



# **Theory and principles of regulation Models of regulation**

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**2010 Summer School**

**Florence, 28 June 2010**

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## 1. Regulation of markets in general

- A frame of rules is necessary to the working of markets
  - Contract law
  - Technical standards, interoperability
  - Urban design, planning
  - Health, worker safety, consumer protection
  - Protection of savers: financial regulation
  - International trade
- Lack of rules leads to a jungle, where criminal organisations sell protection
- Freedom and development are hurt by excess of rules and by stupid application of rules
  - What is the Index of Economic Freedom of the Heritage Foundation measuring?

## 1. Regulation of markets

- Regulation has to be constantly adapted to changing conditions
- Regulation
  - is not a goal in itself or an ideology
  - is an instrument and should be kept as light as possible
- De-regulation is a priority whenever conditions allow it
- Regulation may be set
  - By public bodies: government, independent regulators
  - By private bodies providing basic, common services
  - By private (professional) organisations (self-regulation)
- Regulation may be local, national, European

## 2. Competition

- the general rule in a modern economy is competition, for reasons of
  - efficiency
    - prices are higher under monopoly than in competition (static analysis)
    - competitive pressure induces cost cutting and search for efficiency (dynamic analysis: efficient companies have higher margins)
    - competition induces innovation (dynamic analysis: new products & processes allow higher margins for some time)
  - freedom of enterprise, freedom of choice

## 2. Competition policy

- competition does not happen spontaneously
- **competition policy** removes the obstacles:
  - Abuses of dominant position
  - Cartels (hence the name: antitrust)
  - Growth through mergers & acquisitions
- antitrust was developed in the US since 1890, has been one strong point of European development since 1958
- removal of barriers and creation of a single market in the European area is a strong competition policy in itself

### 3. Regulation of energy network services

<p>a. Energy networks must be regulated because they are a clear case of <b><u>natural monopoly</u></b></p>	<p><b>REGULATOR</b></p>
<p>b. Energy activities other than network services are usually organised in competition: <b><u>competition policy</u></b> is appropriate and generally sufficient</p>	<p><b>COMPETITION AUTHORITY (REGULATOR FOR MARKET DESIGN)</b></p>
<p>c. Energy is a primary need and should be guaranteed to all citizens: <b><u>public service obligations</u></b> are justified</p>	<p><b>REGULATOR (GOVT. BASIC CHOICES OF SOCIAL POLICY)</b></p>
<p>d. Energy is essential to the economic system (a strategic resource): an <b><u>energy policy</u></b> is justified</p>	<p><b>GOVERNMENT (REGULATOR ADVICE)</b></p>

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### 3.a. regulation in energy services: networks

- characters of a “natural monopoly”:
  - decreasing average cost
  - implying that one producer is socially more efficient than many
  - for the relevant amount of demand
- networks are “essential facilities”, i.e. infrastructures which
  - are necessary to competitors for providing services to their customers,
  - cannot be replicated (economically)

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### 3. b. activities in competition

- Activities different from network services can and should be organised in competition :
  - Gas exploration, production
  - Electricity generation
  - Commercial activities
- This does not happen easily: liberalisation (repeal of any legal monopoly) is fundamental, but only a pre-requisite
- competition policy is necessary
- Even competition policy may not be sufficient
  - Comp. Authority acts ex-post, often too late
  - Market design is necessary

### 3. b. competitors need fair access to networks

- Competitors need a fair access to networks: Third Party Access (TPA)
- network companies must grant access to all commercial companies at fair conditions and prices
- this requires
  - either explicit, public regulation
  - or self-regulation by companies with negotiated conditions
- European preference for public regulation

### 3. b. the vertically integrated company

- the vertically integrated company is the historic model in energy network services
- there is a **conflict of interest** in managing a network and an energy business at the same time:
  - Possible cross subsidy in tariff setting
  - Possible discrimination in access
  - Possible distortions in development of network
- separation of activities (unbundling) is necessary
- transition to competition implies political choices, overcoming opposition

### 3. b. types of unbundling

- Unbundling:
  - Accounting – Managerial – Legal - Ownership
- In favour of ownership unbundling:
  - the only way to have effective unbundling
  - allows lighter regulation
  - where public ownership is popular, provides a way out
- Against:
  - economies of scale (e.g. in buying gas, building infrastructures)
  - shareholders rights against forced breakup of enterprise
  - defence against foreign, non-European acquisitions
  - protection of know-how
- 2009 directives (third package) provide options

