

# Introduction to Regulation: Theory, History, Critiques

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# Some issues in regulation

- Federalism
  - Historically, most regulation started at the state level
  - Growth of federal regulation and federal-state jurisdiction tensions
- Different theories of regulation
  - Public interest
  - Public choice
- How practice differs from theory
  - Role of regulatory oversight (judicial, executive) means lots of **procedural constraints**
  - Lobbying and interest group influence can make **outcomes diverge** from the “public interest”

# Different theories of regulation

- **Public interest**/normative analysis as positive theory (NPT)
  - Grounded in Progressive Era legislation (like antitrust) & culture – belief in elite control, scientific management, single optimal design of systems
  - Precedent: *Munn v. Illinois* (1887): regulation of rates charged by grain elevators is “in the public interest”
  - Regulation arises from **public demand for market failure correction**
- **Public choice**
  - Explicit economic modeling of regulators, legislators, bureaucrats and their objective functions
  - Grounded in Hobbesian-Lockean political theory; state’s monopoly on force, normative benchmark of free, voluntary contracting
  - Industry may have incentives to seek regulation – regulatory capture, capture theory (CT)
  - Regulation arises from **interest group influence & coalition formation, lobbying, rent-seeking**

“... property does become clothed with public interest when used in a manner to make it of public consequence, and affect the community at large. When, therefore, one devotes his property to a use in which the public has an interest, he, in effect, grants to the public an interest in that use, and must submit to be controlled by the public for the common good.”

