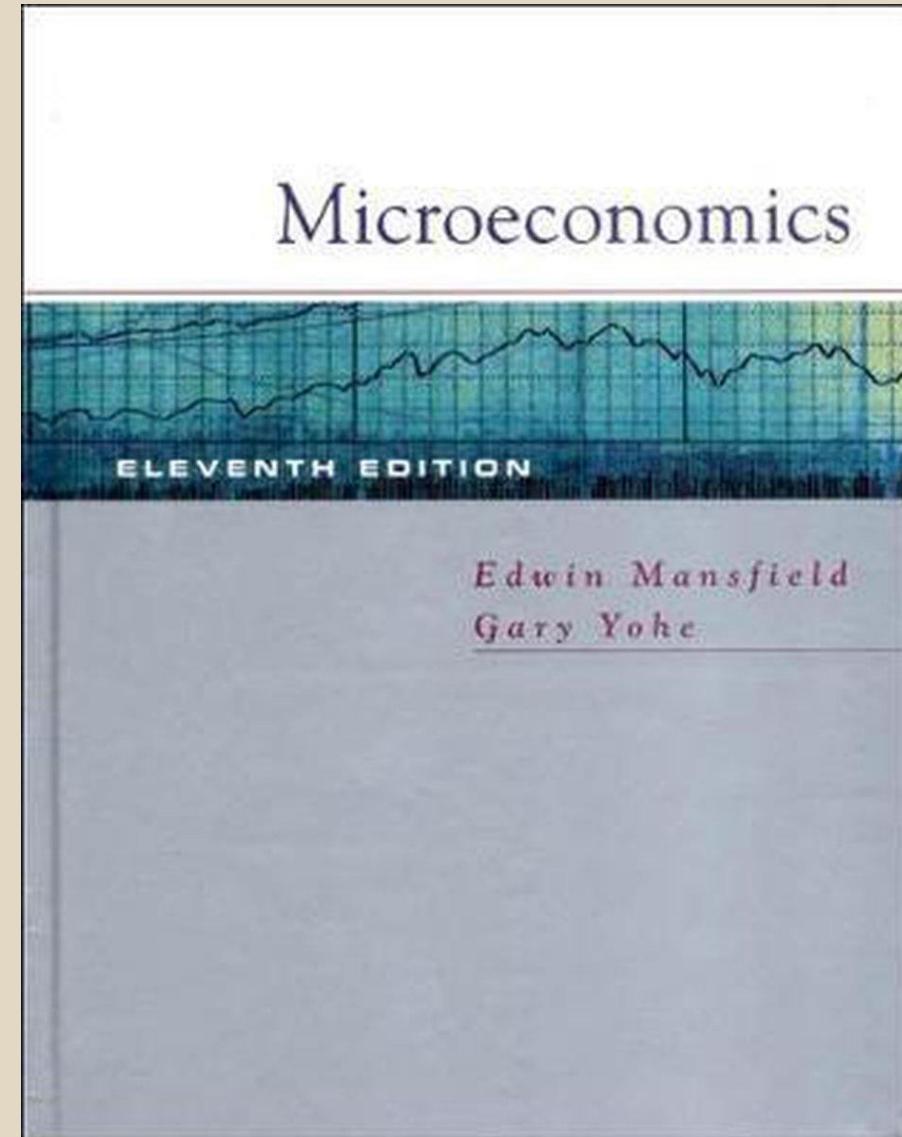


SCALING UP STRENGTH AND RISK IN COMPETITIVE MARKETS

How Promising
Innovations Fail Due to
latency, Market Fear and
Systemic Resistance

Harm Hofman
Duurzaam Heiloo



Economies of Scale and Resilience

- Higher investments; lower unit costs.
- Simultaneous expansion many producers = overcapacity.
- Supply outpaces demand → structural price pressure

Sector Examples

- Europe (Heat Pumps):
Investments by to ambitious policy; demand lagged → margins under pressure.
- China (Solar Panels):
Early large-scale investment + stable policy → ultra-low costs, global price pressure.

Market Correction and Survivors

- Prices fall, companies fail, lower capacity = prices recover.
 - Larger firms survive due, diversified product lines,
 - Resource access (China benefits from proximity to raw materials).

Investment considerations



What does the chart show?

