestimate the strength of Belgacom's position on the relevant market. As observed earlier, in the limited examples of DSL operators quitting the market in Belgium, the evidence would suggest that there is zero leakage to other platform operators.

Therefore BIPT is right to exclude cable from the defined market and to consider the impact of the cable operators in the market power assessment conducted on the DSL network.

Geographic market definition in Belgium

According to Section 56 of the SMP Guidelines[28], the "relevant geographic market comprises an area in which the undertakings concerned are involved in the supply and demand of the relevant products or services, in which area the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different."

In Section 59 of the SMP Guidelines it is recalled that in the electronic communications sector, the geographical scope of the relevant market has traditionally been determined by reference to two main criteria:

(a) the area covered by a network; and
(b) the existence of legal and other regulatory instruments.

A definition of regional markets for WBA would constitute a deviation from case law[29] because markets thus defined would be narrower than the coverage of the network of the incumbent.

Therefore definition of regional markets for WBA would necessitate a particularly careful justification. Given that the definition of regional WBA markets (i) would probably cover areas that would normally be smaller than the network coverage of the incumbent, and (ii) would in most cases not depend on differences in the applicable regulatory framework, it is necessary to identify other factors that could justify a regional segmentation of WBA markets, in particular de-averaging of prices and regional differences in infrastructure deployment.

BIPT could not propose a regional differentiation of WBA markets unless WBA prices have been de-averaged[30]. Even if wholesale prices are de-averaged, it would have to be clarified if such de-averaging is due to differences in competitive constraints or variations in the underlying costs (e.g. to higher population density or the absence of ancillary backhaul costs).

In order to determine that regions supported different degrees of infrastructure competition, this must result in regional variations of prices at retail level. Regional segmentation of WBA markets would be difficult to accept if retail prices for broadband access are not de-averaged since, what otherwise would be the effect of different levels of competitions in different areas? The Commission advises that its working hypothesis is that areas where similar market shares persist and similar

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28 Commission Guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (the "SMP Guidelines"), OJ C 165 11.7.2002, p. 8.

29 See e.g. Case COMP/M.1650 -ACEA/Telefónica; Case IV/M.1439 - Telia/Telenor, paragraph 124, Case IV/M.1430, - Vodafone/Airtouch, paragraphs 13-17, Case COMP/JV.17 - Mannesmann/Bell Atlantic/Omnitel, paragraph 15, and Case IV/M.570 - TBT/BT/TeleDanmark/Telenor, paragraph 35.

30 It has to be noted that in regulated markets de-averaging might not be possible due to price control obligations. In such an event conditions of competition would have to be analysed absent regulation according to the Greenfield approach,

pricing exists should prima facie be considered to be the scope of the geographic market:

28. The Commission's approach to geographic market definition might be summarized as follows: it will take a preliminary view of the scope of the geographic market on the basis of broad indications as to the distribution of market shares between the parties and their competitors, as well as a preliminary analysis of pricing and price differences at national and Community or EEA level. This initial view is used basically as a working hypothesis to focus the Commission's enquiries for the purposes of arriving at a precise geographic market definition[31].

The observable facts are that Belgacom has close to 100% of the WBA market and that its pricing is homogeneous over their entire network area. Belgacom could choose not to de-average prices for several reasons. Marketing costs could increase if Belgacom was to offer different prices according to regions. Further, Belgacom is still owned (at least partly) by the public and therefore would face political pressure if it raised prices to end users in low density areas. It needs to be clarified if the possibility of appreciable differences in the prevailing conditions of competition at wholesale level can be excluded from the outset because no such differences exist at retail level.

Even if it were determined that there are appreciable differences in infrastructure competition and/or that there is de-averaging of prices, this would not necessarily imply that demand for WBA is not national in scope. It seems that at least for operators who need WBA in order to provide solutions for multi-site businesses[32] it will be necessary to purchase a wholesale input at a national level. In practice, such operators would bid against the incumbent and might be obliged to buy wholesale inputs from the incumbent or other operators in areas where they have not rolled out infrastructure themselves. If the WBA market was segmented regionally, the incumbent would only be obliged to provide WBA in the areas where it has been found to have SMP. Therefore the alternative operator could be forced to negotiate WBA with several players, which might not be realistic in the timeframe available for making the bid.

The Commission's practice on geographic segmentation is best illustrated in comments made in relation to the UK[33] and Spanish[34] Market 5 cases.