### 3. b. retail competition

- competition at the wholesale level is undisputed
- EU choice of extending free choice and competition to the retail level has been disputed
- a different model was available: a Single Buyer to buy wholesale and supply small consumers
- Retail competition does not work immediately, the switching rate grows slowly
- Regulators maintain reference tariffs during the transition and invest in information, consumer education

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### 3. c. public service

- Modern energy (particularly electricity) is a primary need; access and a reasonable quantity should be guaranteed to all citizens
- Public service in the traditional European version: energy services provided by the state through controlled enterprises
- Public service in a context of liberalisation: citizens' rights embodied in obligations imposed upon energy companies

### 3. c. public service obligations

## Public service obligations imposed upon:

- Network companies:
  - connection
  - quality of service (interruptions, voltage, gas pressure)
  - metering (accuracy, frequency of reading)
  - information, complaints
- Energy companies:
  - billing (frequency)
  - treatment of people in need
  - information, complaints

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### 3. d. energy policy

- Energy is essential to the economic system
- The mix of primary energy sources is essential for the **security of supply**
- Availability of cheap energy is useful to industry (to some industries particularly)
- Energy policy a competence of national governments, European institutions
- Often an argument for public ownership of energy companies, for protection of “national champions”, for exceptions to general competitive conditions
- Impact on regulation

## 4. The regulatory institution

### Who regulates?

- A specialised, technical body
- Able to provide a stable frame of rules which is essential for efficiency and investment
  - not subject to short-term political change
- With a clearly defined mandate
  - few opportunities for compromise among different goals

## 4. The regulatory institution

### Regulator's tasks:

- Normative, executive:
  - set access rules
  - set network and other tariffs
  - licensing & authorization of facilities
  - quality supervision & control
  - supervision of competitive behavior (with antitrust authority)
- Operative
  - request of information, inspection
  - sanction
- Arbitration and conflict resolution
- Proposals to government, parliament
- Advocacy

## 4. Is regulation temporary?

- the need for regulation decreases after the first phase of liberalisation: will regulators be unemployed after a transition period?
- some regulation is required both for the networks (natural monopolies) and for the competitive markets (like in the case of financial markets)
- the future function of regulators depends on:
  - the degree of effective competition (structural evolution)
  - the growth of self regulation in network companies, market operators
  - effective antitrust action
  - technical change

## 4. An independent institution

- The regulator should be independent with respect to the regulated companies
- And also with respect to Government? There are reasons in favour of a degree of independence
  - a clear and stable framework is a condition for private investment
  - Government is subject to pressure and inclined to compromise
  - Government protects national companies, specially when is owner
  - general “advantage of tying one’s hands” (as in the case of the central bank)

## 4. Legitimacy

### Does independence of regulator violate legitimacy?

- Technocracy in place of democracy?
- Legitimacy does not depend on popular election only
- Legitimacy of an independent institution is based on:
  - Legal basis, precisely defined mandate
  - Appointment procedure, to assure competence, ethical standard
  - Incompatibilities, to avoid conflict of interest
  - Transparent decisions, predictable procedures
  - Consultation of interested parties
  - Accountability to Parliament (better than to Government)
  - Financial provisions
  - Judicial review

## 5. European developments

### Reminder: institutional architecture of the Union

- Commission proposes
- Council and Parliament decide
- directives have to be implemented at the national level
  - variety of implementation models
- regulations provide direct Commission power

## 5. A long way towards a single energy market

- 1957 Rome Treaty: elimination of trade restrictions, atomic energy community
- 1986 Single Act: elimination of barriers in services
- 1990-91: directives on transit of electricity, gas
- 1996-1998: first directives on internal energy market
- 2003: second directives on internal energy market
- 2003-05: regulations on cross-border trade
- 2005: Commission inquiry on competition in energy
- 2007-09: third package proposed, debated, approved

## 5. Regulation in Europe

- The European tradition (different from the US) is:
  - State-owned enterprises
  - Regulation by government
  
- The Single Market implies:
  - Liberalisation and freedom of enterprise
    - ownership may be public or private
    - no monopoly unless necessary
  - Strong regulation, preferably independent



