



# The Economic Way of Thinking

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RÓMULO A. CHUMACERO







# Come to Marlboro country

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... where no two days are ever the same



# Solving mysteries

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- ❑ Understand, explain, and predict behaviour
- ❑ The economic way of thinking
- ❑ Toolkit
  - ❑ Principles, pillars, foundations
  - ❑ The method: tools, concepts, stages

# Structure

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# Pillars

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# Foundation principles

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- ❑ Essence of what it means to think like an economist
- ❑ The economic way of thinking can be useful in understanding the world
- ❑ Powerful life lessons



# 1. People respond to incentives

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- ❑ No premise is more central
- ❑ Reward a behavior, people will do more of it and more intensely
- ❑ Penalize it, they'll do less of it
- ❑ Example: USSR and central planning (nail factory)
  - ❑ Managers rewarded by weight: Huge and heavy nails
  - ❑ Managers rewarded by quantity: Tiny and light nails

## 2. TINSATAAFL

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- ❑ Saloons and casinos
- ❑ We cannot get something for nothing
- ❑ Unavoidable imbalance between unlimited wants and limited resources
- ❑ Scarcity implies that use of time or resources for one purpose is an opportunity gone to do something else: **opportunity cost (trade-off)**
- ❑ The cost of something is what you give up to get it

### 3. Thinking at the margin

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- ❑ Comparison of the additional (marginal) benefits and costs
- ❑ No arbitrage opportunities
- ❑ Put yourself in other person's shoes (save the World, earn a Nobel prize)
- ❑ Forward looking vs backward looking
- ❑ Let bygones be bygones (**sunk costs**)



## 4. Prosperity is created when resources move from lower to higher valued uses

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- ❑ Trade makes everyone better off
- ❑ Double thanks versus zero-sum
- ❑ Avatar
- ❑ Division of labor and specialization
- ❑ The value of a good or service is subjective
  - ❑ *De Gustibus Non Est Disputandum*

## 5. Information is valuable (and costly)

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- ❑ Information is crucial for decision-making
- ❑ Prices play a crucial role in determining an efficient distribution of resources
- ❑ Prices signal relative scarcity
  - ❑ Misunderstood hero: the (successful) speculator
- ❑ No one can ever be in complete control
- ❑ Interference with price signals distorts decisions

# 6. Unintended consequences

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- ❑ Actions have multiple consequences and unexpected influences
- ❑ Unexpected benefits (invisible hand)
- ❑ Unexpected drawbacks
  - ❑ Prohibition, black markets and crime
  - ❑ Peltzman effect (risk compensation): seat belts kill
  - ❑ British government and cobras in Delhi
  - ❑ 1979 embassy takeover in Tehran, Iran, resulted in an increase in dental costs in the US
- ❑ Bastiat's Broken window fallacy (what is seen and what is not)
- ❑ Hazlitt's Economics in one lesson
  - ❑ Direct and immediate effects on a specific group (bad economics)
  - ❑ Long-term and indirect consequences for all groups (good economics)



## 7. The only way to increase living standards is to increase output

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□ The rule of 70

□ Santa Claus

## 8. Costs are a bad, not a good

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- ❑ Taxes are costs
- ❑ Distortionary taxes
- ❑ The orphanage

## 9. Competition is a tough weed, not a delicate flower

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- ❑ Business concentration does not necessarily imply a lack of competition
- ❑ Monopolies and regulation
- ❑ Openness
- ❑ Two ways to produce anything



# 10. Declared versus revealed preferences

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- ❑ Talk is cheap
- ❑ Actions speak louder than words



# The method

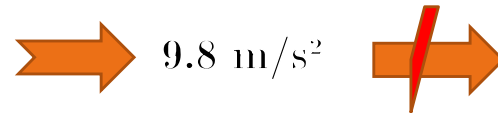
# How to solve mysteries

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- ❑ Logical (deductive) reasoning
- ❑ Critical thinking
- ❑ Scientific method (theory and evidence)
- ❑ Rationality
- ❑ Optimization
- ❑ Judge a theory by testable implications

# How to deal with mysteries?

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Three paths:

- Discard the theory
- Ignore the event
- Generalize the theory



# Mystery: Celebrity endorsements

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- ❑ Why is a product endorsed by a celebrity more expensive?
- ❑ Non-explanations
  - ❑ Buyers are irrational
  - ❑ Buyers have a taste for emulating celebrities
- ❑ Economists insist on seeking explanations grounded in rational behavior
  - ❑ Power and applicability in the past
  - ❑ Chance to extend analysis
- ❑ Products of heterogeneous quality: high quality goods hire celebrities as signal
- ❑ Testable implications:
  - ❑ Firms with established reputations should invest less in endorsements
  - ❑ Products with easily verifiable quality should invest less in endorsements

# Mystery: Size of shopping carts

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- ❑ Why are shopping carts larger today than in the past?
- ❑ Non-explanations
  - ❑ Attempt to induce shoppers to make more purchases
  - ❑ Embarrassment of checkout with half-full carts
- ❑ Increased female labor participation, reduced times to shop and trips to store
- ❑ Stores carry wider range of items
- ❑ Large shopping carts and wide aisles are desirable luxury goods. Increased wealth made possible to fulfill this demand



# Building models

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- ❑ Builds models bottom-up (micro foundations)
- ❑ Model is an artificial economy
- ❑ Internally consistent

# 0. Think

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- ❑ What is the question we want to answer?
- ❑ What has been done before?
- ❑ Why is that not enough? (constructive approach)
- ❑ What is the minimal structure needed?
- ❑ Consistency versus realism

# 1. Describe the economy

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- ❑ List the agents (e.g. households, firms, government, banks)
- ❑ For each agent define:
  - ❑ Demographics
  - ❑ Preferences or objective functions
  - ❑ Endowments
  - ❑ Technologies
  - ❑ Constraints
  - ❑ Initial conditions
  - ❑ Property
- ❑ Markets where agents interact

## 2. Solve each agent's problem

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- Write down the optimization problem st. the constraints
- Distinguish control, exogenous state, and endogenous (controllable) state variables
- Derive the set of equations that describe the optimal decisions

# 3. Equilibrium

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## □ State the market clearing conditions

- Consider the supply and demand by each agent for each market
- Aggregate supply (demand) =  $\sum$  individual supplies (demands)
- Market clearing ( $AS=AD$ )

## □ Define a competitive equilibrium

- Agents solve their optimization problems, taking prices as given (but are determined by their actions)
- Markets clear (economy wide constraints hold) Write down the optimization problem st. the constraints

## 4. Testable implications

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- ❑ Comparative statistics
- ❑ Policy functions
- ❑ Law of large numbers
- ❑ False but useful
- ❑ Learning and progress (Bayes)



# Solving mysteries

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## Ingredients

- Meditation (theory), measurement (data), estimation, evaluation

“Data! Data! Data! I can't make bricks without clay.”

(Sherlock Holmes)

Quantitative questions demand quantitative answers

Econometrics: Provides empirical content to economic theory

- “Theory without measurement”
- “Measurement without theory”

# A simple model (1)

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Households

$$\max u(c, 1 - l^s) \quad \text{s.t.} \quad (1 - t)wl^s + T + \pi \geq c$$

Firms

$$\max \pi = f(l^d) - wl^d$$

Government

$$twl = T + g$$

# A simple model (2)

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Households

$$u_o = u_c (1 - t) w$$

Firms

$$f_{l^d} = w$$

# A simple model (3)

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Market clearing

$$w(l^s - l^d) + [f(l) - c - g] = 0$$

$$l^d = l^s$$

$$f(l) = y = c + g$$

# A simple model (4)

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- ❑ Effects of increase in taxes
- ❑ Effects of transfers
- ❑ Effects of increased government expenditures



Caution



# Logical fallacies

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- ❑ Errors in reasoning that can undermine the validity and soundness of arguments
- ❑ They occur when arguments are flawed due to incorrect logic, misleading evidence, or irrelevant information
- ❑ Categories:
  - ❑ Formal Fallacies: Errors that occur in the **structure** of an argument, violating the rules of logic
  - ❑ Informal Fallacies: Errors that arise from the **content** or **context** of an argument, often relying on misleading or irrelevant information

