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Competition Policy in the Digital Era

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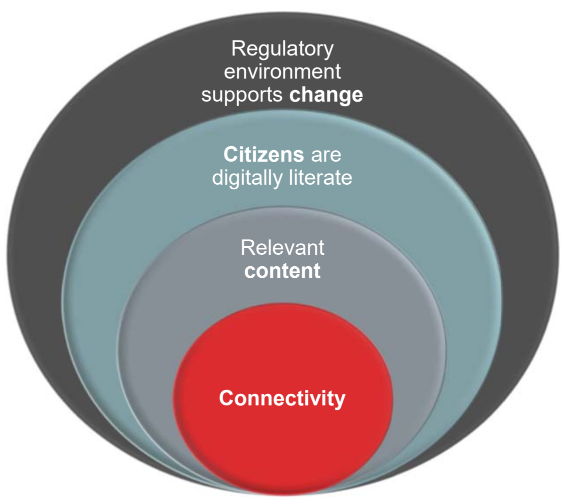
Delivering the Digital Age for citizens

- If government wants citizens to benefit from the Digital Age they need to ensure that the four ‘C’s are in place.



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Aiming for the 'Virtuous Circle'

Demand

Consumers buy products that offer the best value for money

Supply

Suppliers compete to offer the best value for money

Consumer Protection

Demand side needs:

- Access to information
- Ability to asses it
- Ability to act on it

Comp / Regulation

Supply side needs:

- A number of suppliers
- Suppliers that compete without significant barriers (entry, expansion, exit)

3

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1

Competition Policy = competition law and economic regulation

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Focus on competition policy

Competition policy =

Government policy + Enforcement of competition law and economic regulation to the communications industry as a whole

Competition policy is used as an intervention to facilitate the proper functioning of a competitive market

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It is often said that:

Regulation is *'Ex-Ante'*

- Regulation is imposed, based on market analysis, to remedy market failure *before* the failure manifests itself (e.g., licence conditions for telecom operators)

Competition law is *'Ex-Post'*

- Competition law is used to enforce the rules *after* something has happened – e.g., abuse of dominant position

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But there are nuances…

Regulation can be applied 'ex-post'

- Example, breach of licence conditions resulting in ex-post enforcement

Competition law can be applied 'ex-ante'

- Market investigations (in EU and UK)
- Merger control (in countries that adopt merger control)

7

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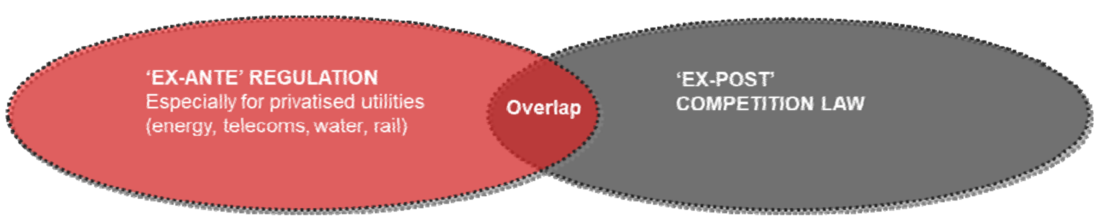
What is Competition Policy?



Regulators

Competition Authorities

8

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Overlap: two ways to skin a cat

Problem	Regulation Solution	Competition Solution
Excessive Pricing	Pricing controls	Abuse of dominance
Rights to access	Access controls	Essential facility finding
Monitoring	Regulatory accounts	Submit to regulations governing behaviour

9

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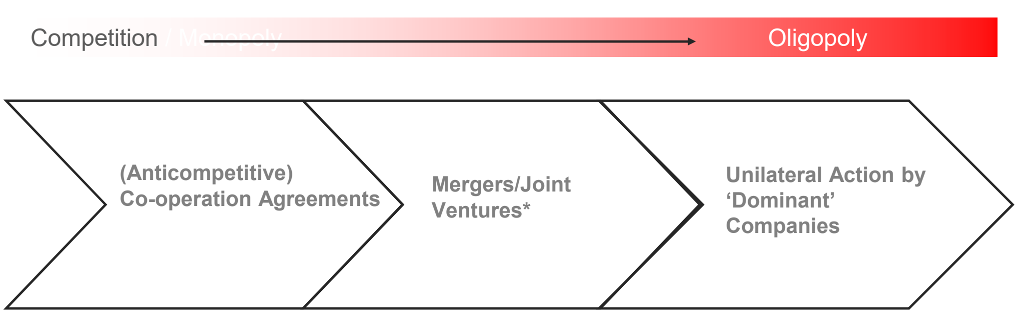

