

Understanding the Coevolution of Electricity Markets and Regulation

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Joint work with:
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Agenda

- Background
- Problem Statement
- Relevant Literature
- Elements of a Behavioral View
- Future Steps



Spain

Northwest African coast

Problem Statement

Regulation?

Government
Monopoly

- Overcapacity

- High deregulated buying price and low regulated selling price

Relevant Literature

- Deregulation of Electricity markets

Stoft (2002), Teufel et al. (2013), Bunn & Larsen (1992), Ochoa (2007)

- Type of Regulation

Averch & Johnson (1962), Green & Newbery (1992), Dnes et al. (1998), Joskow (1997)

- Choosing policy mechanisms

Finon (2006), De Vries (2007), De Vries & Heijnen (2008)

- Market characteristics

Larsen & Bunn (1999), Larsen et al.(2004), Komendantova et al. (2012)

- Market restructuring

Vogel (1996), Larsen & Bunn (1999), Joskow (2008)

- Life cycle of Regulation

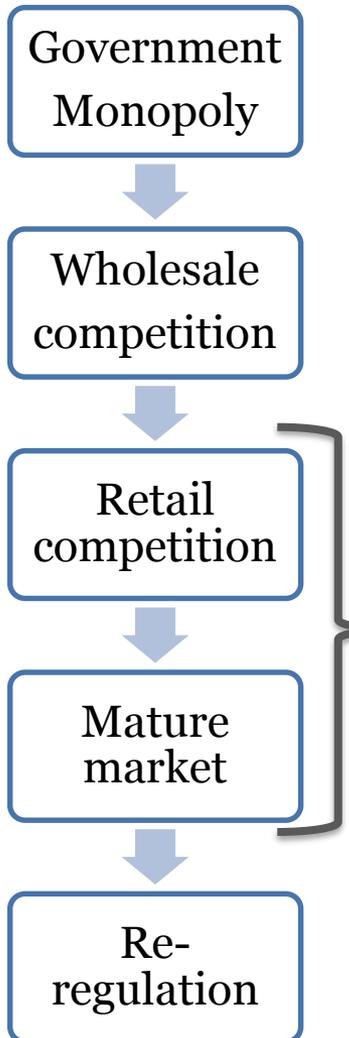
Bernstein (1955), Fukuyama (2008), Howlett & Newman (2013)

Elements of a Behavioral View



Evolution of Electricity Markets

Problems



Evolution of Electricity Markets

Regulatory aims

Government
Monopoly

- Ensure capacity and cost recovery
- Access
- Affordability



Wholesale
competition

- Prevent market power
- Protect regulated customers
- Ensure equal access



Retail
competition

- Prevent market power
- Reach environmental targets
- Ensure sufficient investments



Mature
market

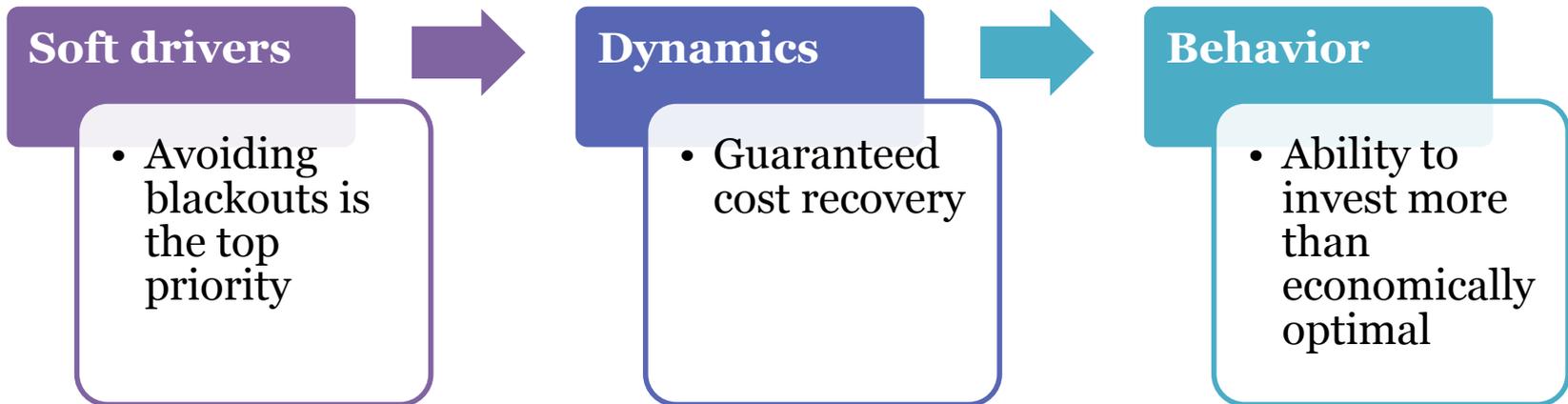


Re-
regulation

- Prevent market power
- Subsidies for all generation technologies to guarantee capacity

