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2 november 2016

ZIENSWIJZE

op het

ONTWERP- TARIEFBESLUIT ONTBUNDELDE GLASTOEGANG (FTTH)
Zoals ter consultatie gepubliceerd op de website van ACM en aangekondigd in *Stcrt.* 2016, 50399.

1. In deze zienswijze geeft T-Mobile haar reactie op de door ACM ter consultatie gepubliceerde ontwerp voor het Tariefbesluit ontbundelde glastoegang (FttH), kenmerk ACM/DTVP/2016/205605_OV (**"het ontwerpbesluit"**), alsmede op relevante delen van het rapport 'The WACC for KPN and FttH' van The Brattle Group. De analyse van ACM in het ontwerpbesluit is op een aantal essentiële punten op dat rapport gebaseerd.

2. Een aantal in het ontwerpbesluit opgenomen tarieven worden vastgesteld op basis van de WPC/EDC-methodiek. Een fundamenteel bezwaar tegen deze methodiek blijft dat deze inherent niet transparant is voor marktpartijen. Dit wordt in het ontwerpbesluit verder versterkt doordat ACM slechts zeer summier ingaat op de beoordeling van op WPC/EDC gebaseerde kostenelementen. T-Mobile kan zich daardoor geen goed oordeel vormen over die beoordeling.

3. Hetzelfde geldt voor de vaststelling van de IIR als onderdeel van de DCF-methodiek. Ook hier geldt dat gegevens in het ontwerpbesluit grotendeels als vertrouwelijk worden aangemerkt en dat ACM haar analyse slechts beperkt toelicht.

4. T-Mobile ziet zich daardoor genoodzaakt om haar inhoudelijke reactie in deze zienswijze te beperken tot de vaststelling van de all-risk WACC in het kader van het DCF-methodiek.

5. De in het ontwerpbesluit gehanteerde all-risk WACC is veel hoger dan wat een redelijk rendement zou zijn voor de relevante investeringen. Elk van de drie elementen van de all-risk WACC is te hoog vastgesteld. Dit wordt in meer detail onderbouwd in de bij deze zienswijze opgenomen **bijlage**, die als integraal onderdeel van deze zienswijze moet worden beschouwd.

6. In het licht van het voorgaande verzoekt T-Mobile ACM het besluit in de definitieve versie aan te passen met inachtneming van wat T-Mobile daarover in deze zienswijze, inclusief de bijlage daarbij, heeft opgemerkt.

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BIJLAGE: ANNEX ALL-RISK WACC

ANNEX ALL-RISK WACC

This annex sets out T-Mobile's response to key elements of ACM's consultation on the tariff for unbundled fibre access (FTTH).

The proposed "all-risk WACC"

T-Mobile believes that ACM's proposed "all-risk WACC" is far in excess of a reasonable rate of return for the relevant investment. In particular, each of the three elements of the "all-risk WACC" have been estimated at excessive levels. Our analysis leads to a significantly lower "all-risk WACC" appropriate to KPN's current fibre investment.

	Consultation's proposed all-risk WACC	Updated WACC for KPN's current fibre network
Local loop WACC	4.54%	3.40%
Mark-up for higher systematic risk of fibre	2.0%	0.0%
Mark-up for asymmetric risk	3.50%	<3.50%
All-risk WACC	10.04%	<6.90%

The WACC for KPN's existing copper local loop

ACM states (para. 34) that the first element is "*the WACC applicable to the existing copper local loop*". However, the WACC is actually calculated by the Brattle Group with respect to KPN's company-wide beta. We have identified two problems with the use of company-wide beta and an additional problem with the estimated WACC for KPN in that KPN has recently re-financed its debt with a substantial impact on its cost of debt.

Use of a company-wide beta overstates the beta for broadband

First, KPN's company-wide WACC will reflect risks of a range of activities with significantly different risks to those of a fixed broadband network. For instance, a large share of KPN's revenues (around 34.5%) are derived from mobile services.[1] The Brattle Group has previously estimated an asset beta for mobile services 25% higher than its estimated beta for fixed services.[2] Using this estimated relationship between the beta for mobile and fixed services, an asset beta for fixed services of 0.41 can be derived from the Brattle Group's KPN-wide asset beta of 0.45.[3]

[1] Based on 2015 adjusted revenue data in KPN's Q3 2016 Factsheet.
[2] Brattle's 2013 Report for OPTA, *The WACC for mobile, fixed-line and cable termination rates*, estimated an asset beta of 0.49 for mobile operators and 0.39 for fixed line operators.
[3] In particular, by solving the equations *beta mobile = (1.25 * beta fixed)* and *(share of mobile revenues * beta mobile) + (share of fixed revenues * beta fixed) = company wide beta.*

