

# ANALYSIS OF INTERNATIONAL ECONOMIC PROCESSES I. (TECHNIQUES IN ECONOMIC THINKING)

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EFOP-3.4.3-16-2016-00022

„QUALITAS” Minőségi felsőoktatás fejlesztés  
Sopronban, Szombathelyen és Tatán

**SZÉCHENYI**  2020



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**BEFEKTETÉS A JÖVŐBE**

# COURSE DESCRIPTION

<b>Course Neptun-code:</b>	KB9940
<b>Course name:</b>	<b>Analysis of International Economic Processes I.</b> (Techniques in Economic Thinking)
<b>Responsible institute:</b>	Institute of Economics and International Relations
<b>Instructor(s)/lecturer(s):</b>	<b>Balázs István TÓTH PhD</b>
<b>Requirements:</b>	<b>exam</b>
<b>Built upon courses:</b>	Analysis of International Economic Processes II. (Analysis of International Data)
<b>Course credit value:</b>	<b>4</b>
<b>Classes per week (lecture/practice/lab):</b>	2/1 (Theoretical + Practical)
<b>Type of course:</b>	Compulsory in International Business Economics BA

# APPLIED TEACHING METHODS, ASSESSMENT AND GRADING

- **Slides available in PDF formats and other materials in printed/electronic formats are provided by the lecturers**
- **This course requires presence and active participation in class**
- **Terms of subject acceptance (in order to get the signature):** active participation during the lectures
  - The maximum number of absence is *three*
  - Online attendance will be controlled at the beginning of each lecture
    - please be online in time (5 min. before start)
- **Terms of the mark acceptance:** 1 (fail) – excellent (5) based on the quality of the *oral exam*

# TECHNIQUES IN ECONOMIC THINKING

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## *INTRODUCTION TO THE NATURE AND LOGIC OF ECONOMICS*

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**BEFEKTETÉS A JÖVŐBE**

# THE BASIC DILEMMA: THE CHAOTIC NATURE OF ECONOMICS

- **Car mechanics vs. economists** (cf. HEYNE 1997, 1)
  - A *good mechanic* can locate the problem in a car, because he knows how a car functions when it is not having any problem
  - A *good economist* finds economic problems mystifying, because he does not have a clear notion of how an economic system works
  - Economists are like mechanics whose training has been limited entirely to the study of malfunctioning engines
- **”Techniques in economic thinking”** helps to explain *how order emerge from the apparently mysterious and erratic nature of economics*
  - Economists seek connections between different kinds of irregularity of economic phenomena

# RECOGNIZING THE ORDER ... BUT HOW?

- **To think like an economist takes some time** (MANKIWI 2001, 19)
  1. *Economics has its own specialized vocabulary, including terms such as ...*
    - ... scarcity, resources, goods, services, choice, efficiency, supply and demand, price, equilibrium, market, benefit, cost, return, profit, loss, economies of scale, returns to scale, absolute and comparative advantage, specialization inflation, unemployment, foreign dept, FDI, export, import, economic growth, economic development ...
  2. *Economics requires more than picking up the terminology, it involves using tools and models, such as ...*
    - ... Marshall-curve, (series of) indifference curves, (series of) isoquants, perfect market model, imperfect competition (monopoly, oligopoly), economic growth models, Phillips-curve, Laffer-curve, Okun's law ...

*in order to improve our understanding about economic phenomena*

# THE AIMS OF THIS SUBJECT

- **To get used to the techniques in economic thinking**
- **To create a mentality, to build an apparatus of mind in economics**
  - To understand the nature and logic of economics
  - To recognize the role of beliefs, tradition and authority in economics
  - To be aware of some of the limitations of economics
- **To know about (some of) the methods in supporting economic thinking**
  - To understand the practice of research in economics
  - To recognize the features of scientific inquiry in economics
  - To be aware of the different modes of observation and to get used to the collection of tools in use when analyzing data
  - To get to know how to analyze futures

# OVERVIEW OF THE CURRENT PRESENTATION

- **The origin and the meaning of the word 'economy'.** Two meanings of the term 'economic': substantive vs. formal meaning.
- **Distinctions within economics.** Positive economics, normative economics, art-of-economics, applied economics, experimental economics, rational economics, behavioural economics. Formal economics and human economy. Congruence between distinctions.
- **Main aspects of economic way of thinking.** Actions and interactions. The 'rules of the game' in economics.
- **Scientific progress in economics.** How to read scientific writings? The nature of scientific development.
- **Curriculum schedule (school work).**



# THE ORIGIN AND MEANING OF THE WORD 'ECONOMY'

- **Economy** (n), 1530s, *"household management"*, *"one who manages a household"*
- The term comes from the Latin *oeconomia* and from Ancient Greek *oikonomia* (*"rules of the house"*): *oikos* (*"house"*) and *nomos* (*"law"*)



# THE MEANING OF THE TERM 'ECONOMIC'

(KARL POLANYI 1957, 243–250)

- Many different definitions on the term '*economics*' have been offered; however, most of these have **two independent roots**
  1. *The substantive meaning of 'economic' derives from fact, namely man's dependence for his living upon nature and his fellows*
    - It refers to *the interchange with his natural and social environment* in so far as this results in supplying him with the means of material want satisfaction
  2. *The formal meaning of 'economic' derives from logic, namely the logical character of the means-ends relationship*
    - It refers to *a definite situation of choice between the different uses of means* induced by an insufficiency of those means
- *NOTE: the formal meaning implies a set of rules referring the choice between alternative uses of means, while the substantive meaning implies neither choice nor insufficiency of means.*

# THE MEANING OF THE TERM 'ECONOMIC'

- **The substantive meaning of 'economic'** has been recognized since the era of the great Ancient Greek philosophers
  - *It roots in the empirical economy defined as an instituted process of interaction between man and his environment (cf. POLANYI 1957, 248)*
- **The formal meaning of 'economic'** was popularized by LIONEL ROBBINS (1932) in his definition of economics: *"the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses"* (15)
  - Accordingly, economics is concerned with one aspect of much of human behaviour: economists study how people use the limited resources (=scarce means), which also has many other (alternative) uses, in the best possible manner for fulfilling their needs (=ends)
  - *"[t]he logic of rational action produces formal economics, and ... gives rise to economic analysis"* (POLANYI 1957, 245)

# DISTINCTIONS WITHIN ECONOMICS: THE ORIGINS

- **Economists divide economics into distinct categories**
  - JOHN N. KEYNES (1891) distinguishes among ...
    - *"a **positive science** may be defined as a body of systematized knowledge concerning what is;*
    - *a **normative or regulative science** as a body of systematized knowledge discussing criteria what ought to be ...*
    - *... ; an **art** as a system of rules for the attainment of a given end."* (34–35)
    - He adds that *"[t]he object of positive science is the investigation of uniformities, of a normative science the determination of ideals, of an art the formulation of precepts."* (35)
    - He also states that *"we may still sum up the more important practical applications of economic science under the name **applied economics**."* (57)

# DISTINCTIONS WITHIN ECONOMICS: THE ORIGINS

- **Economists divide economics into distinct categories**
  - MILTON FRIEDMAN (1953) emphasizes that...
    - *"[p]ositive economics ... provide[s] a system of generalizations that can be used to make correct predictions about the consequences of any change in circumstances."* (4)
    - *"[n]ormative economics and the art of economics ... cannot be independent of positive economics. Any policy conclusion necessarily rests on a prediction about the consequences of doing one thing rather than another, a prediction that must be based ... on positive economics."* (5)
    - *"[t]he ultimate goal of a positive science is the development of a "theory" or "hypothesis" that yields valid and meaningful ... predictions about phenomena not yet observed."* (7)
    - *"[e]conomics as a positive science is a body of tentatively accepted generalizations about economic phenomena that can be used to predict the consequences of changes in circumstances"* (39)

# DISTINCTIONS WITHIN ECONOMICS: POSITIVE AND NORMATIVE ECONOMICS

- **Positive economics:** the branch of economics that concerns the *description and explanation* of economic phenomena
  - It focuses on facts and cause-and-effect relationships and describes *"WHAT IS"* (earlier known as value-free */wertfrei/* economics)
    - *E.g. If the price of fuel rises, people will buy less fuel.*  
(We can statistically investigate relationships between fuel prices and demand of fuel.)
- **Normative economics:** the branch of economics that expresses *value or judgements* about economic phenomena
  - It advocates *"WHAT SHOULD (NOT) BE"*, and suggest preferences, 'prescription' (instead of 'description') and philosophical views
    - *E.g. The price of fuel is high. (→ it should be lower)*  
(We cannot statistically test statements like these, because their validity rests on value judgements.)

# DISTINCTIONS WITHIN ECONOMICS: ART-OF-ECONOMICS

- **Art-of-economics:** positive economics is utilized as a practical tool for achieving normative objectives
  - The synthesis is done in the style of *practical idealism*
    - *E.g. The price of fuel should be \$ 2 per gallon to give people a higher living standard.*
  - It is becoming more and more important *in shaping different government policies* on economic issues
    - *NOTE 1: As most economic decisions and policy are influenced by value judgements, which vary from person to person, debates result between policy-makers and practitioners.*
    - *NOTE 2: Disagreements usually come from different interpretation of facts, as well as, what is (or is not) a causal factor. Economists disagree, for instance, on the effects of taxation, and how taxation should be applied to get a better performance out of the economy.*

# DISTINCTIONS WITHIN ECONOMICS: APPLIED AND EXPERIMENTAL ECONOMICS

- **Applied economics:** the request of economic theory in specific settings
  - Origins of the term: J-B. SAY, J. S. MILL → first used by: J. N. KEYNES
  - *Fields:* Business (corporate) economics, international economics, labour economics, monetary economics, public economics ...
- **Experimental economics:** the request of experimental methods to study economic questions
  - It helps to understand how and why economic phenomena function as they do
  - *Experimental topics:* coordination strategies, market games, stock market, social preferences ...



# DISTINCTIONS WITHIN ECONOMICS: RATIONAL AND BEHAVIOURAL ECONOMICS

- **Rational economics (rational choice theory):** a framework for *understanding and formally modelling social and economic behaviour*
  - *Basic premise:* social behaviour results from the behaviour of individuals (individual choices)
  - *Nexus:* preferences, perfect information, utility maximization
- **Behavioural economics:** a framework for *studying the effects of psychological, social, cognitive and emotional factors on the economic decisions*
  - *Basic premise:* boundaries of rationality of economic agents
  - *Nexus:* choice under uncertainty, imperfect information, changing system of values
- *Origins:* Formal economics vs. human economy (cf. POLANYI 1957)

# CONGRUENCE BETWEEN DISTINCTIONS

(DAVID COLANDER 1992)

- **Positive economics suffers from the lack of art-of-economics**
  - Abstract thinking about abstract problems might someday have relevance, but immediate relevance is a side issue
  - *In earlier times, every scientist was theorist and professional: though the best professionals still have some of the theorist in them, the converse does not hold*
- **Art-of-economics would free normative economics from dealing with economic policy**
  - Art-of-economics would *accept some set of goals determined in normative economics*, in addition, discuss *how to achieve those goals* in the real world
  - Art-of-economics would *enable deeper consideration of what policy goals are appropriate*

# CONGRUENCE BETWEEN DISTINCTIONS

(DAVID COLANDER 1992)

- **Applied economics suffers from the lack of art-of-economics**
  - Most current applied work in economics initially employs a *formalistic method of argumentation and exposition* which leads to exact results
    - The formalistic approach reduces the importance of historical context, as well as institutional, political, social and cultural dimensions
    - These dimensions are addenda, made after the formal analysis is complete, in other words, the formalistic results are modified by different dimensions and context
  - Consequently, *the precision of applied economics precise adds nothing to the precision of the final conclusion* as economists agree that before the analysis could be applied to the real world
    - In addition, if the final policy recommendation is no more precise than the dimensions, the economic precision has served no purpose

# MAIN ASPECTS OF ECONOMIC WAY OF THINKING

(PAUL HEYNE 1997, 5–6)

- **The economic way of thinking displays two aspects:**
  1. ***The focus on actions emphasizes economizing***
    - To economize means to allocate available resources in a way that extracts from those resources the most of whatever the economizer wants
    - *Scarcity makes economizing necessary:* even rich people with more money than they know how to spend must economize
  2. ***The focus on interactions emphasizes the multiplicity of diverse and even incommensurable individual projects***
    - Economists require the cooperation of millions of people whom they do not even know by participating in a coordinating process
    - *The successful coordination of activities makes commercial society necessary:* exchanging is a task of extraordinary complexity
    - *QUESTION: How many activities had to be precisely coordinated in order for you to enjoy your breakfast this morning?*

# THE 'RULES OF THE GAME' IN ECONOMICS

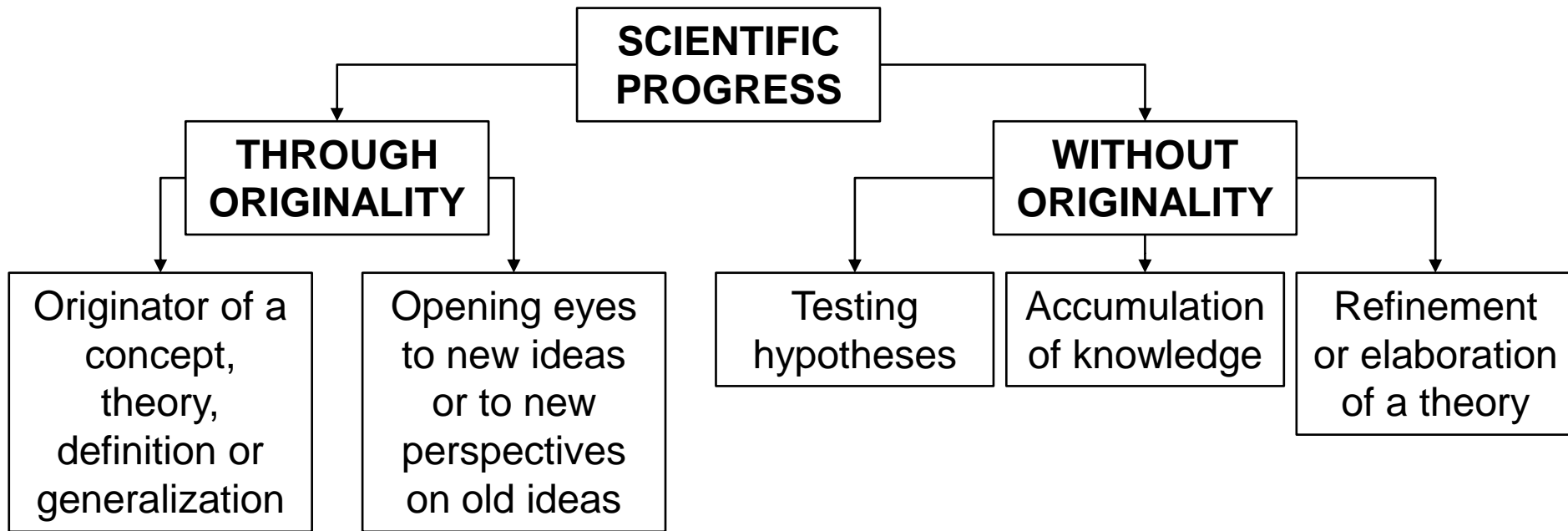
(PAUL HEYNE 1997, 9–10)

- **All actions and interactions in the market presuppose the rules of the game**
  - All economic actors act in the context of society, culture, economy and politics
    - Economic activities cannot be viewed as an isolation from *technological, institutional, legal, political and social contexts*
  - The business game cannot be played satisfactory unless the 'agents' and 'players' (consumers, sellers, government etc.) know at least roughly what the rules are and generally agree to follow them (*e.g. property rights, regulations, provision of collective and public goods*)
    - The rules cannot be created overnight, it almost are the product of an evolution over time in terms of formal and informal institutions, such as law, morality, norms, daily practice, religion etc.

# SCIENTIFIC PROGRESS IN ECONOMICS

(GEORGE JOSEPH STIGLER 1955)

- What do we mean by scientific progress?



- *Scholar associated with a catchword*
- *Requires temporal priority in the statement of an idea*
- *Scholar as 'great expositor'*
- *Requires diligence and professional competence*

Source: own construction based on STIGLER (1955)

# SCIENTIFIC PROGRESS IN ECONOMICS

(GEORGE JOSEPH STIGLER 1955; SHERWIN ROSEN 1993, MARK BLAUG 2001)

- **Economists are more receptive to new ideas at one time than at another**
  - *"it seems to be of **the nature of original work to come and go in surges**: economics was stuffy from 1850 to 1870 and sedate from 1900 to 1914, and there was possibly an excess of originality in the 1930's"* (STIGLER 1955, 301)
  - *"John Stuart Mill's and Alfred Marshall's texts dominated the English-language teaching of economics for almost 100 years ... it is said that radical paradigm shifts remold yesterday's ideas and often make them incomprehensible to later generations. Somehow the essentials of economics displays much more continuity than that ... **It is more economical for the scientific progress to work sequentially.**"* (ROSEN 1995, 809, 810)
  - *"[t]he 1930s was a decade of simple fecundity in economic thought but it was succeeded by an even more fertile decade after the end of World War II"* (BLAUG 2001, 161)

# SCIENTIFIC PROGRESS IN ECONOMICS

(GEORGE JOSEPH STIGLER 1955; SHERWIN ROSEN 1993)

- **SHERWIN underlined some ambiguities proposed by STIGLER**
  - New ideas cannot be *accepted before their time*
    - If the profession is not prepared for a new approach to a problem, the idea cannot connect to established ways of thinking and would pass to oblivion
    - It would be *'independently discovered'* later when the time was ripe for it to be accepted
  - Some valuable ideas are *overlooked forever*
    - Innovative ideas that occur too early have less value than those that occur at the right time
- **Good science cannot be planned**
  - *QUESTION: Is it a correct thing to (re-)discover something that has been earlier discovered?*



# HOW TO READ ECONOMIC WRITINGS?

(GEORGE JOSEPH STIGLER 1969)

- **”it takes an economist to read an economist”** (STIGLER 1969, 218)
  - To understand an economist, one must know *the subject matter* of the discipline in the author was writing
  - In reading an economist with comprehension is a certain measure of detachment and sympathy, criticism and adulation
    - *SUGGESTION: It is easier to be neutral toward a work, don't be generous or malicious toward the author*
  - *The goal in the understanding of a scientific essay: the formulation of the essential structure of the author's analytical system*
    - *CON: There will be inconsistent or unintegrated knowledge that we cannot reconcile with the analytical system*
    - *PRO: Readers can maximize the probability that the author's work will contribute to scientific progress*

# THE NATURE OF SCIENTIFIC DEVELOPMENT

(GEORGE JOSEPH STIGLER 1969)

- **Changes in paradigm** (cf. KUHN 1962)
  - *Paradigm of a science*: the corpus of theoretical knowledge and analytical and empirical techniques which is accepted by the dominant group of members of a science
  - *Change in paradigm*: a new theory explains some phenomena differently than the older theory explained them, so the two theories are not logically compatible
    - *QUESTION: How does the ruling theory get replaced by a new theory? How is one paradigm replaced by another?*
  - *Revolution of science*: large changes in science; there will be an abandonment of the previous paradigm which in actual fact may never have taken place
    - For instance, the marginal utility revolutions of the 1870s replaced the individual economic agent as a sociological and historical datum

# THE NATURE OF SCIENTIFIC DEVELOPMENT

(GEORGE JOSEPH STIGLER 1969)

- **Multiple discoveries** (cf. MERTON 1961)
  - All discoveries are 'multiples' rather than 'singletons'
  - Two discoveries may come at very different time or at the same time in very different intellectual environments
    - *E.g.1. The discovery of marginal productivity theory by Longfield in 1833 and by Wicksteed, Clark, Marshall, Edgeworth and others decades later*
    - *E.g.2. Marginalism got a foothold by the work of Jevons in England (1862), Menger in Austria (1871) and Walras in Switzerland (1874)*
- **The role of scientific schools**
  - If the school is united on methodology rather than substantive doctrines, its life will be longer (*e.g. Lausanne school, Austrian school*)
  - If a school is based upon policy views than upon economic analysis and methodology, its life will be even longer (*e.g. Marxism*)

# CURRICULUM SCHEDULE (SCHOOL WORK)

- **Lecture #2: Explanations of some of the basic terms of economics**
  - Like any academic discipline, economics abounds with terminology and jargon
    - Its purpose, when used properly, is to facilitate the discussion of economic problems
  - This lecture is organized around definitions and explanations of terms that collectively make up the economist's basic intellectual kit
  - This lecture explains the meaning between some of the technical terms used in economics
    - In any technical subject, words commonly used in everyday life acquire very specific technical meanings, and confusion can arise when someone is uncertain of the intended meaning of a word
  - The core of this glossary is built around the basic terms used in microeconomics and macroeconomics

# CURRICULUM SCHEDULE (SCHOOL WORK)

- **Lecture #3: The role of beliefs in economic thought – about the laws and principles of economics**
  - *Main points and keywords:* economics as a system of beliefs, natural laws and economics, general laws of economics, economic laws, belief and economic (inter)actions, some of the frequently referred laws of economics, ten principles (fundamental lessons) of economics
- **Lecture #4: The role of traditions and authority in economic thought**
  - *Main points and keywords:* history of economics, understanding a ‘classic’ work, reconstructing the past, research styles, schools of economic thought, mainstream economics, heterodox economics, pluralism, authority and traditions, market, command and mixed economies

# CURRICULUM SCHEDULE (SCHOOL WORK)

- **Lecture #5 & #6: Notable economists**
  - These lectures give a brief summary of the ideological background and economic viewpoint of influential economists
  - Notable economists belong to various schools of economic thoughts, such as ...
    - Thinkers of Ancient and Medieval Ages, Mercantilism, Physiocracy, Classical political economy before and after Adam Smith, German Historical School, Walrasian economics (Lausanne School), Institutional economics, Stockholm School, independent scholars born before 1900
    - Neoclassical economics, utopian economics, scientific socialism, Russian Marxism, Marxian economics, Keynesian economics, Post-Keynesians & Neo-Ricardians, Austrian School and economic liberals, Chicago School and Monetarism, other famous economists born after 1900

# CURRICULUM SCHEDULE (SCHOOL WORK)

- **Lecture #7: Social scientific inquiry & Scientific inquiry in economics**
  - *Main points and keywords:* about scientific inquiry, the 'traditional' image of science, the structure of inquiry: the research design, economic theorists vs. professionals, theoretical economics, policy economics, qualitative and quantitative analysis
- **Lecture #8: Data analysis**
  - *Main points and keywords:* qualitative modes of observation, quantitative modes of observation, elementary (univariate) analysis, advanced (multivariate) analysis, graphing, econometrics

# CURRICULUM SCHEDULE (SCHOOL WORK)

- **Lecture #9: Analyzing futures**
  - *Main points and keywords:* about futures and forecasting futures, futures as states of uncertainty, analyzing futures, about chaos theory, forecasting mistakes and errors, about foresight, economic forecasting
- **Lecture #10: Limitations of economics**
  - *Main points and keywords:* the knowledge and role of economist, common errors in scientific inquiry, pitfalls to avoid in economic thinking, further errors, dangers and challenges in the way doing economics



# CURRICULUM SCHEDULE (SCHOOL WORK)

- **Lecture #11 & #12: Problems and applications (Questions for discussion)**
  - *Elementary and intermediary questions:* basic problems of economic way of thinking, micro vs. macro view, positive vs. normative view, the concept of demand and the concept of supply, the process of coordination, marginal values and economic decisions, efficiency, economic advantages
  - *Advanced and challenging questions:* monopoly and competition, price setting and price searching, government policy, profit, the distribution of income, externalities, markets, inflation, unemployment, recession and political economy, aggregate fluctuations, the supply of money, demand-side and supply-side perspectives, schools of economic thought

# REFERENCES AND FURTHER READINGS

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# THANK YOU FOR YOUR ATTENTION!

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# TECHNIQUES IN ECONOMIC THINKING

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## *EXPLANATIONS OF SOME OF THE BASIC TERMS IN ECONOMICS*

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**BEFEKTETÉS A JÖVŐBE**

# OVERVIEW OF THE CURRENT PRESENTATION

- **Scarcity**
- **Resources**
- **Goods and services**
- **Choices**
- **Trade-offs**
- **Efficiency**
- **Equ(al)ity**
- **Opportunity cost**
- **Demand**
- **Supply**
- **Marginal thinking: utility**
- **MR, MC, marginal analysis**
- **Profit**
- **Incentives**
- **Specialization**
- **Economic advantages**
- **Returns to scale**
- **Economies of scale**
- **Externalities (spillovers)**
- **Market**
- **Transaction costs**
- **Market power**
- **Economic equilibrium**
- **Money**
- **Money stock (money supply)**
- **Income and wealth**
- **Economic growth**
- **Economic development**

# SCARCITY

- Economics is concerned primarily with **scarcity**: how we satisfy our *unlimited wants* in a world of *limited resources*
  - As long as human wants exceed available resources, scarcity will exist: people cannot fulfil all their *material and nonmaterial wants*
  - Even the richest person must live with scarcity
    - The problem is that as we get more wealthy, we learn of *new luxuries to provide us with satisfaction*
  - Don't confuse scarcity with *rarity, poverty and shortage*
    - Something may be rare, but if it is not desirable, it is not scarce (*e.g. hard coal, uranium*)
    - Poverty refers to an opinion (based on preferences and value judgement) of whether someone meets a defined level of income or not
    - Shortage occurs when the quantity demanded at the prevailing price is greater than the quantity supplied; thus, the good is unavailable

# RESOURCES

- The **scarce resources** used in the production of goods and services can be grouped into five categories:
  - *Land (A)* includes the “*gifts of nature*” used in the production of goods and services (e.g. soil, trees, water, minerals, physical space)
  - *Labour (L)* is the total of both physical and mental effort expended by people in the production of goods and services
  - *Capital (K)* is the equipment and structures used to produce goods and services (e.g. buildings, tools, machines, factories)
    - Capital also includes *human capital*: the productive knowledge and skill people receive from education and on-the-job training
  - *Entrepreneurship (E)* is the process of combining labour, land, and capital to produce goods and services
  - *Information (I)* helps entrepreneurs make the tough and risky decisions about what and how to produce goods and services

# GOODS AND SERVICES

- **Goods** are *tangible (physical)* objects that can be seen, held, heard, tasted or smelled (e.g. *food, clothes, household goods*); or *intangible (non-physical)* things we cannot reach out and touch (e.g. *fairness, leisure, security, national defense, prestige, respect, clean air, pleasant working conditions*)
  - ‘*Bads*’ are those items that we do not desire or want, things in which less is preferred to more (e.g. *garbage, pollution, smog, crime, terrorism, summertime mosquito bites*) → people tend to eliminate or minimize ‘bads’, so they will often pay to have them removed (e.g. *garbage removal*)
- **Services** are intangible acts for which people are willing to pay, they are less visible, but they are certainly no less valuable than goods (e.g. *legal counsel, medical care, education, festival and concert participation, cinema, theatre*)



# CHOICES

- Much of economic life involves **choosing** one action rather than another
  - *Only individuals choose.*
  - *Individuals choose among different wants and desires in a world of scarcity.*
  - *Individuals choose after calculating benefits and costs.*
    - According to theory of rational choice
- We all face scarcity, and as a consequence, we must make **choices**
  - If we had unlimited resources, and thus an ability to produce all the goods and services everyone wants, we would not have to choose among those desires

# TRADE-OFFS

- In a world of scarcity we all face **trade-offs**
  - If you spend more time at work you might give up an opportunity to go shopping at the mall or watch your favourite TV show
  - *Businessmen/enterprises/government have trade-offs*
    - If a *farmer* chooses to plant his land in corn this year, he gives up the opportunity to plant his land in wheat
    - If a *firm* decides to produce only cars, it gives up the opportunity to use those resources to produce something else that people value
    - The *government* faces trade-offs, when it comes to spending tax revenues (e.g. additional resources used to enhance the environment may come at the expense of additional resources to provide health, education or national defense)

# EFFICIENCY

- **Efficiency** refers to getting as much as possible out of the scarce resources available
  - It always has to do with the ratio of the *value of output* to the *value of input* (expressed as a percentage)
  - It is an *objective component*, because people's likes or dislikes do not determine efficiency; however changes in valuations suggest *subjective preferences* as well
    - Voices have begun to appear suggesting that we place too high values on efficiency, and that we sacrifice more valuable goals to achieve an efficiency that is not worth what it costs us
  - *Technological efficiency*: ratio of the work done by a machine to the energy supplied to it
  - *Pareto-efficiency*: a state of allocation of resources in which it is impossible to make anyone better off without making at least another worse off

# EQU(AL)ITY

- While efficiency is the property of society getting the most it can form its scarce resources, **equ(al)ity** is the property of distributing economic prosperity fairly among the members of society
  - In other words, efficiency refers to the *size of the economic pie*, and equ(al)ity refers *how the pie is divided*
- *Often, these two goals conflict*
  - Policies aimed at achieving a more equal distribution of well-being (*e.g. cohesion*) have a cost in terms of reduced efficiency (*e.g. competitiveness*)
  - When government redistributes income from the rich to the poor, it reduces the reward for working hard
    - When the economic pie is cut into more equal slices, the pie gets smaller

# OPPORTUNITY COST

- Every choice involves a cost – **opportunity cost** interpretations:
  - *The highest forgone opportunity resulting from a decision*
  - *The value of the best forgone alternative that was not chosen*
  - *This is what you give up when you make a choice*
- To get more of anything that is desirable, *we must accept less of something else that we also value*
  - Go to college, have a job or have a child?
    - The opportunity cost of going to college includes not just the direct expenses of tuition and books, but the opportunity cost of time
    - For a young woman, the time spent going to school is time that could have been spent on a job seeking or in child rearing

# DEMAND

- **Demand** is a *concept* that relates amounts people want to obtain to the sacrifices they must make to obtain these amounts
  - The *law of demand* asserts that there is a negative relation between the amount of anything that people want to purchase and the price (sacrifice) they must pay to obtain it: at higher price, people will want to purchase less; at lower prices they will want to purchase more
    - QUESTION: Would you agree that this *generalization* can be called a law? Or would you agree that there are '*alleged*' exceptions to the law of demand?
- **Demand** is the *quantity* of a good that consumers are *able and willing to* purchase at various price during a given period of time
  - The relationship between P and Q demanded ( $Q_D$ ) is known as *demand curve*

# SUPPLY

- **Supply** reflects amounts of goods, services and resources available for purchase at any specified prices; supply is the amount that economic agents are willing and able to provide to the marketplace
  - Supply depends on cost, but the cost of supplying is the value of the opportunities forgone by the act of supplying
  - Higher prices must be offered to owners of resources and commodities to persuade them to transform a current activity into an opportunity they are willing to sacrifice
    - The relationship between P and Q supplied ( $Q_S$ ) is known as *supply curve*
  - Don't confuse supply with *stock*
    - Stock is the total amount of the commodity available with the producer

# MARGINAL THINKING: UTILITY

- Many choices involve **marginal thinking**
  - Some decisions are *"all or nothing"*, like whether to start a new business on our own or go to work for someone else
  - Many choices we face involve *"how much of something to do"* rather than *"whether to do something"* → it is not whether you eat but how much you eat, or how much money do I spend, and how much do I save ...
- Purposeful choosing implies that decision-makers have some *basis for evaluation of alternatives* based on **utility**
  - *Utility* is the benefit or satisfaction that an individual expects from the choice of a specific alternative
    - *E.g. The question is not whether you study this semester, but how much you study (this is based on additional choices).*



# MARGINAL THINKING: MR, MC, MARGINAL ANALYSIS

- Businesses are constantly engaged in marginal thinking
  - Consumers, producers and government have to decide whether the **marginal revenue (MR)** from increased production is greater than the **marginal cost (MC)** of that increased production
  - Economic agents follow an activity if  $MB > MC$
- **Marginal analysis:**  $E(MR)$  and  $E(MC)$ 
  - Economic agents are always weighing the *expected MR* against *expected MC*
    - The term *expected* is used with marginal benefits and marginal costs, because the *decisions are uncertain*, so decisions are based on what people expect to happen
    - *Net benefit:* the difference between the expected marginal revenues and the expected marginal costs:  $NB = E(MR) - E(MC)$