The Guidance from the UK case (albeit in the context of deregulation) suggested certain lines of enquiry regarding the establishment of different geographic markets. In that comments letter, behavioural data such as differentiated retail or wholesale pricing, different market strategies or sales channels in different regions were considered important. Emphasis was also drawn to structural characteristics such as market share evolutions, the stability of market boundaries and the functionality of the product offerings were also identified as important. The mere presence or absence of a given structure in terms of the presence of certain operators was not considered important in and of itself.

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31 Commission notice on the definition of relevant market for the purposes of Community competition law [Official Journal C 372 of 09.12.1997].

32 See for example NL/2005/0281 and AT/2008/0757 ~ AT/2009/0970

33 UK/2007/0733: Wholesale Broadband Access in the UK

34 ES/2008/0805: Wholesale Broadband Access in Spain

Similarly, in opening a Phase II investigation in relation to the Spanish case, the Commission raised doubts about the establishment of separate geographic markets where LLU operators and Cable operators were stronger. The Commission identified therein the kinds of evidence which they felt would be pertinent in that case to justify geographic segmentation and which are very consistent with those identified in the UK case.

'... correspond to elements that point to the existence of different conditions of competition in the wholesale broadband access market across Spain, such as :

- different geographic commercial strategies of operators in area 1 as compared to area 2,
- an indication of lower average retail prices in area 1 because of genuine competition at retail level,
- differences in the functionalities or types of services offered in each of the two areas,
- the possible decline of Telefónica's wholesale and retail market shares in area 1,
- stability of the boundaries between the areas including the question whether the, NGA deployment is likely to modify the competitive conditions and affect any such boundaries between areas and
- evidence of an overall trend towards effective competition in respect of area 1'.

Taking these elements and considering them in a Belgian context we can see that there is no evidence of different strategies in place between different operators in different parts of Belgium. There is certainly uniform pricing enacted by Belgacom with zero regional operations or promotions and the service functionality provided does not vary by region. It is true that historically Telenet had a more developed network than other Belgian cable networks and that Telenet has a consequently higher market share in Flanders (and Belgacom a lower market share, than it has nationally). However, this regional difference in market shares has not affected Belgacom's behaviour on the market. On the contrary, Belgacom acts precisely the same on the WBA market throughout Belgium with no regional variation. In terms of product offering, functionality is equivalent throughout Belgium and sales and marketing are also delivered uniformly. Such pricing and market behaviour suggests that Belgacom does not perceive itself as being under more or less competitive pressure for WBA customers in one part of Belgium compared to another.

All evidence therefore suggests that there is a national market for Wholesale Broadband Access in Belgium.

Therefore the conclusion reached by BIPT in relation to the geographic scope of Market 4 and Market 5 is correct.

Remedies and the modified greenfield approach

BIPT judges that Market 4 (LLU) and Market 5 (WBA) both demonstrate SMP and impose remedies to facilitate entry. It is judged that these are sufficient since a resale option is not deemed worthy of consideration. However, in another context (Market 18) BIPT proposes to impose a broadband resale obligation on Telenet and the other cable operators.

In this section, we consider some of the elements in such a decision and conclude that:

a) it would be inappropriate to impose a resale remedy on any party other than Belgacom
b) a resale remedy is likely to have little or no direct impact on the market.
c) a resale remedy will benefit Belgacom by diverting BIPT's resources from implementing effective remedies on the DSL network.

The Commission advises that '*...Having defined retail markets, which are markets involving the supply and demand of end-users, it is then appropriate to identify the corresponding wholesale markets which are markets involving the demand and supply of products to a third party wishing to supply end-users.*'[35]

In effect, a retail market is specified and the question that arises is 'in the presence of entry barriers and the other criteria being met, what wholesale inputs must be made available to third parties so that they can offer services to end-users? The Commission has also specified what those potential wholesale markets are:

'There are three types of wholesale services that a new entrant can build on to offer retail broadband services:

(i) a pure resale service, where the new entrant resells the incumbent's broadband connection to the end user and does not invest in own infrastructure, (ii) bitstream, where the new entrant builds its own backbone but relies on the incumbent's infrastructure for the lower and middle parts of the network, and (iii) local loop unbundling where the new entrant relies on the incumbent's infrastructure only for the so-called "last mile".

The ladder of investment theory implies that new entrants pass gradually from relying on (i), via (ii) to (iii). In order to undertake investments in network development, they first need to be able to develop a sufficiently large retail customer basis relying on the network infrastructure of the incumbent.'