There is also evidence that the risks relating to a copper/fibre local loop network are lower than the risks of fixed incumbents' general services (e.g. TV, international services, SME and customised corporate services). For example, Ofcom concluded that there is a 66% (0.33 points) difference between the asset beta for Openreach compared with the rest of BT's business.[4] This was based on evidence including the beta for the New Zealand vertically separated copper/fibre local loop operator Chorus. ACM should use disaggregated information on KPN's cashflows to apply approaches such as that used by Ofcom to identify the beta specifically related to KPN's local loop network. Approximately 9.6% of KPN's revenues are from wholesale fixed services[1], which could be considered comparable to the services provided by Openreach. Using a similar approach[5] to that taken for disaggregating the asset beta for fixed from that for the company as a whole, we estimate an asset beta for the local loop network of 0.26. To instead calculate the WACC for fibre by applying mark-ups to a KPN-wide WACC (as proposed in the Consultation) carries a high risk of error. The KPN-wide WACC may already be above the appropriate WACC for a fibre business.

Second, to the extent that fibre connections have greater exposure to undiversifiable or systematic risks (as the Consultation assumes), then the estimated company-wide beta will already be raised by the presence of cash flows from fibre connections in KPN's overall cash-flows. KPN's Q4 2015 Results Presentation (p.10) shows FTTH accounting for 27% of households in Q4 2014 and 29% in Q4 2015, with FTTC accounting for an additional 26% of households in Q4 2014 and an additional 36% in Q4 2015. KPN's business cash flows will also include cash flows relating to FTTO. Adding a mark-up for risks of fibre to a WACC that already reflects the presence of fibre-related cash flows results in a degree of double-counting. For a given assumption of the relationship between the betas for fibre and non-fibre cashflows, this double-counting can readily be removed.[6] ACM should be in a position to obtain the share of KPN's earnings related to fibre to carry out this calculation. However, as we discuss later, we believe that there is no reason to assume that the systematic risks of fibre are greater than those associated with a copper network.

KPN's cost of debt is now substantially lower

The Brattle Group's April 2015 estimate of KPN's WACC includes an estimate of KPN's cost of debt of 5.30%. However, the Brattle Group also noted that "*about €1 billion of debt may be re-financed in 2015*" and "*an allowed cost of debt of 5.30% would allow KPN to make a substantial financial gain from refinancing debt, since KPN's allowed cost of debt is over 450 basis points higher than we would expect a BBB rated firm to pay*". We have calculated an updated embedded cost of debt for KPN including newly issued debt and the removal of matured debt (post April 2015).

On 7 September 2016, KPN issued two further tranches of debt:

- €625m notes at 0.625 per cent (fixed rate) with an issue date of 9 September 2016 and maturity date of 9 April 2025;[7] and

[4] Ofcom, Fixed access market review, 26 June 2014, Annex 14, p.193 (available at https://www.ofcom.org.uk/__data/assets/pdf_file/0026/78812/annexes.pdf).
[5] Solving the equations *beta fixed non-local loop = (1.66 * beta local loop)* and *(share of local loop revenues * beta local loop) + (share of non-local loop revenues * beta fixed non-local loop) = fixed beta.*
[6] For instance, if the fibre beta (BF) were assumed to be X% greater than the beta for non-fibre cash flows (BNF) then the beta for non-fibre cashflows can be solved by re-arranging the following: (share of earnings related to copper * BC) + (share of revenues related to fibre * BF) = beta for overall business and noting that BF = (1+X%)*BC.
[7] http://media.corporate-ir.net/media_files/IROL/69/69978/pdf/bondDocs/pricingSup/KPN_2016_1.pdf

- €625m notes at 1.125 per cent (fixed rate) with an issue date of 9 September 2016 and maturity date of 11 September 2028.[8]

Both these issues are subject to an issuer call option up to 3 months prior to their maturity date. The potential cost to the bondholder is however offset by a 'make whole' provision. Given the very short period of the call option before maturity and the offset provision, it is reasonable to consider these as equivalent to a bullet bond.

With the inclusion of newly issued debt and removal of matured debt (post April 2015) we have updated the Brattle Group's methodology to estimate KPN's current average cost of debt. KPN's current average cost of debt falls to **4.36%**.