# PROFIT

- **Profit** is a term with many meanings
- Profit can be usefully defined as *total revenue (TR)* minus *total cost (TC)* if we include all opportunity costs in calculation of TC
  - A synonym would be *net revenue*: when a business firm has paid all its cost, what it has left is net revenue
  - Profit arises from uncertainty
    - In the absence of uncertainty, any differences between TR and TC would be competed away and profit would become zero
  - The possibility of profit encourages entrepreneurial activity
    - Entrepreneurs undertake to reorganize some part of the social world in the belief that the reorganization creates benefits greater than its costs
    - The entrepreneur's profit is the residual

# INCENTIVES

- Human behaviour can be explained and predicted through **incentives** (people respond to incentives)
- Types of incentives:
  - *Positive incentive*: an incentive that either reduces costs or increases benefits, resulting in an increase of an activity, thus encouraging consumption or production
    - *E.g. A subsidy on hybrid cars would be a positive incentive that would encourage greater production and consumption of hybrid cars.*
  - *Negative incentive*: an incentive that either increases costs or reduces benefits, resulting in a decrease of an activity, thus discouraging consumption or production
    - *E.g. A tax on cars that emit lots of pollution would be a negative incentive that would lead to a reduction in emitted pollution.*

# SPECIALIZATION

- People and nations **specialize** in what they produce
  - By concentrating energies on only one or a few activities, individuals *make the best use of their limited resources, and rely on others to produce other goods and services they want*
    - We trade with others because it frees up time and resources
    - If we divide tasks and produce what we do relatively better and trade for the rest, *we will be better off than if we were self-sufficient*
    - *NOTE: No person, no group, no nation can be more efficient than another in every activity; however certain groups (nations, companies) can control the supply of a resource (known as geopolitical scarcity)*
  - *The efficiency of international trade: it is impossible for one country to be more efficient than another in the production of everything*

# ECONOMIC ADVANTAGES

- People, businesses, region, or countries gain by specializing in the production in which they have an **advantage**
  - Economic advantages are *determined by opportunity costs*
  - *Comparative advantage* (RICARDO 1817): focus on factor cost differential, factor cost advantage in producing a particular good
    - It derives from *economic theory on international trade*
  - *Competitive advantage* (PORTER 1985): focus on value factors, including efficiencies, performance, quality of life, human and social capital
    - It derives from *applied economics of strategic management*
  - *Collaborative advantage* (HUXHAM 1993): focus on greater integration and cooperation among business, government and communities, partnerships and alliances (results *win-win scenario*)

# RETURNS TO SCALE

- **Returns to scale** describes what happens when *the scale (size) of production increases* in the long run
  - It explains the behaviour of the rate of increase in output (Q) relative to the associated increase in the inputs (K, L):  $\beta Q = f(\alpha K, \alpha L)$ 
    - *Increasing returns to scale (IRS):  $\beta > \alpha$  (e.g. when all inputs increase by a factor of 2, new values of the output will be more than twice the previous output)*
    - *Constant returns to scale (CRS):  $\beta = \alpha$  (e.g. when all inputs increase by a factor of 2, new values of the output will be twice the previous output)*
    - *Decreasing returns to scale (DRS):  $\beta < \alpha$  (e.g. when all inputs increase by a factor of 2, new values of the output will be less than twice the previous output)*
  - Typically, there are IRS at relatively low output levels, and DRS at relatively high output levels

# ECONOMIES OF SCALE

- **Economies of scale** are the *cost advantages* that enterprises obtain due to *size, output or scale of operation*
  - *Cost per unit of output generally decreases with increasing scale* (as fixed costs are spread out over more units of output)
    - Efficiency is also greater with increasing scale
  - *Diseconomies of scale*: beyond the ideal firm size, additional output will increase costs per unit of output
    - This pattern typically follows the *law of diminishing returns*: the decrease in the marginal output of a production process, as the amount of a single factor of production is increased (while the amounts of all other factors of production stay constant)
- *NOTE: Returns to scale expresses the relation between input and output quantities, economies of scale show the effect of an increased output level on unit costs*

# EXTERNALITIES (SPILLOVERS)

- **Externalities** are widespread in modern urban industrialized societies
- Types of externalities:
  - *Negative externalities* (spillover cost, external cost, external diseconomy) are costs that decision makers do not take into account when making their decisions: an economic activity that imposes a negative effect on an unrelated third party
    - *E.g. environmental pollution, passive smoking, traffic congestion, overfishing, antibiotic resistance, spam messages*
  - *Positive externalities* (spillover benefits, external benefit, beneficial externality) are benefits that decision makers do not take into account when making their decisions: an economic activity that imposes a positive effect on an unrelated third party
    - *E.g. beekeeper and apple-orchard, public fire department, Wi-Fi, vaccination for infection disease*



# MARKET

- Economics examines how economic agents *interact* within a **market**
  - Market is a *set of interrelationships of buyers and sellers, a "process of competing bids and offers"* in order to engage in exchange goods and services
  - Market is the process by which the *prices* of goods and services are established
    - *NOTE: Market is not a place, though it is closely identified with a particular place*
    - It facilitates trade by allowing any trade-able item to be evaluated and priced
  - Types: consumer markets (*e.g. food retail markets, stores, flea markets*), business markets (*e.g. wholesale markets, labour markets*), financial markets (*e.g. stock exchange, bond markets*), non-physical markets (*e.g. media markets, electronic commerce*), illegal markets

# TRANSACTION COSTS

- **Transaction cost** is a cost in making any economic trade when participating in a market: the costs of arranging contracts or transaction agreement between demanders and suppliers
  - It occurs because the costs of arrangements are usually too high
    - *E.g. Money lowers transaction costs, so people don't engage in barter.*
  - Functional taxonomy of transaction costs (DAHLMAN 1979, 148):
    - *Search and information costs* owe their existence to imperfect information about the existence and location of trading opportunities or about the quality or other characteristics of items available for trade
    - *Bargaining costs* represent resources spent in finding out the desire of economic agents to participate in trading at certain prices and conditions
    - *Policing and enforcement costs* are incurred because there is lack of knowledge as to whether one (or both) of the parties involved in the agreement will violate his part of the bargain:

# MARKET POWER

- **Market power** is the ability of a single economic actor or small group of actors to have a substantial influence on market prices
  - The *concept of price elasticity of demand* provides a useful way of thinking about the degree of market power
    - *Demand elasticity can vary between zero and infinity*. The more good alternative buyers have, the more elastic are the demand curves sellers face and the more limited is the power of sellers to establish terms of sale advantageous to themselves.
    - *Price takers* must accept the price decreed by the market. Buyers have excellent substitutes for the product that any attempt to raise the price will leave the seller with no customer at all.
    - *Price searchers* (qualified as *monopolists*) can sell different quantities at different prices and must therefore search for the most advantageous price.

# ECONOMIC EQUILIBRIUM

- **Economic equilibrium** is a state where economic forces, such as *supply* and *demand*, are balanced
  - In the absence of any external influences *the value of economic variables will not change*
  - *Competitive equilibrium* occurs at the point which quantity demanded and quantity supplied are equal
    - *Market (competitive) price* is established through competition such that the amount of goods and services sought by buyers is equal to the amount of goods and services produced by sellers
  - *Nash-equilibrium* is the main alternative to competitive equilibrium (imperfectly competitive markets), and occurs when firms are producing outputs which maximize their own profit (given the output of each other)
    - First used by A. A. Cournot, known as *Cournot-Nash-equilibrium* as well

# MONEY

- **Money** is a commonly employed medium of exchange: a middle-thing used in the process of exchanging one good for another
  - It contains the currency component of the money supply and checkable deposits
    - *NOTE: Currency could disappear entirely without any reduction in use of money as credit cards has become common*
- **Money** is a liquid asset that can be exchanged in order to obtain other goods
  - The liquidity of an asset refers to the cost of exchanging it for other assets
    - An asset that can be exchanged for any other asset at a zero cost is a completely liquid asset (e.g. money in wallet)
    - *NOTE: An asset becomes more moneylike as it becomes more liquid as the cost of exchanging it for other assets approaches zero*

# MONEY STOCK (MONEY SUPPLY)

- **The narrowly defined money supply (M1):** the sum of currency and coin in circulation demand deposits, travelers checks and other checkable deposits that can be quickly converted to cash (*the actual medium of exchange*).
- **The broadly defined money supply (M2):** the sum of M1 plus 'near money' (saving deposit, short time deposits, money market securities etc.) that measures the stock of highly liquid assets that the public is holding. M2 is a closely watched as an indicator of money supply and future inflation and as a target of central bank monetary policy.
- **The broadest measure of money supply (M3):** the sum of M2 plus large time deposits, institutional money market funds, short-term repurchase agreements and larger liquid assets that are less liquid. M3 is still published, but mostly for ease of historical comparisons.

# INCOME AND WEALTH

- **Income** is a flow of money and receipts per unit of time
  - Compensation package (pay, earnings, wages, salaries), fringe benefits, 'perks' (bonus, overtime pay, allowances), vested benefits, single payment (premium, honorarium, royalty, severance pay), welfare benefits (state pension, tax credits), profits flowing to businesses, dividends distributed to shareholder, rental income flowing to people who own and lease out property, interest paid to those who hold money in deposit accounts or own bonds
- **Wealth** is a stock of assets, a large amount of money or valuable possessions and can be held in different ways
  - Cash, savings held in bank deposit accounts, shares of stock, ownership of property, buildings, tools, wealth held in bonds, wealth held in occupational pension schemes and life insurance schemes

# ECONOMIC GROWTH

- **Economic growth** is the *increase in the inflation-adjusted market value of the goods and services produced by an economy over time*
  - *Calculated in real terms*: eliminates the distorting effect of inflation on the price of goods and services
  - *Continuously calculated*: refers to the geometric annual rate of growth in GDP (*Gross Domestic Product*) between the first and the last year over a period of time
  - *Intensive vs. extensive economic growth*:
    - *Intensive growth*: growth is caused by more efficient use of inputs (e.g. labour productivity, physical capital, energy, materials)
    - *Extensive growth*: growth is caused only by in the amount of inputs available for use (e.g. increased population, new territory)



# ECONOMIC DEVELOPMENT

- While economic growth is a phenomenon of productivity and increase in GDP, **economic development** is a *process by which the economic and social well-being of people can be improved*
  - It originates in the *post-war period* of reconstruction initiated by the USA; however it can be closely bound with the *evolution of capitalism and industrialization*
  - Economic development encompasses both *growth* (increase in the level of output) and *welfare values* (improvement of social welfare)
    - "Economic growth is one aspect of the process of economic development" according to AMARTYA SEN
  - *Possible economic development indicators and indices*: GDP per capita, income distribution, literacy, education, access to healthcare, social security, modern transportation...

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# THANK YOU FOR YOUR ATTENTION!

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**SZÉCHENYI**  2020



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**BEFEKTETÉS A JÖVŐBE**

# TECHNIQUES IN ECONOMIC THINKING

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## *THE ROLE OF BELIEFS IN ECONOMIC THOUGHT – ABOUT THE LAWS AND PRINCIPLES OF ECONOMICS*

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**BEFEKTETÉS A JÖVŐBE**

# OVERVIEW OF THE CURRENT PRESENTATION

- **Economics as a system of beliefs.** Belief and ideology.
- **Natural laws and economics** in light of Scholasticism and Physiocracy.
- **General laws of economics** according to J. S. MILL and K. MARX.
- **Economic laws** according to J. N. KEYNES, A. MARSHALL, the members of the German historicism, J. M. KEYNES and H. SCHULTZ.
- **Belief and economic (inter)action** according to JOHN K. GALBRAITH and BARKLEY ROSSER.
- **Some of the frequently referred laws of economics.**
- **Q1: Can or should economics provide laws? Q2: What is the core truth of economics?**
- **Ten principles (fundamental lessons) of economics** after N. GREGORY MANKIW in contemporary economics. Explanation and critique of each principle.

# ECONOMICS IS A SYSTEM OF BELIEFS

- **'Scientific beliefs' comfort us and tie us more closely**
  - Belief in the value of science and in its power as a source of knowledge *offer encouragement and generate common feelings*
    - Researchers can believe in scientific progress and evolution of science, intelligent design, institutions of sciences, scientific methods etc.
  - Believing in science is *a means of making sense of the universe and a path to the future of mankind full with optimism*
- **Economists believe in many different things**
  - One may believe in an ideology, in a model that explains economic processes, in general economic laws, in principles of economics, in economic actions and interactions
    - On the one hand, beliefs are focused on specific issues and practices, on the other, they cover the total ideology about an economic system

# ECONOMICS IS A SYSTEM OF BELIEFS

- **Economics is regarded as a system of belief** (GALBRAITH 1970)
  - ... although *"a recurring and not unsubstantiated **charge against economics** over the last century has been its employment, not as a science, but **as supporting faith**"* (469)
  - He argues that *"**present professional belief** – the **neoclassical model of economic process** – as profoundly accepted as was once the **competitive model or Say's law**, is now similarly excluding urgent as well as politically disturbing questions from professional economic vision."* (470)
  - He notes that accepted economic models have served to divert attention from questions of great social urgency, *"[i]n doing this, economics has **served a political function**. It has been not a science but a conservatively useful system of belief defending that belief as a science."* (470)

# BELIEF AND IDEOLOGY

- **Ideological orientation and formation may, or may not, be a matter of belief** (ROSSER 1993)
  - On the one hand, *MARX and ENGELS believed in 'scientific socialism'*
    - None of the actually existing socialisms ever fulfilled their belief, notably the communist ideal of withering away of the state in a classless society
    - *NOTE: The most intense ideological conflict in economics for quite some time has been between pro-free market libertarians and anti-free market Marxism*
  - On the other hand, *religion has very little to do with economics*
    - The spiritual focus of religions and the materialistic concerns of economics usually do not match
    - *NOTE: Discussions in religion have not involved the total ideology of economic system, but have focused on specific issues or practices, such as what is the moral conduct related to economic matters*



# ABOUT 'NATURAL LAWS' AND ECONOMICS

- **Natural laws** can be associated with Scholasticism and Physiocrats
  - Their advocates equated natural laws to that set of laws which conform to social necessity
    - In their view, artificial interference in the inherent natural order might be harmful
  - Their analytic concept has two meanings: laws are natural in the sense of normal and in the sense of just
    - According to the first sense, the meaning of natural law applies a situation where social condition determines a certain sequence of events which would lead to the state of affairs free from disturbances (*e.g. natural price*)
    - According to the second sense, the meaning of natural law applies a situation where the allocation and distribution of resources are normatively correct
  - Natural laws were totally abandoned after J. LOCKE and A. SMITH

# ABOUT 'GENERAL LAWS' OF ECONOMICS

- JOHN STUART MILL (1848) describes that the **laws of political economy** covers a wide range of laws: the law of production and distribution, as well as the law of labour (Bl., Ch.10), capital (Bl., Ch.11), land (Bl., Ch.12), wages (BII., Ch.11–13.), profits (BII., Ch.15), rent (BII., Ch.16) and value (B II., Ch.1)
  - *"Nothing in political economy can be of more importance than to ascertain the law of [the] increase of production" (188), that "must be a consequence of the laws of these elements" ... "viewed in respect of its dependence, first on labo[u]r, secondly on capital, and lastly on land" (189)*
  - *"The laws and conditions of the production of wealth, partake of the character of physical truth. There is nothing optional or arbitrary in them" (241)*
  - *Laws of distribution of wealth are different, they are "a matter of human institution solely" (242)*

# ABOUT 'GENERAL LAWS' OF ECONOMICS

- According to KARL MARX, '**general laws**' in economics are specific to capitalism; however, abstract economic laws do not exist
  - GALBRAITH (1970) noticed that, for MARX, the main question was not whether a theorem was true, but whether it was useful to capital or harmful, politically dangerous or not
  - The *general law of capitalist accumulation* is described in Capital Vol. 1, Ch. 25. with the following consequence:
    - *"The greater the social wealth, the functioning capital, the extent and energy of its growth, and, therefore, also the absolute mass of the proletariat and the productiveness of its labour, the greater is the industrial reserve army ... the greater this reserve army in proportion to the active labour army, the greater is the mass of a consolidated surplus population, whose misery is in inverse ratio to its torment of labour. The more extensive, finally, the lazarus layers of the working class, and the industrial reserve army, the greater is official pauperism. This is the absolute general law of capitalist accumulation."* (translated from MARX 1867, 631)

# ABOUT 'ECONOMIC LAWS'

- According to JOHN N. KEYNES (1890), '**economic laws**' "*are not simple laws of human nature, but laws of complex social facts resulting from simple laws of human nature*" (86)
  - He adds that economic laws are *theorems of facts*, not practical precepts (12–13), *statement of a uniformity*, not a command enforced by sanctions (36)
    - Although he gives examples of economic laws (*e.g. the law of supply and demand, the Ricardian law of rent, Gresham's law, Mill's law, law of diminishing return*), these laws do not apply universally and are hardly to be considered as true laws
    - He is optimistic about the future of economic laws: "*it is possible to discover general laws of economic phenomena, to co-ordinate these laws and to explain particular economic facts by means of them*" (143).
    - He envisions the laws of competitive values, price, normal profit, normal wages, rent, interest affecting saving, determining accumulation of capital, production, consumption, distribution and exchange.

# ABOUT 'ECONOMIC LAWS'

- According to ALFRED MARSHALL (1930 [1890]), '**economic laws**', "or *statements of economic tendencies, are those social laws which relate to branches of conduct in which the strength of the motives chiefly concerned can be measured by a money price*" (33)
  - He notices that the science of man is complex and its laws are inexact
    - "[t]he laws of economics are to be compared with the laws of the tides, rather than with the simple and exact law of gravitation" (32)
    - "[t]he term "law" means then nothing more than a general proposition or statement of tendencies, more or less certain, more or less definite" (33)
    - "[w]e must select; and the selection is directed by purely scientific considerations than by practical convenience" (33)
    - The *normal economic action* can be defined when following the definition of an economic law: "the course of action which may be expected under certain conditions ... is the normal action" (34)

# THE GERMAN HISTORICAL SCHOOL ABOUT ECONOMIC LAWS

- According to *the historicists' position*, economists had better not attempt to formulate **economic laws**, and they denied that it is possible to arrive at economic laws
  - Historicists *attacked the validity of economic laws* deduced from a small number of simple premises given its practical limitations
    - They took the view that economic laws are based on simple elements such as needs and satisfaction expressed as invariable sequences not influenced by time and space
  - KARL KNIES noticed that economic phenomena are subject to special laws; thus, *an absolute system possessing universal validity is impossible* (cf. Keynes 1891, 282)
  - GUSTAV SCHMOLLER protested against the classical school for relying on too narrow a basis for economic laws, although he noticed that *the determination of economic laws is still wanting* (cf. Keynes 1891, 303)

# ABOUT THE THEORY OF ECONOMICS

*"The Theory of Economics does not furnish a body of settled conclusions immediately applicable to policy. **It is a method, rather than a doctrine, an apparatus of mind, a technique of thinking** which helps its possessor to draw correct conclusions."* (KEYNES 1922, v)

- According to JOHN M. KEYNES (1922, v), **modes of expression** in economics are less precise than in mathematical or scientific techniques
  - Before ADAM SMITH the apparatus of thought scarcely existed
  - It is not complete yet, but it has been steadily enlarged
  - The main task of the professional economist now consists ...
    - ...either *in obtaining a wide knowledge of relevant factors and exercising skill* in the application of economic principles ...
    - ... or *in expounding the elements of method* in lucid, accurate and illuminating way

# ABOUT 'ECONOMIC LAWS' AGAIN

*"...most economic laws or principles are expressed in the terms of properties of things or persons rather than in terms of operations. Thus we define "utility" as the property which a good has to satisfy a want, and we talk of "keeping other things constant" without specifying the mental or physical operations by which this may be done." (SCHULTZ 1928, 647)*

- According to HENRY SCHULTZ (1928), fundamental concepts are not synonymous with corresponding **sets of operations** → concepts do not admit of the possibility of empirical verification → it is wrong to speak of economics as experimental science
  - What economics have to do to their discipline is to examine concepts or laws from the operational point of view, which underlines KEYNES' view on the importance of modes of expression



# BELIEF AND ECONOMIC (INTER)ACTIONS

- According to JOHN K. GALBRAITH (1970, 471–473), **two views have monopoly of established belief regarding the individual** in economic society in accordance with the neoclassical model
  - *Formal microstatic models* emphasize that *all changes are transmitted through the market* and there is no significant extra market process
    - No special assumption is made as to the source of the change (consumer or producer) or the purpose of the process
  - *Less formal, intuitive and more influential writing and instruction* assumes that *transmission of change originates with the producer, but the ultimate accommodation is coming from the individual*
    - The accommodation to changes in the producer's cost function is neutral and technical, the accommodation to changes in the consumer's demand function is functional and moral

# BELIEF AND ECONOMIC (INTER)ACTIONS

- **Many economists believe in the rationality assumptions for ideological reasons** (ROSSER 1993, 358–359)
  - *Rationality* assumption is important because of the theoretical result that rationality is associated with *efficiency* in a properly functioning market economy
    - Thus, the rationality assumption becomes linked with an *ideological defense of free markets*
  - *NOTE: There is an inescapable residue of "normativeness" which determines the way economic analysis is done*
    - Despite all efforts at mathematical abstractions, normative aspects become (remain?) important
    - *QUESTION: Do economists make assumptions to generate prediction which satisfy their normative prejudices?*

# BELIEF AND ECONOMIC (INTER)ACTIONS

- **Most people neither know nor care about economic theory or ideology, they simply struggle to make ends meet** (ROSSER 1993, 364–366)
  - This issue has been raised in financial markets with respect to the possible existence of *speculative bubbles*
    - Making money in the market does not necessarily depend on the fundamental, it depends on the behaviour of the other market participants
  - *NOTE: It is better to speak of expectation rather than belief*
    - A common expectation (*self-fulfilling prophecy*) is about inflation: expectations of future inflation lead people to spend more today and demand higher nominal interest rates as they expect that prices will be rising this create inflationary pressure
    - *The key is that most everyone believes that everyone else has the same expectation*

# SOME OF THE FREQUENTLY USED ECONOMICS LAWS

- **Certain laws of economics are named after their originator**
  - *Director's law* about the benefit of middle income groups
  - *Engel's law* about the share of income spend on food
  - *Gibrat's law* about the lognormal size distribution of firms
  - *Goodhart's law* about distorted target measures
  - *Gresham's law* about the circulation of two monetary media
  - *Okun's law* about the relationship between unemployment and GDP
  - *Pareto's law* about the consistency of income distribution over time
  - *Petty's law* about labour engaged in services to develop an economy
  - *Say's law* about "supply creates its own demand"
  - *Verdoorn's law* about the relationship between the rate of growth of output and the growth of productivity
  - *Wagner's law* about the relationship between public expenditures and GNI
  - *Walras' law* on general equilibrium

# SOME OF THE FREQUENTLY USED ECONOMICS LAWS

- **Other laws of economics emphasize their subject**
  - *Law of diminishing marginal utility* about the consequences by consuming more units from the same goods or services
  - *Law of diminishing marginal productivity* about the consequences to output by adding more quantities of a variable factor
  - *Law of diminishing returns* about the consequences by adding more quantities of a variable factor to fixed quantities of some other factor
  - *Law of one price* about the market rule that only one price is produced by the market in equilibrium
  - *Law of reciprocal demand* about the refinement of comparative advantage used to determine terms of trade
  - *Iron law of wages* about wages in the long run
  - *QUESTION: Law of scarcity, or should say problem of scarcity?*
    - *Do people face the law or problem of scarcity?*

# Q1: CAN OR SHOULD ECONOMICS PROVIDE 'LAWS'?

## Q2: WHAT IS THE CORE TRUTH OF ECONOMICS?

- **A1: There are no right answers, only honest ones**
  - *No answer is binding*; it can always be revised
    - *Economists do not always agree* about whether a given phenomenon is an economic phenomenon or whether an economic analysis is an economic analysis (HAUSMAN 1981)
    - Theorists may hold beliefs that are later proven false (EMMETT 2003), or great ideas might be only exploited over decades (BLAUG 2001)
- **A2: There are a few basic concepts that underpin all of economics**
  - *Concepts* such as scarcity, efficiency, the gains from specialization and the principle of comparative advantage are crucial concepts as long as *scarcity itself* exists (SAMUELSON–NORDHAUS 1998)
    - For Marx, it is no longer a question "whether this theorem or that was true"; for Veblen, the competitive model of classical economists "affords to test the absolute economic truth" (GALBRAITH 1970)

# TEN PRINCIPLES (FUNDAMENTAL LESSONS) OF ECONOMICS (N. GREGORY MANKIW 2001)

1. People face trade-offs
  2. The cost of something is what you give up to get it
  3. Rational people think at the margin
  4. People respond to incentives
  5. Trade can make everyone better off
  6. Markets are usually a good way to organize economic activity
  7. Governments can sometimes improve market outcomes
  8. A country's standard of living depends on its ability to produce goods and services
  9. Prices rise when the government prints too much money
  10. Society faces a short-run trade-off between inflation and unemployment
- How people make decision?*
- How people interact?*
- How the economy as a whole works?*

# PRINCIPLE 1: PEOPLE FACE TRADE-OFFS

## Explanation

- *To get one thing that we like, we usually have to give up another thing that we like*
  - Individuals, households, firms, governments must face kinds of trade-offs
  - Acknowledging life's trade-offs is important because people are likely to make good decisions only if they *understand the options that they have available*

## Critique

- This is an important principle that *helps explain individual behaviour*
- Recognizing trade-offs *does not by itself tell us what decisions people will or should make*



# PRINCIPLE 2: THE COST OF SOMETHING IS WHAT YOU GIVE UP TO GET IT

## Explanation

- *Making decisions requires comparing the costs and benefits of alternative courses of action*
  - When making any decisions, decision makers should be aware if the *opportunity costs* that accompany each possible action

## Critique

- In many cases, *the cost of action is not obvious* as it might first appear
- *All costs are subjective*, and therefore cannot be measured accurately
  - The only way to measure the cost of time spent is to ask the individual (*subjective evaluation*), but it may not be possible to accurately measure opportunity costs

# PRINCIPLE 3: RATIONAL PEOPLE THINK AT THE MARGIN

## Explanation

- *A rational decision maker takes an action if and only if the marginal revenue/benefit of the action exceeds the marginal cost*
  - *Marginal changes describe small incremental adjustments to a plan of action*
  - *Margin means 'edge', so marginal changes are adjustments around the edges of what we are doing*

## Critique

- *Identical statement that can be found in the works of MENGER, WALRAS and JEVONS*
- *Subjective factors are important when calculating marginal revenue and marginal cost, the accuracy of measure is indefinite*

# PRINCIPLE 4: PEOPLE RESPOND TO INCENTIVES

## Explanation

- *Incentive is something that induces people to act*
  - Human beings make *conscious actions* toward achieving their goals
  - People's behaviour change when the costs and benefits change → people who changes their behavior will get a reward

## Critique

- This principle have *substantial impact* on both mainstream and heterodox economics
  - For instance, *according to Austrian economists*, the equilibrating process in the market is a reflection of individuals responding to the changes in incentives → market is a *process of learning and forming new expectations* (cf. QUDDUS–HORTON 2002, 71)

# PRINCIPLE 5: TRADE CAN MAKE EVERYONE BETTER OFF

## Explanation

- *Countries (and households) benefit from the ability to trade with one another as trade allows to specialize in what they do best and to enjoy a greater variety of goods and services*
  - Trade is not like a sports contest, where only one side gains and the other side loses

## Critique

- The term *trade* is used *in the broadest sense*
  - It includes all transactions and exchanges that takes place between economic agents
- SMITH and others argued that *free trade* is welfare enhancing
  - Free trade is mutually advantageous, enhances freedom and enlarges the economic pie...
  - ... but to different extents

# PRINCIPLE 6: MARKETS ARE USUALLY A GOOD WAY TO ORGANIZE ECONOMIC ACTIVITY

## Explanation

- *Market economies have proven remarkably successful in organizing economic activity in a way that promotes overall economic well-being*
  - An *'invisible hand'* leads to desirable market outcomes
  - *Central planning failed*, because prices were dictated by planners and were not determined in marketplace

## Critique

- Free and competitive markets are the most efficient known mechanism for allocation of scarce resources and for optimum efficiency
- With or without equilibrium, the market process brings about the best outcome for participants and for the society as a whole

# PRINCIPLE 7: GOVERNMENTS CAN SOMETIMES IMPROVE MARKET OUTCOMES

## Explanation

- *A government's intervene promotes efficiency and equity*
  - The invisible hand leads market to allocate resources efficiently, if it fails market failure and externality occur
  - The invisible hand is even less able to ensure that economic prosperity is distributed fairly

## Critique

- There is *no core agreement on this principle* as a range of options exist
  - *State intervention, but how?* In form of planning, control, defense, encouragement?
- *Public policy is made by a political process that is far from being perfect*
  - Sometimes policies are designed simply to reward the politically powerful

# PRINCIPLE 8: A COUNTRY'S STANDARD OF LIVING DEPENDS ON ITS ABILITY TO PRODUCE GOODS AND SERVICES

## Explanation

- *Almost all variation in living standards is attributable to differences in countries' productivity*
  - In nations where workers can produce a large quantity of goods and services per unit of time, most people enjoy a high standard of living
  - The growth rate of nation's productivity determines the growth rate of its average income

## Critique

- If productive ability increase, *living standards may also stagnate or decline*
  - The rules of the game and the institutions are also important in the process of growth
- It is unclear *how to measure standard of living*
  - Which is the perfect way of measure to express a country's standard of living?

# PRINCIPLE 9: PRICES RISE WHEN THE GOVERNMENT PRINTS TOO MUCH MONEY

## Explanation

- *When a government creates large quantities of the nation's money, the value of the money falls*
  - This is the monetary explanation of *inflation* (=an increase in the overall level of prices in the economy)
  - As high inflation imposes various costs on society, *keeping the inflation at a low level is a common goal of economic policy makers*

## Critique

- The *concept of the price level* has overtones of aggregation
  - A distinction is usually made between price inflation and money inflation
  - Inflation of the money supply results in malinvestments and biases in relative prices even if price inflation does not result



# PRINCIPLE 10: SOCIETY FACES A SHORT-RUN TRADE-OFF BETWEEN INFLATION AND UNEMPLOYMENT

## Explanation

- *Phillips curve shows the short-run trade-off between inflation and unemployment*
  - Reducing inflation is often thought to cause a temporary rise in unemployment due to some *prices are slow to adjust (sticky)*
  - Phillips curve is *crucial for understanding many developments in economics*, such as government spends, amount of taxes, amount of money government prints

## Critique

- *Controversial concept*, but most economists agree in its reality in the short-run
  - For instance, *according to Austrian economists*, there is no distinction between short and long run, and some Austrians insist that only gold (or the gold standard) constitutes money, thus monetary policy is fraudulent (cf. QUDDUS–HORTON 2002, 74–75)

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# THANK YOU FOR YOUR ATTENTION!

EFOP-3.4.3-16-2016-00022  
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Sopronban, Szombathelyen és Tatán

**SZÉCHENYI**  2020



MAGYARORSZÁG  
KORMÁNYA

Európai Unió  
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Alap



**BEFEKTETÉS A JÖVŐBE**

# TECHNIQUES IN ECONOMIC THINKING

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## *THE ROLE OF TRADITIONS AND AUTHORITY IN ECONOMIC THOUGHT*

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**BEFEKTETÉS A JÖVŐBE**

# OVERVIEW OF THE CURRENT PRESENTATION

- **The role of traditions.** Why do we study the history of economics? What are the appropriate procedures to understand a 'classic' work? How do we reconstruct the past? Research styles in the history of economic thought.
- **About schools of economic thought.** Well-known schools of economic thought.
- **The role of authority in economics.** Mainstream economics. 'Fresh water' and 'salt water' economists. Heterodox economics. From heterodox economics toward pluralism.
- **Authority controls tradition?** Where can we locate the loss of history in economics? What is the role of education?
- **Market and command economies.** The triumph of market economy.

