Flowchart 1:

Historical Example

Question: when does a regulator regulate?

- Based on EU precedents: https://ec.europa.eu/digital-single-market/news/explanatory-note-accompanying-commission-recommendation-relevant-product-and-service-markets.
- Tables provided for illustration only, to aid those seeking to implement 'SMP regulation'.
 The actual markets exemplified are not real markets but are shown purely in order to provide an example of how the process may work in practice.
- Application of the rules requires access to evidence both for market definition and market analysis:
 - > consumer surveys; market questionnaires
 - market data: pricing, market shares, quality of service, patterns of consumers switching between different operators.

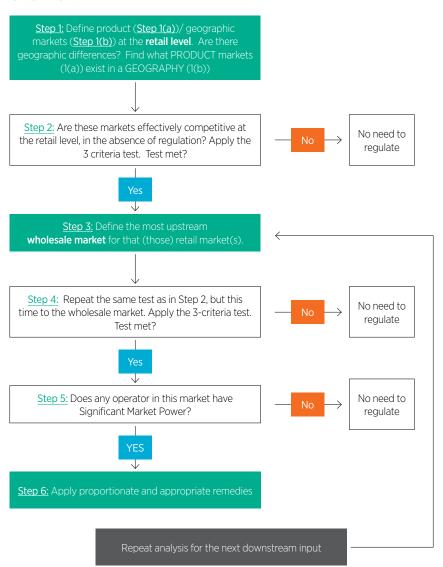
Three-Criteria test:

- 1. The presence of high and non-transitory structural, legal or regulatory barriers to entry in the market
- The market structure does not tend towards effective competition within the relevant time horizon (having regard to the state of infrastructure-based and other competition behind the barriers to entry)
- 3. Competition law alone is insufficient to adequately address the identified market failure(s)

These criteria are applied cumulatively – only if they are <u>all met</u> is a market susceptible to ex ante regulation.

The test applies to overall market characteristics and structure, <u>not</u> to a specific operator (which is the focus of an SMP assessment).

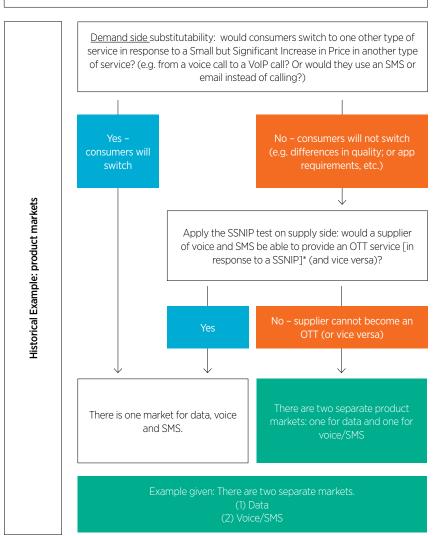
Overview¹



- COLOUR CODING: In these flowcharts:
 - · Pale blue denotes a 'yes answer' and in some cases the consequences that derive from such an answer
 - . Orange denotes a 'no answer' and in some cases the consequences that derive from such an answer
 - Grey denotes general information on the way in which SMP analysis is carried out
 - Green denotes the choice of an example / the conclusion reached: as the analysis is carried out, we focus on one market at the time and we assume that the analysis has shown that: (i) there is a specific market definition; and (ii) after the analysis, the market as defined requires SMP regulation.

Step 1(a) - Define Product Market at retail level:

What electronic communications do consumers use? Voice, SMS, Data



Step 1(a) - Define Product Market at retail level (cont'd):

Example given: There is a market for data services separate from voice and SMS

How do consumers access data services? Mobile, Fixed, Cable Demand side substitutability: do consumers switch to access data services in response to a Small but Significant Increase in Price in another type of service? (e.g., from mobile broadband to fixed broadband or vice versa) Yes usage, etc.) Historical Example: product markets Apply the SSNIP test on supply side: would a supplier of mobile data be able to switch to supply through cable or fixed in response to a SSNIP? There is one product market for data access through mobile and fixed networks.

Step 1(a) - Define Product Market at retail level (cont'd):

Example given: Focus on the market for data access through a fixed location

Are there differences depending on type of consumers? E.g.: Enterprise v Residential?

Demand side substitutability: do enterprise consumers switch to enterprise data services in response to a Small but Significant Increase in Price in residential services (and vice versa)?