Table 1: KPN's Embedded Cost of Debt as of 30/09/2016

Date of issue	Maturity	Type	Currency	S&P rating	Outstanding (€ million)	Coupon rate (%)	EUR bonds	EUR bullet
Outstanding KPN bonds as of 30th September 2016								
13/11/06	17/01/17	Bullet	EUR	BBB-	720	4.75		
04/02/09	04/02/19	Bullet	EUR	BBB-	465	7.5		
30/09/09	30/09/24	Bullet	EUR	BBB-	431	5.625		
21/09/10	21/09/20	Bullet	EUR	BBB-	461	3.75		
15/09/11	04/10/21	Bullet	EUR	BBB-	253	4.5		
01/03/12	01/03/22	Bullet	EUR	BBB-	616	4.25		
01/08/12	01/02/21	Bullet	EUR	BBB-	361	3.25		
14/03/13	n/a	Perpetual	EUR	BB	1100	6.125		
09/09/16	09/04/25	Bullet	EUR	BBB-	625	0.625		
09/09/16	11/09/28	Bullet	EUR	BBB-	625	1.125		
Cost of debt based on all outstanding EUR bonds								
Total (€ million)							5,657	4,557
Weighted average (%)							4.21	3.75
Admin fees (%)							0.15	0.15
Cost of debt (%)							**4.36**	**3.90**

Updated WACC for KPN's local loop network

On the basis of the estimated specific beta for KPN's local loop network and KPN's current embedded cost of debt, we have updated the WACC for KPN's local loop network. The nominal after-tax WACC falls from 4.54% as presented in the Consultation to 3.40%. This new WACC reflects the systematic risks of a copper/fibre local loop network. If fibre were assumed to have higher systematic risks then the WACC for the copper network would be less than 3.40%.

[8] http://media.corporate-ir.net/media_files/IROL/69/69978/pdf/bondDocs/pricingSup/KPN_2016_2.pdf

Table 2 – Updated KPN's Current WACC

	Brattle Group Report	Updated
2014 tax rate	25.00%	25.00%
Debt/Asset	42.00%	42.00%
Debt/Equity	72.41%	72.41%
Asset beta	**0.45**	**0.26**
Equity beta	0.69	0.40
Risk free rate	1.49%	1.49%
ERP	5.00%	5.00%
After-tax cost of equity	4.96%	3.50%
Pre-tax cost of debt	**5.30%**	**4.36%**
Nominal after-tax WACC	**4.54%**	**3.40%**
Nominal pre-tax WACC	6.06%	4.53%
Inflation	1.50%	1.50%
Real pre-tax WACC	4.49%	2.99%

The proposed mark-up for assumed additional diversifiable risks of FTTH

The Brattle Group proposes a 2% mark-up on KPN's WACC for assumed additional systematic risk of FTTH compare with standard broadband. This is comprised of a 1% mark-up assumed to reflect increased operating leverage because of the investments required and an additional 1% mark-up to reflect an assumed risk of delay in demand.

Operating leverage 1% mark-up

As set out originally in the Brattle Group's 2013 Report, they believe that a 1% mark-up over the WACC is justified for fibre investments because of increased operating leverage from large investments.[9] The 2013 report illustrated the claimed effect in Table 15, showing a higher sensitivity of profits to changes in demand as a result of higher capital costs following increased investment in the fibre network. It is not clear that the analysis shown is coherent or robust to reasonable changes in the underlying assumptions. For example, the effect shown can be mitigated by increasing the margin on the sale of fibre sufficiently that the fibre operator earns the same return on its aggregate assets as the copper network operator.[10] Similarly if similar levels of leverage increase business risk as investment takes place, operators investing in fibre might decide to decrease leverage and rely to a greater extent on equity finance.

We note that the 2015 Brattle Group cost of capital report for the ACM makes no direct reference to increasing debt as the underlying motivation for this additional margin, but instead makes the following argument:

[9] Brattle Group Report for the ACM, *The WACC for Wholesale Broadband and FttO*, 29 May 2013.
[10] This seems a reasonable assumption as the Report itself notes at page 26 that at the time of writing in 2013 *'In the Netherlands, wholesale rates for Fibre-to-the-Home (FttH) are around double the rates for copper'.*

"In our May 2013 report we noted that the WACC for FttO is likely to be higher than the WACC for wholesale broadband (KPN's WACC), because ... the ***fibre networks require high levels of investment relative to a mature copper network****. Hence, as the level of fixed investments increase, the sensitivity of equity cash flows to revenue increases, and this in turn increases beta and hence the cost of equity. The issue of high operating leverage will also apply to FttH networks, which also require large fixed investments."*[11]

It is clear in the above statement that the issue being contemplated in the 2015 report is the need for high levels of fixed (or committed) investment which increase the sensitivity of profits to changes in revenue (demand).