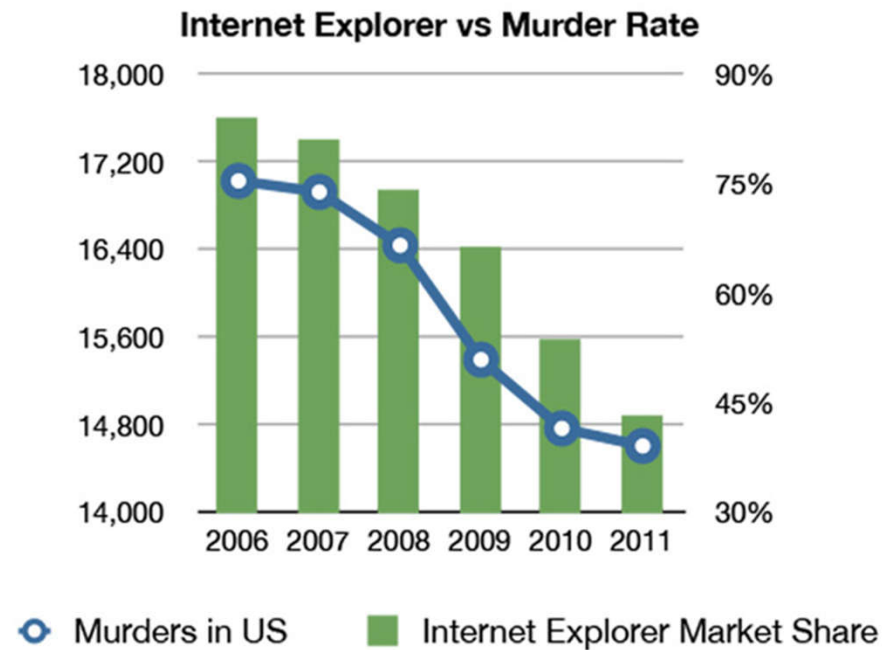
# *Post hoc, ergo propter hoc*

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- “After this, therefore because of this”
- Correlation does not imply causation (*cum hoc, ergo propter hoc*)
- Reverse causation (cause is said to be the effect and vice versa)

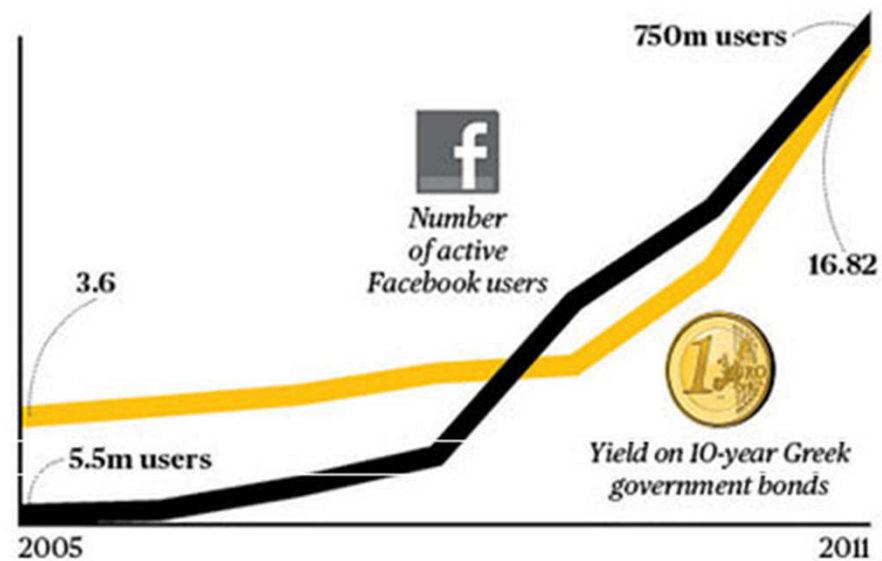
# Another reason for Bill Gates's popularity?

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# Facebook and the Greeks

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# *Ad hominem*

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- ❑ Attacks the person and not the substance of the argument
- ❑ Attacks motives or character
- ❑ Appeals to emotion, not reason



# The Economic Way of Thinking

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