A retail market exists which third parties wish to service and a viable access mechanism exists through the PSTN in the form of bitstream and LLU. There is

[35] Commission Recommendation on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation - C(2007) 5406
and
Explanatory memorandum of the Recommendation - SEC(2007) 1483

demand for these access products and such access products are supplied on regulated terms. Another access market potentially exists in the form of broadband resale which is capable of supplying the retail market directly.

No demand exists today for such an access product on Cable networks though unregulated transactions take place over DSL networks. This is not unusual since bitstream access gives a vastly superior access mechanism on the DSL platform compared to cable. No party has credibly engaged with Telenet for any form of broadband access which is also understandable given the fact that cable networks are (a) not designed or technically equipped to supply a good third party access product and (b) that any such access product would likely be much more expensive than access over the PSTN.

However, if these issues are set to one side and consider that there was large scale and credible demand (at some predefined price) would it be justified to oblige another network to open access for third parties on regulated terms?

From a public policy perspective the sequence of question and answer ought to be, is there SMP at the retail level and if the answer is yes then can the NRA give access at the highest point (physical access or LLU) in the supply chain and see if that resolves the SMP. If that does not resolve the SMP then the NRA must grant access to wholesale inputs further down the supply chain (bitstream) and then on to resale.

In the explanatory memorandum to the Recommendation on Relevant Markets the Commission highlights this approach as being the modified greenfield approach.

Certain of the markets identified in the Recommendation are interrelated and for NRAs there is a logical sequence for analysing these markets.

In general, the market to be analysed first is the one that is most upstream in the vertical supply chain. Taking into account the ex ante regulation imposed on that market (if any), an assessment should be made as to whether there is still SMP on a forward-looking basis on the related downstream market(s). This methodology has become known as the "modified greenfield approach". Thus the NRA should work its way along the vertical supply chain until it reaches the stage of the retail market(s). A downstream market should only be subject to direct regulation if competition on that market still exhibits SMP in the presence of wholesale regulation on the related upstream market(s).

For example, with regard to wholesale broadband access, it is recommended that NRAs first analyse the market for local loop unbundling. Taking into account regulation imposed on that market, the market for wholesale broadband access should then be analysed. If that market continues to exhibit SMP on a forward looking basis despite the presence of LLU regulation (unless the NRA finds that the market no longer fulfils the three-criteria test and excludes it from regulation on that basis), appropriate regulation on the wholesale broadband access market should be imposed.

The Broadband Resale market sits downstream to market 5[36].

The imposition of wholesale obligations related to that market in the form of a wholesale broadband resale remedy is entirely at odds with the proper functioning of the Regulatory Framework.

It should be noted that SMP at the retail level does not require retail regulation unless no wholesale intervention could resolve that SMP. As noted by the Commission: *The identification of a retail market (as part of the value chain) for the purposes of ex ante market analysis does not imply, where there is a finding of a lack of effective competition by a NRA, that regulatory remedies would be applied to a retail market. Regulatory controls on retail services can only be imposed where relevant wholesale measures would fail to achieve the objective of ensuring effective competition at retail level*[37].

However, since wholesale remedies have been sufficient to control SMP in every Member of the EU to date, it must be inferred that there are existing remedies that are capable of controlling retail SMP if applied correctly and efficiently. Relevant wholesale measures would only fail therefore on foot of a poor specification or application, reasons which could not justify some form of retail market regulation.

Certain Member States do indeed impose broadband resale obligations in the context of market 5. However, resale as a competitive entry mechanism is a second best solution. As noted by BEREC resale remains the lowest point on the ladder of investment and is normally followed by migration to bitstream and then on to LLU. The Commission recently noted that these '*Resale lines are not significant anymore at EU level with the unbundlers climbing the ladder of investment to the benefit of more investment intensive forms of competition.*'. As an access product resale was important at a certain point in the market's evolution but as access products (and delivery processes) improved it went into steep decline. In terms of metrics, resale lines represented 44.21%[38] of all access lines in 2004 but by mid-2010, resale lines represented 3.1 %[39] of all broadband lines.

The evidence therefore suggests that the remedy is not likely to make a material impact on the market, regardless of the negative impact on Telenet.