# THE ROLE OF *TRADITIONS*

(EARL BABBIE 1975, 8–9)

- **Each of us inherits traditions made up of firmly accepted knowledge about how things function**
  - *Agreement reality*: the things we consider are real, because we have been told they are real ( $\leftrightarrow$  *Experimental reality*: the things we know are the product of our own direct experience)
    - *Scientists do not have to test economic phenomena on their own, because they simply accept the great majority of them*
    - *By accepting what everybody knows, researchers spare time and the overwhelming task of starting from the beginning and questioning fundamental assumptions*
    - *Knowledge is cumulative*: an inherited body of information and understanding in the jumping-off point for development of more knowledge ( we ‘stand on the shoulders’ of the previous generations)
      - BLAUG (2001, 156) adds that economic knowledge is path-dependent: “*what we know ... is the sum of all discoveries, insights and false starts in the past*”

# THE ROLE OF *TRADITIONS*

- **Traditions provide sources of inspiration for new research**
  - Old books and original editions of works should be read as sources of fresh ideas about the nature of reality
  - *NOTE: Scientists should learn not to purge themselves of ideas of previous centuries*
- **Each scientist has a private constellation of intellectual 'parents'**
  - Scientists have their own picture of the landscape of ideas, and each picture is limited in its own way (*adulation vs. criticism*)
  - Scientists are biased by the customs of their disciplines or by the accidental paths of their own educations
  - It is often the main reason why economists differs in their views, why they disagree

# WHY DO WE STUDY THE HISTORY OF ECONOMICS?

(JOSEPH A. SCHUMPETER 1954, 4–6)

- **Pedagogical advantages**

- *”The significance and validity of both problems and methods cannot be fully grasped without a knowledge of the previous problems and methods to which they are the (tentative) response.”*
- *Scientific analysis is ”an incessant struggle with creations of Our own and our predecessors’ minds and it ‘progresses,’ if at all, in a criss-cross fashion, not as logic, but as the impact of new ideas or observations or needs, and also as the bents and temperaments of new men, dictate.”*
- *”... the state of any science at any given time implies its past history and cannot be satisfactorily conveyed without making this implicit history explicit.”*
  - *NOTE: Blaug (2001) comments that studying the fundamental building blocks of economics in a wide variety of historical and intellectual contexts a chief reason for everyone*



# WHY DO WE STUDY THE HISTORY OF ECONOMICS?

(JOSEPH A. SCHUMPETER 1954, 4–6)

- **New ideas** (or perhaps forgotten ideas according to BLAUG 2001)
  - *“... our minds are apt to derive new inspiration from the study of the history of science”*
  - *“We learn about both the futility and the fertility of controversies; about detours, wasted efforts, and blind alleys; about spells of arrested growth, about our dependence on chance, about how not to do things, about leeways to make up for.”*
  - *“We learn to understand why we are as far as we actually are and also why we are not further.”*
  - *“And we learn what succeeds and how and why.”*
    - *NOTE: Blaug (2001) notes that this advantage is less frequently mentioned, because there are not many examples in the history of economic thought*

# WHY DO WE STUDY THE HISTORY OF ECONOMICS?

(JOSEPH A. SCHUMPETER 1954, 4–6)

- **Insights into the ways of human mind**
  - *“... the material ... bears only upon a particular kind of intellectual activity.”*
  - *“... in no other field do we get so near the actual methods of working because in no other field do people take so much trouble to report on their mental processes.”*
  - *“... scientific habits or rules of procedure are not merely to be judged by logical standards that exist independently of them; they contribute something to, and react back upon, these logical standards themselves.”*
    - *NOTE: Blaug (2001) notes that if economists pay attention to the intellectual background and philosophical preconceptions of previous economists, as well as the institutional context in which they wrote, they end up with insights into the ways economics got to where it now is*

# WHY DO WE STUDY THE HISTORY OF ECONOMICS?

(JOSEPH A. SCHUMPETER 1954, 4–6)

- **The belief in that the study of the history of analytic work is still stronger than it is for other fields**
  - *“... the economics of different epochs deal with different sets of facts and problems”*
  - *“This fact alone would suffice to lend increased interest to doctrinal history.”*
    - *NOTE: Blaug (2001) concludes that there has been an explosion of books and papers on the history of econometrics in which the twentieth-century history of econometrics were discussed any many of the original empirical verifications were reworked with modern techniques*

# WHAT ARE THE APPROPRIATE PROCEDURES TO UNDERSTAND A 'CLASSIC' WORK? (QUENTIN SKINNER 1969)

- According to two beliefs, one in relation to '*contextual reading*' after F. W. BATESON and the other in relation to the '*text itself as something determinate*' after F. R. LEAVIS, the author provided two answers to this question:
  - "...it is the **context** of religious, political, and economic factors which determines the meaning of any given text, so must provide "the ultimate framework" for any attempt to understand it." (3)
  - "the autonomy of the **text** itself ... [is] the sole necessary key to its own meaning, and so dismisses any attempt to reconstitute the total context as "gratuitous, and worse"." (3)
- The author was skeptical against both procedures, because both methodologies commit philosophical mistakes

# WHAT ARE THE APPROPRIATE PROCEDURES TO UNDERSTAND A 'CLASSIC' WORK? (QUENTIN SKINNER 1969)

- The essential aim must be to recover the **complex intention on the part of the author**
  - SKINNER insists on that to understand a text must be to understand what texts were intended to mean (*intention*), as well as how this meaning was intended to be taken (*intended act of communication*)
  - *"The appropriate focus of the study is seen ... to be essentially linguistic ... the appropriate methodology is seen in consequence to be concerned ... with the recovery of intentions, the study of all the facts about the social context of the given text can then take its place as a part of a linguistic enterprise."* (49)
  - *"... the classic texts cannot be concerned with our questions and answers, but only with their own."* (50)

# HOW DO WE RECONSTRUCT THE PAST?

(MARK BLAUG 2001, 150–152)

- Using RICHARD PORTY's terminology, **two alternatives can be chosen**
  1. *Rational reconstruction*: economists make the history of economic thought transparently relevant to modern economists
    - Economists exercise their technical expertise polishing it for contemporary applications
    - *We make past thinkers appear to be a bit more like us than they were*
  2. *Historical reconstruction*: economists reveal the ideas of past thinkers in terms that these thinkers and their modern advocates would have accepted as a correct description of what they intended to say
    - Economists are required careful reading not only of the texts that they are studying, but also of the previous generation of thinkers in order to understand the context in which the former economists were writing
    - *We make past thinkers out to be less like us than they were*

# RESEARCH STYLES IN THE HISTORY OF ECONOMIC THOUGHT (JEFF E. BIDDLE 2003)

- **The history of economic thought as a body of knowledge is not complete**
  - Although there are many areas of consensus, there are numerous controversies and open questions
- **Different authors may have surprisingly different ideas** about the central themes or the most significant ideas of a particular school, national tradition or time period
  - Those who have contributed to writing the history of economic thought over the decades have been *motivated by a variety of questions and purposes*, and have *used a variety of research strategies and source materials*
    - Fair amount of methodological diversity can be found in the field of the history of economic thought

# RESEARCH STYLES IN THE HISTORY OF ECONOMIC THOUGHT (JEFF E. BIDDLE 2003)

- **Research in the history of economics has for the most part been research in intellectual history ...**
  - ... that is, an attempt to understand the ideas of past thinkers and how and why those ideas have developed and changed through time
  - Research in the history of economics has been concerned with discovering what people in the past have *believed* about phenomena that either they or the researcher regard as economic activity, and why they have believed it
  - Most research in the history of economic thought has involved textual exegesis or interpretation
    - Many of the debates arise from differences over the correct interpretation of a particular text or texts



# ABOUT SCHOOLS OF ECONOMIC THOUGHT

- **Schools of economic thought:** groups of economic thinkers who share a common perspective on the way economies work, "a collection of affiliated scientists who displays a considerably higher degree of agreement upon a particular set of views than the science as a whole displays" (STIGLER 1969, 227)
  - Economic thinking is *full of channels and byways* that seem to lead nowhere in one era and become major areas of study in another
    - *NOTE 1: "If the school is united on methodology rather than substantive doctrines, its life will be longer, but less influential ... A school may be based upon policy views ... then its life will normally become even longer"* (STIGLER 1969, 228)
      - In the first case, the *Walrasian (Lausanne) school* is a good example; however, the *Austrian school* amends this
      - In the second case, *Marxism* is a good example
    - *NOTE 2: Systematic economic theory has been developed mainly since the beginning of what is termed the modern economic thought*

# WELL-KNOWN SCHOOLS OF ECONOMIC THOUGHT

- **Economic thought is roughly divided into two or three phases**
  1. *Ancient and pre-classical thinkers:* Ancient Near East, Ancient Greco-Roman, Medieval Islamic/Muslim, Scholasticism, Mercantilism (Camerarism), Physiocrats, pre-classical political economy in Britain and in France etc.
  2. *Early economic thought:* classical political economy, economic philosophy of romanticism, utopian economics, non-Marxian socialism, 'national schools': American School, French Liberal School, German Historical School etc.
  3. *Modern economic thought:* neoclassical economics, English marginalism, Austrian marginalism, Walrasian economics, Stockholm School, institutional economics, Keynes and the Cambridge School, Austrian School (economic liberals), neo-Ricardians, post-Keynesians, neo-Keynesians, new-Keynesians, Chicago school (monetarism), neo-(post-)Marxian economics etc.

# THE ROLE OF *AUTHORITY* IN ECONOMICS

(EARL BABBIE 1975, 9)

- **Acceptance of statements depends on the status of interpreter**
  - We trust the judgement of the person who has *special trainings, expertise* in the matter
    - *NOTE: The economist who declares or predicts something with respect to economics is believed more than we would believe our parents or friends*
  - Acceptance can be hindered when we depend on experts speaking outside the realm of their expertise
    - *The advertising industry* plays heavily on the misuse of authority
    - *Political and religious leaders* use their own tactics
    - *Self-proclaimed "experts" and laymen* speak with many voices
      - Many individuals believe that they themselves know more than economists about the issues that economics deal with (WEINTRAUB 2007)

# MAINSTREAM ECONOMICS

- **Mainstream (orthodox, conventional) economics** refers to the widely accepted economics
  - It came into *common in the late 20th century* (post-WW II era) mainly in the Anglosphere
  - It has been associated with *neoclassical economics* and with *neoclassical synthesis* (which combines *neoclassical methods and the Keynesian approach to macroeconomics* – developed by J. HICKS, popularized by P. A. SAMUELSON in 1955)
  - Mainstream economics centers on *analyzing the world of markets and exchange*
  - The term is fairly loose, as it just refers to the set of economic ideas that are *most popular, or most dominant*
    - ‘Mainstream’ differs on institutions we look at, because the academic world, policy world and financial world often embrace very different sets of economic ideas (*e.g. saltwater vs. freshwater economists*)

# MAINSTREAM ECONOMICS

- **The three pillars of mainstream economics**

1. *Individualism.* Mainstream focuses on the behaviour of individual agents, who are being defined as some sort of economic decision-makers. Therefore, it has an 'atomistic' view of the world, and tries to build an understanding of the economy as a whole from the decisions of individuals.
2. *Optimization.* Agents seek to optimize explicit goals in their behaviour, that is to "make the best or most effective use of a situation or resource".
3. *Equilibrium.* If agents' decisions are correct, then none of them will have an incentive to change his behaviour. Agents adjust their behaviour until they have, based on their individual judgment, achieved the outcome which is best for them, and there is no reason for anyone to alter their behaviour, resulting in a stable equilibrium.

# 'FRESH WATER' AND 'SALT WATER' ECONOMISTS

(ROBERT ERNEST HALL 1976)

- **Macroeconomists in the USA are separated into two groups**
  - *Fresh water group: universities clustered around the Great Lakes (e.g. University of Chicago, Cornell University, University of Minnesota, University of Rochester)*
    - *Key elements of their approach: fluctuations are largely attributable to supply shifts, the government is incapable of affecting the level of economic activity, monetary policy has no real effect*
  - *Salt water group: universities located near the east and west coasts (e.g. Berkeley – University of California, Harvard, Princeton, Columbia, Yale, University of Pennsylvania)*
    - *Key elements of their approach: shifts in demand is responsible for fluctuations, government policies are capable of affecting demand*
  - *Middle-of-the-road: Cambridge, Massachusetts*
    - Standard monetarist view

# HETERODOX ECONOMICS

- **Heterodox economics** refers to schools of economic thought or methodologies that are outside mainstream economics *since the 1960s*
  - It is an umbrella term used to cover various approaches and schools, such as *Marxian, socialist, (neo-)Austrian, post-Keynesian, neo-Ricardians, institutional, evolutionary and ecological economics*
  - DAVIS (2008) compared the character of mainstream to heterodox economics and concluded that the '*rationality–individualism–equilibrium*' nexus of mainstream is rejected by heterodox economics and is rather built upon the '*institutions–history–social structure*' nexus – through three promises (DAVIS 2006, 24):
    - *"Rejection of the atomistic individual conception in favor of a socially embedded individual conception*
    - *Emphasis on time as an irreversible historical process*
    - *Reasoning in terms of mutual influences between individuals and social structures"*

# HETERODOX ECONOMICS

- **Regarding how heterodox approaches originate**, four cases were termed (DAVIS 2006):
  - Failure to become orthodox following a period of pluralism (*e.g. institutionalism*)
  - Loss of the status of orthodox when a new orthodoxy emerges (*e.g. post-Keynesianism*)
  - Failure to redirect orthodoxy from outside orthodoxy (*e.g. Marxism and radical political economy*)
  - Failure to redirect orthodoxy from inside orthodoxy (*e.g. feminism*)
- **Heterodox economics is heterogeneous**, because their approaches differ in the ways that they combine different origin stories and different orientations, which distinguish their dynamics as well



# FROM HETERODOX ECONOMICS TOWARD PLURALISM

- **Many economists dismiss heterodox economics** as 'fringe' and 'irrelevant' with little or no influence on the vast majority of economists in the English-speaking world *in the 1980s*
  - *"... economists working in the Marxian-Sraffian tradition represent a small minority of modern economists, and that their writings have virtually no impact upon the professional work of most economists in major English-language universities"* (STIGLER 1988, 1733)
- *Since the 1990s*, the intellectual agenda of heterodox economics have tilted toward **pluralism**, that is to view that the various heterodox schools and neoclassical school might bring different and important subsets of economic phenomena (GARNETT 2008)
  - The pluralist view gained more attention *after the millennium* during the "peace movement" among nonmainstream economists

# AUTHORITY CONTROLS TRADITION?

- **Mainstream economists hold the study of economic thought in low esteem** → the history of economic thought appeals to a different type of mind from that of the average mainstream economist → *history of economic thought is a heaven for heterodoxy* (BLAUG 2001)
  - *Modern economists can safely neglect the history of economic thought, because "what is valuable in the ideas is fully contained in the present curriculum"* (148)
- **There seem to be a public need to have comments done by someone who has played (or still plays) the game** (WEINTRAUB 2007)
  - Economists appear to have little respect to historians: "*[i]n economic departments in the U.S., doing the history and methodology of economics came to be seen as doing no economics at all*" and who did "*were generally seen as critics, often hostile critics, of mainstream economics*" (277)

# WHERE CAN WE LOCATE THE LOSS OF HISTORY IN ECONOMICS? (E. ROY WEINTRAUB 2007, 269–273)

- **In the 1930s**, it was still apparent that history was employed rhetorically in economics
- **In the post-war period**, especially since the 1960s, the history of economics was replaced by the "*principles of economics*" and by developing and testing theory and hypotheses
  - The community of economics was understood as one comprised of those who develop, test and apply economic analyses
  - *External pressure*: economics was challenged from outside economics to refute theories and develop more precise methodologies
  - *Quantification*: economics began requiring its graduate students to master statistics, mathematics and econometrics
  - As historical reasoning began to disappear in economic analysis and from the university curricula

# WHERE CAN WE LOCATE THE LOSS OF HISTORY IN ECONOMICS? (SHERWIN ROSEN 1993; JOHN D. MUELLER 2010)

*"Disaster quietly befell the field of economics one day in 1972, when the University of Chicago's economics department ... abolished the requirement that Ph.D. candidates learn the history of economic theory before being granted a degree. The economics departments at most other major universities quickly followed suit."*  
(MUELLER, 2010, 11)

- Historicism **lost status** in education and scholarly activities (ROSEN 1993, 810, 811):
  - *"[t]here are good reasons to think that the disappearance of the history of economic thought from the core curriculum is a manifestation of progress in our discipline"*
  - *"[m]ore specialized knowledge usually requires focusing on narrower problems and mastering increasingly advanced techniques"*
  - *"... the history of economic thought ... is well enough served by its own specialists. These were the reasons why Stigler proposed and supported ... to abandon its history of thought requirement in 1972"*

# THEN, WHAT IS THE ROLE OF EDUCATION?

- **STIGLER (1969) has several comments on history of economics**
  - *"One need not read in the history of economics ... to master present economics" (217) ↔ "To understand a man ... one must know the subject matter of the discipline in he is writing" (219)*
  - *"The young theorist ... will seldom find it necessary to consult even a late-nineteenth-century economist. He will assume that all that is useful and valid in earlier work is present – in purer and elegant form – in the modern theory" (217–218)*
    - *QUESTION: Who decided what is useful and valid? How to measure the usefulness of ideas? How to compare present and already forgotten ideas?*
  - *"The history of economics does have something valuable to teach the young economist" (217)*
    - The author stresses the importance of ability to read, write and react, the role of sympathy toward authors, the understanding the author's analytical system and the neutrality toward scientific works

# THEN, WHAT IS THE ROLE OF EDUCATION?

- **COLANDER (1992) advised to reshape economic education towards art of economics**
  - *"Explicit recognition that most economists' work falls under the classification of the art of economics would change the way economics is taught ... The art of economics **requires a knowledge of institutions, of social, political, and historical phenomena**, and the ability to use available data in a reasonable way in discussing real-world economic issues"* (196)
    - This view implicitly suggests the need for heterodox economics
    - He also notes that a majority of graduating PhDs classify themselves as 'applied theorists', and applied theory is exactly what the art of economics is
      - *QUESTION 1: Are PhD theses are generally required to follow a positivist methodology?*
      - *QUESTION 2: Is it correct that young economists are required to read "good economics" uncritically and "bad" economics critically?*

# MARKET AND COMMAND ECONOMIES

(PAUL A. SAMUELSON – WILLIAM D. NORDHAUS 1998)

- **Two different ways of organizing an economy are known**
  1. *In a market economy*, individuals and private firms make the major decisions about production and consumption in markets
    - Firms produce the commodities that yield the highest profits by the techniques of production that are least costly, and consumption is determined by individual's decisions about how to spend the wages and property incomes generated by their labour and property ownership
    - Also known as *market-coordinated* and *market-oriented system*
    - Market systems are often referred to as *automatic* or *self-adjusting systems*
    - The extreme case of a market economy is called a *laissez-faire economy*

# MARKET AND COMMAND ECONOMIES

(PAUL A. SAMUELSON – WILLIAM D. NORDHAUS 1998)

- **Two different ways of organizing an economy are known**
  2. *In a command economy*, the government on the top of the hierarchy makes all important decisions about production and consumption
    - The government owns most of the means of production, it owns and directs the operations of enterprises in most industries, it is the employer of most workers, it decides how the output of the society is to be divided among different goods and services
    - Also known as *centrally-planned* or *bureaucratically controlled system*
- **All societies today are rather mixed economies with elements of market and command**
  - However, economists usually brings up the *triumph of market economy*



# THE TRIUMPH OF MARKET ECONOMY

(PAUL A. SAMUELSON – WILLIAM D. NORDHAUS 1998)

- **Transition economies discovered the power of market**
  - In late 1980s and early 1990s, former post socialist countries experienced "shock therapy" *by introducing markets*
  - Nowhere was the transition painless; every country found that the road to the market was filled with obstacles such as inflation, high unemployment and sharp declines in real wages and output
- **The market was rediscovered in market economies as well**
  - Many countries were applying *market principles to novel areas*, deregulated industries or privatized industries that had been in the public sector
    - The results were generally favourable as productivity rose and prices fell in those sectors

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# THANK YOU FOR YOUR ATTENTION!

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**BEFEKTETÉS A JÖVŐBE**

# TECHNIQUES IN ECONOMIC THINKING

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## *NOTABLE ECONOMISTS #1*

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**BEFEKTETÉS A JÖVŐBE**

# THINKERS OF ANCIENT AND MEDIEVAL AGES

- **XENOPHON OF ATHENS** (c. 430-354 B.C.), Greek philosopher, historian, mercenary, soldier, a student of Socrates whose treatise entitled *Oeconomicus*, a Socratic dialogue how to manage a household, is one of the earliest works in economics.
- **ARISTOTLE** (384-322 B.C.), Greek philosopher, scientist, the father of the Peripatetic school and the Aristotelian tradition of philosophy who analyzed economic matters, such as production, distribution and exchange. He distinguished between use value and exchange value, also offered the first theory of money as a conventional device for indirect exchange. He supported the idea of private property on the grounds that it leads to increased production.

# THINKERS OF ANCIENT AND MEDIEVAL AGES

- **SAINT AUGUSTINE OF HIPPO** (AURELIUS AUGUSTINUS HIPPONENSIS) (354-430), early Christian theologian, philosopher, bishop of Hippo Regius in Dioecesis Africae (modern-day Annaba, Algeria) whose understandings on theology and on ethics, and especially the notion of free will and the forms of property (peculiar and private property vs. common and almost public property), have been influential in economic thinking.
- **SAINT THOMAS AQUINAS** (1225-1274), Italian Dominican friar, Catholic priest, philosopher, theologian, jurist in the tradition of scholasticism, the “Father of Thomism” who, of the first, made a distinction between price and value. According to Aquinas, just price is the normal price, and price charged above it is a break with moral codes.

# THINKERS OF ANCIENT AND MEDIEVAL AGES

- **(AL-)GHAZALI** (ABŪ ḤĀMID MUḤAMMAD IBN MUḤAMMAD AL-GHAZĀLĪ, known as ALGAZELUS or Algazel to the Western medieval world) (1058-1111), Persian theologian, jurist, philosopher who discussed the division of labour and the functions of money, in particular its being a means of exchange.
- **IBN KHALDUN OF TUNISIA** (ABŪ ZAYD ‘ABD AR-RAḤMĀN IBN MUḤAMMAD IBN KHALDŪN AL-ḤADRAMĪ) (1332-1406), North African Arab historiographer, historian who had notable ideas on the division of labour, social cohesion, population growth and economic growth. Of the first, he introduced the relationship between tax rates and tax revenue increases (the concept later known as Laffer curve).

# MERCANTILISM, PHYSIOCRACY

- **WILLIAM STAFFORD** (1554-1612), English writer, courtier and conspirator, an early representative of mercantilism, an advocate of metallism.
- **THOMAS MUN** (1571-1641), English writer on economics, mercantilist who advocated for foreign trade and for achieving a positive balance of trade ensuring that exports exceeded imports.
- **ANTOINE DE MONTCHRESTIEN** (or MONTCHRÉTIEN) (c. 1575-1621), French soldier, dramatist, adventurer, and economist, an early representative of mercantilism who first used the term 'political economy'. He contributed to the advancement in the value of productive labour use and wealth acquisition in promoting political stability.



# MERCANTILISM, PHYSIOCRACY

- **JEAN-BAPTISTE COLBERT** (1619-1683), French politician, Minister of Finances under the rule of King Louis XIV, the most imperious mercantilist (also known as *colbertism*). His central principle was that the economy of France should serve the state and that state interventions secure the largest part of limited resources; as a result, he is regarded as a forerunner for protectionism.
- **SÉBASTIEN LE PRESTRE DE VAUBAN** (1633-1707), Marshal of France, forerunner of physiocrats who protested against the unequal incidence of taxation and the privileges of the upper classes.
- **PIERRE LE PESANT (SIEUR DE) BOISGUIL(LE)BERT** (1646-1714), French lawmaker, economist, forerunner of physiocrats who analyzed equilibrium in economic life, one of the first inventors of the notion of an economical market.

# MERCANTILISM, PHYSIOCRACY

- **CHARLES DAVENANT** (1656-1714), English economist and politician, proponent of mercantilism who recommended governmental restrictions on colonial commerce, but freedom of exchange at home.
- **JEAN FRANÇOIS MELON** (1675-1738), French mercantilist, but provided some of the roots of Physiocracy who believed that the necessities of life were more important than gold.
- **RICHARD CANTILLON** (1680-1734), Irish-born French (and English) economist, an emblematic figure of Physiocracy who introduced 'natural' behaviour of the economy and the notion that economy tends toward an equilibrium. He powerfully explained the role of the entrepreneur in economic activity. His analysis of exchange rates, open market operations and the bank credit multiplier gives his work a modern focus.

# MERCANTILISM, PHYSIOCRACY

- **FRANÇOIS QUESNAY** (1694-1774), French economist, surgeon by profession, an emblematic figure of Physiocracy, an opponent of the mercantilist school who is known for publishing the *Tableau économique*. It sets out an input-output model of the economy showing how the surplus (or *produit net*) is distributed between three classes of society: landowners, productive class (agricultural labour) and sterile class (artisans, merchants).
- **JACQUES CLAUDE MARIE VINCENT**, Marquis de Gournay (1712-1759), French economist, intendant of commerce, founder of a separate non-Physiocratic free trade school. He is credited with the phrase “*laissez faire, laissez passer*”.

# MERCANTILISM, PHYSIOCRACY

- **ETIENNE BONNOT DE CONDILLAC (1714-1780)**, French philosopher and epistemologist whose work on economics reflected the views of physiocrats. He proposed a theory of human history divided into two phases, progress –marked by a rational development and use of resources – and decline – marked by bad behaviour from the upper classes that then trickles down to the workers. He saw the remedy to this as *vrai prix*, a true price created by the unimpeded interaction of supply and demand.
- **PIERRE-PAUL LEMERCIER DE LA RIVIÈRE DE SAINT-MÉDARD (1719-1793)**, controller of the French colony of Martinique who systematized the principles of Physiocracy.

# MERCANTILISM, PHYSIOCRACY

- **ANNE ROBERT JACQUES TURGOT** (1727-1781), French economist and statesman, physiocrat, an early member of economic liberalism who is thought to be the first economist to recognize the law of diminishing marginal re-turns in agriculture and who proposed a notable theory of interest rate. He also discussed free trade, the effects of division of labour, the determinants of factor prices and value.
- **PIERRE SAMUEL DU PONT DE NEMOURS** (1739-1817), French economist writer and publisher, an advisor to Anne Robert Jacques Turgot.
- **ALEXANDER HAMILTON** (1757-1804), American statesman, the 1st United States Secretary of the Treasury who firmly supported government interventions after the manner of colbertism. He is a forerunner of the protectionist economic policy.

# CLASSICAL ECONOMIC THOUGHT BEFORE SMITH

- **WILLIAM PETTY** (1623-1687), English economist and philosopher, “the founder of political economy” according to Marx, “the father of modern economics” according to Keynes, a forerunner of econometrics who had notable ideas on the division of labour, the labour theory of value, on fiscal and monetary issues, on taxes, on public works as a cure for unemployment, on trade cycles, on the circular flow of income and on economic statistics.
- **JOHN LOCKE** (1632-1704), English philosopher and physician, “Father of Classical Liberalism” who have had influential views on the theory of value, property and prices.
- **JOHN LAW** (1671-1729), Scottish economist and banker whose theory, of the first, raised real macroeconomic questions and suggested ways of thinking about them, especially in the case of Scotland.

# CLASSICAL ECONOMIC THOUGHT BEFORE SMITH

- **BERNARD (DE) MANDEVILLE** (1660-1733), Anglo-Dutch philosopher, doctor of medicine and pre-classical economist whose notable ideas concentrated on unknowing cooperation ensuring that the actions of selfish individuals may have socially desirable results.
- **FRANCIS HUTCHESON** (1694-1746), Irish philosopher of Scottish origin, one of the founding fathers of the Scottish Enlightenment who had important influence on the work of Smith.
- **DAVID HUME** (1711-1776), Scottish philosopher, historian and economist best known for his quantity theory of money. He contributed to themes, such as property, inflation, interest, foreign trade and wealth. His discussion of taxation showed an early awareness of tax incidence problems.

# CLASSICAL ECONOMIC THOUGHT AFTER SMITH

- **ADAM SMITH** (1723-1790), Scottish philosopher and classical economist, “Father of Economics”, one of the most influential classical economist whose main concerns were with economic growth and its engine, the division of labour, which leads to technical progress and capital accumulation. His treatise, entitled *An Inquiry into the Nature and Causes of the Wealth of Nations* was the first full scale essay in economics. Smith took the first steps towards a theory of the optimal allocation of resources under conditions of free competition by arguing for the obvious and simple system of natural liberty.
- **JEREMY BENTHAM** (1748-1832), English philosopher, jurist, social reformer, the founder of modern utilitarianism, an early prosecutor of welfare economics who is the best known principle of greatest happiness, of those actions undertaken which led to the greatest net sum of happiness for society.



# CLASSICAL ECONOMIC THOUGHT AFTER SMITH

- **THOMAS ROBERT MALTHUS** (1766-1834), English clergyman and scholar, influential in the fields of political economy, monetary analysis and demography. He argued, that population would increase until they met the constraint of limited food supplies, and stated that population tended to grow in a geometric progression and food supply in arithmetic progression, and urged 'moral restraint'.
- **JEAN-BAPTISTE SAY** (1767-1832), French businessman and economist, forerunner of the neoclassical school whose works attempt among first to replace the labour theory of value with a subjective value theory based on utility. He is best known for his theory of markets, especially Say's Law of Markets, that is supply creates its own demand.

# CLASSICAL ECONOMIC THOUGHT AFTER SMITH

- **DAVID RICARDO** (1772-1823), English classical economist, one of the most influential classical economist who is best remembered for his theory of rent and theory of comparative advantage. In his major work entitled *On the Principles of Political Economy and Taxation* he explained the division of the produce of industry by accepting the law of diminishing returns, in addition, he advanced the labour theory of value.
- **JAMES MILL** (1773-1836), Scottish historian, classical economist, political theorist and philosopher, Ricardo's acolyte.
- **ROBERT TORRENS** (1780-1864), Irish classical economist, officer, an eminent member of the Currency School, an independent discoverer of the principle of comparative advantage in international trade, one of the first to theorize about the optimal tariff.

# CLASSICAL ECONOMIC THOUGHT AFTER SMITH

- **JEAN CHARLES LÉONARD SISMONDE DE SISMONDI** (1773-1842), Swiss historian and economist of economic romanticism whose most important contribution was probably his discovery of economic cycles. He attacked *laissez faire* and inventions which displaced existing processes of production and supported only those which catered for an extended demand. His work influenced later socialist writers.
- **ADAM HEINRICH MÜLLER** (1779-1829), German publicist, literary critic and political economist of economic romanticism, an adversary of free trade who emphasized the ethical element in national economy and the duty of the state toward the individual. His views had long-term effect on corporatism and the corporate state.

# CLASSICAL ECONOMIC THOUGHT AFTER SMITH

- **JOHANN HEINRICH VON THÜNEN** (1783-1850), German landowner and agricultural economist, a pioneer of location theory and marginal analysis. He set out a theory of rent and a theory of distribution based on marginal productivity. He also stated the law of variable proportions by applying marginal reasoning to wages and to capital.
- **RICHARD WHATELY** (1787-1863), English rhetorician, logician and economist who saw no inconsistency between science and Christian belief. He expressed the view that the inductive method was of less use for political economy than the deductive method.
- **JOHN RAMSAY McCULLOCH** (1789-1864), Scottish classical economist and editor, Ricardo's acolyte, the first professor of political economy who wrote extensively on economic policy and statistical analysis.

# CLASSICAL ECONOMIC THOUGHT AFTER SMITH

- **JOHN BARTON** (1789-1852), English classical economist whose primary concern was poverty. He was decisively for public regulation of the economic processes by criticizing the Ricardian free-trade doctrine and the Malthusian view of demography.
- **NASSAU WILLIAM SENIOR** (1790-1864), English lawyer, advisor, an exponent of the subjective theory of value and attempted to reconcile the Ricardian value theory with utility analysis. His theory on the cost of production includes the cost of capital under the term of abstinence.
- **JOHN STUART MILL** (1806-1873), English philosopher, an excellent synthesizer, an advocate of *laissez faire* and social reforms at the same time. He was the last in the line of major British classical economists, and opened new ways for the neoclassical theory of value by clarifying the notion of value and its relation to elasticity.

# GERMAN HISTORICAL SCHOOL OF ECONOMICS

- **GEORG FRIEDRICH LIST (1789-1846)**, German-born American economist, forefather of the German school who defended the doctrine of pragmatic protection and free trade. According to List, the system of protection should be used to allow the home industries to develop, and save them from being overpowered by the competition of stronger foreign industries. He also theorized the stages of economic development.
- **FRIEDRICH BRUNO HILDEBRAND (1812-1878)**, German economist who stated that economic development is linear not cyclical. He also supported socialist theory.
- **GEORG FRIEDRICH WILHELM ROSCHER (1817-1894)**, German economist who established the laws of economic development by using the historical method.