Apply the SSNIP test on supply side: would a supplier to a residential consumer be able to provide services to an enterprise in response to a SSNIP?

There is one market for data access through a fixed location to all customers.

There are two separate markets: one for residential fixed data access customers and one for enterprise customers

Other Questions - Repeat the same exercise

Are there other differences by customer (pre-paid and post-paid, high value and low value)?

Are there differences in technology (2G, 3G and 4G for mobile, standard and superfast for fixed)?

Example given - there is one product market for **data access through a fixed location** (includes all types of customers and technologies).

Historical Example - Geographic markets

Step 1(b) - Define Geographic Market at retail level:

Are there differences depending on geographic area? By city, region, urban/ rural, exchange or catchment are? Apply the SSNIP test on demand side: would a consumer be able to access services from different providers in response to a Small but Significant increase in Price elsewhere? No – some operators (e.g. cable) Yes are only present in certain areas (e.g. urban). Apply the SSNIP test on <u>supply side</u>: would a supplier in urban areas be able to provide services in rural areas in response to a SSNIP? Are there significant differences in competitive conditions between urban and rural areas (or other geographic areas)? There are two separate geographic markets: one rural and one urban. Example given - there is a national market for data services at a fixed location

Historical Example: product markets

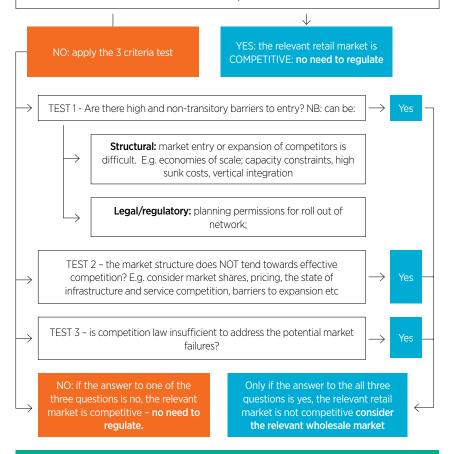


Step 2 - Is it necessary to regulate? Apply 3-criteria test /retail level

APPLY SAME TEST TO EACH RETAIL MARKET IDENTIFIED

Example: national market for data access through a fixed location

Absent any regulation (retail or wholesale), are there a sufficient number of players active for effective competition?



Example given: The national retail market for data access through a fixed location is **NOT competitive**



Step 1 & 2 Recap (for illustration): historically in member States of the EU:

In EUROPE traditionally A RETAIL MARKET is defined as:

DATA ACCESS AT A FIXED LOCATION (STEP 1)

Applying the three criteria test (STEP 2)

Absent regulation, there is not a sufficient number of competitors as typically there is one nation-wide fixed network and no alternative infrastructures (NB: this may be changing with the development of cable and the advent of new alternative infrastructures in certain geographic areas)

TEST 1: there are high and non-transitory barriers to entry;

TEST 2: the market structure does not tend towards effective competition in the timeframe considered, in the light of the investment required to replicate the fixed infrastructure

TEST 3: it is considered that competition law is not sufficient given the need to prove a likelihood of consumer harm and in the light of potentially complex technical remedies to be imposed (e.g. local loop unbundling)

CONCLUSION: in the EU, applying the tests, the retail market for data access at a fixed location is not competitive, absent regulation.

Step 3: Define the most upstream wholesale market(s) for those retail markets that are "not competitive" - repeat the exercise

What is the most upstream product available at the wholesale level to operators wishing to provide retail broadband at a fixed location?

this is an input for several retail products, such as narrowband, ADSL and ISDN.

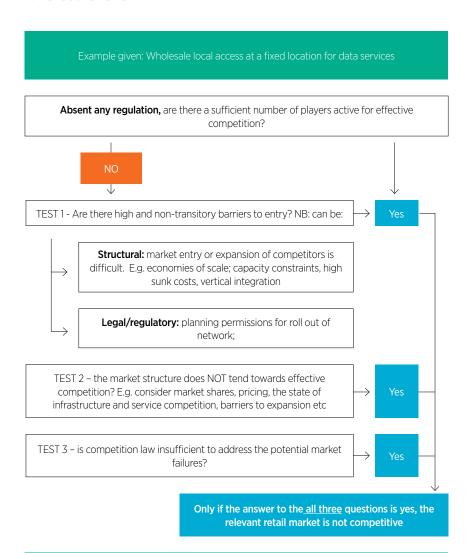
Demand side substitutability: would access seekers switch in response to a SSNIP to alternative access (e.g. between cable, copper, fibre, mobile, etc.)?