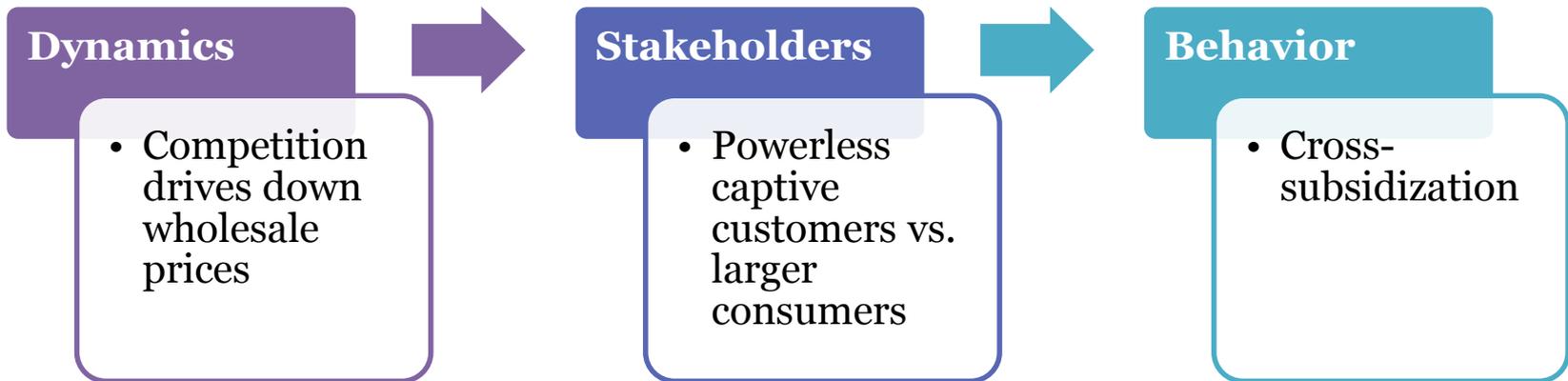
Example 1: Government Monopoly

Problem: Overcapacity in Europe



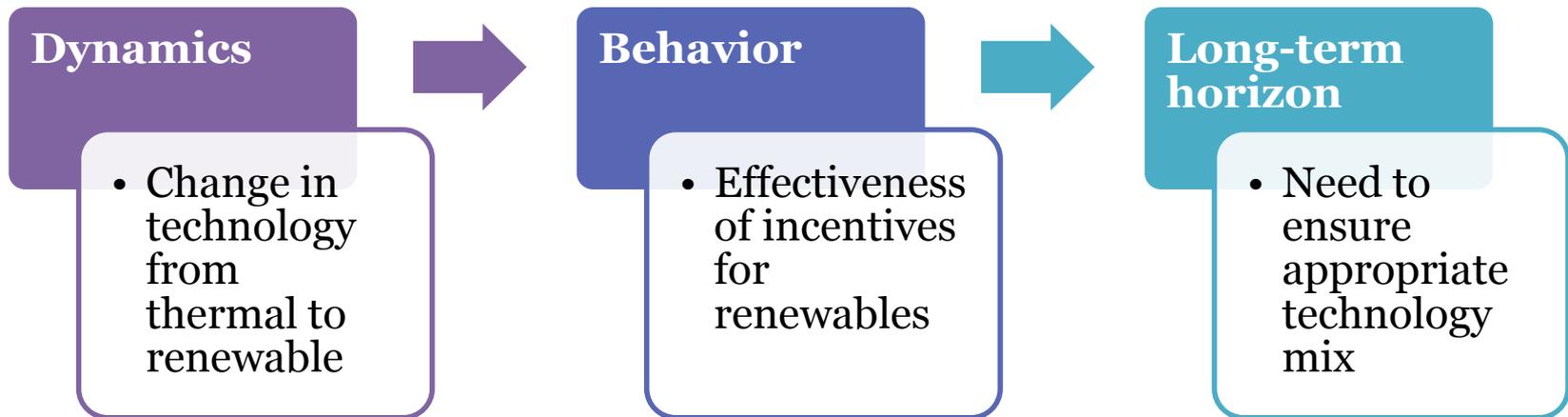
Example 2: Wholesale Competition

Problem: Overcharging captive customers



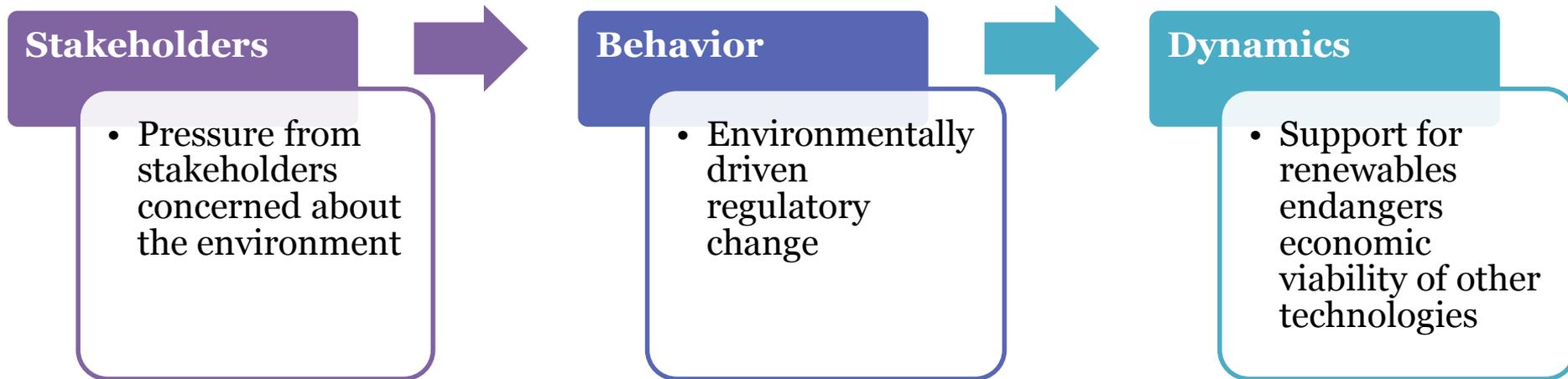
Example 3: Mature Deregulated Markets

Problem: Managing technological transitions



Example 4: Re-regulation

Problem: Environmental issues