# GERMAN HISTORICAL SCHOOL OF ECONOMICS

- **KARL GUSTAV ADOLF KNIES** (1821-1898), German economist who disliked the attitudes of classical economists, particularly their belief that the pursuit of individual self-interest redounded to the good of the community.
- **ADOLPH (ADOLF) WAGNER** (1835-1917), German politician and economist, a leading *Kathedersozialist* (academic socialist) who is famous for the Wagner's law, that is of increasing state activity and spending.
- **GUSTAV FRIEDRICH VON SCHMOLLER** (1838-1917), German economist who sought a comprehensive economic history and methodology which would explain economic phenomena with reference to all aspects of human motivation.

# GERMAN HISTORICAL SCHOOL OF ECONOMICS

- **GEORG FRIEDRICH KNAPP** (1842-1926), German economist, the founder of chartist school of monetary theory, which argues that money's value derives from its issuance by an institutional form of government rather than spontaneously through relations of exchange.
- **WERNER SOMBART** (1863-1941), German sociologist and economist, also a convinced Marxist for a while, an expert on capitalism who saw the role of economics primarily as finding solutions to the social problems of the age. He also pioneered large scale statistical studies.
- **MAXIMILIAN KARL EMIL "MAX" WEBER** (1864-1920), German sociologist, philosopher, jurist, political economist who was a pioneer in delineating a connection between capitalism and exceptionalism. His research interests on economic issues such as economic history, economic calculation and methodology.



# GERMAN HISTORICAL SCHOOL OF ECONOMICS

- **JOSEPH ALOIS SCHUMPETER** (1883-1950), Austria-Hungarian-born American economist of the German school and the Walrasian tradition who also served as a minister, a lawyer and a banker. He was a pioneer of trade cycle analysis and of economic development in both of which the entrepreneur plays the leading role. He popularized the term 'creative destruction'.
- **KARL PAUL POLANYI** (Polányi Károly) (1886-1964), Austria-Hungarian sociologist, social philosopher, economist and economic historian of the German school who argued that the emergence of market-based societies in modern Europe was not inevitable but historically contingent. He argued that under capitalism, labour and land had been turned into commodities so that human society had become subordinated to the economic system.

# WALRASIAN ECONOMICS (LAUSANNE SCHOOL)

- **MARIE-ESPRIT-LÉON WALRAS** (1834-1910), French mathematical economist who is an independent developer of the marginal utility approach to the theory of value. His fame lies in the development of the theory of general equilibrium, in which all the markets in an economy are examined, and in which all prices of goods and factors and all goods' outputs and factor supplies are simultaneously determined.
- **VILFREDO FEDERICO DAMASO PARETO** (1848-1923), Italian economist of the Walrasian tradition with extensive knowledge in mathematics, physical sciences and engineering. The Pareto principle named after him states that, for many events, roughly 80% of the effects come from 20% of the causes (80/20 rule). He also introduced the concept of Pareto efficiency or Pareto optimality.

# WALRASIAN ECONOMICS (LAUSANNE SCHOOL)

- **MAURICE FÉLIX CHARLES ALLAIS** (1911-2010), French economist of the Walrasian tradition, “Father of the French marginalist school” who was awarded the Nobel Prize in 1988 and who succeeded in constructing the rigorous foundations of modern general equilibrium theory and of welfare economics. He undertook the synthesis of real and monetary phenomena and the relationship between economics and other social sciences.
- **GÉRARD DEBREU** (1921-2004), French-born American mathematician and economist of the Walrasian tradition, winner of the 1983 Nobel Prize for his research work in the theory of general equilibrium, especially the question of stability of the equilibrium of market economy. He produced a more sophisticated exposition of competitive price theory, using set theory and topology.

# INSTITUTIONAL ECONOMICS

- **THORSTEIN BUNDE VEBLEN** (1857-1929), Norwegian-American economist and sociologist, a founder of institutional economics. Consumption for the purposes of creating an impression on others rather than for the satisfaction of need he called 'conspicuous consumption' and is characterized by 'ostentatious display'. Veblen believed that the major characteristic of modern industrial society is one of conflict; however unlike Karl Marx, he identified conflict between 'pecuniary employments' and 'industrial employments'.
- **JOHN ROGERS COMMONS** (1862-1945), American economist, a founder of institutional economics. Much of his life was spent in empirical work, constructing an index of wholesale prices, investigating labour unions and the economic concepts present in legal reasoning. He took as the foundation of economics volitional theories of value and cost, rather than those based on utility and commodity.

# INSTITUTIONAL ECONOMICS

- **WESLEY CLAIR MITCHELL** (1874-1948), American economist of US institutional economics known for his empirical work on business cycles.
- **CLARENCE EDWIN AYRES** (1891-1972), American economist, the principal thinker of US institutionalist economists. His powerful analysis of economic progress asserted that the technology essential to industrialization is constantly in conflict with established institutions which approve of ceremony to protect vested interests.
- **SIMON SMITH KUZNETS** (1901-1985), Russian-born American economist of institutional economics, statistician, demographer, economic historian who received the 1971 Nobel Prize. He was concerned with long growth cycles, also, he made a decisive contribution to the transformation of economics into an empirical science and to the formation of quantitative economic history.

# STOCKHOLM SCHOOL

- **JOHAN GUSTAF KNUT WICKSELL** (1851-1926), Swedish economist, an early contributor of monetarism (e.g. money supply, quantity theory) who influenced both the neoclassical, the Keynesian and the Austrian schools of economic thought, also demonstrated the Wicksell-effect concerning the rate of interest.
- **KARL GUSTAV CASSEL** (1866-1945), Swedish mathematician and economist, founder of modern Swedish economics who rejected both labour and marginal utility theories of value in favour of a price theory which he also applied to his study of the rate of interest. He relied on the quantity theory of money and raised the idea of purchasing power parity.
- **ELI FILIP HECKSCHER** (1879-1952), Swedish political economist and economic historian whose name lives on in one of the standard mathematical models of international free trade.

# STOCKHOLM SCHOOL

- **ERIK ROBERT LINDAHL** (1891-1960), Swedish economist who is famous for Lindahl tax which is a form of taxation in which individuals pay for public goods according to their marginal benefits. He is also well-known for Lindahl equilibrium which is a state of economic equilibrium under a Lindahl tax as well as a method for finding the optimum level for the supply of public goods or services.
- **KARL GUNNAR MYRDAL** (1898-1987), Swedish economist, sociologist and politician, co-winner of the 1974 Nobel Prize for his attempts to broaden the scope of economics by drawing attention to the interdependence of economic, political, institutional, demographic and social factors. He preferred a theory of circular cumulative causation. Myrdal expressed the view that institutional factors are more important than market relations, also formulated the concepts *ex ante* and *ex post*.

# STOCKHOLM SCHOOL

- **BERTIL GOTTHARD OHLIN** (1899-1979), Swedish economist and politician whose name lives on in one of the standard mathematical models of international free trade. He was jointly awarded the Nobel Prize in 1977.
- **ERIK FILIP LUNDBERG** (1907-1987), leading Swedish specialist on the theory and policy of the trade cycle. He introduced the phrase “*The Horndalseffect*” to describe an increase in productivity without investment.
- **HANS MARTIN STAFFAN BURENSTAM LINDER** (1931-2000), Swedish economist and politician who introduced the Linder hypothesis, which is an economics conjecture about international trade patterns: the more similar the demand structures of countries, the more they will trade with one another.



# INDEPENDENT SCHOLARS BORN BEFORE 1900

- **ANTOINE AUGUSTIN COURNOT** (1801-1877), French mathematician, philosopher and economist, the founder of mathematical economics. He analyzed price formation and tax shifting under perfect competition, duopoly, monopoly and oligopoly, also introduced the concept of price elasticity of demand.
- **ARSÈNE JULES ETIENNE JUVÉNAL DUPUIT** (1804-1866), Italian-born French civil engineer and economist who defined 'relative utility'. He also analyzed capacities for economic development, wrote on monopoly and price discrimination, and pioneered the use of cost-benefit analysis.
- **HERMANN HEINRICH GOSSEN** (1810-1858), German economist, an early marginalist who is often regarded as the first to elaborate a general theory of marginal utility. He also analyzed market exchange, examined the nature of rent and provided the basis for a theory of labour supply.

# INDEPENDENT SCHOLARS BORN BEFORE 1900

- **JOHN NEVILLE KEYNES** (1852-1949), British economist who divided economics into positive economy, normative economy and the art of economics.
- **ALFRED WEBER** (1868-1958), German economist, geographer and sociologist. His achievements involve work on early models of industrial location and agglomeration, known as the Weberian location theory.
- **RAGNAR ANTON KITTIL FRISCH** (1895-1973), Norwegian economist, the co-recipient of the first Nobel Prize in 1969 who developed the dynamic formulation of trade cycles and decision models for economic planning. Besides being a pioneer in the development of dynamic economic theory, he introduced mathematical programming methods for use with modern computer techniques; hence, founded the discipline of econometrics.

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**BEFEKTETÉS A JÖVŐBE**

# TECHNIQUES IN ECONOMIC THINKING

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## *NOTABLE ECONOMISTS #2*

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**BEFEKTETÉS A JÖVŐBE**

# NEOCLASSICAL ECONOMICS

- **WILLIAM STANLEY JEVONS** (1835-1882), English economist and logician, an influential figure to the marginal revolution, an early contributor to the Austrian school of economic thought who is known for marginal utility theory of value, disutility of labour, index numbers, rate of interest and trade cycles.
- **ALFRED MARSHALL** (1842-1924), English economist, “Father of Anglo-Saxon economics”, one of the founders of neoclassical economics who brought the ideas of supply, demand, marginal utility, and costs of production into a coherent whole.
- **PHILIP HENRY WICKSTEED** (1844-1927), English philosopher, theologian and economist who made important advances in economic method (e.g. graphical analysis) and in the theory of marginal productivity. He also emphasized the subjectivism of costs.

# NEOCLASSICAL ECONOMICS

- **FRANCIS YSIDRO EDGEWORTH** (1845-1926), Anglo-Irish philosopher, influential economist in the development of neoclassical economics and methods of statistics, significant contributor to utility theory by introducing indifference curves and the famous Edgeworth box.
- **JOHN BATES CLARK** (1847-1938), American neoclassical economist, pioneer of the marginalist revolution in the USA. His major achievement was to expand marginalism into the concept of marginal productivity in order to tackle problems of production and distribution. He became one of the founders of modern capital theory.
- **FRANK WILLIAM TAUSSIG** (1859-1940), American economist and educator, “the American Marshall” who is credited with creating the foundations of modern trade theory. He was an open advocate of forced sterilization of races and classes he considered inferior.

# NEOCLASSICAL ECONOMICS

- **IRVING FISHER** (1867-1947), American neoclassical economist, statistician and social campaigner who besides the concept of capital made significant contributions to the problems of interest and money (e.g. Fisher equation, quantity theory of money), index numbers and distributed lags.
- **ALBERT ABRAM AFTALION** (1874-1956), French neoclassical economist of Jewish origin who is credited with studying business cycles, market crisis, the distribution of money and gold.
- **ARTHUR CECIL PIGOU** (1877-1959), English neoclassical economist, “Father of Welfare Economics” who proposed a taxation remedy known as Pigovian tax which formed the basis for the theory of externalities. He also offered a mechanism for the attainment of full employment even with the Keynesian concerns, known as the Pigou effect.

# UTOPIAN SOCIALISM

- **HENRI DE SAINT-SIMON** (CLAUDE HENRI DE ROUVROY) (1760-1825), French political and economic theorist who argued for a new industrial system ruled by scientists but administered by bankers to establish full employment and equality.
- **ROBERT OWEN** (1771-1858), Welsh social reformer who published a plan to change the whole of society by the establishment of villages where the inhabitants held their property in common and combined rural and industrial occupations to avoid the division of labour.
- **FRANÇOIS MARIE CHARLES FOURIER** (1772-1837), French philosopher and socialist thinker who collected ideas on the nature of society to create a total science based on gratifying and harmonizing all human passions. He conceived the *phalanstère* as an organized building designed to integrate urban and rural features.



# SCIENTIFIC SOCIALISM

- **KARL (HEINRICH) MARX** (1818-1883), German philosopher, sociologist, historian, political theorist and economist who is best known for proposing the thesis of bourgeois society, the antithesis of the proletariat and the synthesis of communism. Marx's *magnum opus*, *Capital (Das Kapital)*, is an analysis of the laws of motion of the capitalist system. He stressed that continuous change in the methods of production and exchange affect the existing social relations and political structure, appropriate to a previous material base, to become outmoded, irrational and undeserved, so that an epoch of social revolution is inevitable.
- **FRIEDRICH ENGELS** (1820-1895), German philosopher, social scientist, journalist and businessman who founded the Marxist theory and co-authored *The Communist Manifesto* together with Karl Marx. After Marx's death, Engels edited the second and third volumes of *Capital*.

# RUSSIAN MARXISM

- **MIKHAIL IVANOVICH TUGAN-BARANOVSKY** (1865-1919), Ukrainian economist, politician, statesman, an exponent of Russian Marxism, author of numerous works dealing with the theory of value, the distribution of a social revenue, history of managerial development and fundamentals of cooperative managerial activities.
- **PETER** (or **PYOTR** or **PETR**) **BERNGARDOVICH STRUVE** (1870-1944), Russian political economist, philosopher, editor, an exponent of Russian Marxism mainly as an ideological force, but later an advocate of liberalism.
- **ROSA LUXEMBURG** (or **RÓŻA LUKSEMBURG**) (1871-1919), German Marxist-socialist philosopher, economist and activist of Jewish-Polish origin who, in economics, is best known for developing the Marxian idea of capital accumulation.

# RUSSIAN MARXISM

- **SERGEI NIKOLAEVICH BULGAKOV** (1871-1944), Russian theologian, philosopher, economist, exponent of Russian Marxism, a critical figure in the Russian tradition of liberal thought who bridged the Western tradition of and a specifically Russian way of thinking about society.
- **NIKOLAI DMITRIYEVICH KONDRATIEV** (1892-1938), Russian economist who did notable work in agricultural economics and in the development of economic planning in the USSR. He is best known for proposing the long-term cycles of boom followed by depression.
- **EVSEI GRIGORIEVICH LIBERMAN** (1897-1981), Soviet (Ukrainian) economist whose proposals for reforming the planning system led to major changes in the running of Soviet enterprises. He criticized the use of gross output as the key performance target and suggested that some notion of 'profit' acceptable to socialist theory should be employed.

# MARXIAN ECONOMICS

- **MAURICE HERBERT DOBB** (1900-1976), British economist, an eminent member of the Marxian tradition who identified major advantages of planned economies, such as antecedent co-ordination, external effects and variables in planning. His analysis of capitalism defended the Marxian interpretation of economic history, provoking a long-running controversy amongst Marxists.
- **OSCAR RYSZARD LANGE** (1904-1965), Polish socialist economist and diplomat, one of the founders of econometrics and market socialism, advocate of Keynesian economics. He also provided an incomplete synthesis of Marxist economics. He made significant contributions to welfare economics, utility functions and stability conditions; however, he is remembered as a central figure in the debate on whether rational economic calculation could take place in a planned economy.

# KEYNESIAN ECONOMICS

- **JOHN MAYNARD KEYNES** (1883-1946), British economist whose ideas fundamentally changed the theory and practice of macroeconomics and the economic policies of governments as he denied the ‘natural order’ of economics. He generated several subjects of contemporary macroeconomics and have had influential views on demand-side growth models, liquidity preference, monetary theory, general equilibrium, unemployment etc. In his most significant work, *The General Theory of Employment, Interest and Money*, he offered turning points in the course of the history of economic thought.
- **ALVIN HARVEY HANSEN** (1887-1975), Danish-American economist, “the American Keynes”. His frequent use of IS-LM curves and a synthesis of classical and Keynesian economics led him to the mathematical representation of macroeconomic theory, which is also called Hicks-Hansen model.

# POST-KEYNESIANS & NEO-RICARDIANS

- **(EDWARD) AUSTIN (GOSSAGE) ROBINSON** (1897-1993), British economist, editor and economic advisor, member of the 'Circus' at Cambridge, UK.
- **PIERO SRAFFA** (1898-1983), Italian-born British economist, cofounder of the Neo-Ricardian school, member of the 'Circus' at Cambridge, UK, who raised essential questions about the nature of increasing returns, imperfect market, real wages and growth theory.
- **MICHAŁ KALECKI** (1899-1970), Polish economist of the Neo-Marxian and Post-Keynesian schools who introduced the concept of the 'degree of monopoly' and concerned himself with economic dynamics and with growth in socialist economies. His 'mark-up' pricing theory is applied to both the distribution and level of the national in-come as the prices of oligopolists have a crucial effect on cyclical movements of national output.

# POST-KEYNESIANS & NEO-RICARDIANS

- **(HENRY) ROY (FORBES) HARROD** (1900-1978), British Post-Keynesian economist, philosopher and biographer who made significant contributions in the field of imperfect competition, the technical progress, the accelerator principle, the multiplier mechanism and the theory of economic growth (Harrod-Domar growth model).
- **ABRAHAM (ABBA) PTACHYA LERNER** (1903-1982), Russian-born British economist, an early supporter and defender of Keynesian economics whose major work extended the Marshallian analysis to study market socialism. He also set out the circumstances under which a change in a country's exchange rate would improve its balance of trade, known as the Marshall-Lerner condition.

# POST-KEYNESIANS & NEO-RICARDIANS

- **JOAN VIOLET ROBINSON** (1903-1983), British economist, cofounder of the Neo-Ricardian and Post-Keynesian schools, member of the 'Circus' at Cambridge, UK whose works attacked the neoclassical theory of income distribution based on marginal productivity analysis, while also focusing on imperfect competition, dynamic macroeconomic problems, particularly growth and distribution and the accumulation of capital.
- **JOHN RICHARD HICKS** (1904-1989), British Neo-Keynesian economist, "the greatest Oxford economist of the twentieth century", joint winner of the Nobel Prize in 1972 whose works focused on the general equilibrium theory, welfare economics, the theory of wages, the multiplier, the accelerator, the trade cycles and public finance.



# POST-KEYNESIANS & NEO-RICARDIANS

- **RICHARD FERDINAND KAHN** (1905-1989), British economist, member of the 'Circus' at Cambridge, UK who is credited with the introduction of the concept of the multiplier.
- **JAMES EDWARD MEADE** (1907-1995), British economist, member of the 'Circus' at Cambridge, UK, co-winner of the 1977 Nobel Prize, path breaking contributor to the theory of international trade, open economies, stabilization, incomes policies and welfare economics.
- **NICHOLAS KALDOR** (Káldor Miklós) (1908-1986), Austria-Hungarian-born British economist of the Post-Keynesian school who contributed to economic theory in the field of welfare economics, especially taxation and distribution, also developed the compensation criteria.

# POST-KEYNESIANS & NEO-RICARDIANS

- **JOHN KENNETH GALBRAITH** (1908-2006), Canadian-born economist, advisor and social critic, “Keynes’s highest priest”, an eminent member of institutional economics, US Ambassador to India between 1961 and 1963 whose major theme has been the industrial society, especially the circumstances that the capitalist economic system produces an excess of waste and a multitude of undesirable products.
- **EVSEY DAVID DOMAR** (1914-1997), Russian-Polish-born American economist of the Post-Keynesian school, recognized for his work on the theory of economic growth (Harrod-Domar growth model), in which he stressed that investment expenditures had an income-generating effect and a capacity-augmenting effect. His other works include studies of taxation and comparative economic systems.

# AUSTRIAN SCHOOL, ECONOMIC LIBERALS

- **CARL MENGER** (1840-1921), founder of the Austrian School of Economics who postulated the first notion of marginal utility by rejecting the cost-of-production theories of value, and constructed the imputation theory of distribution. He had a libertarian attitude to economic policy.
- **EUGEN BÖHM (RITTER VON) BAWERK** (1851-1914), Austrian economist and statesman, one of the most persistent contemporary critics of Karl Marx who belongs to the “first wave” members of the Austrian School. His most attention has been focused on marginal utility, capital, interest and time preference. His lengthy exposition of the roundabout method of production is central to his work.

# AUSTRIAN SCHOOL, ECONOMIC LIBERALS

- **FRIEDRICH FREIHERR VON WIESER** (1851-1926), Austrian economist and politician who belongs to the “first wave” members of the Austrian School. He further refined the doctrine of marginal utility; however, his major contribution lay in his elaboration of the doctrine of ‘imputation’ or ‘attribution’.
- **FRANK ALBERT FETTER** (1863-1949), American economist from the Austrian school whose treatise contributed to the American interest in the Austrian school. Fetter presented a theoretical reassessment of land as capital, and emphasized the importance of time preference. He is also proponent of the subjective theory of value.

# AUSTRIAN SCHOOL, ECONOMIC LIBERALS

- **LUDWIG HEINRICH EDLER VON MISES** (1881-1973), Austrian-Hungarian-born economics, “Father of Market Economics”, the most influential economic liberal in the Austrian school whose work focused on the study of trade and business cycles, the theory of capital investment, human choice and action. He used a cash balance and expectations approach to money.
- **LIONEL CHARLES ROBBINS** (1898-1984), British economist, who had major influence in liberal economic thought, stressed the separation of normative and positive economics, also suggested that economists should make value judgements in economic analysis.

# AUSTRIAN SCHOOL, ECONOMIC LIBERALS

- **FRIEDRICH AUGUST (VON) HAYEK** (1899-1992), Austrian economist and libertarian moral philosopher, an opponent of Keynesian-style macroeconomic management, co-winner of the 1974 Nobel Prize who patronized the idea of free market, contributed to the theory of money and economic fluctuations, also extended the framework of economic systems. He also analyzed the problems of economic planning and of tyranny against liberty.
- **GOTTFRIED (VON) HABERLER** (1900-1995), Austria-Hungarian-born American economist who advocated free trade and best known for his work in international trade, especially the demonstration of gains from trade and the reformulation of the Ricardian idea of comparative advantage in a neoclassical framework. He also synthesized business cycle theories, providing a basis for the empirical testing of hypotheses about economic fluctuations.

# CHICAGO SCHOOL, MONETARISM

- **FRANK HYNEMAN KNIGHT** (1885-1972), American economist, one of the founders of the Chicago School, a major figure in preserving and promoting classical liberal thought in the twentieth century. He made important contributions to the ethics and methodology of economics, as well as the definition of social cost.
- **JACOB VINER** (1892-1970), Canadian-born economist and economic advisor, one of the founders of the Chicago School, a noted opponent of Keynes during the Great Depression. He is known for his enduring economic modelling of the firm, including the long- and the short-run cost curves and for having added the terms 'trade creation' and 'trade diversion'. He also made important contributions to the theory of international trade and to the history of economic thought.

# CHICAGO SCHOOL, MONETARISM

- **HENRY CALVERT SIMONS** (1899-1946), American libertarian economist, one of the founders of the Chicago School, a prominent tax theorist whose ideas underlie the US federal individual income tax.
- **THEODORE WILLIAM SCHULTZ** (1902-1998), American economist of the Chicago School, co-winner of the 1979 Nobel Prize. His major work has been in the field of agricultural economics, but he is also known as a pioneer in the field of human capital.
- **GEORGE JOSEPH STIGLER** (1911-1991), American economist, the 1982 laureate in Nobel Prize, a key leader of the Chicago School whose contributions to the history of economic thought and to studies of industrial structures, as well as markets and causes and effects of public regulation are noteworthy.



# CHICAGO SCHOOL, MONETARISM

- **MILTON FRIEDMAN** (1912-2006), American libertarian economist, prophet of capitalism, “Father of Monetarism”, leading member of the Chicago School who received the 1976 Nobel Prize for his research on consumption analysis (e.g. permanent income hypothesis), monetary history and theory (e.g. quantity theory of money, expanded Fisher equation, money supply) and the complexity of stabilization policy. He was also pioneer in developing the idea of human capital, stagflation and the natural rate of unemployment.
- **HERBERT ALEXANDER SIMON** (1916-2001), American economist of the Chicago School, winner of the 1978 Nobel Prize whose work on complex decision-making situations has led him into fields other than economics and to use techniques from other disciplines, e.g. psychology.

# OTHER FAMOUS ECONOMISTS BORN AFTER 1900

- **JAN TINBERGEN** (1903-1994), Dutch economist, the co-recipient of the first Nobel Prize in 1969 for his pioneering work in econometrics. He concerned himself with the problems of planning in developing countries and made significant contributions to the concept of shadow prices.
- **HEINRICH FREIHERR VON STACKELBERG** (1905-1946), German-Argentinian-born economist who contributed to game theory and industrial organization; known for the leadership model of duopoly.
- **WASSILY WASSILYEVICH LEONTIEF** (1906-1999), Russian-born American economist whose major work is an analysis of the interdependencies within an economic system using input-output analysis. He provided interesting results in the fields of international trade and the economics of natural resources, and best known for Leontief inverse and Leontief paradox. He was awarded the Nobel Prize in 1973.

# OTHER FAMOUS ECONOMISTS BORN AFTER 1900

- **FRITZ MACHLUP** (1902-1983), Austria-Hungarian-born American economist of the Austrian school who stressed the importance of knowledge as an economic resource, also known for the popularization of the concept of the information society and the patent system.
- **LUDWIG MAURITS LACHMANN** (1906-1990), German economist of the Austrian School, a strong advocate of using hermeneutic methods in the study of economic phenomena. He viewed capital as being in a ceaseless state of mutation.
- **ISRAEL MEIR KIRZNER** (YISROEL MAYER KIRZNER) (1930-), UK-born American economist who is closely identified with the Austrian School. His major work is focused on entrepreneurship and the ethics of markets, he integrated entrepreneurial action into neoclassical economics.

# OTHER FAMOUS ECONOMISTS BORN AFTER 1900

- **PAUL ALEXANDER BARAN** (1910-1964), Russian-born American economist of the Neo-Marxian economics who, with Paul Marlor Sweezy, introduced the concept of economic surplus to deal with novel complexities raised by the dominance of monopoly capital.
- **PAUL MARLOR SWEEZY** (1910-2004), American economist of the Neo-Marxian economics best known for his work in interpreting and presenting the economic theory of Karl Marx in a manner which allows comparison with modern economic theory. With Paul Alexander Baran, he substituted a law of rising economic surplus as a pro-portion of total output for the old Marxist law of the falling rate of profit.

# OTHER FAMOUS ECONOMISTS BORN AFTER 1900

- **TRYGVE MAGNUS HAAVELMO** (1911-1999), Norwegian Neo-Keynesian economist, a major founder of econometrics who was awarded the Nobel Prize in 1989. His important contributions to quantitative economics include the formulation of economic theories in probabilistic terms and the study of interdependence problems.
- **PAUL ANTHONY SAMUELSON** (1915-2009), American Neo-Keynesian economist and advisor who was awarded the Nobel Prize in 1970. His works encompass the entire fields of economics, such as dynamic economics, equilibrium, trade cycles, consumer demand theory, welfare economics, international economics and public finance. He upheld the neoclassical concept of capital but without complete success as became evident in the controversy over reswitching.

# OTHER FAMOUS ECONOMISTS BORN AFTER 1900

- **JAMES TOBIN** (1918-2002), American economist of the Neo-Keynesian school who was awarded the 1981 Nobel Prize. He paid much attention to portfolio selection, liquidity preference, general equilibrium, fiscal and monetary policy, as well as rigidities in wage formation. He proposed an econometric model for censored endogenous variables, the Tobit model. Tobin is widely known for his suggestion of a tax on foreign exchange transactions to reduce speculation in the international currency markets, the Tobin tax, as well as the ratio of the market value of a firm's assets to their replacement value, Tobin's Q.
- **FRANCO MODIGLIANI** (1918-2003), Italian-born American economist of the Neo-Keynesian school who was awarded the Nobel Prize in 1985 mainly for his work on the consumption function, where the major innovation has been the life-cycle hypothesis. Besides, he made significant contributions to capital theory and corporate finance.

# OTHER FAMOUS ECONOMISTS BORN AFTER 1900

- **DON PATINKIN** (1922-1995), Israeli-American economist of the Neo-Keynesian school who explored some of the 'micro' foundations of Keynesian macroeconomics, particularly the role of money demand.
- **ROBERT MERTON SOLOW** (1924-), American Neo-Keynesian economist, particularly known for his work on the theory of neoclassical (exogenous) economic growth. He was awarded the Nobel Prize in 1987, and made significant contributions to fiscal policy, use of natural resources and land, unemployment and stabilization.
- **LUIGI LUDOVICO PASINETTI** (1930-), Italian economist of the Post-Keynesian school who contributed to Neo-Ricardian economics, including the theory of value and distribution, the theory of structural change and economic growth, economic dynamics and uneven sectoral development.

# OTHER FAMOUS ECONOMISTS BORN AFTER 1900

- **ROBERT EMERSON LUCAS** (1937-), American economist, founder of New Keynesianism, the central figure in the development of the new classical approach to macroeconomics he received the Nobel Prize in 1995. He emphasized the importance of rational expectations in individual economic decisions and of microeconomic decisions in determining macroeconomic aggregates.
- **GEORGE ARTHUR AKERLOF** (1940-), American economist of the New-Keynesianism who won the 2001 Nobel Prize. He became famous for raising the problem of asymmetric information. Also he has made important contributions to monetary economics, the study of unemployment and wages and the economics of the family.



# OTHER FAMOUS ECONOMISTS BORN AFTER 1900

- **JOSEPH EUGENE STIGLITZ** (1943-), American economist of the New-Keynesianism and economic advisor who won the 2001 Nobel Prize. A central theme of his work has been incomplete information and uncertainty and their applications to labour, credit and agricultural markets. He is also noted for his work on public finance.
- **JOHN BRIAN TAYLOR** (1946-), American monetarist and member of the New-Keynesian economics who introduced the Taylor rule, which is a reduced form approximation of the responsiveness of the nominal interest rate to changes in inflation, output, or other economic condition.
- **PAUL ROBIN KRUGMAN** (1953-), American Keynesian economist and a modern liberal who was awarded the 2008 Nobel Prize for his contributions to New Trade Theory and New Economic Geography. Krugman is also known for his work on liquidity traps, currency crisis, income distribution and taxation.

# OTHER FAMOUS ECONOMISTS BORN AFTER 1900

- **JAMES MCGILL BUCHANAN** (1919-2013), American economist of the Chicago School known for his work on public choice theory for which he received the Nobel Prize in 1986. He developed the concept of a democratic government receiving taxes from consenting citizens in return for governmental services.
- **MERTON HOWARD MILLER** (1923-2000), American economist of the Chicago School, joint winner of the 1990 Nobel Prize, the co-author of the Modigliani-Miller theorem, which proposed the irrelevance of debt-equity structure.
- **HARRY MAX MARKOWITZ** (1927-), American economist of the Chicago School, joint winner of the 1990 Nobel Prize. He is best known for modern portfolio theory, studying the effects of asset risk, return, correlation and diversification on probable investment portfolio returns.

