

# ECONOMICS: THE BIG PICTURE

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## MICRO

### CLASSICAL

#### Individual decision making

Rationality and the Theory of firm: optimal decisions under constraints

(consumers, firms)

Terms: preferences, utility function, budget constraint, production function, inputs, outputs.

#### The market and market power: consumers meet firms

Perfect competition: many consumers / many firms

Monopoly: many consumers / one firm

Monopsony: one consumer / many firms

Terms: individual / aggregate demand / supply, market equilibrium, price-taking behavior, price-“setting” behavior.

#### Economy as the collection of markets

General Equilibrium theory: all markets are in equilibrium at the same time.  
Terms: supply = demand.

#### Welfare economics: what is good?

Efficiency criteria (egalitarian – max min utility, utilitarian – max aggr. utility, Pareto)

#### Comparative statics:

What happens to the welfare when something changes (tastes, natural conditions)?

Governmental regulation (taxes, social planner versus free markets)

Market failures (pollution, public goods)

Terms: substitute/ complement goods, economic surplus, dead weight loss, externalities.

### MODERN

#### Game theory

Optimal decisions in strategic situations (markets in between - oligopoly: many consumers – few firms).

Terms: oligopoly (duopoly), Nash equilibrium.

#### Contract theory

Principal-agent problems with hidden information (employer-employee,

insurer – insured, lender – borrower)

#### Mechanism design

Designing optimal auctions, making existent markets efficient, inventing rules for emerging markets.

#### Economics meets psychology, sociology, neuroscience

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## MACRO

### CLASSICAL

Studies countries, economic aggregates and how they are influencing each other.

#### Growth theory

Models of how GDP (Gross Domestic Product) is changing depending on economic aggregates (inflation, unemployment, interest rate, technology)

#### Monetary policy

The models of how growth depends on interest rate, inflation. How should central bank choose them?

#### Fiscal policy

Models of how growth depends on tax burden. How should government set it?

#### International Trade

How does the welfare / rate of growth change when we open borders for trade?

### MODERN

#### (MICROFOUNDATIONS)

Trying to connect Micro and Macro by devising micro-models, which would generate macro results.

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## ECONOMETRICS

Statistical methods applied to economic data.

Development of special methods inside statistics to deal specifically with economic problems.

#### On Micro-level

Methods of analyzing data on individual firms, consumer choices.

#### On Macro-level

Methods of analyzing data on GDP, inflation unemployment etc. for various countries.

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## APPLIED ECONOMICS

Applies all the above theory to check if it fits the reality using econometrics. Gives feedback to develop new theory.

#### Industrial organization

Models of particular (real) markets and market structures.

Models of organization of the firm (managers, labor unions etc.)

#### Applied Macro

Fitting macro-models to country data through econometrics.

#### Experimental economics

Running experiments on undergraduates in order to check the validity of game theoretic models.