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[36] As noted by the commission in SEC (2007) 962 'There are three types of wholesale services that a new entrant can build on to offer retail broadband services: (i) a pure resale service, where the new entrant resells the incumbent's broadband connection to the end user and does not invest in own infrastructure, (ii) bitstream, where the new entrant builds its own backbone but relies on the incumbent's infrastructure for the lower and middle parts of the network, and (iii) local loop unbundling where the new entrant relies on the incumbent's infrastructure only for the so-called "last mile". The ladder of investment theory implies that new entrants pass gradually from relying on (i), via (ii) to (iii). In order to undertake investments in network development, they first need to be able to develop a sufficiently large retail customer basis relying on the network infrastructure of the incumbent.'

[37] Ibid

[38] http://circa.europa.eu/Public/irc/infso/cocom1/library?l=/publicsdocuments2004/cocom04-20_broadband/_EN_1.0_&a=d

[39] http://circa.europa.eu/Public/irc/infso/cocom1/library?l=/public_documents_2010/cocom10-29_final/_EN_1.0_&a=d

In the logic of the market analysis approach put forward by the Commission, BIPT should have, and presumably did do, an assessment of whether the bitstream market remedies (together with market 4 remedies) are sufficient to remove retail SMP for the broadband market. If BIPT concluded that these remedies were sufficient, then no further action ought to be taken.

The result of the assessment by BIPT is that the retail market SMP would have been resolved or controlled by ULL and bitstream remedies since no further action is taken with respect to a potential broadband resale market subsequent to the bitstream intervention put forward with respect to market 5.

Indeed, implicit in the actions of BIPT is an assessment that a market 5bis (Wholesale Broadband Resale) is effectively competitive and so under Article 16 (3) of the Framework Directive no remedy can be imposed.

Furthermore, the procedure advocated in the Recommendation on Relevant markets indicates that the SMP originates from Belgacom in Market 4 and also in Market 5. In these circumstances, the only conceivable SMP party is Belgacom in the downstream markets.

Indeed, it also follows from BIPT's analysis that Telenet cannot have market power since they are explicitly deemed to be non-SMP by BIPT in markets 4 and 5.

The imposition of wholesale obligations related to those markets is entirely at odds with the proper functioning of the Regulatory Framework since Article 16 (4) of the Framework Directive only provides for remedies to be imposed on undertakings with SMP.

What therefore is the appropriate remedy to be imposed? A previous analysis of BIPT drew comments from the European Commission[40] that noted that the most likely reason for any failure at the retail level resulted from a failure of LLU implementation in Belgium:

One reason for the rather stagnant retail competition could be the fact that the Belgian market is characterised by a low presence of operators relying on local loop unbundling. In this respect, it is worth noting that the growth of local loop unbundling only started to show some developments in 2006 and remains significantly low at a level of around 1% of unbundled lines.

However, since this letter was issued, LLU in Belgium has not grown significantly such that today approximately 3% of all access lines in Belgium are based on LLU. To put this performance in context, that's a comparable level of unbundling to the United States of America where there is a very limited obligation in place (normally referred to as a regulatory holiday!). This result may be explained by a number of factors, the relatively high price of unbundling in Belgium at an estimated €11.10 versus an EU average of €9.75 is undoubtedly an important consideration. However, it is also clear that the early migration to vDSL in the Belgacom network and the

40 http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/belgiquebelgi/registeredsnotifications/be20070735-0736/be-2007-0735-0736/_EN_1.0_&a=d

resulting need for entrants to deploy (or buy) network to street cabinets will adversely affect the desirability and effectiveness of LLU as the remedy of first resort.

The mistake in implementing a functioning LLU offer were compounded by further mistakes made in the bitstream product that was delivered. The bitstream product historically required by BIPT of Belgacom lacked the functionality needed to make it a credible offering in the Belgian market. Specifically, the lack of multicasting ability on the bitstream product has resulted in only 14.3% of all access lines on DSL being based on LLU or bitstream.

With less than 8% of all access lines in Belgium based on either LLU or bitstream, it may be that a broadband resale remedy is required on the Belgian market in the context of this wholesale market. However, does anyone believe that entrants will use a cable based broadband access product and then switch to DSL once it has built its base? What is the strategy or reasoning behind such a decision? Surely, if a resale product is required Belgacom is the appropriate party to give access? There is an existing (unregulated product); there is a progression that can be made to further steps in the ladder of investment.