In 2016 the Brattle Group delivered a report to the European Commission on the appropriate methodology to be applied to estimate reasonable rates of return for investments in Telecoms networks.[12] This report does not mention operating leverage as a source of systematic risk for NGA networks. It does however consider capital leverage to be a consideration. The report summarises the capital leverage issue as follows:

"...building an NGA network involves ***a commitment to make large capital investments over several years****. This means that the '****capital leverage****' of new NGA networks is high relative to a mature legacy network. The presence of the* ***large capital spending commitments 'squeezes' earnings in the case of a macroeconomic shock*** *decreasing revenues, and thereby increases the correlation between systematic events such as an economic downturn and the value of the asset. Hence,* ***capital leverage increases the asset beta for an NGA network****, relative to a legacy network,* ***at least in the network build-out phase****." (At page 12, emphasis added.)*

The 2016 Brattle Group report to the Commission makes clear that it is the presence of '*...sizeable and relatively fixed capital obligations...*'[13] that are assumed to cause increased volatility in earnings that in turn increases the (systemic) risk of an NGA operator. It is also clear, as shown in the extract above that the effect is an issue during build out, when investment is occurring. In other words, it does not continue indefinitely, but rather reduces as network build out is completed and capital investment requirements reduce. This too is acknowledged in the 2016 Brattle Group report:

"... ***we would expect the [NGA] premium to fall over time****. This is because* ***the capital leverage effect that we discuss above would diminish, as the NGA network is completed*** *and becomes a 'mature' asset, and also demand uncertainty would also be resolved over time..." (At page 109, emphasis added.)*

<u>There is no justification for continuing with a Capital Leverage premium in the Netherlands</u>

The analysis above implies that two things would need to be true in order to continue to allow a 1% Capital (operating) Leverage premium in the calculation of KPN's FTTH WACC:

- Capital investment beyond that normal in a copper network needs to be ongoing; and

[11] Brattle Group Report for the ACM, *The WACC for KPN and FttH*, 1 July 2015, at page 18.
[12] Brattle Group Report for the European Commission DG Communications Networks, Content & Technology, *Review of approaches to estimate a reasonable rate of return for investments in telecoms networks in regulatory proceedings and options for EU harmonization,*
[13] BG Report to the EU, 2016, at page 97.

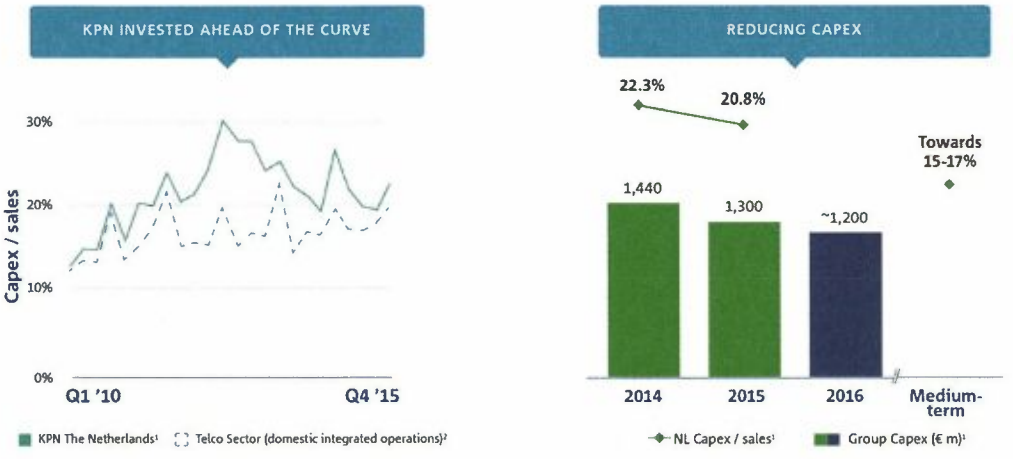
- That investment needs to be unavoidable if demand is less than expected.

Both of these conditions need to be met to justify continuing with the premium. Clearly it is necessary that abnormally high investment - that is, beyond that required by a legacy network - must be expected to continue in future years. But it must also be the case that this abnormal level of investment is committed, and cannot be reduced or flexed in the face of changing demand. Neither of these conditions hold for KPN in the Netherlands today.