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**BEFEKTETÉS A JÖVŐBE**

# TECHNIQUES IN ECONOMIC THINKING

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## *SOCIAL SCIENTIFIC INQUIRY & SCIENTIFIC INQUIRY IN ECONOMICS*

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**BEFEKTETÉS A JÖVŐBE**

# OVERVIEW OF THE CURRENT PRESENTATION

- **About scientific inquiry.** Two logical systems of social research. Possible systems of economic analyses.
- **The ‘traditional’ image of science.** Elements of the traditional image of science. Characteristics of units of analysis.
- **The structure of inquiry: the research design.** Purposes of research. Motivations for research.
- **Economic theorists vs. professionals.**
- **Theoretical economics.** About assumptions of a theory. Why are economic model useful? About the elements of a theory. Empirical work in economics. Linear vs. nonlinear systems.
- **Policy economics.** What are the main issues in policy economics at present? About practical framework.
- **Looking ahead: Qualitative and quantitative analysis.**

# ABOUT SCIENTIFIC INQUIRY

(EARL BABBIE 1975)

- **Scientific inquiry is a natural human activity**
  - Economists seek *general understanding about economic facts* around the world
    - Economists seek to find *patterns of regularities* in what they observe
- **Causal (or probabilistic) reasoning:** economists generally recognize that future circumstances are somehow caused by past and present ones
  - *An economic theory along with the observation of empirical facts* describes logical relationships of economic phenomena and offers means for seeing whether those relationships actually exist in the real world

# TWO LOGICAL SYSTEMS OF SOCIAL RESEARCH

- **There are two distinct prominent ways, in other words, logical systems (methodological approaches) important to scientific, thus economic request**
  1. *Deductive logic/reasoning*
    - We extrapolate the particular instances from a general statement
    - *Scheme:* Hypothesis → Observations → Confirmation: accept or reject hypothesis?
    - Example:
      - *All roses are flowers. (rule)*
      - *Some flowers fade quickly. (case study)*
      - *Therefore, some roses fade quickly. (result)*
    - First used by the French BOISGUILLEBERT in economic inquiry

# TWO LOGICAL SYSTEMS OF SOCIAL RESEARCH

- **There are two distinct prominent ways, in other words, logical systems (methodological approaches) important to scientific, thus economic request**

## 2. *Inductive logic/reasoning*

- We extrapolate the general principles from specific observations
- *Scheme:* Observations → Finding a pattern → Tentative conclusion
- *Example:*
  - *Turkey is treated well by humans. (situation)*
  - *Turkey continues to be treated well by humans. (situation)*
  - *Turkey is always treated well by humans. (rule, only valid until the day of slaughter)*
  - *NOTE: The danger of induction is that we can be led to a false conclusion even if we start out with the correct assumptions.*
- First used by the English WILLIAM PETTY in economic inquiry



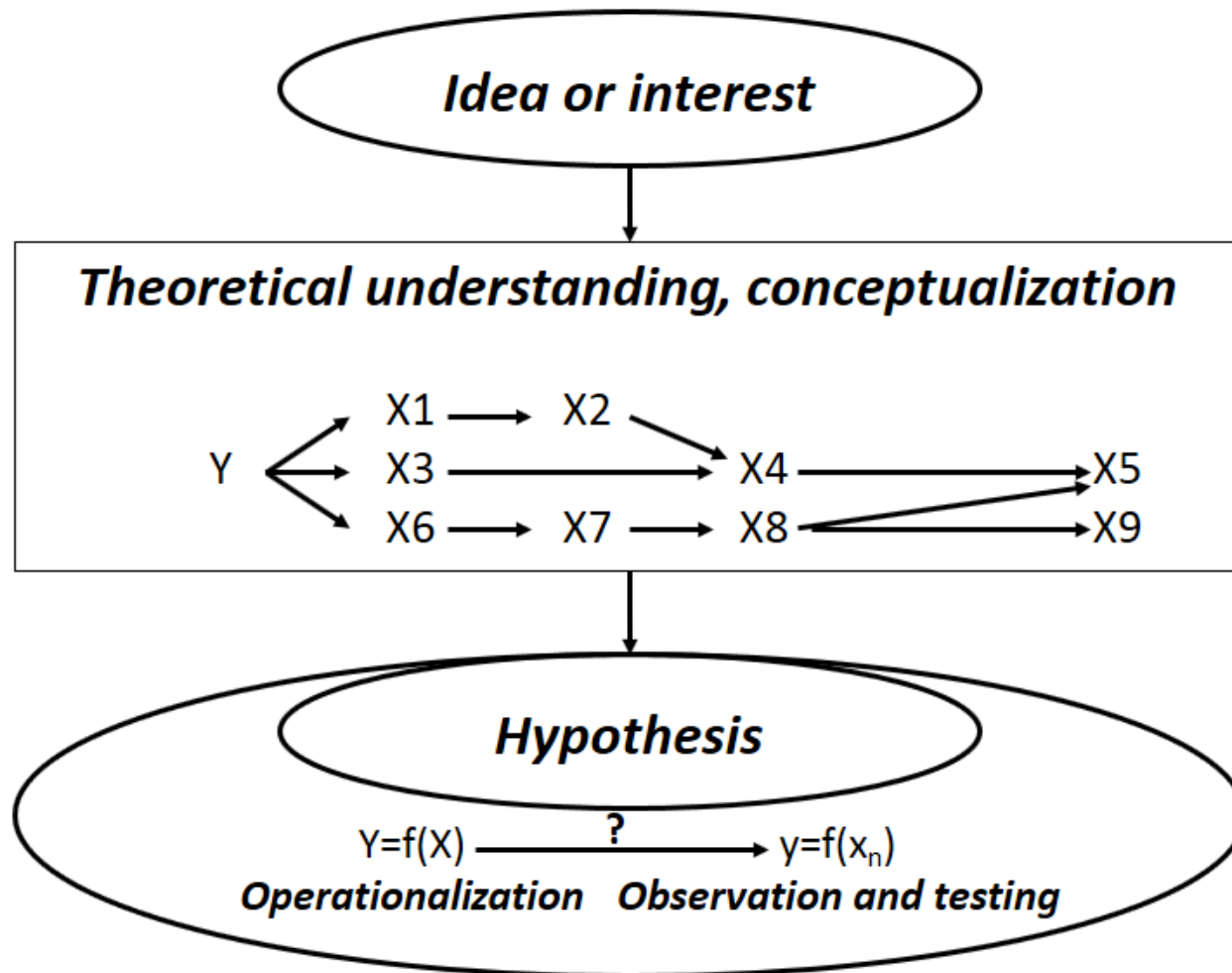
# POSSIBLE SYSTEMS OF ECONOMIC ANALYSES

(JOHN D. MUELLER 2010)

- 1. The system of economic analyses is based on a *set of economic equations*.**  
Writing down a system's equations is to understand the system.
- 2. The system of economic analyses is *logically complete*...**  
... which means that there is one equation to explain each unknown variable.
- 3. The system of economic analyses is *empirically verifiable*...**  
... which means that dependent variables correspond to measurable realities.
- 4. The system of economic analyses is *purely "positive"*...**  
... consequently describe what actually happens.
- 5. The system of economic analyses remains *valid at every level of analyses*, from a single person to the entire world economy**  
To proceed from one level to the next, we simply add together equations describing all the persons involved (known as *aggregation*).

# THE 'TRADITIONAL' IMAGE OF SCIENCE

(EARL BABBIE 1975)



Source: own modification based on BABBIE (1975)

# THE 'TRADITIONAL' IMAGE OF SCIENCE

(EARL BABBIE 1975)

- **Elements of the 'traditional' image of science:**
  - *Idea, interest:* an inquiry in some aspect of the real world
  - *Theory:* interest in discovering factors and/or features that affect the phenomenon that we want to understand
  - *Hypothesis:* an expectation about the nature of things derived from the theory, a statement of something that ought to be observed in the real world if the theory is correct
  - *Operationalization:* a specification of steps, procedures and/or operations that we will go through in measuring and identifying the factors and/or features we want to observe
  - *Observation and testing:* (a series of) experiments, surveys, measurement, sampling as well as search and analysis of data relevant to the operationalization

# THE 'TRADITIONAL' IMAGE OF SCIENCE

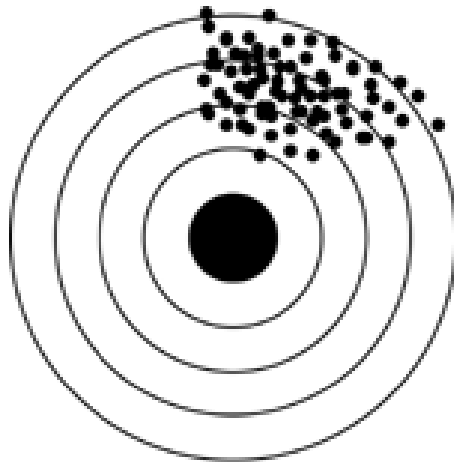
(EARL BABBIE 1975)

- **Elements of the 'traditional' image of science:**
  - *Units of analysis:* people or things whose characteristics are observed, described and explained
    - Individuals (*e.g. employees, consumers, producers*)
    - Group of people (*e.g. households, social classes, environmentalists*)
    - Formal organizations (*e.g. companies, government, nations*)
    - Social artefacts (*e.g. products, technologies, interactions*)
  - An important goal is to *understand the relationships* among economic variables behind economic phenomena
    - *Variable:* a logical set of attributes (*e.g. gender, social class*)
    - *Attribute:* a characteristic or quality that can be used to describe the variable (*e.g. gender is composed of male and female; social class is composed of upper class, middle class, lower class*)

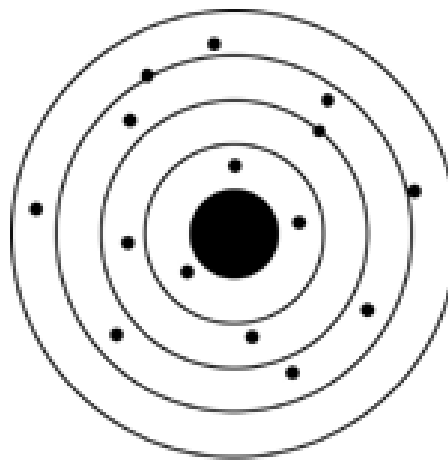
# THE 'TRADITIONAL' IMAGE OF SCIENCE

(EARL BABBIE 1975)

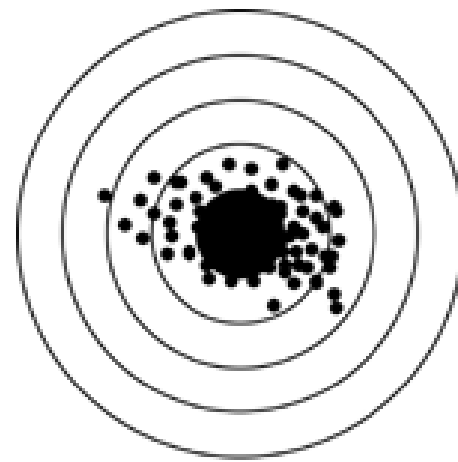
- **Elements of the 'traditional' image of science:**
  - *Measurement*: the exact classification or numeric quantification of things observed
    - *Validity*: does the extent of the measurement procedure reflect the concept under study accurately?
    - *Reliability*: what is the probability that the measurement procedure lead to the same description for the second, third etc. time?



**Reliable but Not Valid**



**Valid but Not Reliable**



**Valid and Reliable**

# CHARACTERISTICS OF UNITS OF ANALYSIS

(EARL BABBIE 1975)

- **Conditions:**
  - *Individuals:* sex, age, height, marital status, deformities, region of origin ...
  - *Groups and organizations:* size, structure, location, profit or loss ...
  - *Social artefacts:* size, weight, colour, occurrence ...
- **Orientations:**
  - *Individuals:* attitudes, beliefs, personality traits, prejudices, predispositions...
  - *Groups and formal organizations:* purposes, policy, procedures, regulations...
  - *Social artefacts:* purposes, policy, procedures, regulations ...
- **Actions:**
  - *Individuals:* voting, buying, investing, working, striking, producing...
  - *Groups and formal organizations:* moving, campaigning, meeting, deciding ...
  - *Social artefacts:* only social interactions, but these are actions themselves

# RESEARCH DESIGN: PURPOSES OF RESEARCH

(EARL BABBIE 1975)

- **Exploration** provides a beginning familiarity with a topic
  - It is typical when a researcher is *examining a new interest* or when the subject of *study is itself relatively new and unstudied*
  - Exploratory studies are most typically done for ...
    - Satisfying the researcher's curiosity and desire for better understanding
    - Testing the feasibility of undertaking a more careful study
    - Developing the methods to be employed in a more careful study
  - *Main advantage*: exploration is essential whenever a researcher is breaking new ground (often called as 'grounded theory'), and they can almost always yield new insights into a topic for research
  - *Main shortcoming*: exploration seldom provide satisfactory answers to research questions
    - They can hint at the answer and can give insights into the research methods that could provide definite answers

# RESEARCH DESIGN: PURPOSES OF RESEARCH

(EARL BABBIE 1975)

- **Description** is used to chronicle situations, processes and events
  - The researcher *observes* and then *describes what was observed*
  - As observations are careful and deliberate, *scientific descriptions* are more accurate and precise than *casual descriptions*
    - *E.g. population census, election polls, product marketing survey, project documentation*
- **Explanation** is used to clarify situations, processes and events by reporting about the why
  - It involves the examination of many different aspects of the observed thing simultaneously
    - It is essential that all aspects be incorporated in the plan for observation and analysis



# RESEARCH DESIGN: MOTIVATIONS FOR RESEARCH

(EARL BABBIE 1975)

- **Testing formal theories**

- A formal – deductive – theory begins with one or more postulates or basic premises
  - *E.g. All social behaviour is based on self-interest. Or. Given a choice among alternative action possibilities, an individual will choose that action which best corresponds to his or her own self-interest.*
- Two goals of this activity:
  1. To develop a comprehensive theory covering all its aspects
  2. To arrive at more specific statements in different types of situations
    - These statements are called *hypotheses*: in stating hypothesis, the scientist says that ...
      - » ... basic premises are correct
      - » ... , if the deviations are logically correct, then aspects specified in the hypothesis should be observed in reality

# RESEARCH DESIGN: MOTIVATIONS FOR RESEARCH

(EARL BABBIE 1975)

- **Testing limited hypotheses**
  - Very often, hypotheses have *no direct reference to general theories*
    - Scientists begin with a *particular interest in some area of social life*, attempt to derive a theoretical understanding of it, and then conduct research aimed at testing a limited hypothesis
    - Having framed the hypothesis, scientists would then set about *specifying* it in terms of some research methodology and study design
  - *The manner* in which a limited hypothesis might be tested *is the same* as in the case of a comprehensive theory
    - The only differences lie in the manner in which thy hypothesis is derived and in the implications of the results of testing it
    - In the case of a comprehensive theory, the results will reflect on the theory from which the hypothesis is derived, while in a test of a limited hypothesis, the implications are for the hypothesis only

# RESEARCH DESIGN: MOTIVATIONS FOR RESEARCH

(EARL BABBIE 1975)

- **Exploring unstructured interests**
  - Quite often, a researchers take an interest in a topic *without having any clear ideas about what to expect* in the way of relationships among variables → scientists would like to learn more about the situation
    - Studies of this sort aims at *determining the sources and consequences of something*
  - The most *useful analytical format* would appear to be the following:
    - Researchers begin by constructing a workable measure of the something that constitutes the primary focus of the study
    - Researchers examine the relationship between the something, and the variables that precede it in time
    - If the researcher discover several variables related to the attitudes in question, he should ask what else those variables may have in common and attempt to develop a general understanding

# RESEARCH DESIGN: MOTIVATIONS FOR RESEARCH

(EARL BABBIE 1975)

- **Contracted research**

- With increased frequency, scientists are being commissioned to *engage in specific research projects*, usually of an applied nature by the government, agencies or business firms
- It is typically predicted on the need for specific facts and findings with *policy implications*; however, it might also add to basic scientific knowledge
- *People, firms and agencies request such research*, and they usually plan to *determine future courses of action* on the basis of the research results
- In the earlier types of motivations, the researcher himself can decide what will be the focus of the inquiry; in this case, *this decision is made by someone else*
  - The researcher only responds to the request

# ECONOMIC THEORISTS VS. PROFESSIONALS

- **Theorists are 'thinkers' – professionals are 'makers'**
  - *Theorists* read, conduct theoretical and empirical research with their brains and put thoughts in writing
    - Scholars, researchers, members of academic personnel and university/collage staff: professors, lecturers, scientific advisors, research fellows (of various ranks: full, associate, assistant, senior, junior, emeritus etc.)
  - *Professionals* do not keep up with the economic literature, but have to interact and negotiate a lot on economic issues and facts
    - Practitioners, policy makers, decision makers policy and business advisors, economic experts on economic issues
  - Theorists' arguments are usually about the *problem of things* with a view to meet ideal conditions; the experiments' focus is on the *nature of things* in close connection with the real world

# THEORETICAL ECONOMICS

- **Theoretical economics:** the systematic arrangement and interpretation of economic facts to "make generalizations"
  - *Generalization:* tendencies of the typical or average behaviour of consumers, workers, producers, firms etc.
  - *Principles, laws, theories and models* are used to explain and predict the behaviour of individuals and institutions
  - *Abstractions* are simplifications, which attempt to identify important relations of economic behaviour
    - These can be useful, however they set aside the complexity of real world
  - *Graphical expression:* many economic relations are quantitative and are demonstrated efficiently with graphical methods
    - *NOTE: Graphing allows us to think in a marginal way*

# ABOUT ASSUMPTIONS OF A THEORY

- **Why are assumptions necessary and useful in economics?**
  - No one knows the world around us in details – assumptions can make the world easier to understand
    - *Researchers intuit things*, but they do not really know how to assemble all information and ingredients about them
    - *If researchers start asking more and more subtle questions*, in the end it may be far out of their normal way of picturing things → they run into conflicts and get hopelessly confused
  - Economists realized that there is a small amount of stuff that is important and fundamental, and then seeing what it was
    - *The true analytic notion: There is a small number of principles that are recognized by looking at things in their pure state*
    - The art of scientific thinking is deciding which assumptions to make

# ABOUT ASSUMPTIONS OF A THEORY

- **Why are assumptions necessary and useful in economics?**
  - According to FRIEDMAN (1953, 23), assumptions of a theory play three different roles:
    - Assumptions are often an economical mode of describing and presenting a theory
    - Assumptions sometimes facilitate an indirect test of the hypothesis by its implications
    - Assumptions are sometimes a convenient means of specifying the condition under which the theory is expected to be valid
  - He also notes, that *"the relevant question to ask about the "assumptions" of a theory is not whether they are descriptively "realistic" ..., but whether they are sufficient good approximations for the purpose in hand"* (15)



# WHY ARE ECONOMIC MODELS USEFUL?

*"Only the most naive scientist believes that the perfect model is the one that perfectly represents reality" (GLEICK 1988, 287)*

- **Economic models...**

- ... are no doubt abstract, but they *establish reference points* indicating what to look for, and how economic issues are interrelated
- ... *help us to understand the relationship(s)* among various complex events in the real world
- ... are most often *composed of images, pictures, diagrams and equations* → people tend to perceive things in models than in words
  - We remember models better than text
  - We are more likely to recognize patterns in images than in sentences

# WHY ARE ECONOMIC MODELS USEFUL?

- **Economic models fulfill the following criteria**
  - *They simplify:* they do not embrace every aspects of reality, but only include those aspects that seem relevant
  - *They are pragmatic:* they focus on what is useful
  - *They sum up:* they are executive summaries of complex interrelations
  - *They are visual:* through images and diagrams, they convey concepts that are difficult to explain in words
  - *They organize:* they provide structure and create a filing system
  - *They offer methods:* answers emerge once we have filled the models out and worked with them
- *NOTE: Each model is only as good as the person who uses it.*

# ABOUT ELEMENTS OF A THEORY

- **What is the ultimate goal of a positive science?**
  - According to Friedman (1953), the goal is the development of a theory and hypotheses *"that yields valid and meaningful ... predictions about phenomena not yet observed"* (7)
  - He adds that *a theory is a complex intermixture of two elements:*
    - *Language* designed to promote "systematic and organized methods of reasoning", which serves as a filing system for organizing empirical material and facilitating our understanding of it
      - Theory can be judged whether propositions in the language are *"right" or "wrong"*
    - *A body of substantive hypotheses* designed to abstract essential features of complex reality
      - Theory can be judged whether propositions in form of hypotheses are tentatively *"accepted" as valid or "rejected"*

# EMPIRICAL WORK IN ECONOMICS

(DAVID COLANDER 1992)

- Most empirical work done by academics economists is currently very **formal, technical, econometric analysis**
- Empirical tests are also formal and results are expected to fall within 90/95/99 percent **confidence intervals**
  - *Confidence level*: the estimated probability that a parameter lies within a given confidence interval
- **Empirical work in positive economics** should be designed to test whether a theory should be *tentatively accepted* → such empirical tests may have little or no relevance in applying a theory to a real-world problem
- **Empirical work outside positive economics** should be designed to apply a theory by *adding back the contextual reality*

# LINEAR AND NONLINEAR SYSTEMS

- **Features of linear systems:**
  - Linear relationships can be captured with lines on a graph
  - *Linear equations are solvable and have a modular virtue: one can take them apart, and put them together again (the pieces add up)*
- **Features of nonlinear systems:**
  - *Nonlinear equations generally cannot be solved and added together*
  - Changeability makes nonlinearity hard to calculate
  - Possible solution: *iteration*
    - It is the repetition of a process in order to generate a sequence of outcomes
    - Each repetition of the process is a single iteration, and the outcome of each iteration is then the starting point of the next iteration
    - The method begins with a guess, and this guess leads to a better guess

# POLICY ECONOMICS

- **Policy economics:** the application of economic facts and principles to help resolve specific problems and to achieve certain economic goals (*e.g. economic growth, full employment, economic efficiency, price level stability, economic freedom, equitable distribution of income, economic security, balance of trade*)
  - Goals may be complementary (*e.g. full employment and economic security*), but some goals may be conflicting ones (*e.g. economic efficiency and equ(al)ity*)
    - Economists are aware that trade-offs are involved in most political decisions: a policy might increase efficiency at the cost of equ(al)ity
  - *Steps in formulating economic policy:* State goals → Recognize various options that can be used to achieve goals → Evaluate the options
    - All goals cannot be achieved, so *priorities must be set*
    - Economic decisions might hurt current generations, but help future generations

# WHAT ARE THE MAIN ISSUES IN POLICY ECONOMICS?

- **Policy economics**, often *public policy economics*, try to solve the most pressing contemporary policy problems, such as ...
  - Globalization and technological changes (*e.g. industry 4.0, smart specialization*)
  - Economic crises and financial crises as well as their aftermath (*e.g. Great Recession erupted in 2008*)
  - Population ageing (*e.g. spending on healthcare and pensions*)
  - Social security (*e.g. minimum wages, income tax, welfare state*)
  - Social welfare, income inequality, distribution
  - Migration (labour mobility) and its economic consequences
  - The public sector, state ownership, (de-)regulation
  - Market failures (*e.g. externalities, limits of market solutions*)
  - Government failures (*e.g. regulations, corruption, collective actions*)
  - Global warming and climate change

# ABOUT PRACTICAL FRAMEWORK

- **Practical framework** is not necessarily fall in the method; it is *a way to turn ideas into strategies*
  - Practitioners may just need numbers so they care little whether they are providing a technique for calculation
  - Professionals base their decisions on cool-sounding facts rather than on actual, but too complicated facts
    - Complicated constructs leave most people in the dark
  - *Possible elements:*
    - Institutions (laws, policies, rules and norms)
    - Structures (bodies, decision-makers, formal and informal networks)
    - Processes (decision-making, policy creation/making, negotiation)
    - Other elements (capacity, coordination, learning, innovativeness, flexibility, exchange, validation)



# LOOKING AHEAD: QUALITATIVE AND QUANTITATIVE ANALYSIS

- **Qualitative analysis:** the non-numerical examination and interpretation of observations, for the purpose of discovering underlying meanings and patterns of relationships
  - This is the most typical field of field research, content analysis, experiments, evaluation research, survey research and verbal analysis of existing data
- **Quantitative analysis:** the numerical representation and manipulation of observations for the purpose of describing and explaining phenomena that those observations reflect
  - The common social statistics are descriptive statistics (elementary analysis), index and scale construction, as well as advanced multivariate modes of analysis

# REFERENCES AND FURTHER READINGS

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- Friedman, M. (1953): *The Methodology of Positive Economics*. In: Friedman, M.: *Essays in Positive Economics*. The University of Chicago Press. 3–43.
- Mueller, J. D. (2010): *Redeeming Economics. Rediscovering the Missing Element*. ISI Books.

# THANK YOU FOR YOUR ATTENTION!

EFOP-3.4.3-16-2016-00022  
„QUALITAS” Minőségi felsőoktatás fejlesztés  
Sopronban, Szombathelyen és Tatán

**SZÉCHENYI**  2020



MAGYARORSZÁG  
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Alap



**BEFEKTETÉS A JÖVŐBE**

# TECHNIQUES IN ECONOMIC THINKING

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## *DATA ANALYSIS*

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**BEFEKTETÉS A JÖVŐBE**

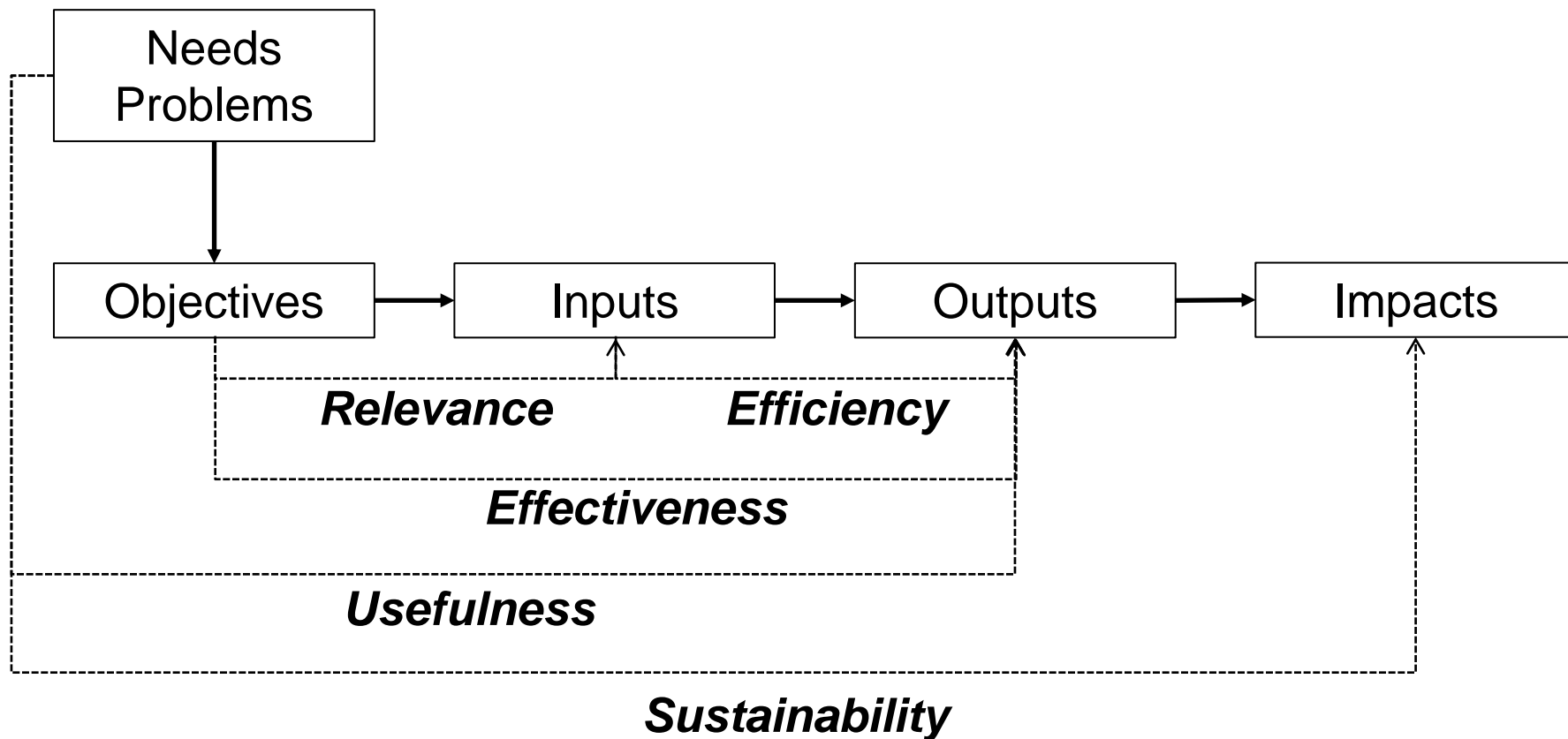
# OVERVIEW OF THE CURRENT PRESENTATION

- **Qualitative modes of observations.** Terms in evaluation.
- **Quantitative modes of observations.** Data types in the terms of time dimension. Level vs. rate. Plotting variation: the standard model.
- **Elementary (univariate) analysis.** Measures of average/centre/location of a distribution. Measures of dispersion.
- **Advanced (multivariate) analysis.** Analysis of dependence and causation. Dimension reduction. Classifying a set of cases.
- **Graphing.** Graphical methods. Visualization: other techniques.
- **Econometrics.** Brief history of econometrics. The logic of econometrics.