Investment 1 – Low Capacity (FC fixed costs = 100)

- MC_1 Marginal costs (blue, solid line): Technical optimum around $Q = 5$
- AC_1 , Average cost (blue, dashed line): Minimum around $Q \approx 5-6$, then rapid cost increase

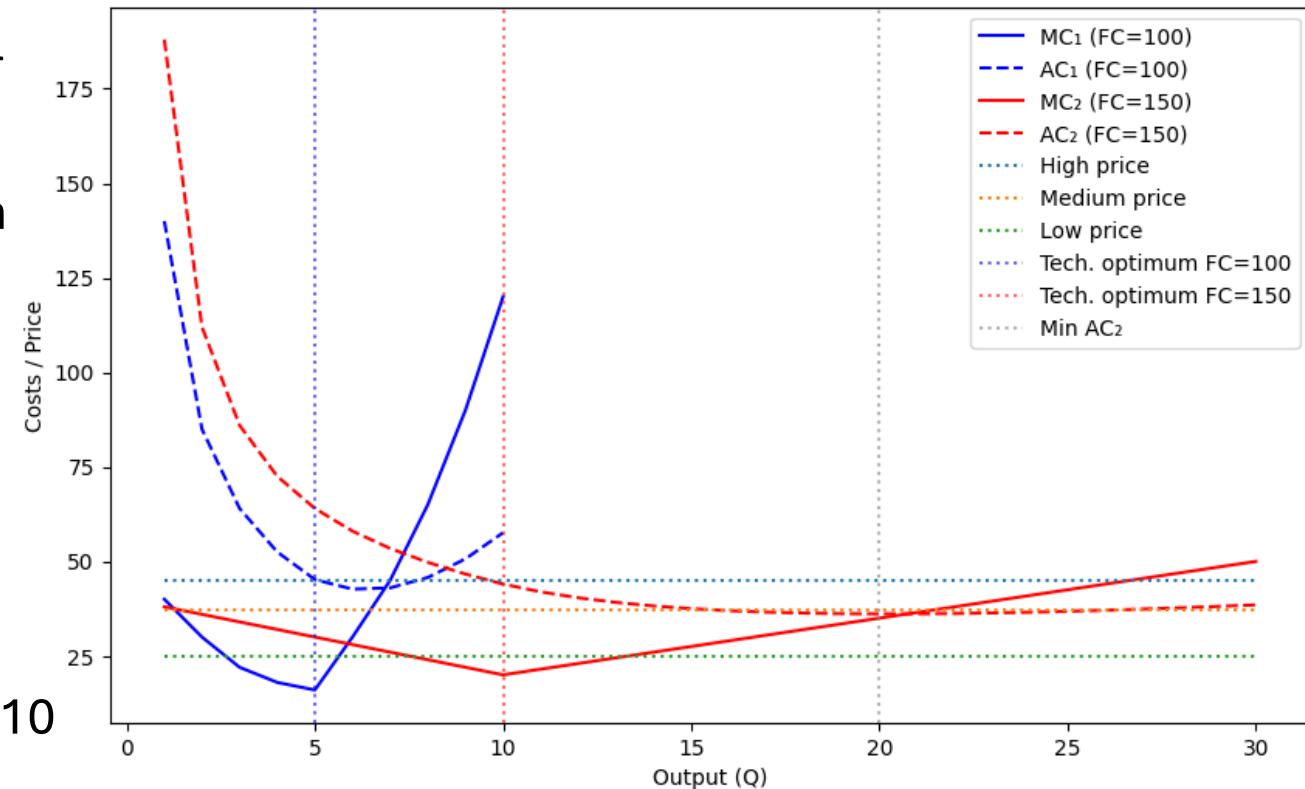
Small scale = efficient at low output, but quickly vulnerable to growth or price pressure.

Investment 2 – High Capacity (FC = 150)

- MC_2 (red, solid line): Technical optimum at $Q = 10$
- AC_2 (red, das. line): Minimum at $Q = 20$ ($MC_2 = AC_2$)

Larger scale = higher fixed costs, but more cost-efficient flexibility.

Micro economic model



<https://assets.openstax.org/oscms-prodcms/media/documents/Microeconomics3e-WEB.pdf> page 170

See also https://en.wikipedia.org/wiki/Cobweb_model



Core Principle of Stage-Gate®

- Structured innovation; clear phases and decision gates.
- Invest gradually based on evidence, not upfront commitments.

Key Phases

- Starts with Discovery, till Launch.
- Each phase ends with a gate for management to decide:

Adaptation to Organizational Types

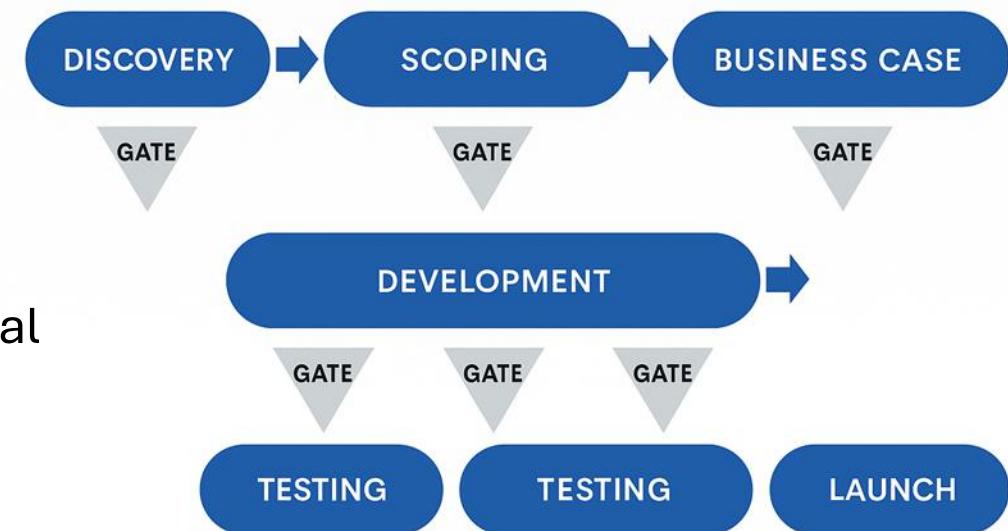
- Machine bureaucracies: Formal, documentation, hierarchical
- Adhocracies & start-ups: Flexible, overlapping phases, lightweight gates for speed.