10

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Economic Regulation = SMP Regulation

SECTOR: Communications
•Telecommunications regulation (SMP regulation)
• Spectrum regulation (e.g., assignment — spectrum policy usually reserved to Government)
Regulators can also regulate: television / broadcasting, radio and postal services

Economic Regulation
Tools/ methods of regulation
Statutory powers/ duty to regulate

Economic Principles
•Market failure
•Efficiency
•Market power

Legal Framework
•Regulator's duties and functions
•Competition law

11

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'SMP' Regulation

Market Definition / RETAIL MARKET
• Define product markets } A question of substitutability
• Define geographic markets }

Is it necessary to regulate?
•Three criteria test at retail level and then at wholesale level

Market Assesment
•SMP analysis (market shares, barriers to entry, countervailing buyer power, etc.)

Competitive Market
•SMP not determined
•Previous SMP decisions removed / obligations withdrawn

Non-competitive Retail Market

Repeat for WHOLESALE MARKET
If closest wholesale market is non-competitive:
• Determine SMP
• Impose remedies

12

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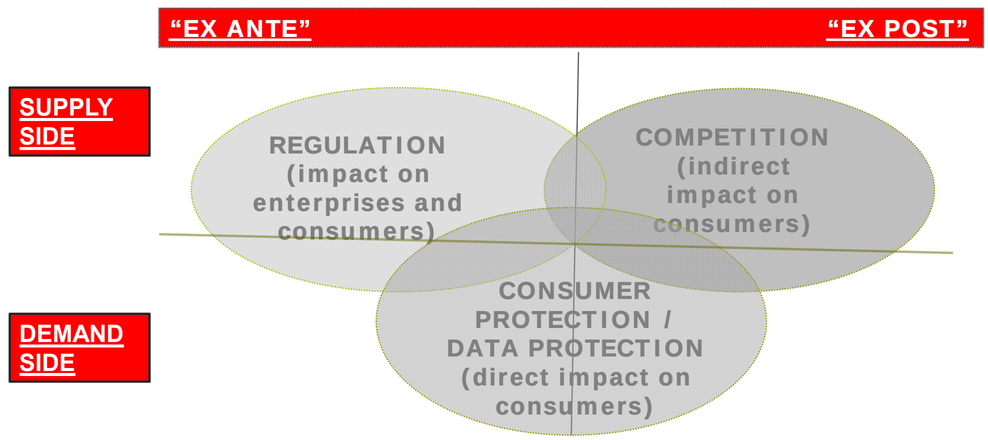
In Practice:



13

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The Overlapping Regulators

	Two agencies:	Two agencies:	Two agencies:	One agency:	One agency:
	Competition authority + sectoral regulator	Regulator with concurrent powers in competition law	Regulator has excl. jurisdiction to apply comp. law to telcos	Only the regulator, only regulation	The integrated model
EXAMPLES	Most countries	Hong Kong, UK	Malaysia, Singapore	Cambodia	New Zealand, Holland, Spain
+++ ADVANTAGES	Comp. Law is applied equally to all sectors	Comp. Law applied with expertise	Comp. Law with sector expertise but no safeguards	Convenience Complies with WTO	Comp. Law and regulation across all sectors
--- RISKS	Lack of cooperation (regulator’s expertise)	Regulators apply regulation. Comp Auth defers to regulator	Sectoral application of comp. law.	Only telcos are subject to rules	Need for funding and coordination. Risk of + agencies 1 roof

14

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In Competition Policy (comp law and SMP regulation)