To conclude...

Where we are:

- Understanding of the evolution
- Inclusion of behavioral aspects
- Towards co-evolution rather than major overhauls

Next steps: elaborate examples
refine the framework

Understanding the Coevolution of Electricity Markets and Regulation

Presenter:

Busra Gencer

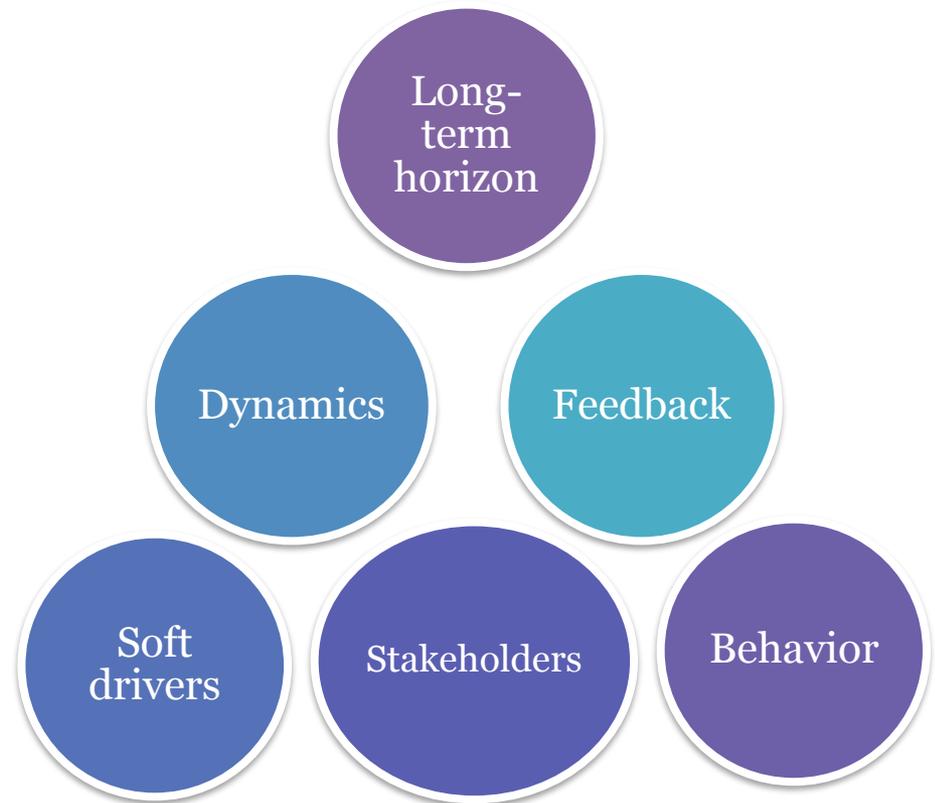
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