Strategic Message

- Stage-Gate is a guiding framework, not a rigid blueprint.
- Success depends on adapting structure and culture

Development process

COOPER'S STAGE-GATE



www.stage-gate.com/leadership/robert-cooper



Organizational Culture: More Than Behavior

- System of shared values, meanings, and practices.
- Shapes how people think, decide, and act at work.

Two Key Perspectives

- Hofstede's Layers: deep cultural structure.
- Sanders & Neuijen: behavioral contrasts and orientations.

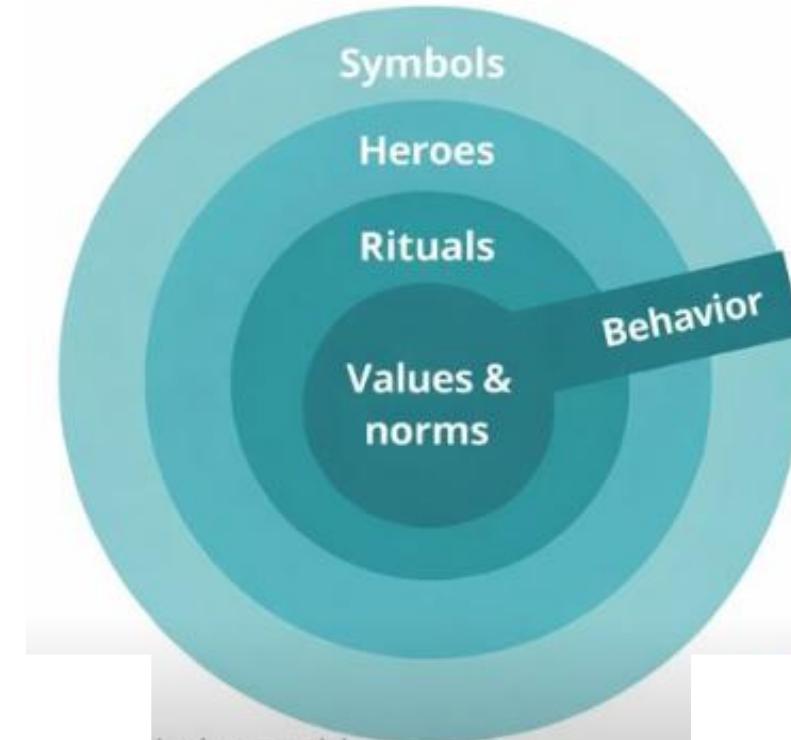
Core and Visible Layers

- Core: Shared norms and values, what is acceptable behavior.
- Visible layers: Rituals (habits), Heroes (role models), Symbols (logos, design, language).

Behavior as the Surface

- We see behavior = driven deeper cultural layers.
- True cultural change occurs when underlying beliefs evolve

Culture (change) matters



<https://geerhofstede.com>



Contrasts reveal how organizations prioritize and interact.

Key Cultural Contrasts

- Internal vs. External focus: harmony vs. market orientation.
- Process vs. Results: rules vs. performance.

Additional Dimensions

- People vs. Task orientation; Open vs. Closed;
- Tight vs. Loose control.
- Normative vs. Pragmatic: principles vs. practical solutions.

Strategic Insight

- Every culture should fit the production process..
- Culture change cannot be achieved by redrawing charts
values run deeper and informal networks resist

CULTURAL CONTRASTS



Internal vs. External Orientation

Internal cultures focus on harmony and internal processes; while external cultures emphasize customers, competition, and market positioning.



Process-Oriented vs. Result-Oriented

Process-oriented organizations prioritize rules and thoroughness; result-oriented ones focus on performance and outcomes.



People-Oriented vs. Task-Oriented

People-oriented cultures value employee well-being and development, whereas task-oriented cultures stress efficiency and task completion.



Open vs. Closed Culture

Open cultures embrace transparency and change, while closed cultures are reserved and conservative.



Tight vs. Loose Control

Tight control involves strict rules and supervision; loose control favors flexibility and autonomy.



Normative vs. Pragmatic

Normative cultures emphasize ethics and principles; pragmatic cultures focus on practical solutions and customer needs.



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From Vision to Energy
Transition in Manageable
Steps
Aligning Stage-Gate with
Organizational DNA

Harm Hofman
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