1 — Markets must be defined

2— Markets must be assessed

3 — Remedies

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2 Defining Markets

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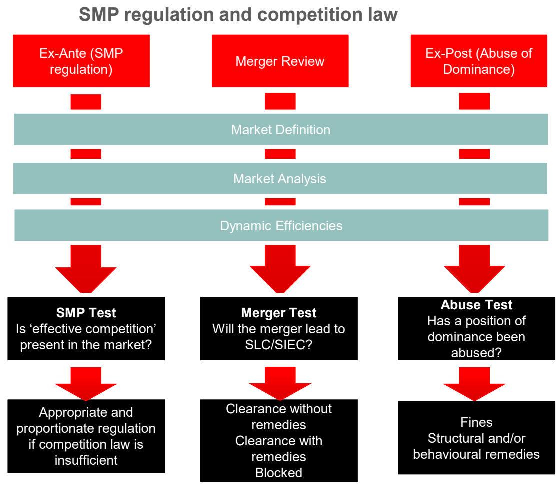
SMP regulation and competition law



17

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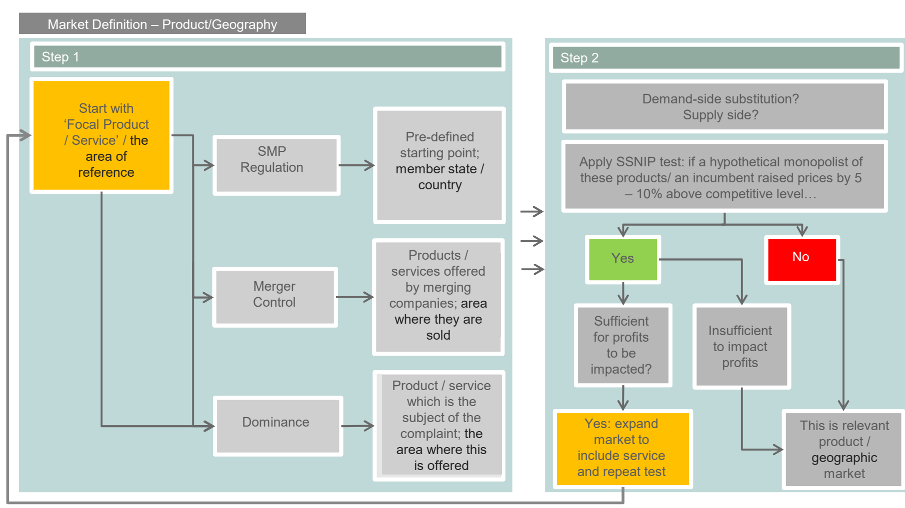
Market definition is essential



18

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Tools for market definition

The SSNIP Test

Abuse of a dominant position	Economic (SMP) regulation	Merger control
Could a hypothetical monopolist profitably sustain prices that are a small but significant amount above competitive levels (5-10%) (SSNIP)?	Could the current incumbent profitably sustain a SSNIP?	Could the parties to a merger act unilaterally after the merger? Would a merger lead to an Upward Increment in Price?

19

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SSNIP test

What if there is **no price**

?

…thanks to the advent of freemium products

Two observations:

(i) consumers may get a product for free on one side of the platform, but the platform operator may obtain revenue from the other side

(ii) accessibility of data could be a parameter of competition

In practice… modified SSNIP test.

20

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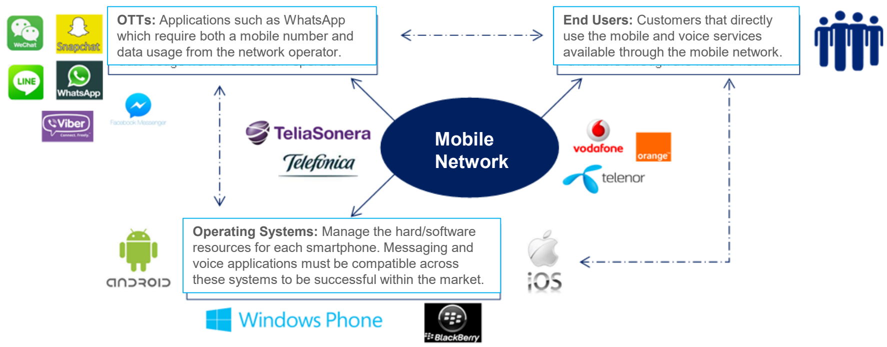
Multi-sided markets (I)

Mobile networks underpin the digital economy. They make it possible for users to interact, in some cases bypassing the network altogether.