Apply the SSNIP test on supply side: would a supplier of wireless WLA offer fixed WLA in response to a SSNIP (and vice versa)? There is a single WLA market fixed and mobile WLA

Follow same steps looking at customer types, technology (standard, superfast, etc.). Following the same process as in Step 1(a) and 1(b) above, carry out geographic market definition for WLA

Example given: there is a single national wholesale market for fixed WLA that

Step 4 – Is it necessary to regulate? Apply 3-criteria test / wholesale level



Example given

The national WLA market for data access through a fixed location is **NOT competitive**

Repeat Step 3: Define the next downstream market(s) for those retail markets that are "not competitive" - repeat the exercise

What products are available at the wholesale level to operators wishing to provide retail broadband at a fixed location?

where seekers have less direct and more standardized control over access line.

Demand side substitutability: would access seekers switch in response to a SSNIP to alternative access (e.g. between cable, copper, fibre, mobile etc.)?

Apply the SSNIP test on supply side: would a supplier of wireless WLA offer fixed WLA in response to a SSNIP (and vice versa)?

There is a single WLA market

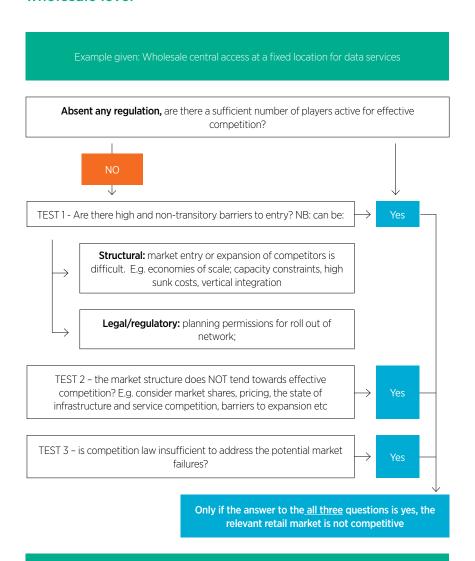
fixed and mobile WLA

Follow same steps looking at customer types, technology (standard, superfast, etc.). Following the same process as in Step 1(a) and 1(b) above, carry out geographic market definition for WLA

Example given: there is a single national wholesale market for fixed WLA that



Step 4 - Is it necessary to regulate? Apply 3-criteria test / wholesale level



Example given

The national WCA market for data access through a fixed location is competitive

Step 5: Does any operator have Significant Market Power in markets that are not competitive?

National WLA market for fixed data access has been deemed to be uncompetitive – does an operator have Significant Market Power (SMP)?

Factors to take into account

Market shares (existing and trend) - operators with high and stable (or increasing) market shares – above 50% - are likely to have a dominant position.

Excessive pricing and profitability - operators that generate (unregulated) returns that are consistently above cost of capital are unlikely to be constrained by competition.

Control of infrastructure not easily duplicated – can alternative operators readily develop their own networks to provide fixed WLA?

Barriers to entry and expansion – low entry barriers make it more likely that potential competition will prevent operators from exercising market power. Growth in market demand is sometimes a key factor (entry less likely in declining markets).

Product diversification -competitive entry into the supply of a product (or service) can be more difficult if a dominant firm can provide with it a portfolio of related products

Countervailing buyer power - purchasers of WLA may be able to curtail the exercise of market power, for example if they purchase large volumes and can make a credible threat to switch supplier (or self-supply).

These might point towards different conclusions (e.g. low market shares but significant barriers to entry and excessive profits)

Assessment should be based on **overall evidence** and also take a **forwardlooking** approach.

Example given: an operator has SMP in the provision of WLA for data at a fixed location

Step 6: Design appropriate and proportionate remedies

National WLA market for fixed data access requires regulatory remedies these must be proportionate and targeted towards the competition problems that have been found. Remedies should also minimise the risk of regulatory failure. What are the key competition concerns in light of the SMP assessment? Yes Risk of poor Quality of Service? Example given - a network access remedy (LLU) that is price-controlled (e.g. using RPI-X), or another access remedy (VULA) that is not price-controlled

Historical Example EU – for illustration