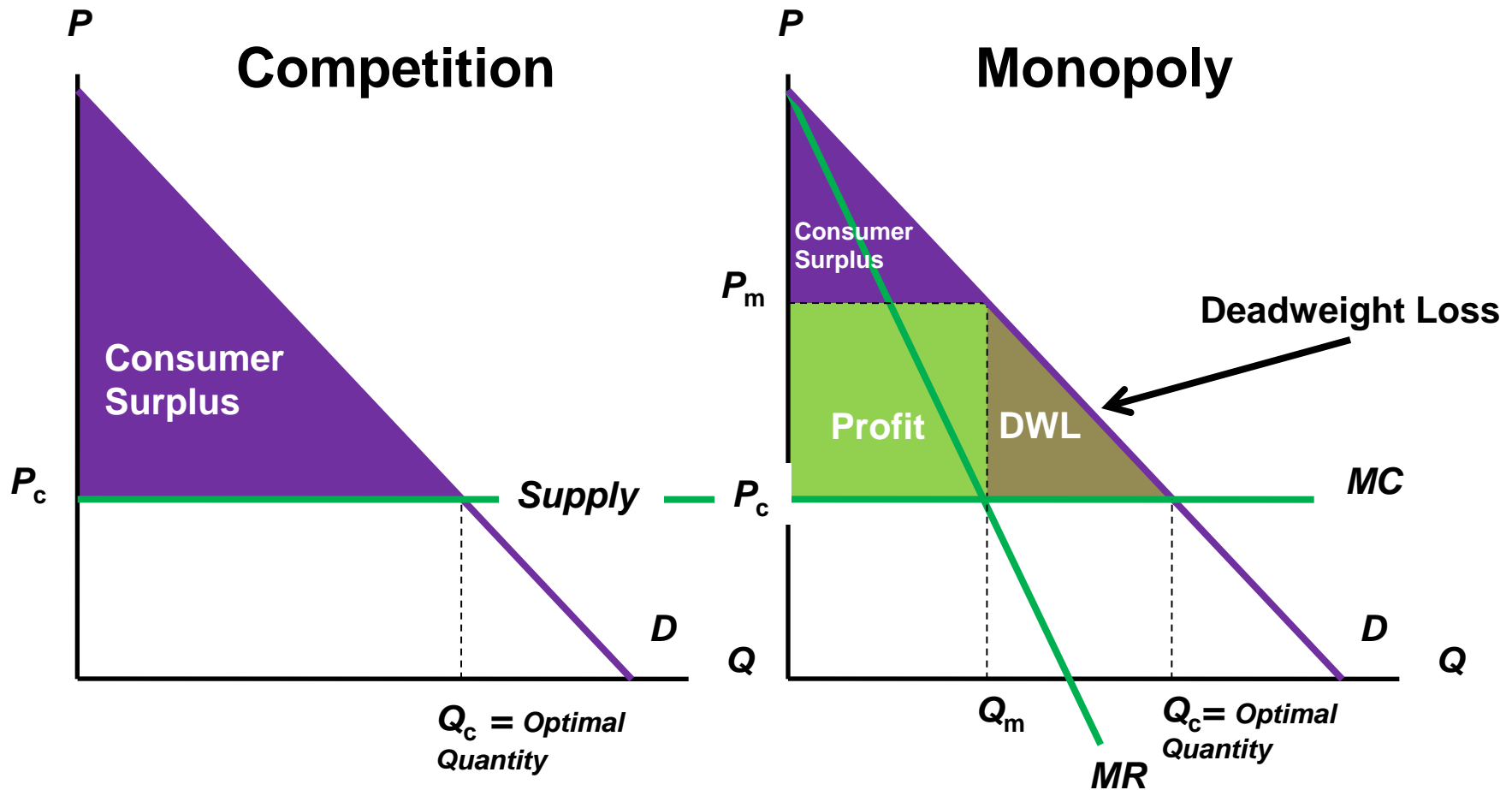
*Munn v. Illinois (1877)*

# Compare/contrast NPT and CT

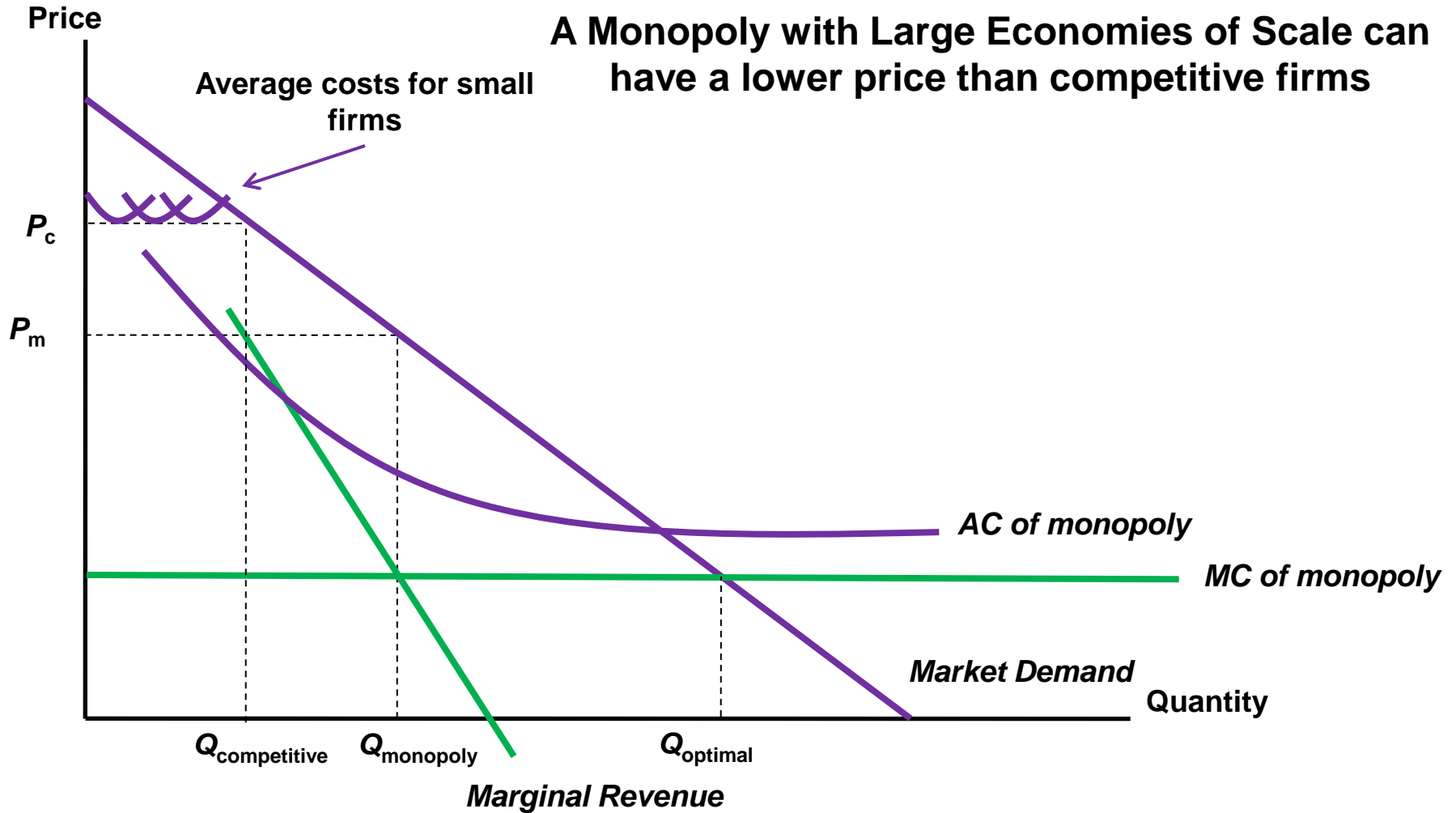
- NPT
  - Regulation arises from public demand to address allocative/productive efficiency mismatch in natural monopoly, externalities
  - Predicts **that regulation will be welfare-enhancing**
  - Critiques: no theory about the process out of which regulation arises; little empirical support
- CT
  - Regulation **pro-producer in origin, or agency becomes controlled by industry over time**
  - More consistent with regulatory history than NPT
  - Critiques: no theory about the process out of which regulation arises; cannot explain regulations that do reduce profits
- Neither theory can explain **deregulation**