21

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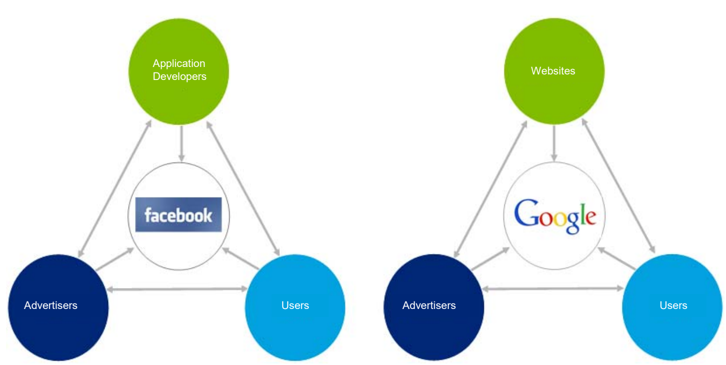
Multi-sided markets (II)

Similarly, but differently, OTTs are multi-sided markets using their ability to monetise data to fund ‘free’ applications.



22

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SESSION 3

Assessing Markets

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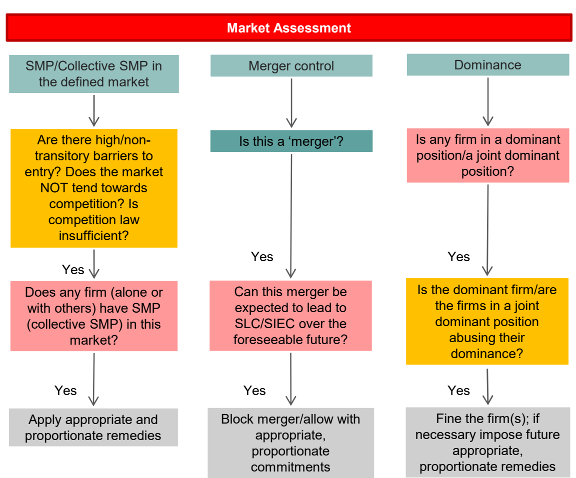
Market assessment in a nutshell



24

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The "Pink Boxes": What is *market power*? Measuring it, taking into account *dynamic efficiencies*

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Measuring market power: market share

Market share is the starting point for measuring market power

However, market share is not conclusive evidence of market power; other factors require consideration.

In general, when looking at market share:

26

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Measuring market power: Concentration

In a **fragmented** market …

… relatively **low market share** …

….may still confer (some) **market power**

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Measures of concentration (1)

Concentration Ratio / Index:

Combined market share of the largest firms in a market (e.g., by revenue or number of users). Typically the 4 largest (CR-4).

Allows for: comparison of concentration between different markets

Can also be used to look at the concentration of top 3 firms, or 5, as needed.

KEY WEAKNESS: when the top firms (3, 4 or 5) share the market, the ratio is constant, e.g., the ratio is the same irrespective of the relevant strength of the firms.

RATIO = 100% whether:

- CR-4 = 25%+25%+25%+25% = 100%
- CR-4 = 70%+10%+10%+10% = 100%

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Measures of concentration (2)

Herfindahl-Hirschmann Index:

The ∑ of squared market shares - between 0 (markets with perfect competition) and 10,000 (monopoly = 100%)

Addresses KEY WEAKNESS of concentration ratio.

Example: HHI = 25%+25%+25%+25% = $25^2 + 25^2 + 25^2 + 25^2$ = 2,500

HHI = 70%+10%+10%+10% = $70^2 + 10^2 + 10^2 + 10^2$ = 5,200

In merger control:

- HHI = below 1,500 = UNCONCENTRATED – GREEN LIGHT
- HHI = 1500-2500 = MODERATELY CONCENTRATED – AMBER LIGHT
- HHI = above 2500 = CONCENTRATED

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Implications of the Digital Age on market shares

Market share is likely to become more volatile as new players emerge and consumer tastes evolve. Care needed if introducing SMP regulation concepts for Internet players

Due to freemium products, measuring market share on number of customers or data usage may be more appropriate than on revenue

Obtaining data from global players and for non-measurable products is likely to be problematic

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Measuring market power — a dynamic concept in the Digital Age