The evidence is that KPN's capital investment program is normalising

A recent KPN investor presentation makes clear that it has completed the bulk of it investment activities, and KPN's level of capex expenditure is normalising looking forward. The slide extracted below shows that KPN invested more than most European telco's between 2010 and 2015, and shows capex spending rapidly decreasing looking forward from more than 22% towards 15-17%. This level is for example below the average for the Netherlands in the period 2000-2009 of 19%,[14] which shows that KPN's investment requirements in the near future are not expected to be exceptionally high by historic standards.

KPN built strong fundamentals in past years



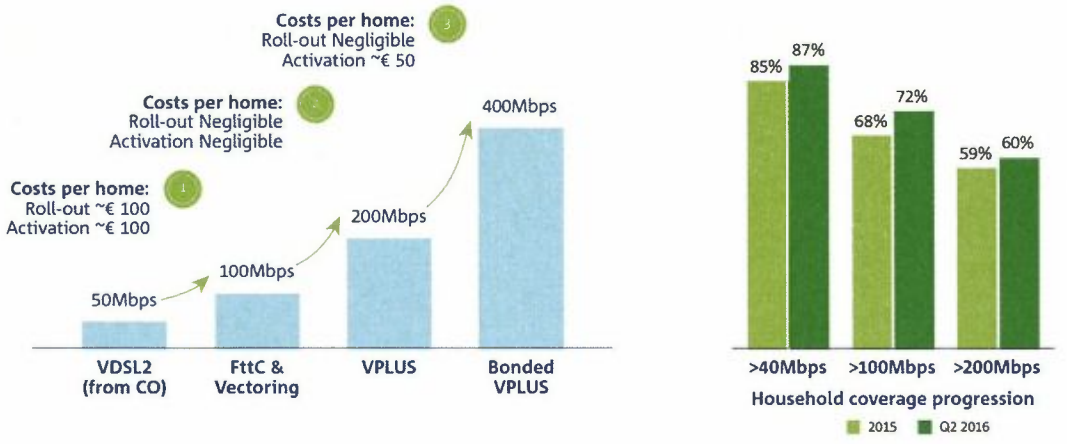
Source: KPN Investor Presentation, September 2016, slide 24.

Consistent with a falling need for major NGA capex looking forward, the slide below shows that most households (87% in 2016) already have coverage at speeds greater than 40Mbps and that FttC investments are "largely completed". Similarly, it also shows that the bulk of investment was required to get to 50Mbps, with incremental expansion to very high speeds in the years ahead expected to be much cheaper.

[14] 19% average for the Netherlands calculated from data available in the OECD Digital Economy Outlook 2015, Table 2.28. Public telecommunication investment as a percentage of telecommunications revenue.

Ready to upgrade if demand changes

Cost and time efficient upgrades with FttC investments largely completed in 2016



Source: KPN Investor Presentation, September 2016, slide 21.

There is no evidence to suggest that capital investment in NGA looking forward is highly inflexible

The evidence above that KPN has completed much of its investment in NGA and investment patterns looking forward are normalising is in itself enough to show that the 1% Capital Leverage premium is no long justified. However, evidence also shows that NGA investment is not as committed as the model underlying the premium assumes.

KPN does of course seek to reduce its risk by way of marketing testing, incremental upgrades and selective rollouts. A KPN press release in 2009[15] noted the following steps being taken to manage the balance between its required ongoing investment and commercial returns from NGA investment:

1. Conducting commercial fiber pilots in ten cities.
2. Use of a gradual, regional fiber roll-out.
3. Deploying a mix of infrastructures going forward with fiber, copper and wireless.
4. As an intermediate step, upgrading its existing copper network with 'VDSL from central office' (VDSL-CO).

In the release KPN stated that:

> *"...this combined technology approach of gradual migration to fiber and VDSL-CO, KPN continues its strong focus on cash flow generation without materially impacting Group Capex levels, ensuring an optimal balance between investments and returns."*

[15] http://corporate.kpn.com/press/press-releases/kpn-will-proceed-with-fiber-on-aregional-basis.htm

KPN's 2014 Annual Report (p.73) notes measures that can be taken if returns on investments are low including balancing the investments in copper upgrades and FTTH roll-out, continuous monitoring of performance, e.g. utilization and return on investment per area, decision-making based on business cases (including continuous monitoring) and less focus on roll out of high capital intensive FTTH.

These statements show that in practice NGA investment on the part of the incumbent can be incremental and there were and are options that enable variation of investment in response to actual demand patterns. This evidence further supports the view that there is no justification for continuing to allow a 1% premium to allow for Capital Leverage based risk.