# QUALITATIVE MODES OF OBSERVATION

- **Field research:** the direct observation of social phenomena in their natural settings (*e.g. exploring lifestyles of people, monitor circumstances, such as poverty or prosperity*)
- **Content analysis:** a good method for studying human communication (*e.g. exploring communication process within a firm between divisions or employees and colleagues*)
- **Experiments:** a good method for testing of causal processes (*e.g. testing a product of controlled groups before introducing in the market*)
- **Evaluation research:** in terms of social interventions researchers estimate the consequences (output, result, impact) (*e.g. monitoring effectiveness of an investment project*)

# TERMS IN EVALUATION



# QUALITATIVE MODES OF OBSERVATION

- **Survey research:** the administration of questionnaires to a sample of respondents selected from population, “structured conversations between strangers”
  - *Self-administrative questionnaire:* completed by the responders themselves (advantages: economy, speed, lack of interviewer bias, possibility of anonymity and privacy)
  - *Interview survey:* interviewers record the answers (advantages: fewer incomplete questions, fewer misunderstood questions, generally higher return rates, greater flexibility in terms of observation)
- **Verbal analysis of existing data (secondary analysis):** the description of data collected earlier by another researcher for some purpose (*e.g. comparison of countries based on different indicators – GDP, HDI, inflation, foreign debt ...*)



# QUANTITATIVE MODES OF OBSERVATION

- **Elementary analysis:** univariate analysis of variables: average/centre (mean, median, mode), dispersion (variance, standard deviation), range, minimum, maximum, skewness, kurtosis etc.
- **Scale and index construction:** creation of composite measures
  - *Scales* are based on a simple comparison of numbers or attributes (e.g. *Likert-scale, rating sites, voting system*)
  - *Indexes* are based on different composition indicators and variables (e.g. *HDI, stock market index, consumer price index*)
- **Advanced modes of analysis:** bi- or multivariate analysis of variables: cross tabulation (crosstabs), analysis of variance (ANOVA), correlation, regression analysis, factor analysis/principal component analysis, multidimensional scaling, cluster and discriminant analysis + econometrics

# DATA TYPES IN TERMS OF THE TIME DIMENSION

- **Time plays a significant role in the design and execution of research**
  - *Cross-sectional studies*: observations are made at one time
  - *Longitudinal studies*: observations are made at many times
    - *Trend studies*: samples are drawn from a general unit, such as population (e.g. economic growth – GDP per capita, rate of unemployment)
    - *Cohort studies*: samples are drawn from a specific unit, such as subpopulation (e.g. economic growth in service sector, rate of youth unemployment)
    - *Panel studies*: observations are made for the same samples of unit on every occasion, but some attributes are also separated within the sample (e.g. economic growth in service sector according to regions or counties, rate of youth unemployment according to years of age)

# LEVEL VS. RATE

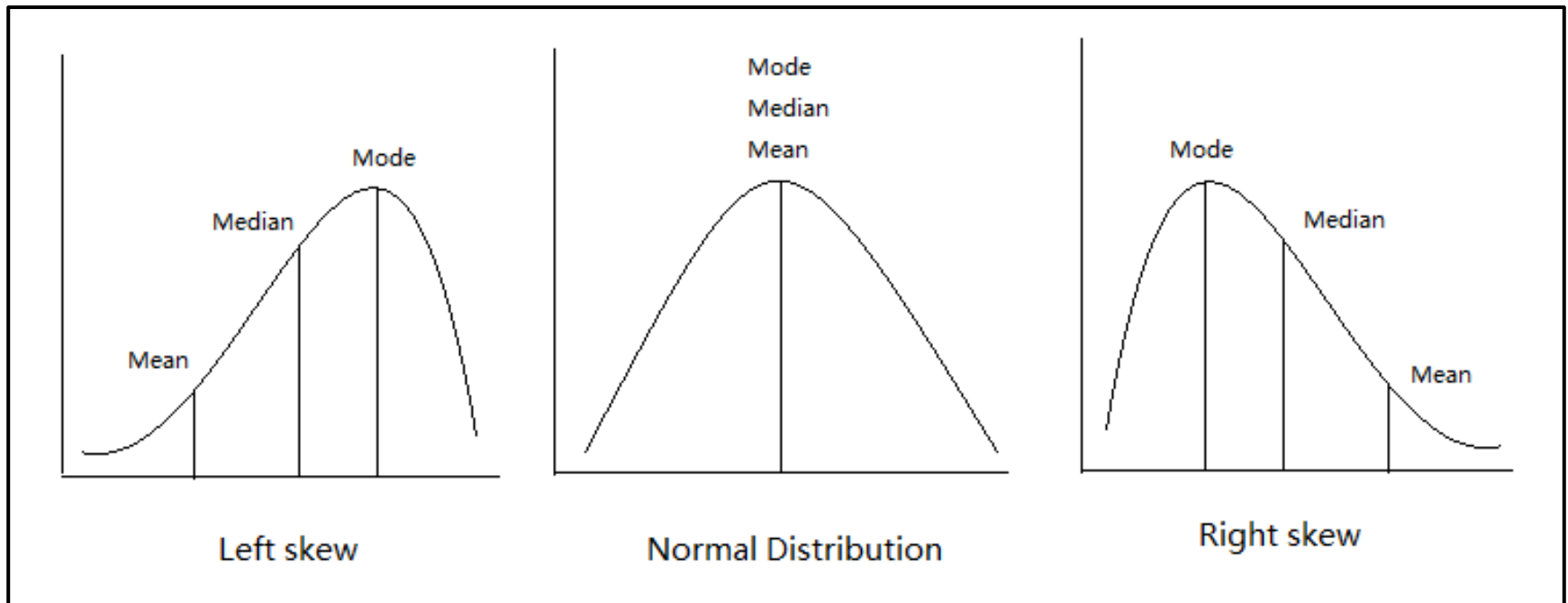
- **Level:** the value of an economic variable at a given point in time
  - Analysts use levels to compare similar entities  
*(e.g. the level of employment in Texas, in thousands)*
  - Researchers also examine level changes  
*(e.g. the change in the level of employment in Texas, in thousands)*
- **Rate:** the change of an economic variable over a certain period
  - Economists use rates to know and show, whether an indicator has risen or declined, and how  
*(e.g. the rate of change in the level of employment in Texas, percentage)*
  - Rates allow for better comparison than level changes

# PLOTTING VARIATION: THE STANDARD MODEL

- **Bell-shaped curve:**
  - An instrument of first resort, also known as *normal distribution* and *Gaussian distribution* (if the bell-shaped curve is symmetrical)
  - In the middle, where the hump of the bell rises, most data cluster around the average
  - On the sides, the low and high extremes fall out rapidly
  - It makes a statement about the nature of randomness: when things vary, they try to stay near the average point and they manage to scatter around the average in a reasonably smooth way
  - *Properties of normal distribution:* mean, mode and median are equal, exactly half of the values are to the left of center and exactly half the values are to the right, the total area under the curve is 1
  - *Standard normal model:* a normal distribution with a mean of 1 and a standard deviation of 1

# ELEMENTARY (UNIVARIATE) ANALYSIS

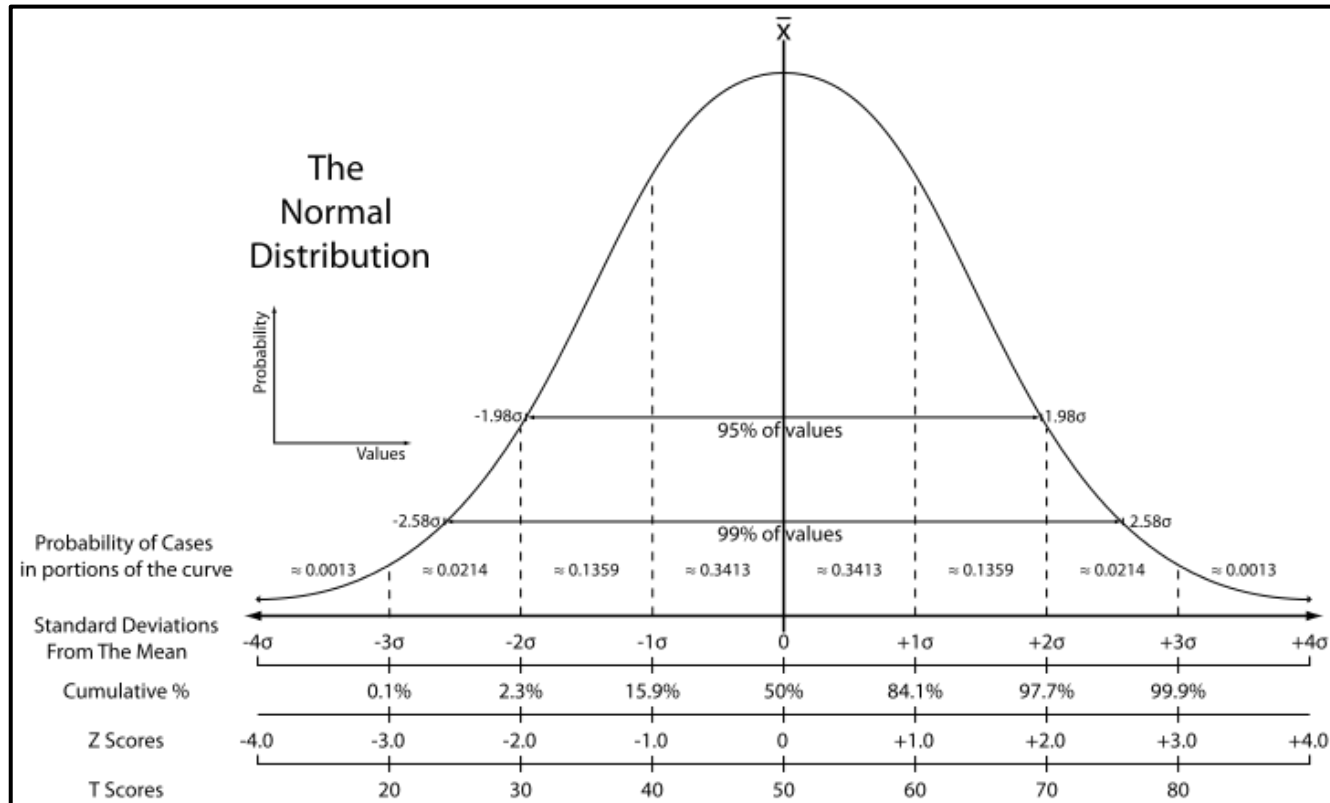
- **Measures of average/centre/location of a distribution**
  - *Mean*: sum of numbers divided by the number of numbers (*arithmetic*)
  - *Median*: the middle number in a set of numbers
  - *Mode*: the number that occurs most often in a set of numbers



# ELEMENTARY (UNIVARIATE) ANALYSIS

- **Measures of dispersion**

- *Std. deviation*: the spread of numbers in a set of numbers
- *Variance*: the expectation of the squared deviation from mean



# ADVANCED (MULTIVARIATE) ANALYSIS

- **Analysis of dependence and causation**
  - *Crosstabs*: a type of table that displays the combined frequency distribution of the variables, mainly in survey research (*measures: Pearson's  $\chi^2$ , contingency coefficient, Cramer V...*)
    - *Dependent variable: non-metric, independent variable: non-metric*
  - *Analysis of variance (ANOVA)*: a method to analyze whether the means of groups are equal or different (*measures: F-test, t-test ...*)
    - *Dependent variable: non-metric, independent variable: metric*
  - *Correlation*: a method to analyze to the extent of the relationship of variables (*measures: Pearson's  $r$ , Spearman's rank correlation coefficient*)
  - *Regression analysis*: a statistical process for estimating the relationships (trend) among variables (*e.g. linear regression, logistic regression*)
    - *Dependent variable: metric, independent variable: metric*

# ADVANCED (MULTIVARIATE) ANALYSIS

- **Dimension reduction (reducing variables)**
  - *Factor analysis/Principal component analysis*: a method to describe the variability among correlated variables in terms of a lower number of variables, called *factors*
  - *Multidimensional scaling*: a method to detect meaningful essential dimensions that allow to explain observed similarities between cases
- **Classifying a set of cases**
  - *Cluster analysis*: a method of grouping a set of cases in such a way that cases in the same group, called *cluster*, are more similar to each other than the other cases in other groups
  - *Discriminant analysis*: a method of recognizing a limited number of common features that characterize the group of cases

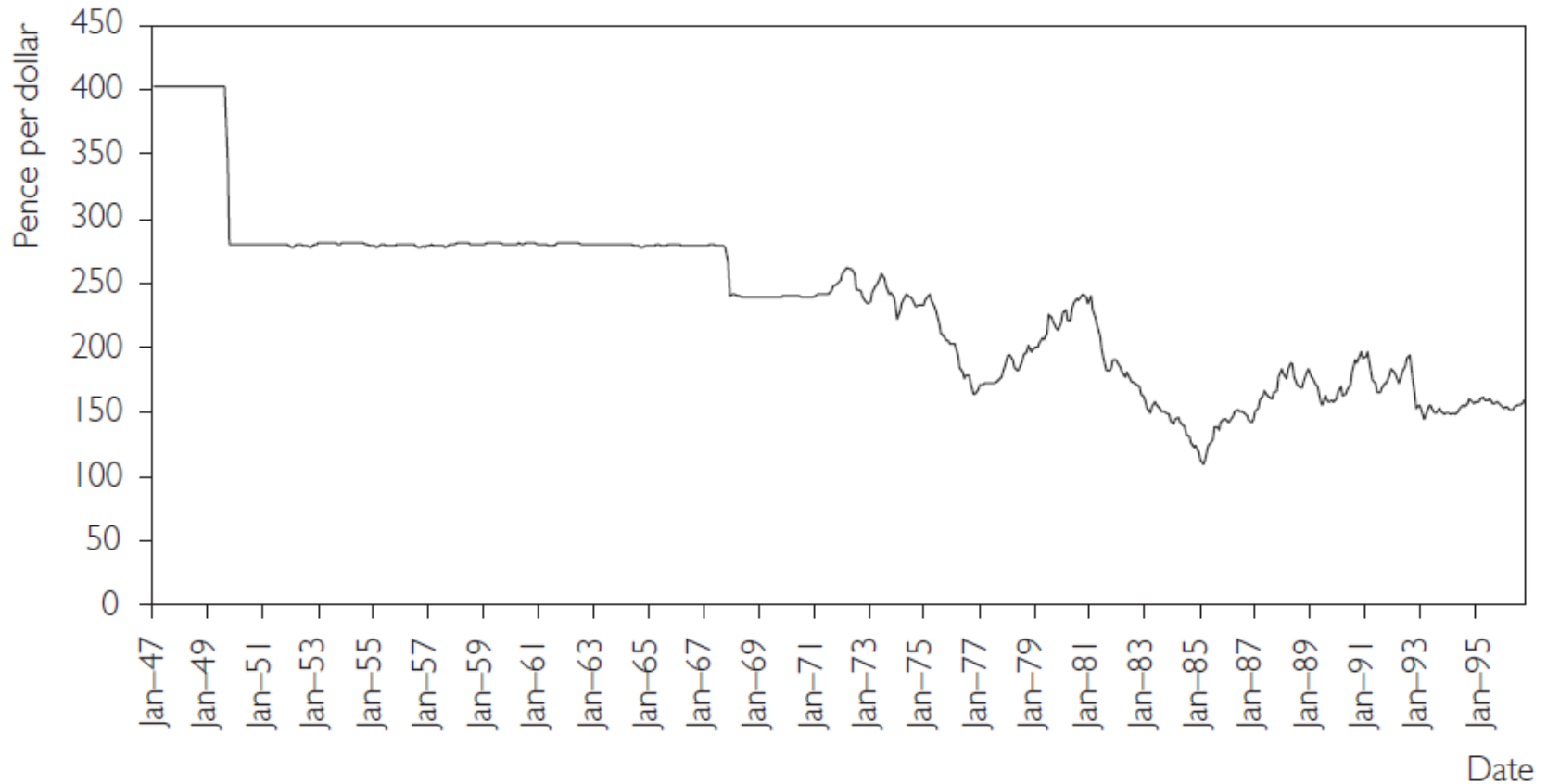


# GRAPHING

- **One way of expressing the relationship among variables is with graphs**
  - Economists choose the type of graph that best suits the purpose at hand
  - *Graphs serve two purposes:*
    1. They offer a way of visually express ideas that might be less clear if described with equations or words
    2. They provide a way of finding how variables are in fact related in the world
- **Common types of graphs:**
  - *Graphs of a single variable:* pie chart, bar graph, time-series graph
  - *Graphs of two variables:* scatter plots, coordinate system

# GRAPHICAL METHODS

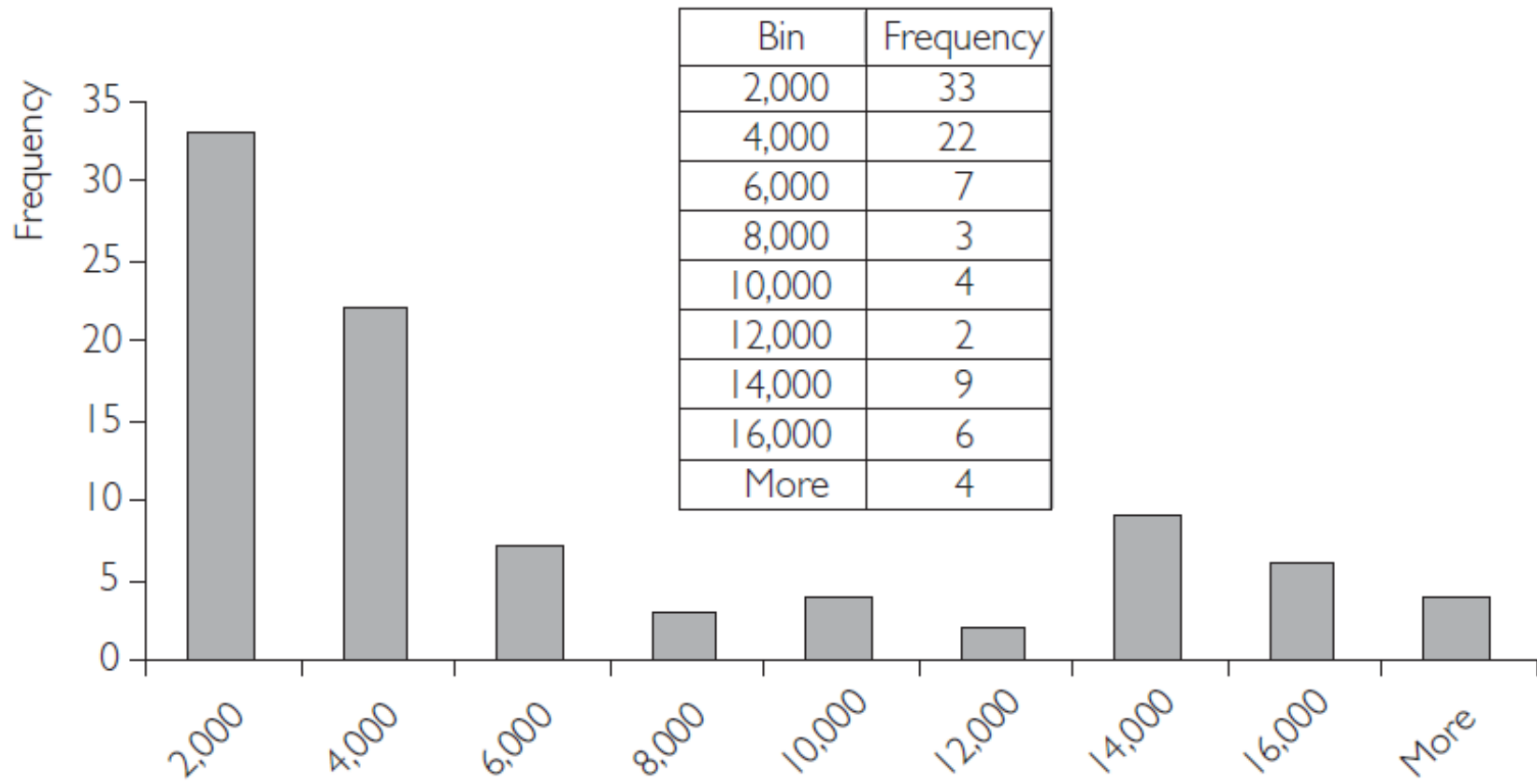
- **Time series graphs**



UK pounds/UK dollar exchange rate

# GRAPHICAL METHODS

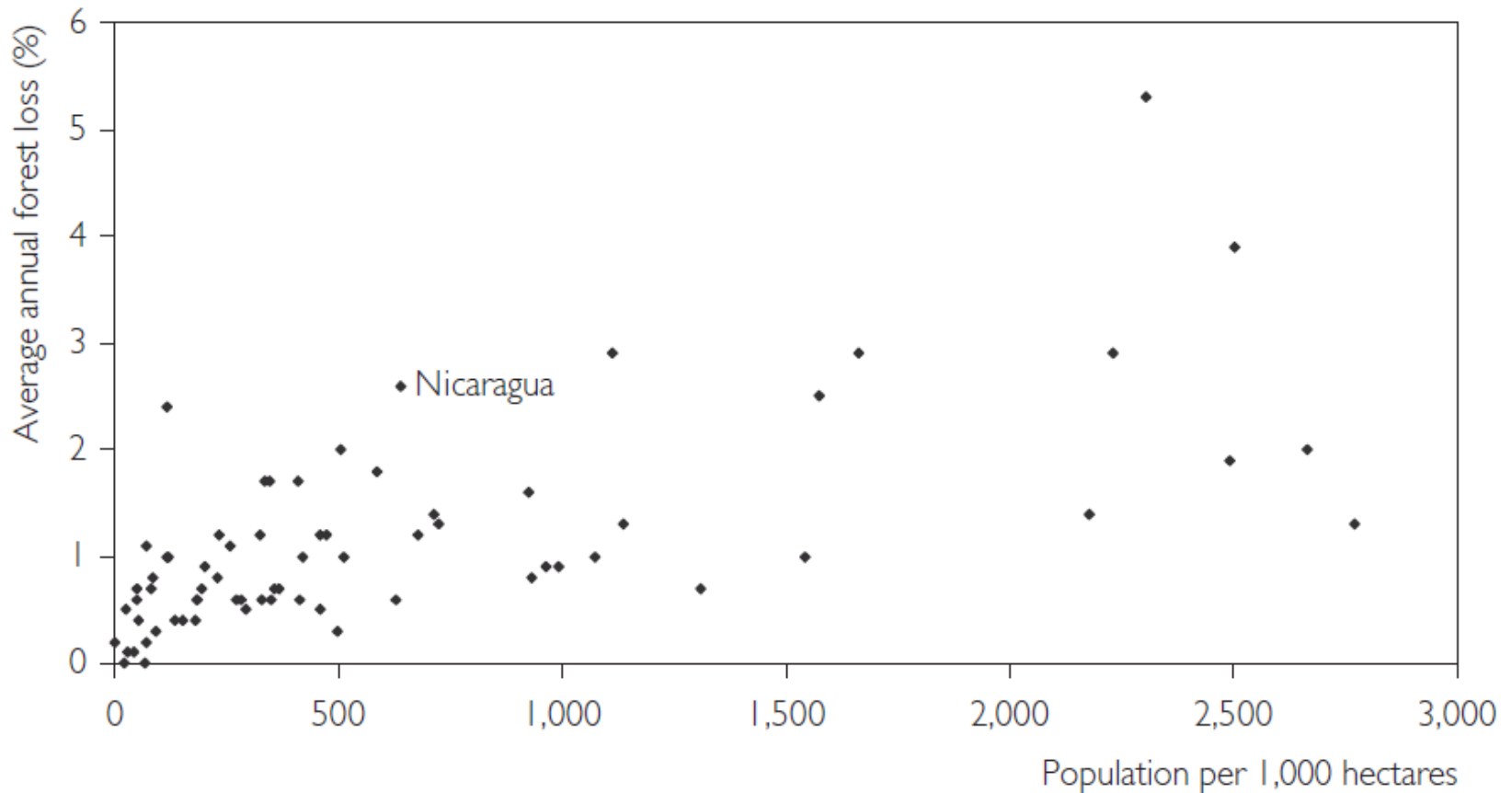
- **Histograms**



**Cross-country GDP per capita in US dollars**

# GRAPHICAL METHODS

- **Scatter plots**

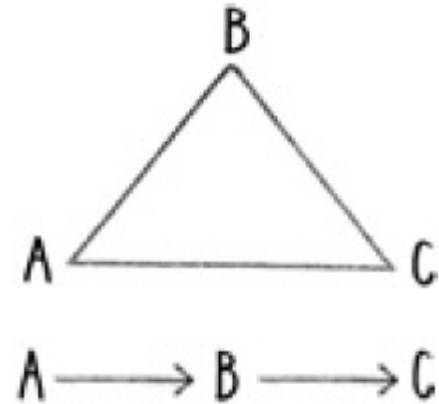


Population density against deforestation

# VISUALIZATIONS: OTHER TECHNIQUES

- In visualizations, we distinguish between **”divergent”** and **”convergent”** images
  - *Divergent* means that an illustration depicts different approaches or options and this inspires creative thinking and offers new solutions
  - *Convergent* means that only the relevant aspects of a theory, approach or problem are depicted which help us to understand complex ideas by radically condensing them

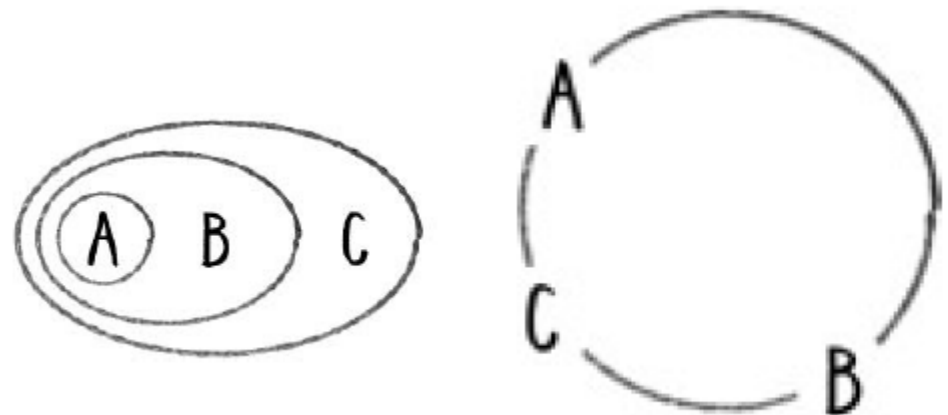
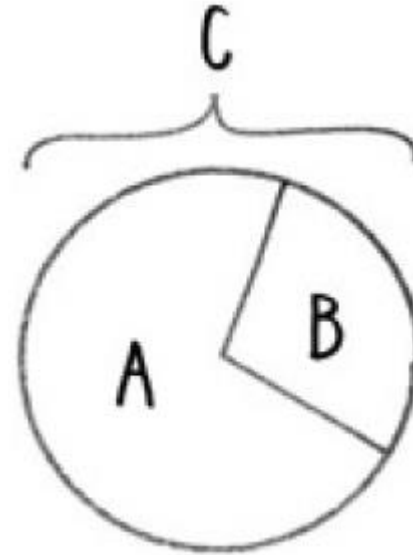
- **Triangle:**  
how and why are A, B and C connected?



- **Cause-and-effect chain:**  
C results from B and B from A

# VISUALIZATIONS: OTHER TECHNIQUES

- **Pie chart:**  
What proportions of A and B make C?
- **Circle diagram:**  
A is followed by B is followed by C,  
then it starts again with A
- **Concentric circles:**  
A is part of B is part of C

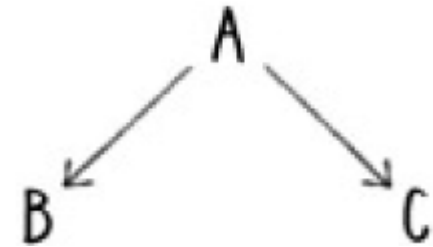


# VISUALIZATIONS: OTHER TECHNIQUES

- **Flowchart and family tree:**

*Flowchart:* If A, then B or C

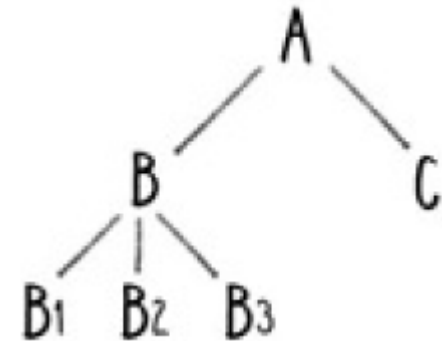
*Family tree:* A results in B, and A results in C



- **Mind map:**

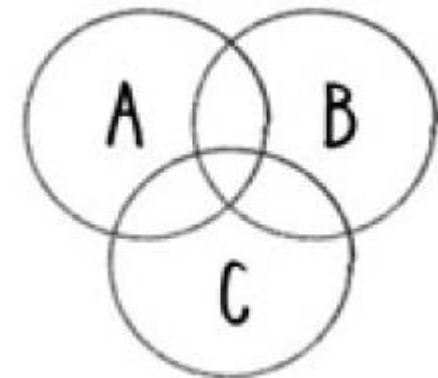
From A, I think B and C

From B, I think B1, B2 and B3



- **Venn diagram (set diagram):**

Similarities between A and B, B and C, C and A and A, B and C.



# VISUALIZATIONS: OTHER TECHNIQUES

- **Forcefield analysis:**

A contradicts B. C agrees with B.



- **Bridge:**

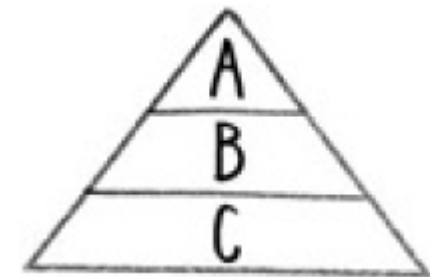
How do we get from A to C if B is an obstacle?



- **Pyramid:**

Who tells C what it has to do?

Or how does A legitimize its position?



- **Table:**

For lists and combinations of A, B, C and D

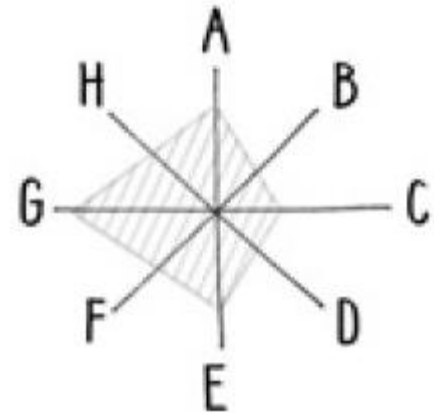
	A	B
C	AC	BC
D	AD	BD



# VISUALIZATIONS: OTHER TECHNIQUES

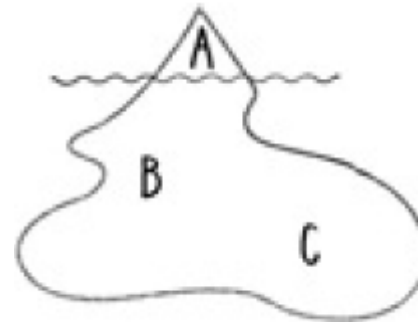
- **Radar chart or 'spider':**

Shows several parameters and their characteristics. Taken together, results in a distinctive shape.



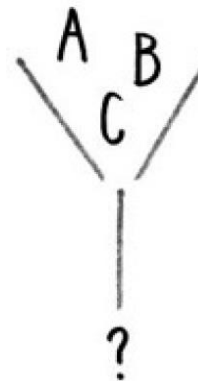
- **Iceberg:**

What forms the basis of A?  
What is visible? What is invisible?



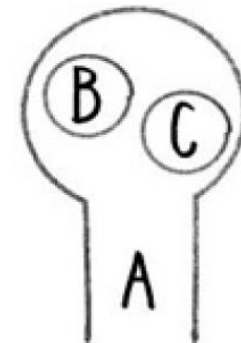
- **Funnel:**

A and B and C make . . . ?



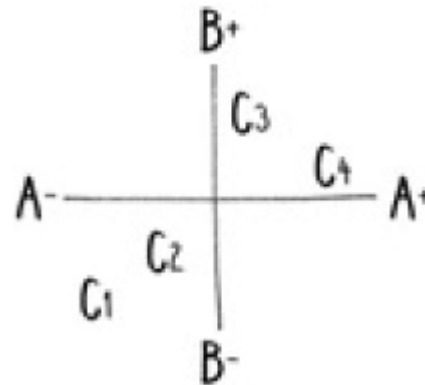
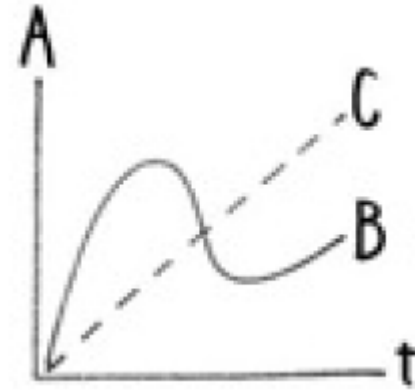
- **Tree:**

B and C grow out of A



# VISUALIZATIONS: OTHER TECHNIQUES

- **Line chart:**  
The horizontal axis indicates time (t),  
the vertical axis value (A).  
B and C show progression  
(e.g. bell-shaped curve, exponential  
curve, hockey stick)
- **Pole model:**  
The parameters oppose each other:  
black-white or right-left.



# VISUALIZATIONS: OTHER TECHNIQUES

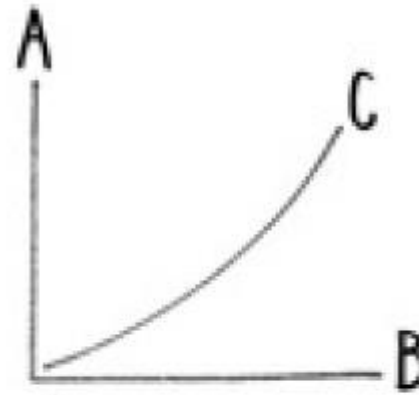
- **Two-dimensional axis model:**

The A and the B axes have different parameters.

The C curve shows a possible relationship between the two.

*Alternative: 4-field matrix.*

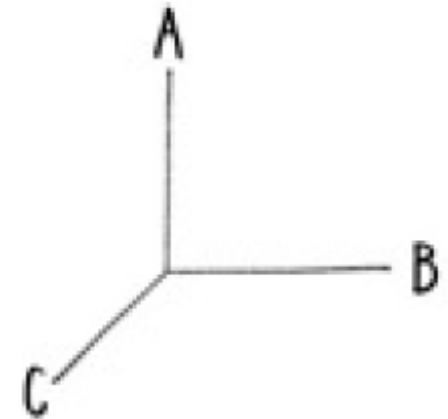
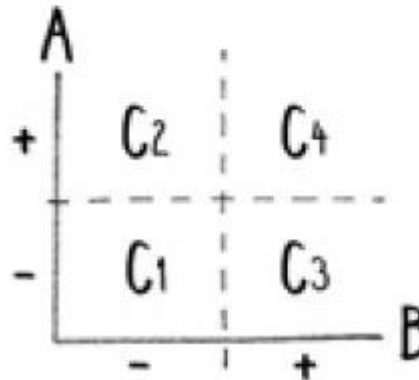
In this case, positions are shown instead of curves.



- **Three-dimensional axis model:**

A third parameter, the C axis, is added to the axes A and B.

Different values can be entered in the coordinates system.