The imposition of a broadband resale product as a remedy in Market 18 can only be based on a suggestion that opening access to a cable based bitstream product might create a competitive dynamic that would drive the retail broadband market in Belgium. This suggestion has principally been championed by Belgacom. The fact that Belgacom is the main protagonist seeking to have the Telenet network opened up diminishes the credibility of its argument that access to the Telenet network is likely to satisfy some pent-up demand. If a large number of third party operators were suddenly prepared to take access from Telenet, then Belgacom would have no interest to see Telenet's network opened since that would create competition to Belgacom on the wholesale market.

However, Belgacom realise that there is in fact no demand for access to the Telenet network and that a requirement to put such a wholesale access product in place would (a) weaken Telenet by imposing unnecessary direct costs while at the same time diverting as much as [ ] of Telenet's internal system developers, thereby undermining Telenet's ability to bring new and innovative services to market and (b) grant Belgacom a further reprieve from the effective implementation of LLU and bitstream access remedies. If Belgacom can divert attention from the abject failure of the wholesale DSL markets onto cable operators then it can continue to dominate the DSL based customers. Telenet can understand why Belgacom would seek such an outcome for its own commercial advantage but cannot see any reason for BIPT to give any support for Belgacom's requests.

What therefore would constitute an appropriate remedy in Market 5? Telenet has observed that the competitive entrant community in Belgium issued a report[41] in March 2010 which identified the inadequate remedies placed on Belgacom and the policing and enforcement of those remedies on the market as the reason that competition has not performed as well in Belgium as might have been expected:

[41] http://www.ectaportal.com/en/upload/Press%20Releases/2010/Europes_Digital_Deficit.pdf

The ability of alternative operators to compete against bundles depends on the ability to obtain wholesale inputs which would allow a similar offer. LLU is one such product, and is being successfully used in France, for example: but (as noted above) unbundlers have not been able to make progress in Belgium. However, one 'rung' of the ladder of investment is missing because the incumbent offers no support for the multicast functionality needed to deliver TV on its wholesale bitstream products.

….

- *or by requiring the provision of a more capable bitstream product through 'traditional' remedies (e.g. obligation to supply, price control). Such an approach requires detailed supervision and past delays, if repeated, would make this an ineffective option.*

Should broadband resale be imposed? As noted above by the European Commission, the lowest level in the value chain (before the retail market itself) is a broadband resale product. If BIPT believes that Bitstream is not going to be an effective remedy then it ought to then examine the need for, and desirability of a broadband resale product in the context of the relevant market and that is the broadband market. BIPT does not conduct such an analysis and therefore finds that bitstream is sufficient to constrain SMP at the retail level. It may well be that this an analysis is without merit, no other country in Europe has experienced such an abject failure of its retail products, perhaps the decision not to regulate wholesale broadband resale should be reconsidered.

However, it is clear that if a wholesale broadband resale obligation is required, it can only be required on the SMP operator, the operator who has other product on the ladder of investment, the operator who can facilitate network access competition deeper in the value chain. That is Belgacom. That is not Telenet.

Finally, as noted most recently in Case SE/2010/1061&1062 the Commission considers that a finding of SMP should not have ancillary remedies applied which could pertain to another relevant market where SMP could be identified.

Specifically, and as set out above, Wholesale Broadband Resale (WBR) is clearly located downstream from the WBA market and the lines between the two are not always clear. Many NRAs have in the past had to specifically identify its non-inclusion while others (notably Germany) have explicitly regulated WBR on foot of a Market 5 SMP finding.

In the Swedish broadband case, with respect to backhaul as an ancillary service to the broadband market, the Commission noted that:

'The Commission recalls that the proposed obligations should in principle pertain to the relevant product market in which SMP has been found. Whilst not contesting the market definitions and SMP findings for the two notified markets, the Commission is not convinced that the proposed backhaul obligation is intended to remedy an SMP finding in the product markets covered by the notifications, but instead may pertain to a potential finding of dominance in another relevant market.'

In conclusion therefore, BIPT are correct to impose the remedies they have in Market 5 including the obligation to impose multicasting. However, imposing remedies broadband resale remedy on Market 18 is counterproductive since:

1. This remedy has been shown to be ineffective
2. The cost of effort of imposing it on cable is very much greater than on DSL
3. DSL is dominant in the relevant retail market, Telenet is not dominant in a relevant retail market
4. Its imposition is at odds with a number of provisions of the regulatory framework.
5. If the imposition of a broadband resale product is required, it implies that the remedies imposed on Market 4 and Market 5 is not appropriate and need to be expanded to include such a resale product.

Relevant Technical Characteristics of the Cable Networks

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