Demand risk 1% mark-up

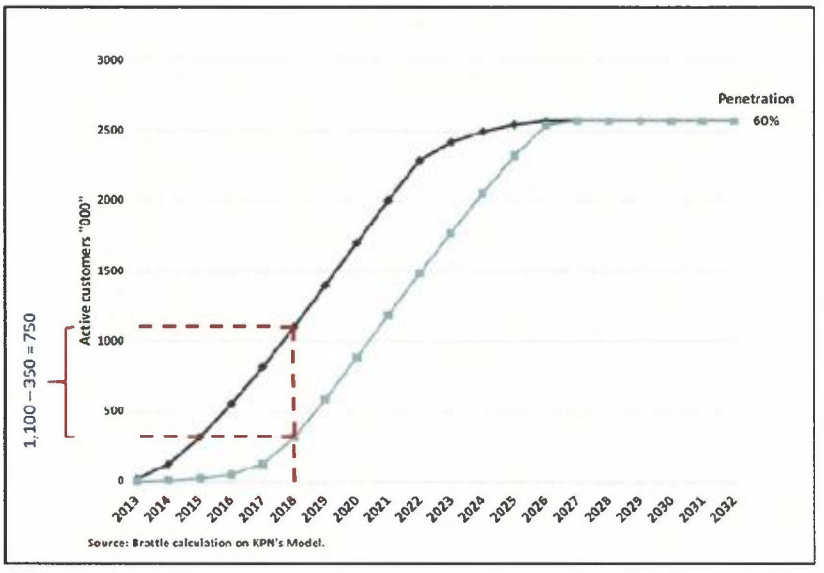
T-Mobile believes that 1% mark-up for an assumed risk of delay in demand is greatly in excess of any such systematic risk relating to fibre investment.

In section III of the 2015 Brattle Group report, an additional 1% mark-up is proposed relating to the risk that demand fails to materialise. The report states (p.19) "*Because the roll-out of FttH networks anticipates the demand for services from residential customers, whereas FttO is often built following proven demand, FttH could be a more risky and speculative investment than FttO*". In the previous section, we have already presented evidence that in the Netherlands, FTTH was rolled out by KPN/Reggefiber based on demand including pilot tests of ARPU and penetration and regional roll-outs based on business cases.

However, the Brattle Group proceed to estimate the risk that "*the demand of FttH is postponed by about three years due to the economic downturn*". This delay in customer take-up is used to calculate their around 2% reduction in IRR associated with an economic downturn. The Brattle Group then assume a 50% chance of an economic downturn in the regulatory period to arrive at their proposed mark-up of 1%.

This three-year delay generates a significant reduction in take-up in any given year prior to the maximum penetration level being achieved, e.g. a 750,000, or 68.2%, reduction in active customers in 2018 as shown in Figure 1, with no evidence provided to justify such a large change in demand.

Figure 1 – Impact of postponed take-up on active customer numbers (based on Figure 7 of the Brattle Group 2015 Report)



Empirical studies into the income elasticity of demand suggest that the reduction in take-up is likely to be much lower. As shown in Table 3, empirical studies have found an income elasticity of demand for broadband of just less than 1, i.e. a 1% change in income will result in a somewhat less than 1% change in broadband adoption.

Table 3 – Studies of the income elasticity of demand of broadband

Study	Income elasticity of demand coefficient
Improving Affordability of Telecommunications: Cross-Fertilisation between the Developed and the Developing World; 2006; Milne[16]	<1
Price and Income Elasticity of Demand for Broadband Subscriptions: A Cross-Sectional Model of OECD Countries; 2008; Cadman, Dineen[17]	0.78
Fixed and mobile broadband: Are they substitutes or complements?; 2014; Bea, Choi, Hahn[18]	0.626
The Impact of Tariff Diversity on Broadband Diffusion – An Empirical Analysis; 2014; Haucap, Heimeshoff, Lange[19]	0.797
Average[20]	**0.734**

While there do not yet appear to be empirical studies specifically relating to the income elasticity of demand for broadband provided by fibre, we believe that the existing studies relating to broadband should be used in the absence of more specific evidence. The adoption of ultra-fast broadband can be considered a further step in the migration from narrowband internet to standard broadband. If fibre take-up is considered analogous to take-up of