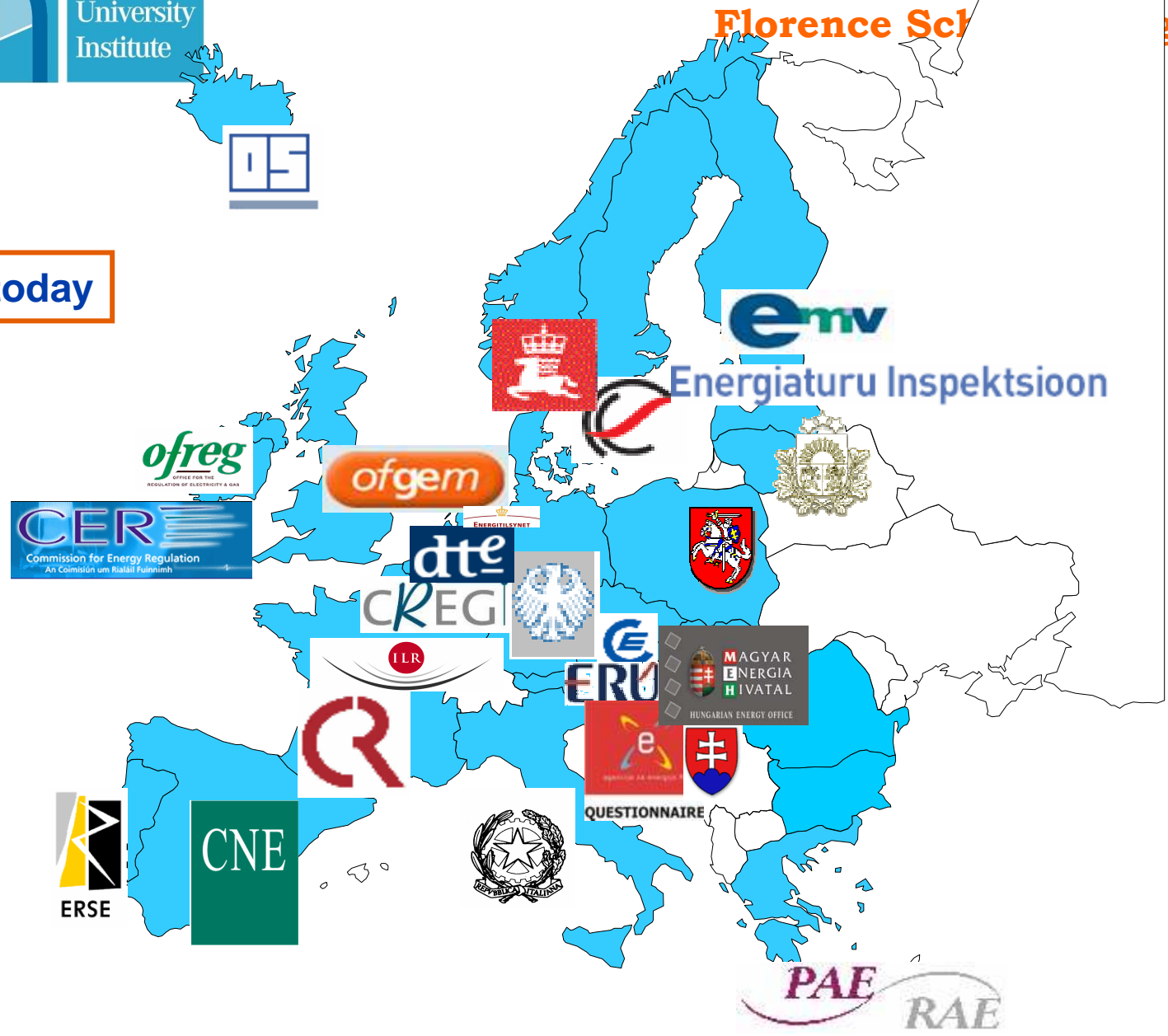
## 5. A European community of energy regulators

- 1997: some newly-established national energy regulators start cooperation among them and with the EC
- 2000: memorandum of understanding among 10 regulators
- 2003: Council of European Energy Regulators (CEER) established as a nonprofit association among regulators
- 2003: European Regulators' Group for Electricity and Gas (ERGEG) established as an advisor to the European Commission
- 2006: regional initiatives set up by ERGEG in agreement with EC: 7 electricity markets, 3 gas markets
- 2010: ACER a step towards a European regulator



# Florence School of Regulation

CEER today



energy regulation looking forward

- Energy regulation is young (outside the US) and has gone a long way
- Energy regulators have created a worldwide movement with increasing exchange of information, ideas
- Much remains to be done: people involved in regulation are the actors of evolution and should be able to look forward
- This is the challenge before you all, but no one of you is alone.

