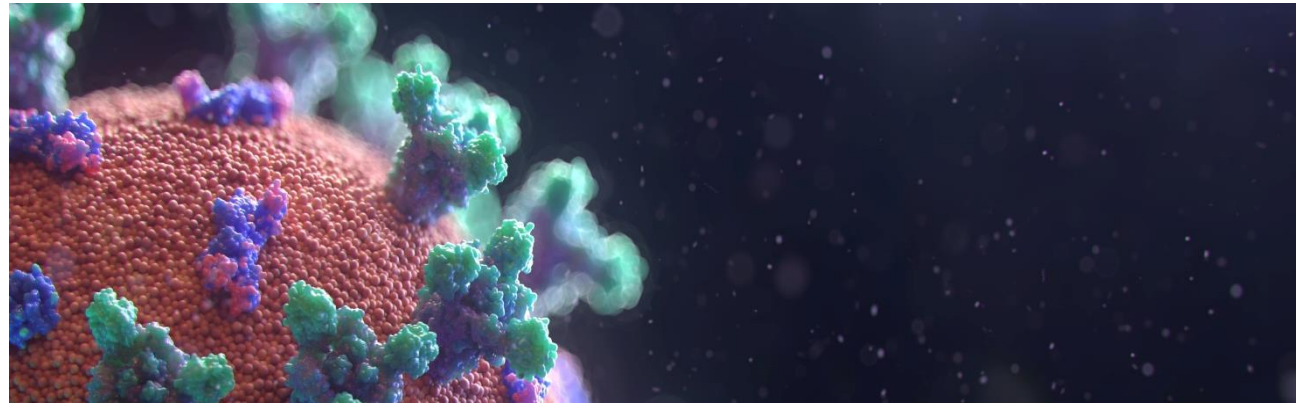


# THE ECONOMIC CONSEQUENCES OF COVID-19 ON THE DEMAND FOR TELECOMS SERVICES

We were asked by the client to analyse the effects of Covid-19 on the demand for telco services in four European markets



## THE Situation

The COVID-19 pandemic and its subsequent containment measures, i.e. the economic lockdowns, have had dramatic impact on European economies. The economic consequences go beyond the immediate impacts, as the lockdowns have had, will continue to have, rippling effects across sectors and onto households.

Despite a complex range of effects on consumer demand, this study focused on the impact of the lockdown measures on **business demand**. Namely, the telecommunications industry is indirectly affected by lockdown measures through the sectors it transacts with as well as from the general economic bust.

## OUR APPROACH

First, we used an **input-output (IO) model** to capture the *indirect* effects of COVID-19 on the telecommunications sector in the four markets under two different macroeconomic scenarios – a more severe and prolonged lockdown period and a shorter, less severe lockdown period. The indirect effects are captured in the IO revenue multipliers, which tell us the indirect demand effect as a result of a fall in revenue in other sectors. Second, we estimated the impact on companies' default rates and lay-offs using macro-econometric analysis.

## RESULTS

Based on the analysis, we assessed the potential impact of the Covid-19 pandemic on telco demand, split over different sectors and countries.

The final telecom business demand impact is estimated taking into account several factors, including the prediction pattern of both (i) company default rates and (ii) redundancies.

Finally, we analysed how the different national rescue packages will mitigate the impact.

### Hard facts

- Period of delivery: April 2020
- Contact: Sigurd Næss-Schmidt

# JOINT DOMINANCE IN THE DUTCH BROADBAND ACCESS MARKET

Economic support to T-Mobile Netherlands

We provided economic support to T-mobile after the parties had issued their grounds of appeal concerning the ACM's decision. More specifically, we produced three reports on market definition, the assessment of joint SMP and on the case for regulation. This involved assessments of the ACM's and the parties' economic analyses and our own review of available market evidence and economic arguments.



## Background

The Authority of Consumers and Markets (ACM) had published a decision where the authority found the two network operators, KPN and VodafoneZiggo, to hold joint significant market power (SMP) in the market of wholesale fixed access (WFA). WFA regulation ensures that third-party operators, such as T-Mobile, access wholesale inputs at reasonable terms and can compete effectively in the downstream market.

## CE Contribution

Copenhagen economics was asked by t-mobile to provide economic support after the parties had issued their grounds of appeal concerning the acm's decision. More specifically, we produced three reports on market definition, the assessment of joint

SMP and on the case for regulation. This involved assessments (and rebuttals) of the acm's and the parties' economic analyses and our own review of available market evidence and economic arguments.

Our reports were endorsed by the acm. The acm's economic bureau undertook a separate review of our report on joint SMP finding it credible.