# The Costs of Monopoly: Deadweight Loss

Competition Maximizes Social Surplus, Monopolies Do Not Maximize Social Surplus



# Economies of Scale and the Regulation of Monopoly

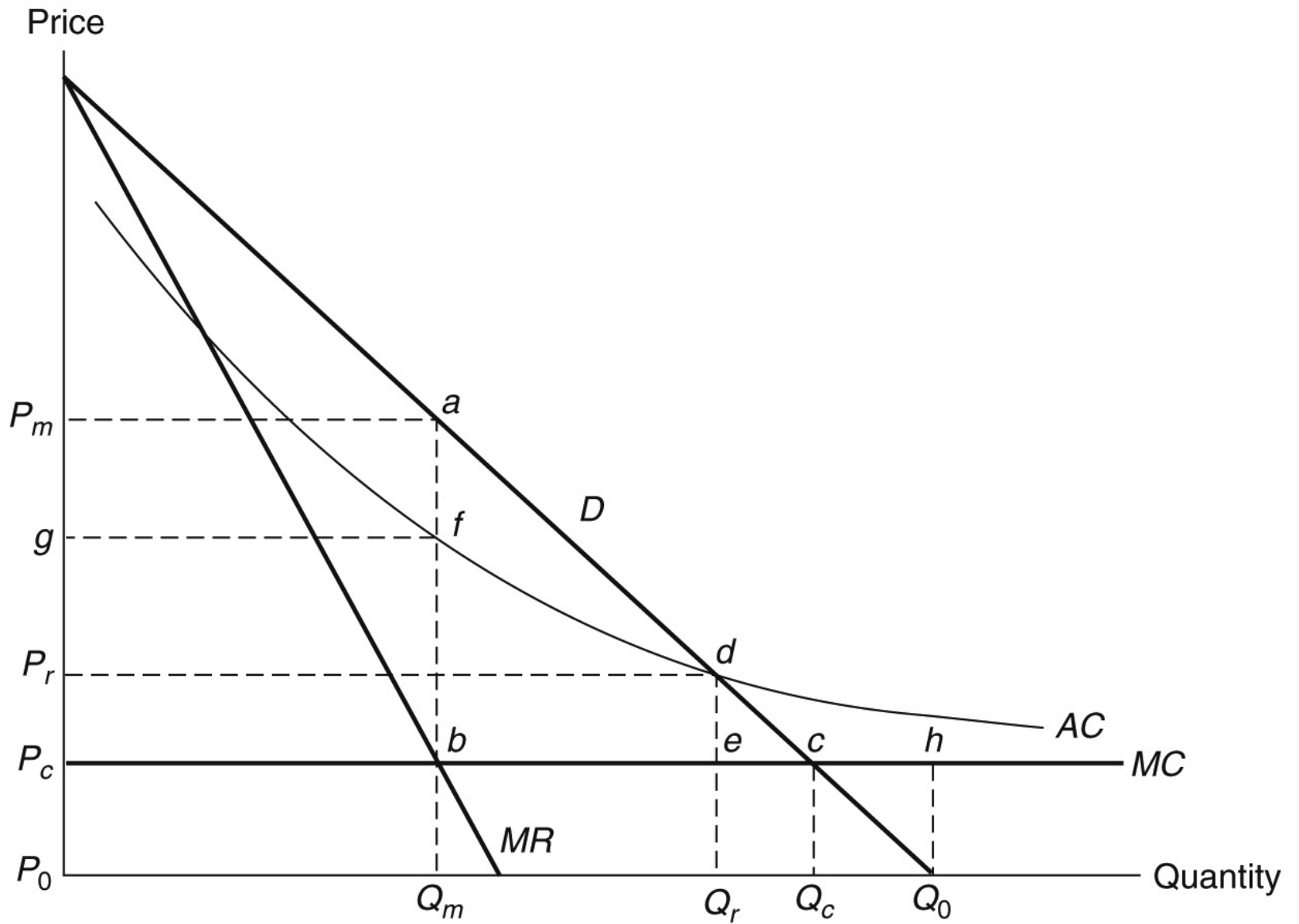


# The natural monopoly problem

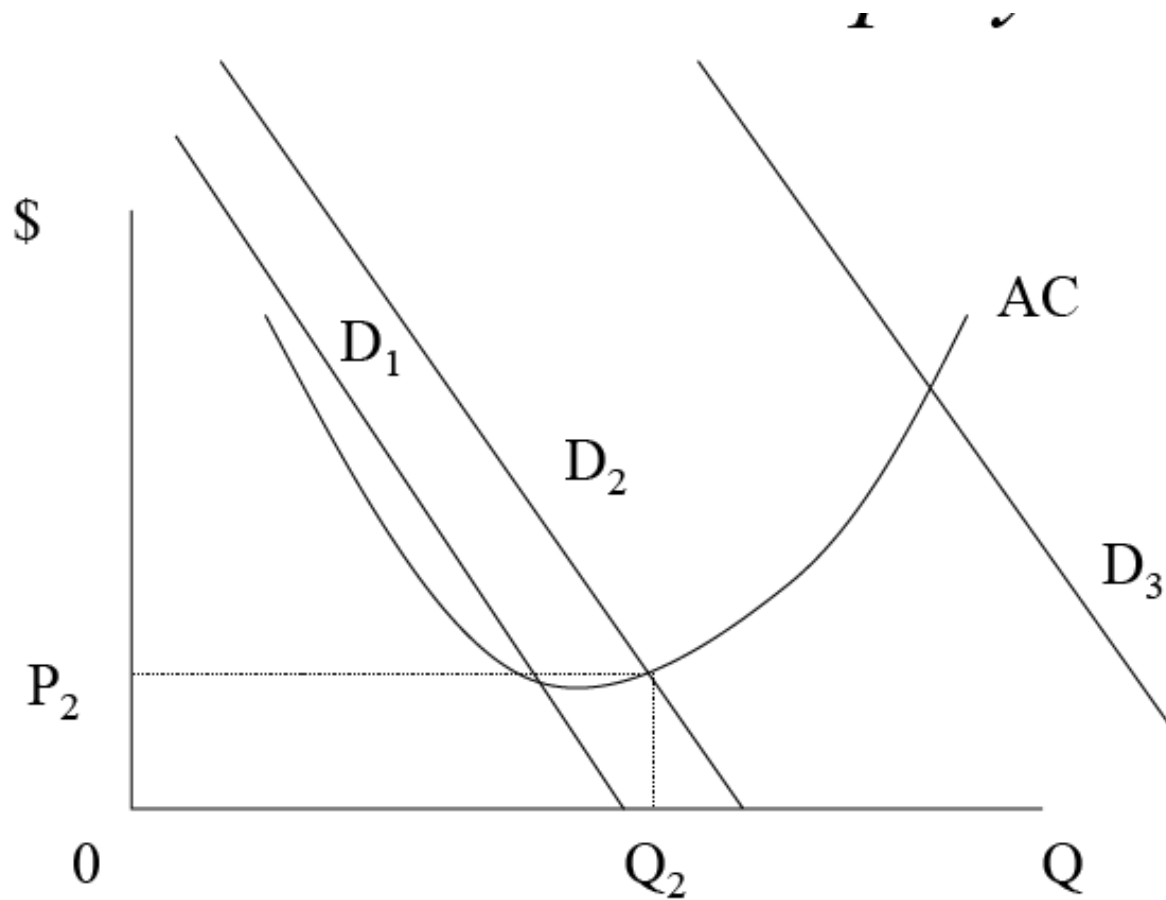
- $LRMC < LRAC$  over the relevant range of demand
  - What drives this relationship? Economies of scale for a single-product firm, subadditivity of cost for a multi-product firm
  - Economies of **scale** and **scope**
- Why is this a problem? Efficiency? Equity?
- Permanent or temporary? How do you distinguish between them?