Factors	The Digital Age
Lack of barriers to entry and expansion	Traditional barriers to entry are lowering: • Open source software facilitates interoperability and new entrants • Switching between mobile operators is now a relatively simple process • Sunk costs are lowered, for OTTs at least Barriers to expansion could also be lower: • Brand recognition — e.g., Microsoft and Apple when entering new markets • Telcos moving to new parts of the value chain — e.g., operators + Internet players
Countervailing buyer power	Countervailing buyer power is increasingly important — even firms with high market shares need to innovate and stay relevant
Bidding markets	Where firms bid (e.g., for spectrum licences) bidding should deliver efficient market outcomes despite few or only one player ending up with ownership of the resource
Regulation	In the Digital Age, only the telcos are regulated

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Types of efficiencies

The Digital Age is driving additional efficiency incentives which should be considered within competition policy.

What types of efficiencies are there?

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Promoting efficiency — SMP regulation

Investment is vital to the progress of the sector. Remedies following a finding of SMP must follow a number of principles:

- Regulatory interventions should deliver outcomes in the least distortionary and burdensome manner
- Remedies should be applied on a non-discriminatory basis to all market participants on a technology and service neutral basis
- Intervention should be adaptive, reflecting the changing operating environment and recognising that remedies may warrant removal more quickly in fast changing markets
- An efficient market requires transparency of market information and decision making

33

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Promoting efficiency – mergers

Competition authorities should consider efficiencies as well as the potential for competitive harm when evaluating mergers. What efficiencies may arise?

- Economies of scale and related impacts that can be passed onto consumers, such as lower prices and increased innovation by the merged firm.
- Proof of immediate efficiency benefits, often within a year, are a key factor in determining whether a merger case is cleared by competition authorities.
- Operators may benefit from a larger customer base, reducing costs per unit (economies of scale). This may increase profitability, enabling greater investment in network capacity and coverage.
- Mergers may allow the combined entities to combine assets — e.g., spectrum holdings. Investment opportunities may arise through the merged infrastructures allowing for the provision of higher quality services and wider coverage.

34

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The "Yellow Boxes": Is there a problem?

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'SMP' Regulation – Assessment

Principles for market definition in SMP regulation based on EU principles and should be applicable in countries that have adopted the SMP regulatory system.

- Define markets as discussed in Session 3, then
- Step 1, apply the (cumulative) three-criteria test:
  - in the market(s) identified, are there any high and non-transitory entry barriers? If no, no need to regulate;
  - does the market structure tend towards effective competition within the relevant time horizon? If yes, no need to regulate;
  - would the application of competition law adequately address the market failure(s) concerned? If yes, no need to regulate

36

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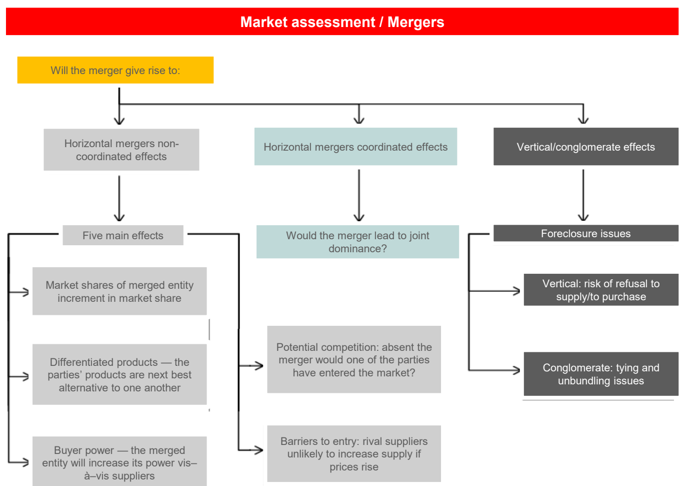
Merger Control – Assessment



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Abuses of market power

A firm with market power may be able to limit competition and cause consumer harm within an industry, for example, through pricing strategy or exclusivity agreements. Types of potential abuses are:

- Exploitative — to exploit an existing dominant position, e.g., by imposing excessive prices.
- Discriminatory — discriminating amongst competitors. Traditionally, price discrimination was main category of discriminatory abuse, although cutting supplies to some categories of customers was also considered as a potential discriminatory abuse.
- Exclusionary — examples include predatory pricing and loyalty rebates. Most problematic category of abuse, and includes behaviour which is perfectly legitimate, if entered into by a firm without market power, but potentially illegal if carried out by dominant firms.