# ECONOMETRICS

- **Econometrics** is the application of statistical methods to economic data
  - It aims to *give empirical content to economic relations*
  - Econometric approach was not primarily an empirical one:
    - Originally, econometrics was regarded by its first practitioners as a creative synthesis of theory and evidence
      - Econometricians firmly believed that economic theory played an essential part in finding out about the world
    - Finally, econometricians depended on an analytical method on the latest advances in statistical techniques
- **Econometrics emerged** as a distinct activity at the beginning of the twentieth century
  - The first known use of the term was by Polish economist *Paweł Ciompa*

# BRIEF HISTORY OF ECONOMETRICS

(MARY S. MORGAN 1990)

- **Econometrics was to become firmly established** by the 1940s, and the dominant form of applied economic science thereafter
  - The Norwegian *Ragnar Frisch* elaborated the sense in which it is used today
- **The main difference between early and modern econometrics** is that the early econometricians consciously conjoined mathematical economics and statistical economics
  - *Mathematical reasoning* was used by only a handful of economists in last quarter of the nineteenth century, but came into more common after 1930s
  - The *use of statistical data* in economics has a long history going back to arithmetic work of PETTY and GRAUNT

# BRIEF HISTORY OF ECONOMETRICS

(MARY S. MORGAN 1990)

- In the longer run, **mathematical economics and statistical economics divided**, leaving econometrics firmly on the statistical side of the fence
- **Probabilistic thinking** was widely introduced into nineteenth and early twentieth-century science
- The **law of errors** became the normal distribution in the late nineteenth century, and this led directly to the development of statistical laws of inheritance in genetics, namely regression and correlation
- It was Yule who linked statistical laws to **least squares** which was a crucial step in making least squares regression a general tool for statistical analysis

# BRIEF HISTORY OF ECONOMETRICS

(MARY S. MORGAN 1990)

- The development of multivariate analysis was more evident after **making temporal variation amenable to analysis**
  - In order to provide the temporal variation between generations, the *relationship between regression and correlation* was developed
- The **new statistical methods** in early twentieth century provided a **substitute for the experimental method**
  - The statistical substitute for scientific experiment relied on the statistical method's ability to extract a regularity, or repeated pattern, or constant relationship
    - Statistical data also proved helpful in establishing economic regularities
  - The crucial innovation was to *discern order out of chaos*

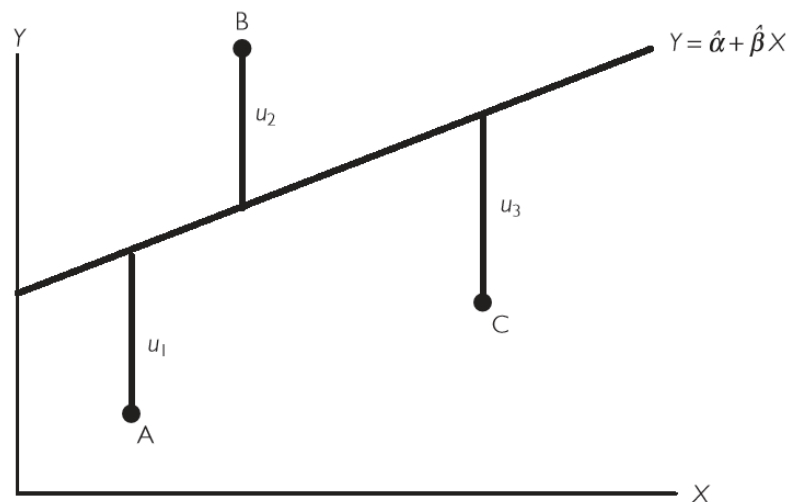
# THE LOGIC OF ECONOMETRICS

- **Basic (most frequently used) model of econometrics: *linear regression model***

- *On two variables:  $Y_i = \beta_0 + \beta_1 X_i + \varepsilon$*

- *On more than two variables:  $Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_n X_{ni} + \varepsilon_i$*

where  $Y$  is the dependent variable,  $X_n$  are the independent variables,  $i$  is the number of observations,  $\beta_0$  is the estimator of the intercept,  $\beta_n$  are the estimators of the independent variables,  $\varepsilon$  is an error term.





# THE LOGIC OF ECONOMETRICS

- **Econometrics** tries to find *estimators* ( $\beta$ ) that have 'desirable' statistical properties
  - *Unbiasedness*: the expected value is the true value of the parameter
  - *Consistency*: the estimator converges to the true value as the sample size gets larger
  - *Efficiency*: the estimator has lower standard error than other unbiased estimators' for a given sample size
- **Econometrics** uses different *estimation methods*
  - Most frequently used: *ordinary least squares (OLS) estimation*: minimizes the sum of the squares of the differences between observed data and the linear function
  - Other estimation methods: generalized least squares (GLS), maximum likelihood (ML), probit, logit, tobit, ARIMA, cointegration ...

# REFERENCES AND FURTHER READINGS

- Koop, G. (2005): Analysis of Economic Data. 2nd ed. John Wiley & Sons.
- Morgan, M. S. (1990): The History of Econometric Ideas. Cambridge University Press.

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**BEFEKTETÉS A JÖVŐBE**

# TECHNIQUES IN ECONOMIC THINKING

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## *ANALYZING FUTURES*

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**BEFEKTETÉS A JÖVŐBE**

# OVERVIEW OF THE CURRENT PRESENTATION

- **About futures and forecasting futures.**
- **Futures as states of uncertainty.** A typology of future states: sequential (routine) futures, planned futures, probable futures, possible futures, unpredictable futures, chaotic futures, unknowable futures.
- **Analyzing futures.** By extrapolation, by heuristics, by historical analysis, as scenarios, as cycles. Possible scenarios. K-waves.
- **About chaos theory.** Analyzing chaotic futures and games. The Monte Carlo simulation.
- **Forecasting mistakes and errors.** Incorrect, incomplete or multiple theories. Practical problems. Omission of important variable(s). Reverse causality. Misinterpretation of calculation results.
- **About foresight.**
- **Economic forecasting.** Types of economic forecasting.

# ABOUT FUTURES AND FORECASTING FUTURES

(STIMSON ET AL. 2006, 192–193)

- **Forecasting futures** is something that fascinates social scientists
  - Since the dawn of civilization, *the desire to know about, predict and anticipate the future trends to be strong* in all of us
    - The *objective of forecast* is to get to know the expected minimum and long-term tendencies
  - It is *of increasing importance* to firms, organizations, government, countries and regions as they seek to position themselves to achieve competitive advantage for their productive efforts
    - Considerable reward may be reaped by those who can accurately predict the future
  - Knowledge and experience of predicting futures has improved
    - For instance, *forecasting techniques has been improving* in their sophistication and accuracy ...
    - ... yet, efforts at predicting the future continue to have a *high and possibly unacceptable degree of error*

# ABOUT FUTURES AND FORECASTING FUTURES

(STIMSON ET AL. 2006, 192–193)

- A primary reason for why humans and organizations deal with the future is a belief that it is possible to **act consciously to influence the future directions that are desirable**; however ...
  - preparing (planning) for and managing futures *takes place in largely uncontrolled environments* as much of the future lies outside human control
    - This has become particularly acute in the contemporary era of globalization with rapid and uncertain change
  - The future cannot be prescribed *unless economic agents are in full control of events*
- **Planning for and managing the future requires tools and ways of thinking about the future and analyzing it** → *cf. foresight at the end of this presentation*

# FUTURES AS STATES OF UNCERTAINTY

(STIMSON ET AL. 2006, 194)

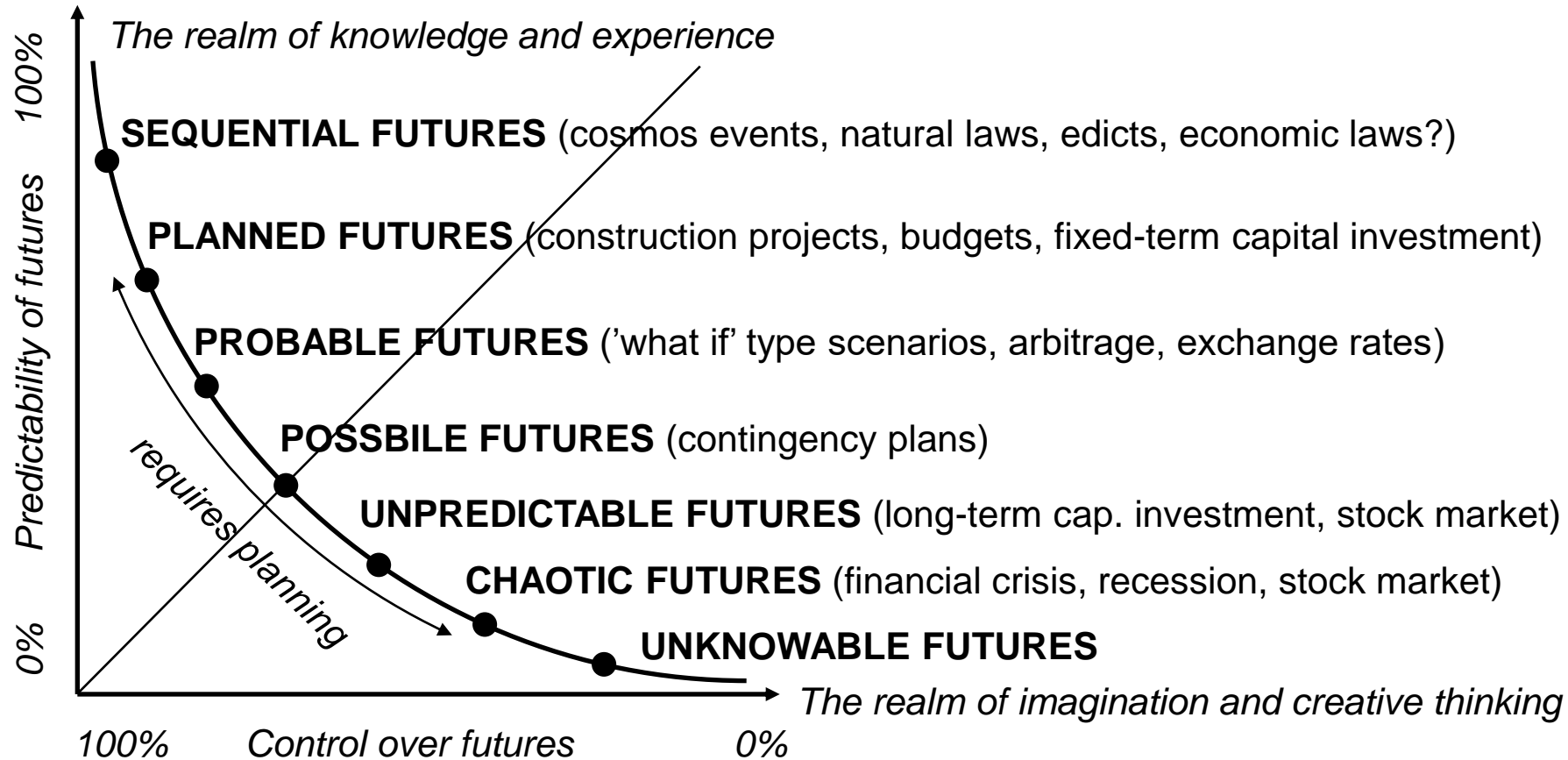
- The future can be viewed as a series of '**future states**' over which there are *different levels of control and ability to predict*
  - A *typology of states* is plotted along a curve by degrees of *predictability* (0–100%) and *controllability* (0–100%)
    - The 45-degree-line represents the *risk of failure* (above and below 50%)
  - Altogether *7 future states are distinguished*: sequential (routine) futures, planned futures, probable futures, possible futures, unpredictable futures, chaos/chaotic futures, unknowable futures
    - The precise position of each future state on the curve is never fully know and some states might overlap along the curve
  - Each of these states *has an influence upon the way economists create and formulate plans*



# FUTURES AS STATES OF UNCERTAINTY

(STIMSON ET AL. 2006, 194)

- **A typology of future states**



Source: own construction based on STIMSON ET AL. (2006)

# FUTURES AS STATES OF UNCERTAINTY

- **Sequential (routine) futures:** the most predicable state of futures, which is controlled by laws and patterns that can be predicted in advance with reasonable accuracy
- **Planned futures:** futures that are more predicable through planning (programming, scheduling time, impact, success and scale) with outcomes over which a relatively high level of control can be maintained and returns are reliable
- **Probable futures:** futures that relate to outcomes from a situation that is either planned or unplanned; scenario and sensitivity testing are likely to determine outcomes; however these are not certain

# FUTURES AS STATES OF UNCERTAINTY

- **Possible futures:** futures involve stimulating outcomes that are neither easily tested nor measured, usually many assumptions are built into the modelling these state of futures
- **Unpredictable futures:** these futures are events over which there is little control as they lie too far into the future of anticipate
- **Chaos/chaotic futures:** futures that are highly unpredictable, uncontrollable, usually unstable and dangerous situations
- **Unknowable futures:** futures that fall into the void of complete unknown as they are beyond knowledge and experience

# ANALYZING FUTURES: BY EXTRAPOLATION

- The idea of **the future as an extension of the past** dates back many centuries
  - The *most important feature of extrapolation (or projective method)* is to determine tendencies of the past period into the future, and then to draw conclusions and to control future change
    - THOMAS R. MALTHUS was one of the first economists to use mathematical extrapolation to predict that the world would run out of food as population increased
    - *In the post WW II era up to the 1970s this method was viewed with optimism:* the key to the future was to extrapolate technological change and to allow it to shape technology research and development to fit defined future values and expectations
    - Scholars and practitioners continued to remain *optimistic until the OPEC oil shock of 1974*

# ANALYZING FUTURES: BY EXTRAPOLATION

- During the 1980s, **models to extrapolate the future** become more complex, incorporating resource limitations, technology change and market change
  - By the late 1970s the idea that the future could be extrapolated with confidence was under increasing challenge and lost creditability after the *second of shock in 1981*
  - Yet, *neo-Malthusians* have made extensive use of extrapolation, regression and other statistical trend analysis techniques to project the future
  - A wide range of techniques involving linear programming and extrapolation using multiple regression analysis have been used to develop projections for testing futures

# ANALYZING FUTURES: BY HEURISTICS

- **Heuristic programming or heuristic problem solving** is often used for arriving at the best combination of activities to determine a probable series of outcomes
  - *Heuristic programming* is an advanced field of computational science
  - *Heuristic problem solving* also involves less sophisticated methods of evaluation than that used for mathematical modelling
  - Heuristics involves a *degree of intuition*, relying on *experienced judgement for solving problems* when predictable outcomes are not easily anticipated or capable of calculation
    - It may not always achieve the best and most reliable answers, but it does allow planners and decision-makers to obtain answers that will be more reliable than those derived from pure 'guesswork'

# ANALYZING FUTURES: BY HEURISTICS

- **Heuristics involves qualitative and quantitative assessment techniques** → *commonly associated with foresight*

## *A. Roundtables*

- The *main purpose of roundtables* is to generate ideas of economic benefit to business firms, corporation and communities

## *B. Delphi-method*

- The *main purpose* is to arrive at a consensus on a problem or a set of predicted outcomes, mainly for exploring the direction of technology change forecasting
- The approach involves *using pools of experts* that are presented *with a series of questions* by an investigator or analyst
- The process often contains *several rounds of questioning*, giving feedback on the opinion and correcting them, *until a consensus is achieved* on the problem or issues

# ANALYZING FUTURES: BY HISTORICAL ANALYSIS

- **Historical analysis** was originally developed to assist diplomats to address crises and can be used to seek solutions to economic and other problems
  - The method uses *time as a basis of forecasting*
  - Courses of events from the past are identified and can be used to *recreate the issues for a current or future concern*
  - The technique is based ...
    - on the recognition that the problems or pending events do not have to be treated as if they had never happened in the past
    - on a process where attempts are made to identify issues that may be applicable to a current problem or concern using analogies from the past
  - If patterns are identified, it may be possible to predict outcomes for the future



# ANALYZING FUTURES: BY HISTORICAL ANALYSIS

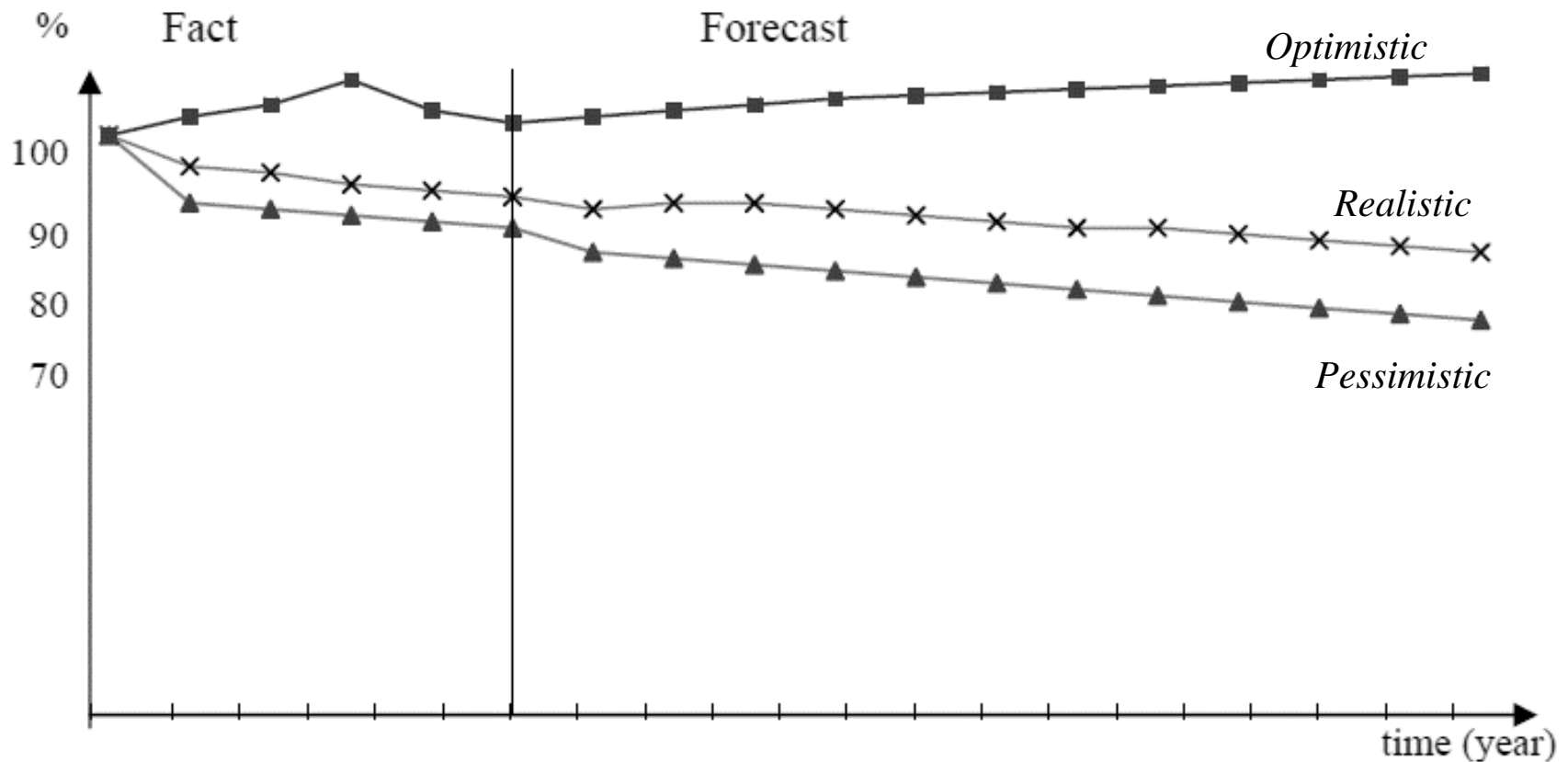
- **Historical analysis** involves seven stages:
  1. Defining the context of the event of action for which a decision has to be made
  2. Looking for historical precedents
  3. Analyzing factors leading up to the event
  4. Analyzing factors surrounding the current event
  5. Identifying if there are congruent factors between past and present events
  6. Looking at congruence factors to see if they are relevant to the current event
  7. Predicting the course of outcome to be taken

# ANALYZING FUTURES: AS SCENARIOS

- **Scenario analysis** has been used intensively to examine options or possibilities for future economic outcomes
  - It is a *valuable tool under conditions of rapid change*
  - It *explores the logical connection between events and tendencies following each other*, evaluates them and draw conclusions in two-three different versions (*optimistic, realistic, pessimistic*)
    - A *scenario* has to give an answer as to what phenomena may appear as a result of the interventions and what steps are necessary for bringing about a given situation
    - It can be used to evaluate environmental, social, political, cultural, economic, transport and quality of life issues as well as to assess the impact of parameters on economic development processes
  - Scenario analysis *takes time*
    - Poor scenario analysis can lead to serious mistakes and may result in unnecessary expenditure

# ANALYZING FUTURES: AS SCENARIOS

- Possible scenarios



Source: own construction

# ANALYZING FUTURES: AS CYCLES

- **Trade, business, product and economic cycles** have been studied for many centuries
  - WILLIAM PETTY was one of the first who observed economic cycles
  - A number of particular cycles were named after their discoverers or proposers:
    - the *Kitchin inventory cycle* of 3 to 5 years
    - the *Juglar fixed-investment "business" cycle* of 7 to 11 years
    - the *Kuznets infrastructural investment cycle or "building cycle" (Kuznets swing)* of 15 to 25 years
    - The most significant influence on *long technology cycles* is attributable to the Russian economist NIKOLAI KONDATIEV who developed the theory that global economic growth and development occurs in waves of 45 to 60 years

# ANALYZING FUTURES: AS CYCLES

- There have been **five K-waves** associated with significant technology changes around the which other innovations in production, distribution and organization cluster
  - *K-1*: United Kingdom and France – steam power (steam engine), cotton mill, textile industry, iron
  - *K-2*: Germany and USA – railways, iron and steel industry
  - *K-3*: USA and Netherlands – electricity, chemical, automobiles, mass consumption
  - *K-4*: USA, Japan and Sweden – electronics, synthetic materials, petrochemicals
  - *K-5*: USA, China and ...? – IT, artificial intelligence, bio engineering
  - + *K-6*: health market, biotechnology, physiosocial sector (wellness, therapy)

# ABOUT CHAOS THEORY

*"...twentieth-century science will be remembered for just three things: relativity, quantum mechanics, and chaos." (GLEICK 1988, 6)*

- **Chaos** is a *science of process* rather than state, a *science of becoming* rather than being (GLEICK 1988)
  - The philosophical heart of the science of chaos according to GLEICK (1988): *"Given an approximate knowledge of a system's initial conditions and an understanding of natural law, one can calculate the approximate behaviour of the system."* (15)
- **A classic phrase:** a small event can lead to an exponential series of cascading events that might lead a system into chaos
  - A hypothetical example is a butterfly flapping its wings leading to a major weather event of catastrophic proportions (known as *butterfly effect*)

# ABOUT CHAOS THEORY

*"For want of a nail, the shoe was lost;  
For want of a shoe, the horse was lost;  
For want of a horse, the rider was lost;  
For want of a rider, the battle was lost;  
For want of a battle, the kingdom was lost!"*  
(folklore)

- **Properties of chaos:**

1. *Sensitive dependence of initial conditions:* a small change in one state of a deterministic nonlinear system can result in large differences in a later state (the technical name of butterfly effect)
2. *Mixing 'buzz' and 'signal':* small, transient fluctuations have nothing in common with large, long-term changes
  - *Buzz:* short-term and fast fluctuations come randomly and are unpredictable
  - *Signal:* long-term and slow changes give way in understanding in theory

# ANALYZING CHAOTIC FUTURES AND GAMES

- **Chaos and game theory has been developed into a wide range of uses for predicting possible outcomes of events**
  - In economics, it has been used widely for solving business problems, for evaluation arbitrary and the economic power of the state
    - It involves the term '*conflict of interest situations*' as it has been used for predicting outcomes of conflict
    - The strategic situation in game theory lies in the interaction between two or more actors, each of whose actions are based upon the expectations of others over whom no one has control
    - The outcome is *dependent upon the moves of participants*
    - The game is based on using *probability analysis of combinations of events* to develop future positive and negative outcomes



# THE MONTE CARLO SIMULATION

- **The answer for the question why we can only approximate a definite outcome is given by the Monte Carlo simulation**
  - *Randomness* is found in many phenomena that we would like to be able to predict, such as changes in the weather or the movements of share prices
  - Inspired by the casino city of Monte Carlo, a *computer simulation method has been developed* to calculate these apparently incalculable phenomena
  - *How the Monte Carlo simulation works?*
    - By running multiple trials based on random sampling to determine an outcome, using a combination of probability calculation and statistics.
  - *Why is the Monte Carlo model important?*
    - Because it reminds us that models do not represent reality, but are simply an approximation of reality.

# FORECASTING ERRORS AND MISTAKES

- **Incorrect, incomplete or multiple theories:** economists do not always agree on what theory best fits the facts; the competing theories may imply conflicting forecasts under some conditions
- **Practical problems:** forecasts often turn out to be wrong because some of the things researchers would like to know are difficult to predict
- **Omission of important variable(s):** economists might not be able to hold variables constant, and might decide that one variable is causing changes in the other variable, when those changes are caused by a third omitted variable (MANKIW 2001)
  - *E.g. Members of households with more cigarette lighters are more likely to develop cancer, yet we should not conclude that ownership of lighters causes cancer because we do not take into account the number of cigarettes smoked.*

# FORECASTING ERRORS AND MISTAKES

- **Reverse causality:** even if economists have identified the correct two variables to look at, they might decide that A causes B when in fact B causes A (MANKIW 2001)
  - *E.g. 1. Cities with higher concentration of police are more dangerous, because the positive correlation between the nr. Of police officers and nr. Of violent crimes. Do police cause crime, or crime-plagued cities hire more police?*
  - *E.g.2. Couples often buy a minivan in anticipation of the birth of a child. The minivan comes before the baby, but we wouldn't want to conclude that the sale of minivans causes the population to grow.*
  - *SUGGESTION: An easy way to determine the direction of causality is to examine which variable moves first. Often people change their behaviour not in response to a change in their present conditions, but in response to a change in their expectations of future conditions.*

# FORECASTING ERRORS AND MISTAKES

- **Misinterpretation of calculation results:** in the future, both scholars and decision-makers tend to *work with prognosis tools rather than with models*
  - *The problem:* people using such tools in the present do not understand what they are actually calculating
  - The formulas and models that explain the world are black boxes, understood by only a few experts
  - The typical user has to trust the system without understanding it ...
    - ... although we may not know exactly what the models are calculating, we can still test, measure and refine them with real data
- Other errors: wars, agricultural and natural disasters, political upheavals, man's limited knowledge, ideological reasons

# ABOUT FORESIGHT

- The term '**foresight**' has become widely used for ...
  - *critical thinking and debate* concerning development
  - *shaping the future*, especially by influencing public policy
    - effort to create wider participatory democracy for those who are normative and focus on actions
- **Foresight** encompasses a range of approaches that combine ...
  - *Futures and forecasting*
  - *Networking (dialogic) tools and orientations*
  - *Planning* (strategy building, analysis and objectives setting)
- *NOTE: Corporate foresight is used to support strategic management, identify new business fields and increase the innovation capacity of a firm.*

# ECONOMIC FORECASTING

- **Economic forecasting** is the process of making predictions about the economy
  - Forecasts can be carried out *at a high level of aggregation* (e.g. GDP, inflation, unemployment, deficit), or *at a more disaggregated level, for specific sectors of the economy or even specific firms*
  - *Many institutions engage* in economic forecasting: national governments, banks and central banks, consultants and private sector entities such as think-tanks, companies and international organizations such as the IMF, World Bank and the OECD
  - Some forecasts are produced *annually*, but many are updated more *frequently*
  - In preparing economic forecasts a variety of information has been used in an attempt to *increase the accuracy*
    - Accuracy is one of the main, if not the main criteria, used to judge forecast quality

# ECONOMIC FORECASTING

- **Economic forecasting** is used for a variety of purposes:
  - *Governments and businesses* use economic forecasts to help them determine their strategy, multi-year plans, and budgets for the upcoming year
  - *Stock market analysts* use forecasts to help them estimate the valuation of a company and its stock
  - The *Economic Outlook* is the OECD's twice-yearly analysis of the major economic trends and prospects for the next two years. The IMF publishes the *World Economic Outlook* report twice annually, which provides comprehensive global coverage about economic and other trends
  - *Large banks and think-tanks* provide economics reports and newsletters
    - The *World Bank* provides a means for individuals and organizations to run their own simulations and forecasts

# TYPES OF ECONOMIC FORECASTING

- **Forecasting GDP/GNI and their elements:**
  - *Government spending* ( $\neq$  total budget expenditures)
    - This element can be determined with a *fair degree of accuracy*: new government programs equipment, roads, buildings, wages and salaries of government employees, money transferred to bondholders, citizens (e.g. pensions), state and local governments
  - *Private investment spending* (by firms, by households)
    - This element poses *far more difficult forecasting problems*: capital investment (new plants and buildings, new equipment), investment in inventory (goods in the process of production, finished goods), new home constructions, consumer spending (durable and nondurable goods, such as automobiles, household appliances, as well as food, clothing, plus services)
  - *Net exports*



# TYPES OF ECONOMIC FORECASTING

- **Forecasting for an industry or firm**
  - Forecasting is most *difficult for companies that produce durable goods* such as automobiles, industrial equipment, and appliances and for companies that supply the basic materials for these industries
    - This is because sales of such goods are *subject to extreme variation*: variations can result from the introduction of a new product, the improvement of an existing product, the opening, closing, or expansion of plants, the activities of domestic or foreign competitors, a change in sales effort, or a variety of other factor
  - Forecasting for an individual firm obviously begins with a forecast for the industry or industries in which it is involved
  - An increasing number of companies now employ sophisticated market research techniques to determine the probable reaction of their customers to new product

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**BEFEKTETÉS A JÖVŐBE**

# TECHNIQUES IN ECONOMIC THINKING

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## *THE LIMITATIONS OF ECONOMICS*

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**BEFEKTETÉS A JÖVŐBE**

# OVERVIEW OF THE CURRENT PRESENTATION

- **The knowledge and role of economists.** About what economists disagree?
- **Common errors in scientific inquiry.** Inaccurate observations. Overgeneralization. Selective observation. Deduced information. Illogical reasoning. Ego-involvement in understanding. Premature closure of inquiry. Mystification of residuals.
- **Pitfalls to avoid in economic thinking.** Failure to hold other thing constant. The fallacy of composition. *Post hoc, ergo propter hoc* fallacy. *Cum hoc, ergo propter hoc* fallacy.
- **Further errors, dangers and challenges in the way doing economics.** Intertwined processes. Non-replicability and non-repeatable experiments. No theory is poor theory. Terminological confusions. Inconsistency between theory and empirics. Multiplicity and lack of measurement. Complexity and simplicity of methods. Methodological adherence. Uncertainty of future trends. Simulations vs. reality. Good intentions vs. undesirable outcomes.