We supported the client throughout the appeals process and the court hearing alongside the legal team. In march 2020, the dutch administrative high court for trade and industry (cbb) annulled the acm's decision. The cbb concluded that the ACM had not met the burden of proof needed to support its findings. The ACM is currently considering options for next steps.

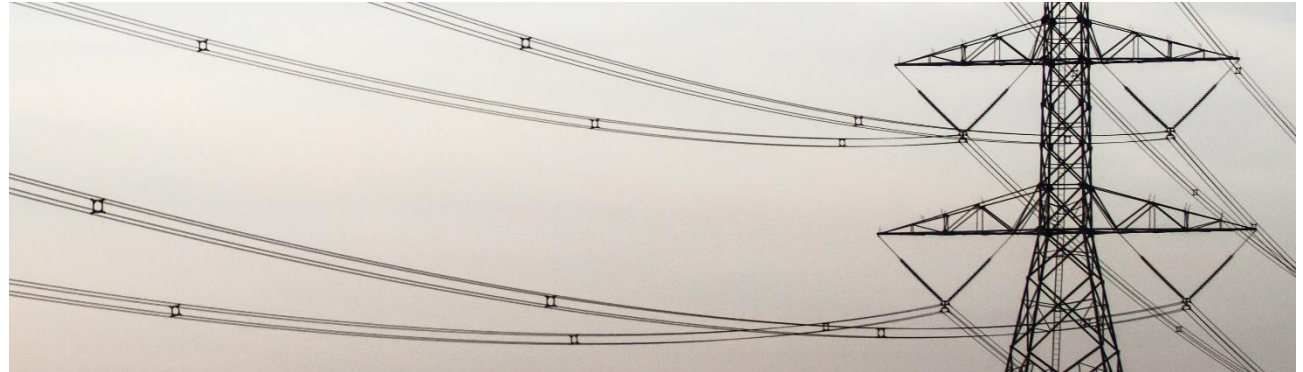
## FACTS

Case type	Significant Market Power
Sector	Telecommunications
Court	CBB, The Netherlands
Appellants	KPN, Vodafone Ziggo, T-Mobile
Defendant	Authority of Consumers and Markets (The Netherlands)
Decision year	March 2020
Decision	ACM's decision annulled
Our role	T-Mobile's economic expert during the appeals process and court hearing

# IMPLICATIONS OF PTS' INSUFFICIENT COMPETITION SAFEGUARDS IN THE SPECTRUM AUCTION RULES

3 Sweden

We estimated the strategic value of excluding an operator from the Swedish mobile market to highlight the effect of PTS' insufficient competition safeguards in the original rules for the 5G auction in Sweden



## The task

Following the Swedish Post and Telecom Authority's (PTS) auction rules for the 2.3+3.5 GHz auction in Sweden, 3 Sweden were concerned about the impact the auction rules would have on competition in the Swedish mobile market.

## Our approach

Copenhagen Economics estimated a competition model (assuming "Bertrand" competition with differentiated goods) to estimate the effect of 3 Sweden not winning any spectrum in the upcoming 5G auction. We conducted two scenarios:

- 3 Sweden carries on operating in the market but at a disadvantage compared to other MNOs (due to lack of 5G capability)
- 3 Sweden is forced to leave the Swedish mobile market altogether due to a lack of 5G – a "worst case" scenario.

The model used market shares, prices, margins and diversion ratios to estimate "demand curves" for the four operators in the Swedish market, assuming the market was currently in equilibrium.

In the scenario where 3 Sweden was forced to leave the market, we used an innovative method with calibrated demand profiles for the remaining three operators to assess the hypothetical market dynamics. This reflected the two consumer harms from 3 Sweden leaving the market, namely:

- The customers of the remaining three operators experiencing higher prices and
- 3 Sweden's original customers having to switch to one of the remaining operators, getting a different product at a different price

## Impact

We estimated the total strategic value of excluding an operator from the market during the license period to equal 23-82 billion SEK.

PTS changed the auction rules, such that more competition was guaranteed in the auction. Specifically, the original auction rules guaranteed at least 80 MHz to three operators in the 3.5 GHz band. The new auction rules guaranteed at least 80 MHz to four operators across the 2.3 and 3.5 GHz bands.

### Hard facts

- Period of delivery: 2019
- Contact person: Neil Gallagher

# TELECOMS REGULATORY APPEAL IN THE MARKET FOR BUSINESS BROADBAND

BT Group



3 reports and expert witness appearance at the CAT

## Situation

We have assisted BT to prepare the legal challenge to appeal a regulatory decision in the market for business connectivity (Market 4 - Wholesale high-quality access provided at a fixed location). The leased lines market is highly commercially key, used as input by fixed and mobile operators, underpinning most retail residential and business services.