[16] *https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2104397*

[17] *http://spcnetwork.eu/uploads/Broadband_Price_Elasticity.pdf*

[18] *ftp://ftp.repec.org/opt/ReDIF/RePEc/yon/wpaper/2014rwp-68.pdf*

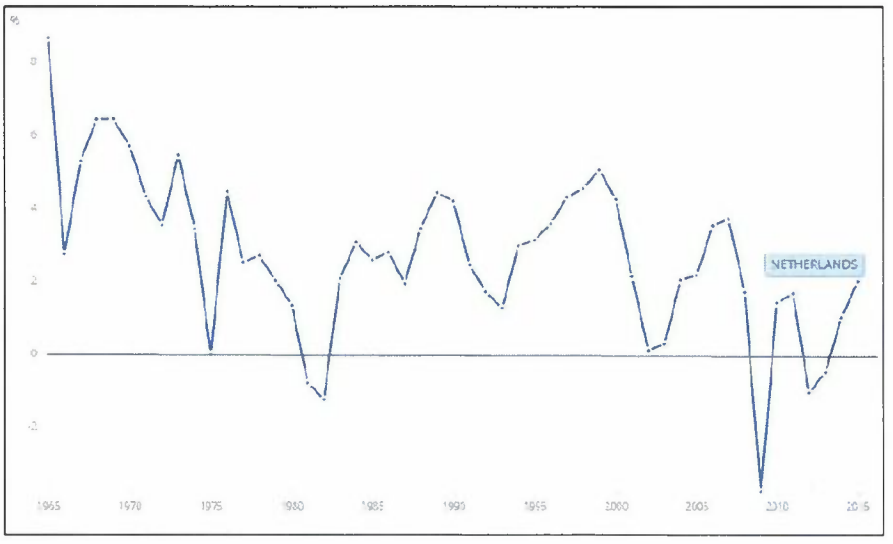
[19] *http://www.dice.hhu.de/fileadmin/redaktion/Fakultaeten/Wirtschaftswissenschaftliche_Fakultaet/DICE/Discussion_Paper/156_Haucap_Heimeshoff_Lange.pdf*

[20] NOTE: Excluding Milne study where income elasticity of demand coefficient is inexact

broadband, then the average income elasticity of demand coefficient from the studies of 0.734 can be used to estimate the impact of demand of a recession.

GDP growth rate data for the Netherlands shows that actual falls in GDP are quite rare (3 times in the past 50 years). However, even considering the most significant economic downturn in the last 50 years, the 3.77% fall in GDP in 2009, the average income elasticity of demand coefficient suggests that broadband demand in the Netherlands would fall by 2.77% compared with the level of demand had GDP remained constant.

Figure 2 – Annual Dutch GDP growth (%) 1965-2015[21]



Applying the 2.77% reduction in broadband up-take to the 1.1m active FttH customers assumed in the base case for 2018 in the Brattle Group Report, gives a reduction in FttH active customers of 30,000 in response to a severe economic downturn. As shown in Table 2, this is significantly below the 750,000 reduction in customers proposed in the Brattle Group Report.

Table 4 – Impact of downturn on 2018 1.1m base case FttH customers

	% Reduction in broadband adoption	Fall in 2018 FttH active customers
Brattle Group assumption	68.2%	750,000
Assumption based on empirical studies	2.77%	30,000

The significant difference suggests that the assumed 2% reduction in IRR associated with an economic downturn is greatly in excess of actual demand risks.

Underlying the assumption of the Brattle Group appears to be the assumption that fibre is a luxury good with higher systematic risks than broadband in general. However, the studies into broadband income elasticity that we have used to inform our thinking on the delay in FttH roll-out associated with a crisis use data for countries and periods in which broadband penetration is similar to the present level of fibre penetration in the Netherlands. The broadband penetration range of 11%-35% from the studies (based on penetration per capita) compares with FttH

[21] *http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?cid=GPD_30&contextual=default&end=2015&locations=NL&start=1965*

penetration of around 38% of homes passed in the Netherlands (which would be around 17% per capita in fibre areas based on 2.2 people per household on average in the Netherlands).[22] Accordingly, we do not believe that FttH should now be regarded as more of a luxury product than broadband was in earlier years. As such, we believe there is no basis for the assumption of additional exposure of fibre to higher systematic risks.