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# Is this a natural monopoly?

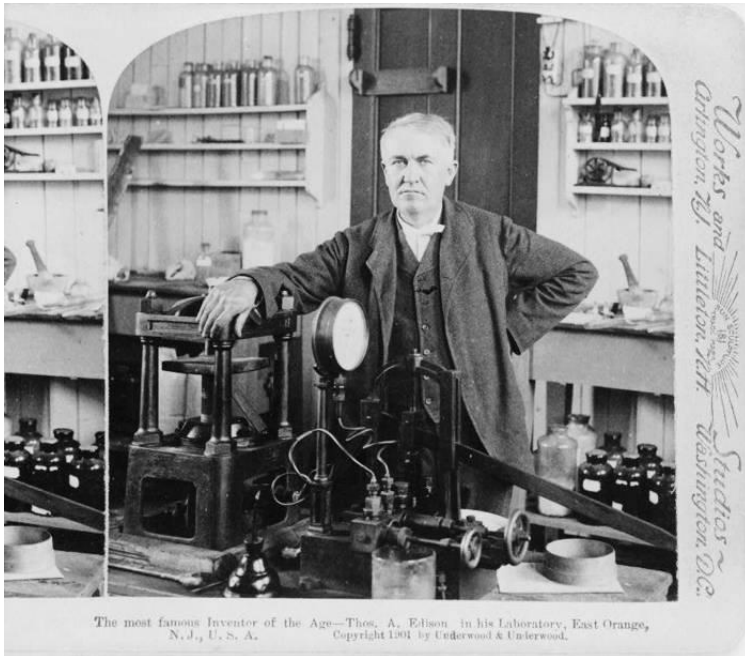


# Technological change and natural monopoly

- Technological change can **change cost relationships**
  - Reduce economies of scale (e.g., CCGT 1980s)
  - Change the economies of scope that lead to multi-product firms
  - Make competition **workable** (remember, that's the real-world standard, not “perfect”, which is unattainable)
- VHV: “... a serious deficiency of regulation seems to be that it often **fails to ‘disappear’** when the natural monopoly does.”

# History of telecom industry

- Invention – Bell, Edison
- Patents
- Western Union, Bell
- Networks



# History

- **Patent** on long-distance tech => Bell a monopoly in **intercity** telecommunications market (ITM)
- Wire-line system considered a natural monopoly – high FC, low VC, low MC of additional customer
- 1913 Kingsbury Commitment, Bell & USDOJ
- State-level regulation of local exchange service post-1907(ish), based on Munn v. Illinois precedent
- Communications Act of 1934 => FCC
- Success ... but concerns

# Concerns

- **Monopoly** in local and long-distance markets
- **Vertical integration**
  - CPE manufacturing
  - Wires network, local exchange
  - ITM network
  - Phone ownership
- **Vertical foreclosure in CPE market**
  - “foreign attachments”
  - Hush-a-Phone (1956), Carterphone (1968)
  - US v. AT&T (1982): leveraging regulated status into anti-competitive market power in a downstream competitive market

# But then what changed?

- Intercity telecommunications market (ITM) – innovation, microwave, spectrum, FCC's regulatory decisions freeing up microwave and spectrum
- Long-distance market becomes **potentially competitive** as a result
- Entrants: MCI, Sprint
- But to complete calls and create networks, need access to the **local exchange**. Bell said no.

# Political economy history of electricity

- Historical technology-driven **vertical integration**
- Late-19<sup>th</sup> c. technological change, economies of scale, **war of systems**
- Initial **rivalrous competition** in urban areas, then **consolidation**
- Industry welcomes cost-based ROR regulation as a **political bargain**
- Electrification ensues, but remains **electro-mechanical** & substantially not digital to this day