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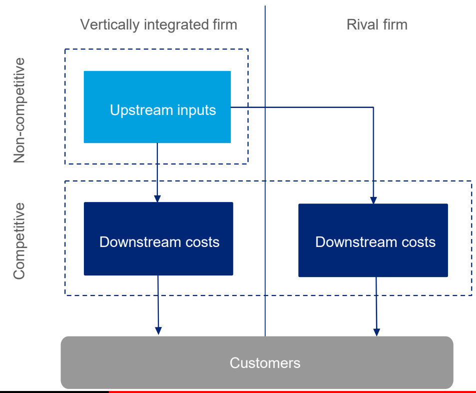
Leveraging of market power

Firm uses its position of market power in one market, to exclude rivals from another, usually contiguous, market.



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Bundling (in market assessment)

Bundling may lead to efficiency gains and improve consumer welfare, however it may also provide the opportunity for market foreclosure.

Criteria for intervening in bundled markets

(1) Are the products in the bundle distinct?

Yes

(2) Do the bundling firm(s) have market power in home (or tied) market?

Yes

(3) Are consumers harmed?

Yes

(4) Is the potential harm outweighed by efficiencies which are passed to consumers and can't be achieved less restrictively?

No

Possible case for intervention

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Remedies: The "Grey Boxes": What do we do about it?

4

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Types of intervention

- Behavioural
  - Anti-competitive agreements/ Cartels + SMP regulation
  - Abuse of dominance / SMP regulation
- Structural
  - Commitments to allow mergers / Structural separation in regulation

42

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Remedies in SMP Regulation

Issue	Potential Remedies
Excessive prices	Charge control
	Ex ante margin squeeze
	Cost accounting
Input foreclosure (e.g., refusal to supply)	Obligation to provide network access (general and/or specific)
	Requirement not to unduly discriminate
	Publication of Reference Offer
	Notification of changes to charges and technical information
	Equivalence of inputs
	Accounting separation
	Cost orientation
Reduction in service quality (wholesale)	Quality of Service obligations (e.g., minimum standards, KPI reporting)

43

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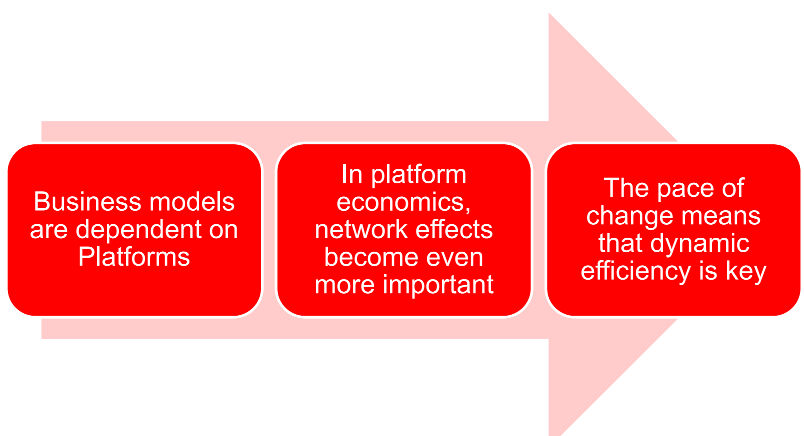
5 Implications for the digital age

The Smile Curve – traditional business loses out

45

In the Digital Ecosystem:



46

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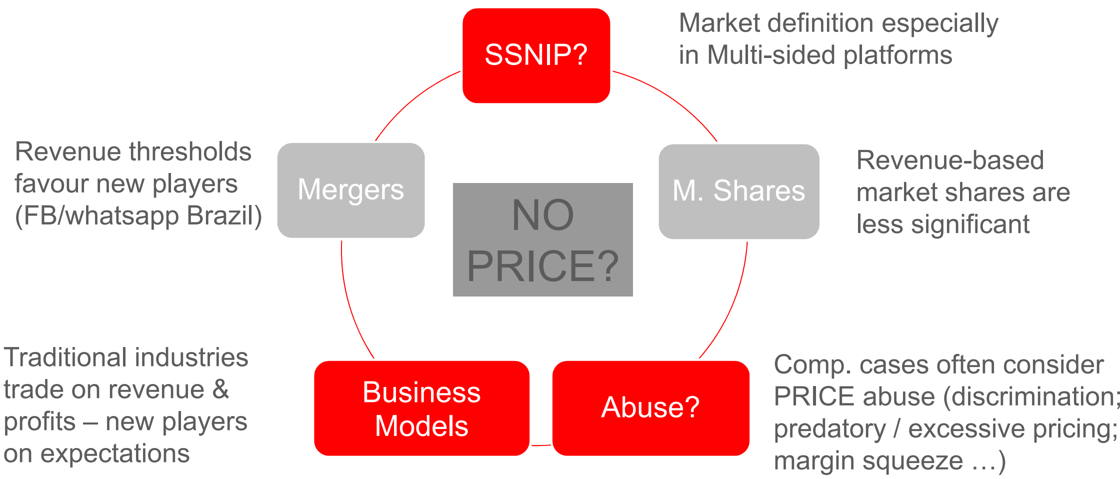
In the Digital Ecosystem – no price?



47

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Costs and Consequences of Legacy Regulation

Regulating well is always difficult …	… and more so in the digital ecosystem
▪ Information gaps can lead to regulatory errors, distorting markets and competition ▪ Market conditions and technologies can change in unpredictable ways ▪ Regulations often create substantial compliance burdens ▪ Regulation always benefits some interests over others	▪ The complexity of digital markets increases regulatory error ▪ Rapid change accelerates regulatory obsolescence ▪ Innovation and entry are distorted by regulatory burdens and risks ▪ Higher regulatory distortions raise returns to rent-seeking

Discriminatory, prescriptive regulations inhibit the growth of the digital ecosystem and reduce consumer welfare

48

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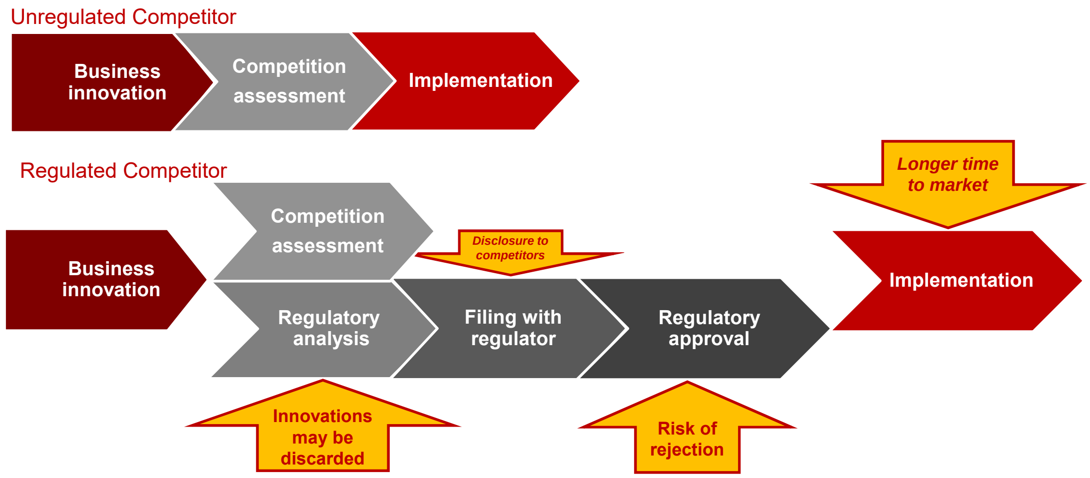
Regulatory Discrimination Impedes Competition



49

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Competition Policy Handbook

www.gsma.com/publicpolicy/competition-policy-in-the-digital-age

50

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Competition Policy Case Studies

- http://www.gsma.com/publicpolicy/competition-policy-digital-age-case-studies-asia-sub-saharan-africa-2

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Case Studies — Structure

Introduction

Asia

Sub-Saharan Africa

Appendix 1 – Spectrum in Competition Policy

Appendix 2 – SMP Regulation in Practice

Flowchart 2

Flowchart 1

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Thank you!