Table 3 – Broadband penetration of data in income elasticity studies

	Data period	Data countries	Average broadband penetration per capita
Price and Income Elasticity of Demand for Broadband Subscriptions: A Cross-Sectional Model of OECD Countries; 2008; Cadman, Dineen	October 2007	OEDC	19%
Fixed and mobile broadband: Are they substitutes or complements?; 2014; Bea, Choi, Hahn	Feb 2009 – January 2009	South Korea	35%
The Impact of Tariff Diversity on Broadband Diffusion – An Empirical Analysis; 2014; Haucap, Heimeshoff, Lange	Q3 2012	91 countries, including OECD	11%

Other evidence on the beta for fibre

An expert report for the New Zealand Commerce Commission rejects making any adjustment based on the argument that fibre is exposed to higher systematic risks than copper.[23] The report notes (p.55) that theoretical arguments could be made for fibre facing different risks but "*equally, it could be argued that the majority of the differentials between risks around fibre and copper are not strongly linked to the wider economy.*" Further, the report finds "*However, there is no evidence from the market data or analyst commentary which supports a perception of a higher market risk for the business as a result of the fibre investment programme... In practice, there is no evidence that the market has required a higher return as a result of the commitment to the fibre project, with the Chorus beta appearing to be broadly constant over time, and to be consistent with the TNZ beta prior to demerger*".

We have examined more recent beta data for Chorus. Despite Chorus having extended its rollout from being 18% complete in 2013 to 57% complete in 2016 (as reported in its Annual Reports), the asset beta for Chorus in 2016 is at a similar level to its asset beta in 2013.

Figure 2 – Estimated two-year daily beta for Chorus[24]

[22] ACM publishes data in their quarterly Telecommonitor on the number of homes passed by and connected to FttH services in the Netherlands. ACM's Q1 2016 data shows that of the 2.49 million homes passed, 937,000 (38%) were connected to FttH (https://www.acm.nl/nl/publicaties/publicatie/16142/Telecommonitor-eerste-kwartaal-2016/).

[23] Oxera, *Review of the beta and gearing for UCLL and UBA services*, June 2014.

[24] We have used the S&P/NZX 50 Index Gross (NZSE50FG Index) as the reference series (which we understand is the same series that Oxera used in its 2014 report).

The 3.5% mark-up for asymmetric risk

The Consultation proposes to retain a 3.5% mark-up intended to compensate for asymmetric risk which was originally applied in 2009. This was calculated based on the assumption that penetration may differ by 20 percentage points from the assumed base case of 60% penetration.

T-Mobile believes that the 3.5% mark-up was never justified and should now be removed. ACM and other regulators do not generally allow regulated businesses to earn returns greater than the cost of capital. For example, T-Mobile's 3G mobile termination charges have been capped at the cost of capital since the launch of 3G.[25] Allowing returns to exceed the cost of capital (particularly by the extent provided for in the current regulation) requires compelling evidence of the existence of significant investment risks not borne by other regulated businesses.

Of the risk factors referred to in the 2009 Decision only uncertain demand seems a possible candidate for a level of asymmetric risk borne by fibre investment and not borne by the same degree by other businesses. However, there are two reasons as to why uncertain demand does not provide a justification for the 3.5% mark-up. First, as noted earlier, KPN and Reggefiber were able to carefully manage demand risk particularly by undertaking commercial pilot investments and staging network investment based on business cases in particular areas. While OPTA's original decision provides little detail on the modelling undertaken to determine the 3.5% mark-up, T-Mobile is concerned that the modelling is likely to have greatly overstated demand risk by failing to model demand-based network rollout.

Second, ACM has ignored offsetting benefits for the fibre business. Fibre in an area is regulated precisely because of market power. Once fibre has been rolled out to an area, there will not generally be a business case for further fibre entry in that area. In this regard, fibre investment differs to competitive markets where successful investments will attract new entry until returns are brought down to competitive levels. As such, maintaining the 3.5% mark-up (originally allowed for in 2009) any longer will enable KPN to enjoy returns that would not be expected to be maintained in competitive markets. Indeed, while ACM has considered the potential down-side risk to investment in fibre, it has ignored the first mover advantage to an operator in terms of securing a customer base free of the risk of competition.

[25] https://www.acm.nl/nl/publicaties/publicatie/8711/Ontwerpbesluit-Mobiele-Telefonie--Gespreksafgifte/

As noted above, KPN itself has stated that its investment in rolling out FTTH is now largely completed. The Brattle Group report for the European Commission states (p.109) that "*demand uncertainty would also be resolved over time, as SMPs and NRAs gained a better understanding of demand outcomes for NGA services*". T-Mobile believes that the mark-up for asymmetric risks was never justified and should now be removed.

EDC modelling of operating costs

The allowed charges to recover operating costs are separately calculated in Embedded Direct Cost models. However, despite the significance of these costs, ACM has excised the relevant calculations and provided very little information on the basis on which they have been calculated. Accordingly, there is no reasonable opportunity for stakeholders to comment on important aspects of these calculations.

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