Regulatory Challenges in the Digital Economy

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The “New” Economy:

- Innovation and Knowledge based Growth
- Modularity of Production — Mass-Customization — and Innovation
- Globalization

« Regulation » and « Regulator »

= set of rules designed by public authorities that shape economic/social activities and the related implementation bodies

In concrete terms

- Law and regulations
- Parliament, Government, Judiciary and… “Regulators”
Digital Networks

- “Transparency”
  => Less externalities, but more complex transactions
  - Complexity: difficult to oversight
  - Cooperation: potential collusion

- Technical and Marketing Innovation
  => Difficult for public authorities
  - To be aware of actual practices… and therefore to oversee
  - And to anticipate them… and therefore to regulate

- Modularity + Innovation = Continuous marginal innovation
  => Need for a permanent upgrading of the regulatory framework
  => Forums organized by the regulator (public hearings)
  - To allow information revelation
  - Controlling for/Bounding capabilities to manipulate information
The “4 + 1” Regulatory Topics in Networks

- **Fixed costs allocation**
  - => “Natural Monopoly” Issue

- **Establishing Property Rights**
  - => Incitation to Invest and Innovate

- **Negative network externalities management**
  - => Coordination rules to bound congestions and prevent collapse

- **Positive network externalities management**
  - => Ensuring : Interconnection & Interoperability thanks to standards and interconnections rules

- **Establishing the “Public Interest”**
  - => Conflicting claims if no pure indivisibility of resource: Conflict among stakeholders to define both
    - *the notion of “public interest”* (and the related fundamental private and individual rights)
    - *and the scope and the possible use of the “public domain”*
    - => In any regulatory process lobbying of groups of interest to impose their regulatory preferences
    - => In the new context, permanent innovation in terms of usage (hardly observable by any regulator)
The “Digital” Challenges

• Fixed costs allocation
  – OW: Pricing of a single/stable service by a monopoly
  – NW: Interconnection tariffs among providers of permanently upgrading services

• Establishing Property Rights
  – OW: Stable and integrated rights
  – NW: Interplaying unbundled rights + low verifiability: Oversight of private Negotiations

• Negative network externalities management :
  – OW: Vertical Integration + Regulation
  – NW: Conflict settlement + Case Law

• Positive network externalities management
  – OW: National standards + International interconnection agreements
  – NW: Preventing abuses of dominant position through standards + Preventing endless capture (mandatory early stage revelation + support to competitors and open standards)

• Establishing the « Public Interest »
  – OW: Cost/benefit analysis + (Hicks-Kaldor) Compensation
  – NW: Recognizing uncertainty and incomplete information: Forums
The New-Regulatory Context

• “Revealing” Regulator
  – The regulator and the stakeholders lack of information and are uncertain about the future
  – Evolution is necessary while stability is a condition for investments (in R&D, infrastructures)
    ⇒ Forums to share information and form consensus
      ⇒ Information revelation based on competition
      ⇒ Digital networks might help

• “Public Interest” or “Evolving Compromise”
  – Maximization of social welfare + Compensation is a too moving target
  – Regulations by forums are however the results of strategic games in which “voices” are inherently unequal while dominant position might be sustainable in the long run.
    ⇒ Prevention of anticompetitive behaviors + Permanent antitrust assessment
      ⇒ Permanent forums to reshape the regulatory framework
      ⇒ Antitrust + Conflict Resolution

• Empowering stakeholders
  – Free access and openness incite stakeholders to reveal, develop their expertise, negotiate solutions, innovate
    ⇒ Regulators need to “empower” the weakest
      ⇒ By inciting them to contribute (e.g. class action)
      ⇒ By supporting their contribution to the “Regulatory debate”