BT asked us to prepare three expert reports, all of which were submitted to the CAT. Our expert reports challenged different aspects of Ofcom's product and geographic market definition in the 2016 BCMR Statement.

## Our approach

Our input has covered products and geographic market definition, SMP assessment and proportionality of the remedies chosen

## Impact

As a first step, our analysis has informed the client's briefing to the European Commission in the Art. 7 review process. The EC Art. 7 letter questioned some aspect of the geographical analytical approach by Ofcom (which were later remarked by the CAT not to have been dealt with appropriately by Ofcom).

Then, our key expert on the case appeared at the CAT as witness on three days – with cross-examination on both product and geographical market analysis.

The CAT has found several flaws in Ofcom's approach on product and geographic market. It quashed the Ofcom decision and remitted it back for Ofcom to reconsider.



# MARGIN SQUEEZE COMPLIANCE TOOL FOR INCUMBENT OPERATOR ON BROADBAND

Incumbent telecoms operator

Construction of compliance tool to be used by incumbent operator to ensure compliance with margin squeeze safeguards.



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## Situation

Dominant telecommunications operators need to ensure they do not abuse their position, e.g. by way of margin squeeze. To stay compliant after modernization of the regulatory regime, a national telecommunications incumbent needed a tool to make sure it stayed compliant. The incumbent asked Copenhagen Economics to construct the tool.

## Our approach

We created a margin squeeze compliance model for a the incumbent operator. We both set up the relevant principles based on competition and sector-specific practice and made margin squeeze calculations, which the operator could continuously update and monitor that they did not engage in margin squeeze for broadband products.

## IMPACT

The operator has applied extensively our tool and relied on our QA, so to demonstrate ongoing compliance with the regulatory authority

# SMP GUIDELINES: RESPONSE TO EC CONSULTATION

European Telecom Network Operators (ETNO)



A report on the reform of the SMP Guidelines

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## **Situation**

The European Commission issued SMP guidelines in 2002 that shall guide National Regulatory Authorities in regulating telecommunications markets. Telecommunications and digital markets have since then developed significantly. The guidelines therefore need updating.

In particular, the EC sought to inquire (as highlighted by BEREC) whether guidance on SMP arising from joint dominance was sufficient.

A Brussels-based multi-stakeholder telecoms organisation, European Telecom Network Operators (ETNO), commissioned us to analyse how the guidelines should be updated.

## **Our approach**

We prepared a report on the SMP Guidelines, and presented it to the European Commission as part of the consultation process on the revision of the Guidelines. The report covered competition angles (joint dominance), a conceptual analysis of the purpose of the SMP Guidelines, as well as open issues in product and geographic market analysis.

## **IMPACT**

We presented the report in a dedicated briefing session with the relevant Commission decision makers, where we set out key evidence and arguments and provided an interactive Q&A with the Commission.

# INTERNATIONAL ROAMING

European Parliament

The European Parliament asked Copenhagen Economics advice on how to design the original roaming regulation



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## Situation

The European Commission had made a proposal on how to regulate international roaming prices in mobile networks. The European Parliament's Committee on Internal Market and Consumer Protection asked Copenhagen Economics to review and if necessary improve the Commissions' proposal.

## Our approach

Copenhagen Economics streamlined the Commissions' proposal by e.g. proposing a single Eurotariff for all originated mobile roaming calls as opposed to more tariffs depending on the destination of the roaming call.

## IMPACT

The Committee adopted our revised proposal and the European Parliament passed it. Today we have the Eurotariff when we use our mobile phones abroad.

# REGULATORY POLICY AND INVESTMENTS IN EU AND US TELECOMS

Broadband for America

Broadband for America commissioned Copenhagen Economics to perform a comparative analysis of outcomes and drivers of telecommunications markets in the US and EU



## Situation

Broadband for America asked Copenhagen Economics to review what was the impact on investment of the European broadband unbundling policy. A key question is whether anything in the EU experience suggests that the US FCC should abandon its light regulatory approach chosen for broadband.

## Our approach

Copenhagen Economics analysed the EU telecoms industrial and governance characteristics so to clarify the context-specific reasons why broadband unbundling regulation was introduced. It then clarified why unbundling policies have likely affected investment incentives in the EU. Finally, Copenhagen Economics assessed the investment gap

between the EU and US ICT sectors and appraised the likely productivity impact economy-wide

## IMPACT

Copenhagen Economics concluded that the US industrial structure of widespread inter-platform competition, the result of past regulatory choices, implies that the US is justified today in staying the course and maintain the present light-touch approach to regulatory policy for fixed broadband.

The study was presented at an event at the Information Technology & Innovation Foundation in Washington D.C.



# Our spectrum auctions experience