# THE KNOWLEDGE AND ROLE OF ECONOMISTS

- **The economist knows** very little about the real world that is not better known by business executives and practitioners
  - What economists know is how things fit together (HEYNE 1997, 562)
    - The concepts of economics enable us to *make better sense out of what we observe, to think more consistently and coherently about a wide range of complex social interactions*
  - Negative statements can generally be made with greater confidence than positive statements (FRIEDMAN 1953, 23)
    - *Economics is often an 'exercise in frustration'*: there is a greater emphasis on what should not be done than on what should be done
- **The role of the economist**, regardless of being academic, business or government economist, is to recommend economic ways of achieving a given end, which is usually a compromise between alternatives

# ABOUT WHAT ECONOMISTS DISAGREE?

- **Use of models, facts, causal connections:** differences among economists derives from the validity of alternative theories
  - Researchers differ over what is the most appropriate model of the economy
    - Different models produce different results, and it is not easy to say which of the competing models gives us the better description
- **Economic policy:** differences among economists derive from different predictions about the consequences of taking an action, and different normative views about what policy try to accomplish
  - It is possible for two economists to agree about a model, but they are often making different recommendations
  - In addition, "*[t]here is not ... one-to-one relation between policy conclusions and the conclusions of positive economics*" (FRIEDMAN 1953, 5)

# COMMON ERRORS IN SCIENTIFIC INQUIRY

(EARL BABBIE 1975, 10–13, 25–29)

- **Inaccurate observations**
  - We can never understand the way things without first having something to understand
    - The lack of understanding destroys our chance making progress
  - We have to know *what* before we can explain *why*
  - On the whole, we are sloppy, even unconscious observers of the flow of event in life
  - *Safeguards against inaccurate observations:*
    - Scientific inquiry is a conscious activity
    - Simply making observations more deliberate reduces many errors
    - In many cases, both simple and complex measurement devices help to guard



# COMMON ERRORS IN SCIENTIFIC INQUIRY

(EARL BABBIE 1975, 10–13, 25–29)

- **Overgeneralization**

- When we seek to find patterns among the specific things we observe around us, we often fall into assuming that a few similar occurrences are evidence of a general pattern
  - It is a great threat when the pressure to arrive at a general understanding is high, and whenever this occurs, it can misdirect or impede inquiry
- *Safeguards against overgeneralization:*
  - We should draw conclusions on the basis of many observations
  - The replication of inquiry means that we repeat a study in order to check to see if the same results are produced each time; then, the study may be repeated under slightly varied conditions
  - Totally independent replications by other researchers extend the safeguards

# COMMON ERRORS IN SCIENTIFIC INQUIRY

(EARL BABBIE 1975, 10–13, 25–29)

- **Selective observations**

- The danger of overgeneralization may lead to this error
- Once we have concluded that a particular pattern exists and have developed a general understanding of why, we will be tempted to pay attention to future events and situations that correspond with the pattern and ignore those that do not
- *Safeguards against selective observations:*
  - A research design should specify in advance the number and nature of observations to be made as a basis for reaching a conclusion
  - If we should happen to overlook something that contradicts our conclusion about the way things are, our colleagues will notice it and bring it to our attention

# COMMON ERRORS IN SCIENTIFIC INQUIRY

(EARL BABBIE 1975, 10–13, 25–29)

- **Deduced information**

- Sometimes we just can't contradict our general conclusions about the way things are
  - We often make up information that would solve the contradiction
  - When our scientific observations and analyses do not turn out the way we expect, we often think up other reasons to explain away the surprise
- *Safeguards against deduced information:*
  - *Ex post facto hypothesizing:* we need to test our hypothesis among a broader spectrum of people. The line of reasoning does not prove our hypothesis is correct, only that there is still some hope for it
  - Thus, this means is acceptable in science if the study does not stop there: subsequent observations may prove its accuracy, in other words, scientists follow up on things by looking at the facts again

# COMMON ERRORS IN SCIENTIFIC INQUIRY

(EARL BABBIE 1975, 10–13, 25–29)

- **Illogical reasoning**

- The idea "*the exception that proves the rule*" does not make any sense at all
  - An exception can draw attention to a rule or to a supposed rule, but there is no system of logic by which it can prove the rule it contradicts
- *Gambler's fallacy* is another illustration of illogical reasoning
  - A consistent run of either good or bad luck is presumed to foreshadow its opposite
- We can get a little funny in defending our reasoning when others point out our error or logic
- *Safeguards against illogical reasoning:*
  - Scientists avoid this pitfall by using systems of logic consciously and explicitly
  - Logical reasoning is a conscious activity, and scientists always have their colleagues around to keep them honest in this regard

# COMMON ERRORS IN SCIENTIFIC INQUIRY

(EARL BABBIE 1975, 10–13, 25–29)

- **Ego-involvement in understanding**
  - Our understanding of events and conditions is often of special psychological significance to us
    - Explanations also might save ourselves from examining our own abilities and worth → any challenge is also a challenge to our abilities and worth
  - We link our understandings of how things are to the picture of ourselves that we present to others
    - We commit ourselves unwisely to our understanding of how things are and create a formidable barrier to further inquiry
  - *Safeguards against illogical reasoning:*
    - A firm commitment to the norms of science would work against too much ego-involvement

# COMMON ERRORS IN SCIENTIFIC INQUIRY

(EARL BABBIE 1975, 10–13, 25–29)

- **The premature closure of inquiry**
  - It brings a halt to attempts to understand things before that understanding is complete
    - We stop scientific inquiry too soon
  - In an important sense, any closure of inquiry is premature: if we review the history of human knowledge, we will reach the following conclusion: we keep changing the things we know, even the things we know for certain
  - *Safeguards against the premature closure of inquiry:*
    - Conclusions should be regarded as tentative conclusions, which means that they are constantly being modified
    - We should expect established theories to be overturned eventually → a later generation of scientists is likely to set about testing old ideas and changing many of them
    - The reward structure of science would support openness

# COMMON ERRORS IN SCIENTIFIC INQUIRY

(EARL BABBIE 1975, 10–13, 25–29)

- **The mystification of residuals**

- No matter how intelligent or how diligent we may be in our inquiry, there will always be countless events and situations that we do not understand
  - One common response to this problem is to attribute those things to supernatural or mystical causes that humans cannot understand
  - There are causes ultimately beyond human comprehension
  - Accepting that something is ultimately unknowable brings a halt to inquiry, whether the thing is actually knowable or not
- *Safeguards against mystification of residuals:*
  - It is an article of faith in science that everything is knowable or that everything is potentially knowable
    - A scientist might concede that a particular phenomenon is beyond human comprehension, another might recognize the rewards to be gained in making that phenomenon comprehensible

# THE ERR IS HUMAN

(EARL BABBIE 1975)

- **The err is human**
  - Whenever we fail to clarify the *what* properly, we must face *inaccurate observations*
  - Whenever we fail to clarify the *why* properly, we must face *overgeneralization*
    - If we ignore contradictions as well, we must face *selective observations*
    - If we do not ignore contradictions, but add too much superfluous explanations, we must face *deduced information* and *illogical reasoning*
  - Whenever we fail to clarify the *how* properly, we must face *ego-involvement in understanding*
  - Whenever we fail to clarify the *how long* properly, we must face *the premature closure inquiry*
    - Overgeneralization, selective observation, deduced information and the defensive uses of illogical reasoning produce this → if we don't clarify why, we are not able to clarify how long



# THE ERR IS HUMAN

(EARL BABBIE 1975)

- **The err is human**
  - Whenever we attribute things to supernatural and magical causes, thus we think that dealing with the thing is a waste of time, we speak of *mystification*
- Although **science** does not protect us perfectly from error, it **offers considerable protection**
  - *Scientific inquiry is a conscious activity*; scientists make a conscious decision to observe
  - *Scientific inquiry is careful than casual day-to-day efforts*; scientists are more wary of making mistakes and take special precautions to avoid error

# PITFALLS TO AVOID IN ECONOMIC THINKING

- **Failure to hold other thing constant** (cf. SAMUELSON–NORDHAUS 1998, 6)
  - This Latin term *ceteris paribus* meaning 'other things constant' is used when the effect of only one change is described
  - As we live in a dynamic world, *things remain seldom constant*
  - Ceteris paribus leads to wrong conclusions, because the argument that holds other thing constant overlooks facts that also have impact on the economic system
    - *E.g.1. Both higher housing prices and increasing income have an impact on housing purchases, but they have opposite effect: increasing housing prices reduces housing purchases, higher income increases them.*
    - *E.g.2. Lower tax rate produces lower governmental revenues. If the economy grows, people's income will grow, and the government revenues also will grow, even though the tax rate is lower.*

# PITFALLS TO AVOID IN ECONOMIC THINKING

- **The fallacy of composition** (cf. SAMUELSON–NORDHAUS 1998, 6)
  - What is true for one (individual or part) might not be true for all (group or whole): *what is true for the individual can be misleading when applied to the entire economy*
  - It highlights the importance of considering both a *micro view* and a *macro view* in the study of economics
    - NOTE: ‘Macroeconomics examines the forest rather than the individual trees’
    - *E.g.1. An individual profits by consuming a common good (e.g. roads), but if too many individuals seek to consume more, they can destroy it.*
    - *E.g.2. During an economic recession, if everyone starts to save, the aggregate demand will reduce, which deepens the recession.*
    - *E.g.3. If someone receives higher salary, that person will be better off, but if everyone receives higher salary, the whole society is will not be better off.*

# PITFALLS TO AVOID IN ECONOMIC THINKING

- ***Post hoc, ergo propter hoc fallacy*** (cf. SAMUELSON–NORDHAUS 1998, 6)
  - This Latin expression meaning '*after this, therefore because of this*' involves the *interference of causality*
    - The chronological order is significant: A, then B
  - The *post hoc* fallacy occurs when we assume that event A caused event B, because event A occurred before event B:
    - *E.g. Periods of business expansion were preceded or accompanied by rising prices. It was concluded that the appropriate remedy for depression was to raise wages and prices. This idea led to a host of legislation and regulations to prop up wages and prices in an inefficient manner. These measures, actually, slowed recovery.*
    - *NOTE: Granger-causality is a special form of causation: We say that variable X Granger causes variable Y if past values of X can help explain Y. If past values of X have explanatory power for current values of Y, it suggests that X might be causing Y (e.g. relation of alcohol/ coffee consumption and cancer, relation of stock prices and economic growth)*

# PITFALLS TO AVOID IN ECONOMIC THINKING

- ***Cum hoc, ergo propter hoc* fallacy**
  - This Latin expression meaning '*with this, therefore because of this*' involves the *interference of the simultaneous analysis of statistical relationships*
    - The chronological order is insignificant: A and B occurs at the same time
    - Origins: "*correlation does not prove causation*" (cf. PAPINEAU 1978, 56)
  - Identifying cause-and-effect relationships is very important, but statistical association (correlation) alone cannot establish good causation: when a relationship exists simply because of the presence of statistical association, but there is no causation
    - *E.g. Correlation between nr. of patent applications and nr. of homeless people*

# INTERTWINED PROCESSES

- **Economic processes are so complex that no one can follow through all the results of any given change**
  - For instance, markets are too large, too intertwined and too influenced by human behaviour to predict in any way that is 100% expected
  - Interactions have consequences that run far beyond those that can be easily predicted or foreseen
  - *SUGGESTION: The most that economists can do is to take a sample survey which will suggest how a particular group will behave*

# NON-REPLICABILITY AND NON-REPEATABLE EXPERIMENTS

- **Economics suffers from the problem of non-replicability and non-repeatable experiments**
  - This kind of error appears not only in economics, but in every social sciences as well
  - It is impossible to recreate all economic conditions, or to be certain of circumstances based on how economies behaved in the past
    - Economists do not have time machines: previous economic recessions cannot be changed, economic success in the past cannot be repeated in the same way
    - Historical reconstruction are "*psychologically, intellectually and even logically impossible*" (BLAUG 2001, 151)
    - The relationship between data and theory is likely to be neither direct nor clear-cut when the data are not from repeatable experiments (MORGAN 1990)

# NO THEORY IS POOR THEORY

(PAUL HEYNE 1997, 11–14)

- **No theory means poor theory #1**
  - Scientists cannot discover, prove or even suspect any kind of relationship *without having a theory in mind*
    - Observations are drenched with theory, which is why researchers can usually make sense out of the buzzing confusion
    - Scholars observe only a small fraction of what they "know"; the rest will filled in from the theories scholars hold
      - These theories can be small or broad, vague or precise, well tested or poorly tested, widely held or peculiar, carefully reasoned or dimly recognized
  - *SUGGESTION: Try to reason about economic interrelationships with theory, because without theory you might manage only to reason through very poor explanations*



# NO THEORY IS POOR THEORY

(PAUL HEYNE 1997, 11–14)

- **No theory means poor theory #2**
  - *Economic theory by itself is poor* as it cannot answer any interesting or important social questions
    - Restricting economics to pure scientific analysis limits its usefulness as social science is concerned with how the central problems of every economic society are solved
    - As economics studies human behaviour, it is, in reaching good theory, constrained to refer to other branches of studies and disciplines
  - *SUGGESTION: An economic theory has to be supplemented with knowledge drawn from other sources: history, culture, politics, psychology, social institutions etc.*
    - *PIKETTY (2014, 575) noticed that "to be useful, economists must ... work more closely with other social science disciplines. Conversely, social scientists in other disciplines should not leave the study of economic facts to economists..."*

# TERMINOLOGICAL CONFUSIONS

- **Scientific terms might have different interpretations**
  - An ordinary example: power
    - Capacity, ability to achieve desired results? Ability to have a substantial influence on prices? (*market power*) To influence the outcome of elections? To influence legislation? To influence regulatory agencies of government? To manipulate people through advertising? To intervene in the affairs of other nations? To shape the basic attitudes and beliefs of people? Knowledge is power? (*after IMAM ALI, F. BACON, T. HOBBS*)
  - An economic example: fair wage
    - A wage that reflects the social life of the work? A wage that reflects the danger, difficulty, and general arduousness of the work? A wage that adequately compensates the employee for their time? A wage that meets the employee's needs? A wage sufficient to support family? The wage established through collective bargaining? The same wage for everyone? A wage of which the employer is not ashamed? The wage that clears the market?

# INCONSISTENCY BETWEEN THEORY AND EMPIRICS

- **Empirical relations are never as clear and complete as theories** (cf. BABBIE 1975, 24)
  - Any measurement is only approximate
  - On the one hand, there is no way to completely isolate any variable in economics, on the other, it is impossible to identify all the factors in play
  - We will inevitably find cases that contradict the theory or the empirics  
*(e.g. "well-behaved" and "not-so-well-behaved" Phillips curve)*
  - Some theories cannot be confirmed at a specific time, evidence is built up over time *(e.g. Kondratiev waves, game theory)*
  - *SUGGESTION: Sometimes one should allow him-(her-)self to be guided by observations, to see what kind of theoretical picture could be developed*

# MULTIPLICITY AND LACK OF MEASUREMENT

- **In certain cases, economists use a wide range of measurement; in other cases, they cannot directly measure phenomena**
  - The term *capital*, or *economic development* and *competitiveness* can be measured through different techniques, mainly due to the different interpretations and conceptual background
    - *When we measure something, the results always reflect the chosen method, the tool(s) as well as the pattern(s) that we examine*
  - Economists cannot directly measure *welfare*
    - *Since satisfaction is personal to the individual, it cannot be measured by using an absolute scale since no such scale is readily available for measuring welfare*
    - *SOLUTION: as more is always preferred to less, an increase in goods represents increase in welfare*

# COMPLEXITY AND SIMPLICITY OF METHODS

- **Neither complexity, nor simplicity of methods are guarantee of accuracy**
  - The more complex a method is, the more error may occur
  - Simplicity can be regarded as a criterion of scientific creditability; however it
    - *NOTE: Occam's razor (law of parsimony, lex parsimoniae): the simplest solution tends to be the right one, thus one should select the solution with the fewest assumptions when facing with competing solutions (after WILLIAM OF OCCAM)*
      - *Principia praeter necessitatem non sunt multiplicanda / Non sunt multiplicanda entia sine necessitate* = Entities are not to be multiplied without necessity

# METHODOLOGICAL ADHERENCE

*"Too much energy has been and still is being wasted on pure theoretical speculation without a clear specification of the economic facts ... Economists today are full of enthusiasm for empirical methods based on controlled experiments. ... The new methods often lead to neglect of history and of the fact that historical experience remains our principal source of knowledge" (PIKETTY 2014, 574)*

- **Economists define themselves in terms of their supposedly scientific methods**
  - Methods rely on an immoderate use of mathematical models
  - The pure and true causal relation is itself of limited interest
  - *SUGGESTION: Economist must learn to be more pragmatic in their methodological choices; numerical examples and simple geometric illustrations can be helpful while explaining economic ideas*

# UNCERTAINTY OF FUTURE TRENDS

- **Extrapolating the future presents inherent danger** (cf. STIMSON ET AL. 2006, 192–193)
  - Efforts at predicting the future as an extension of the past have a high and possibly unacceptable degree of error
    - Entrenched paradigms do not provide us with tools needed to adequately prepare and manage the future
    - *A danger in simple extrapolation of the future* is that planners might miss that the originally projected future is completely lost
    - Planning for futures usually relies on defining and predicting events and outcomes instead of being concerned with the processes of anticipating and managing the future

# SIMULATIONS VS. REALITY

- **Simulations – a kind of test *in silico* – breaks reality into chunks**
  - In computer experiments, when thousands of data points might be generated, patterns make themselves less apparent
  - The computer model is just a set of random rules chosen by programmers and features that spring solely from some quirk of the machine, and would change when the program is written or run differently
  - *SUGGESTION: The modifications, the compromises, the approximations should be regarded with suspect and scientists have to stand guard against the product of 'artifacts' of computer explorations*
  - *NOTE: Economic mathematicians and computer experts ('tinkerers') often belittle economic philosophers' not doing the 'hard' way of science*



# GOOD INTENTIONS VS. UNDESIRABLE OUTCOMES

- **Good intentions do not produce desirable outcomes solely**
  - Government policies are likely to have *both favourable and adverse effects on the economy*
    - A particular policy may be beneficial to some people and harmful to others; this can be a result of either a strong choice or an unintentional act (by accident)
  - Practitioners and policy makers are unaware of some of the ‘*secondary effects*’ of their proposals
    - Secondary effects are usually indirect and observable only over time
    - It is not easy to isolate the impact of change
  - Even if policies would be largely uncertain, politicians may still find them advantageous

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# THANK YOU FOR YOUR ATTENTION!

EFOP-3.4.3-16-2016-00022  
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**BEFEKTETÉS A JÖVŐBE**

# TECHNIQUES IN ECONOMIC THINKING

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## *PROBLEMS & APPLICATIONS #1: ELEMENTARY AND INTERMEDIARY QUESTIONS*

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**BEFEKTETÉS A JÖVŐBE**

# QUESTIONS FOR DISCUSSION

- Compare and examine critically.
  - Economics is a study of mankind in the ordinary business of life.
  - Economics is a science of scarcity.
  - Economics is a science that studies allocation of scarce resources to alternative uses.
  - Economics is the science which studies human behaviour as relationship between ends and scarce means which have alternative uses.
  - Economics deals with economizing.
  - Economics deals with means, the study of ends is outside its scope.
  - Economics is entirely neutral between ends.
  - Economics is a theory of choice, but it is neutral between ends.

# QUESTIONS FOR DISCUSSION

- Compare and examine critically.
  - *“Economics is, on the one side, a Science of Wealth, and on the other, that part of the Social Science of man’s actions in society, that deals with his efforts to satisfy his wants, in so far as the efforts and wants are capable of being measured in terms of wealth, or its general representative, i.e., money.”* (Marshall)
  - *“Economics is a social study; it explains how people attempt to accommodate scarcity to their wants and how these attempts interact through exchange.”* (Cairncross)
  - *“The function of the economists is to explain and explore, not to uphold and condemn.”* (Thomas)
  - *“Whatever economics concerned with, it is not concerned with the causes of national welfare.”* (Robbins)

# QUESTIONS FOR DISCUSSION

- Describe some of the tradeoffs faced by the following:
  - A family deciding whether to buy a new car
  - A member of parliament deciding how much to spend on national parks
  - A company president deciding whether to open a new factory
  - A student deciding how much to prepare for the exam
- You are trying to decide whether to take a vacation. Most of the costs of the vacation (airfare, hotel, forgone wages) are measured in dollars, but the benefits of the vacations are psychological. How can you compare the benefits to costs?

# QUESTIONS FOR DISCUSSION

- You were planning to spend Saturday working at your part-time job, but a friend asks you to go skiing. What is the true cost of skiing? Now suppose that you had been planning to spend the day studying at the library. What is the cost of going skiing in this case?
- You win €100 in a basketball pool. You have a choice between spending the money now or putting it away for the year in a bank account that pays 5 percent interest. What is the opportunity cost of spending the €100 now?
- Your roommate is a better cook than you are, but you can clean more quickly than your roommate can. If your roommate did all of the cooking and you did all of the cleaning, would your chore take you more or less time than if you divided each task evenly?



# QUESTIONS FOR DISCUSSION

- The company that you manage has invested € 5 million in developing a new product, but the development is not quite finished. At a recent meeting, your salespeople report that the introduction of competing products has reduced the expected sales of your new product to € 3 million. If it would cost € 1 million to finish development and make the product, should you go ahead and do so? What is the most that you should pay to complete development?
- Three managers are discussing a possible increase in production. Each suggests a way to make this decision. Who do you think is right?
  - M1: We should examine whether our company's productivity would rise or fall.
  - M2: We should examine whether our average cost would rise or fall.
  - M3: We should examine whether the extra revenue from selling the additional good would be greater or smaller than the extra costs.

# QUESTIONS FOR DISCUSSION

- The social security system provides income for people over age 70. If a recipient of social security decides to work and earn some income, the amount he or she receives in social security benefits is typically reduced. How does the provision of social security affect people's incentive to save while working? How does the reduction in benefits associated with higher earnings affect people's incentive to work past age 70?
- A recent bill reforming the government's antipoverty programs limited many welfare recipients to only two years of benefits. How does this change affect the incentives for working? How might this change represent a tradeoff between equity and efficiency?

# QUESTIONS FOR DISCUSSION

- Suppose that your country adopted central planning for its economy, and you became the chief planner. Among the millions of decisions that you need to make for next year are how many compact discs to produce, what artists to record, and who should receive the discs.
  - To make these decisions intelligently, what information would you need about the compact disc industry?
  - What information would you need about each of the people in your country?
  - How would your decisions about CDs affect some of your other decisions, such as how many CD players to make or cassette tapes to produce?
  - How might some of your other decisions about the economy change your views about CDs?

# QUESTIONS FOR DISCUSSION

- Explain whether each of the following government activities is motivated by a concern about equity or a concern about efficiency. In the case of efficiency, discuss the type of market failure involved.
  - Regulating cable-TV prices
  - Providing some poor people with vouchers that can be used to buy food
  - Prohibiting smoking in public places
  - Breaking up standard oil into several smaller companies
  - Imposing higher personal income tax rates on people with higher incomes
  - Instituting laws against driving while intoxicated

# QUESTIONS FOR DISCUSSION

- Discuss each of the following statements from the standpoints of equity and efficiency
  - Everyone in society should be guaranteed the best health care possible.
  - When workers are laid off, they should be able to collect unemployment benefits until they find a new job.
- In what ways is your standard of living different from that of your parents and grandparents when they were your age? Why have these changes occurred?
- Describe some unusual language used in one of the other fields that you are studying. Why are these special terms useful?

# QUESTIONS FOR DISCUSSION

- Suppose people decide to save more of their incomes. If banks lend this extra saving to businesses, which use the funds to build new factories, how might this lead to faster growth in productivity? Who do you suppose benefits from the higher productivity? Is society getting a free lunch?
- Suppose that when everyone wakes up tomorrow, they discover that the government has given them an additional amount of money equal to the amount they already had. Explain what effect this doubling of the money supply will likely have on the following:
  - The total amount spent on goods and services
  - The quantity of goods and services purchased if prices are sticky
  - The prices of goods and services if prices can adjust

# QUESTIONS FOR DISCUSSION

- Classify each of the following statements as positive or normative.
  - Minimum-wage laws cause unemployment.
  - The government should raise the minimum wage.
  - Society faces a short-run tradeoff between inflation and unemployment.
  - A reduction in the rate of growth of money will reduce the rate of inflation.
  - The central bank should reduce the rate of growth of money.
  - Society ought to require welfare recipients to look for jobs.
  - Lower tax rates encourage more work and more saving.
- If you were the prime minister, would you be more interested in your economic advisers' positive views or their normative views?

# QUESTIONS FOR DISCUSSION

- One common assumption in economics is that the products of different firms in the same industry are indistinguishable. For each of the following industries, discuss whether this is a reasonable assumption: steel, novels, wheat, fast food.
- Classify the following topics as relating to microeconomics or macroeconomics
  - A family's decision how much income to save
  - The effect of government regulations on auto emissions
  - The impact of higher national saving on economic growth
  - A firm's decision about how many workers to hire
  - The relationship between the inflation rate and the changes in the quantity of money



# QUESTIONS FOR DISCUSSION

- Classify the following statements as relating to microeconomics or macroeconomics
  - Individuals choose after calculating benefits and costs. If they are rational people, they think and make decision at the margin.
  - The society is about getting the maximum benefits from its scarce resources. A country's standard of living depends on its ability to produce goods and services from the scarce resources.
  - The cost of something is what you give up to get it. The total cost of operating an enterprise is the value of all the opportunities that must be given up in order to operate it.
  - To maximize net profit, set a price that will enable you to sell all those units, but only those units, for which marginal revenue (MR) is expected to be greater than marginal costs (MC).

# QUESTIONS FOR DISCUSSION

- Classify the following statements as relating to microeconomics or macroeconomics
  - Present utilisation of resources is generally worth more than future utilisation of the same resources.
  - The real rate of interest is the market rate (the nominal rate) minus the expected rate of inflation.
  - Property rights create expectations. Expectations guide decision-making.
  - People add to their stock of human capital by investing in themselves (e.g. education, healthcare).
  - Clearly established property rights provide the basis for negotiation. Negotiation produces mutual gains, as well as leads to the reduction of transaction costs.

# QUESTIONS FOR DISCUSSION

- Classify the following statements as relating to microeconomics or macroeconomics
  - Society faces a short-run trade-off between inflation and unemployment.
  - If prices fall, postpone purchases until goods are cheaper. If prices have already fallen, purchase now while goods are cheap.
  - The quantity of money the public wants to hold increases when nominal GDP increases. Nominal GDP increases until the public is willing to hold the quantity of money supplied by the central bank.
  - The demand for money depends upon its expected value. People won't want to hold money when they expect its value to fall.
  - For every 1% increase in the unemployment rate, a country's GDP will be roughly an additional 2% lower than its potential GDP.

# QUESTIONS FOR DISCUSSION

- How much do people have to know about one another in order to cooperate effectively? Contrast the situation of two family members who are planning to take a vacation together with the situation of motorists who are simultaneously using intersecting streets. How are "collisions" avoided in each case?
- What do you predict would happen if the local government decided to reserve one lane on each of its freeways for "urgent vehicles", with an urgent vehicle defined as any vehicle whose driver might be late for an important event of the vehicle were to be delayed by congestion in the regular lanes? Do you think drivers would stay out of the urgent vehicle lane? Or would it become just as congested as all the other lanes?

# QUESTIONS FOR DISCUSSION

- When Mother Teresa accepted the Nobel Prize for Peace in 1979 and decided to use the award to construct a leprosarium, was she acting in her own interest? Was she behaving selfish?
- A newspaper item reported that two-thirds of all mothers who work outside the home "*do it for the money, not by choice*". Are those really alternatives?
- The presence or absence of poverty in an economically advanced society is now a matter open to public choice. Do you agree? Can we choose to abolish poverty simply because we have enough wealth to do so?

# QUESTIONS FOR DISCUSSION

- Why do most people want larger incomes? According to the former British Prime Minister Margaret Thatcher, people are motivated by money not because they are greedy, but because money gives them more control over their lives. A writer in *The New Republic* suggested that everyone wants more money in order to have "*more toys and more autonomy*". What do you think most people are ultimately after when they make sacrifices in order to increase their money incomes?
- How important are monetary motives? Students preparing to study law were asked what attracted them to a career in law. Only 10 percent said they were attracted by the financial rewards. But 70 percent thought that others were attracted by the financial rewards. How would you interpret this disparity?

# QUESTIONS FOR DISCUSSION

- What happens when the rules of the game (written or unwritten) decree that important meetings won't start until everyone is present and that late arrivals will incur no penalty. Is it in anyone's interest to be punctual? Are these rules of the game likely to prove satisfactory over time?
- What do people have in mind when they talk about "needs"?
  - Do people in wealthy nations like "need" air conditioning more than people in much hotter but also much poorer nation? Did anyone "need" air conditioning before it had been invented?
  - "Basic human needs" carries a strong suggestion that access to those goods should be a matter of right, not of privilege. If "health care is right of everyone", who has the obligation to provide health care to everyone? Who currently accepts the obligation to provide people with health care? What quality and quantity of health care do you suppose?

# QUESTIONS FOR DISCUSSION

- Someone says: "*It is not true that there are substitutes for anything. If you want omelets, you need eggs. There are no substitutes for eggs in an omelet*". How would you respond?
- Do the following statements use the word *demand* correctly? Or should the term *quantity demanded* be substituted?
  - When OPEC raised the price of oil in 1970s, the demand for oil fell.
  - Inflation has increased the demand for oil.
  - When the Iran–Iraq war broke out, oil refiners panicked, and their panic increased the demand for oil and sharply raised its price.
  - The speed limit has reduced the demand for oil.
  - Price controls on domestic oil producers increased the demand for OPEC oil.



# QUESTIONS FOR DISCUSSION

- Higher prices for beef, automobiles or television sets will lead to a reduction in the amount of each demanded. Think of some specific changes (such as in tastes, prices of substitutes, quality of complementary goods) that would cause the demand for each to increase so that more might be actually demanded at higher prices.
- Clarify this statement: *"If half of our forests were destroyed in a fire, the value of the remaining lumber would be greater than the value of all the lumber in the country before the fire. This absurdity – that the whole is worth less than a half – shows that values are distorted in a market economy."*
- Is price in fact the independent and quantity the dependent variable? If quantity depends on price, on what does price depend?

# QUESTIONS FOR DISCUSSION

- Explain the following statement by a military recruiter: "*There is nothing like a good recession to cure our recruiting problems.*"
- A severe hurricane passing through a populated area will blow out a lot of windows and thereby cause a huge increase in demand for the services of glaziers. If glaziers respond by raising their hourly rates, the cost to homeowners of having their window repaired will rise. But does a hurricane raise the cost to glaziers of repairing windows? Or are glaziers who raise their rates merely taking unfair advantage of the situation?
- Why did the cost of hiring domestic servants increase dramatically during World War II? What would you have replied to people who said that servants "*just weren't available*"?

# QUESTIONS FOR DISCUSSION

- Here is a statement from Francis Wayland: *"The qualities and relations of natural agents are the gift of God, and being His gift, they cost us nothing. Thus, in order to avail ourselves of the momentum produced by a water-fall, we have only to construct the water-wheel and its necessary appendages, and place them in a proper position. We then have the use of the falling water, without further expense. As, therefore, our only outlay in the cost of the instrument by which the natural agent is rendered available, this is the only expenditure which demands the attention of the political economist."* Why do modern economists disagree with Wayland?
- In the Middle Ages people believed in a just price for goods, not determined by supply and demand, but by the cost of raw material and labour. Assume that the author of that statement is accurate in his historical facts, and correct his economic analysis.

# QUESTIONS FOR DISCUSSION

- Efficiency is a relationship between ends and means. When we decide that a process is inefficient, we seem to be concluding that inappropriate means are being used to achieve some end. Can ends or goals be inefficient? Can you think of any ends or goals that are not also means to further ends?
- Is it more efficient to build dams with lots of direct labour and little machinery or with lots of machinery and little labour?
- It has often been claimed that business firms continue to use obsolete equipment rather than the new, 'more efficient' equipment because they have a lot of money tied up in the old equipment. Do it make sense?

# QUESTIONS FOR DISCUSSION

- Some people argue that highly mechanized production techniques in farming are inefficient because the energy consumed by the machinery used to grow food exceeds the amount of potential energy available in the food that is grown. Does this argument make sense? Can energy be a good measure of value?
- Airlines are willing to overbook flights because they know that people who make reservations do not always show up. Sometimes, however, this results in more people holding reservations at the gate than there are seats on the flight. Is overbooking efficient from the airlines' standpoint? Is overbooking efficient from the standpoint of passengers?
- Is it efficient to feed a family using large quantities of frozen "convenience" foods?

# QUESTIONS FOR DISCUSSION

- Evaluate the following paragraph: One sure way to save money on groceries is to eliminate the middleman by buying directly from farmers and other suppliers. Is it really possible to save money on groceries by "buying directly", and why do so few people do it?
- If you found that you could reduce your bills for new clothing 10 percent by buying exclusively from catalogs, would you do it? Why would some people be unwilling to take advantage of this "saving"? What do people do when they go "shopping"? How often have you discovered what you were looking for by see in what sellers were offering?
- Does a policy of protecting people against losses due to their own mistakes make those mistakes more frequent and the losses consequently greater?

# QUESTIONS FOR DISCUSSION

- In the autumn of 1981, authorities in the Soviet Union raised the price of vodka in an attempt to reduce alcoholism. Two years later, they lowered the price again, reportedly in order to stop the increase in the incidence of alcohol poisoning. What general rule is illustrated in this case?
- Some studies have shown that pedestrians are twice as likely to be struck by cars when they cross at marked crosswalks than when they cross at other places. Can you give a plausible explanation for this fact?
- Much advertising conveys little information beyond the name of the product. Is there any way that such advertising could benefit consumers?

# QUESTIONS FOR DISCUSSION

- Does advertising communicate valuable information? Does it inform, persuade, manipulate, or misinform?
  - The telephone company's Yellow Pages.
  - Newspaper want-ads.
  - Grocery-store advertisement of "specials" in the newspaper's food section.
  - A television commercial showing rich and handsome people getting in and out of the advertiser's automobile.
- Critics of government regulation often try to make a case for the "free" market. Are markets ever completely free? Where can we draw the line between free markets and unfree or regulated markets?



# QUESTIONS FOR DISCUSSION

- What do we mean when we say "*that's just a coincidence; it doesn't prove anything*"? How does theory enable us to distinguish relevant evidence from mere coincidence?
- Imagine, you bought four steaks at the butcher shop on Friday afternoon. Later that evening three friends came over for a barbecue. Do you suppose your purchase of the steaks caused the friends to come over? How can you decide which event was more likely the cause and which the effect?
- If you read that the crime rate increased in a certain city during a time when the purchase of handguns had also increased, would you suspect a causal connection?

# QUESTIONS FOR DISCUSSION

- Sunk (unrecoverable) cost are irrelevant (*"Let bygones be bygones"*), and this reminds us to consider only marginal costs. Do you agree?
- Your boss tells you in an angry voice, *"I don't care what you learned in economics. If you don't include all our sunk costs in your report and recommendation, I will fire you."* Are the sunk costs now irrelevant to your decision-making? Will you make rational decision? (Notice that causalities already incurred in a war is not taken into account when deciding to continue the war.)
- How can competitive profits be zero in the long run? Who will work for nothing?

# THANK YOU FOR YOUR ATTENTION!

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**SZÉCHENYI**  2020



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**BEFEKTETÉS A JÖVŐBE**

# TECHNIQUES IN ECONOMIC THINKING

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## *PROBLEMS & APPLICATIONS #2: ADVANCED AND CHALLENGING QUESTIONS*

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# QUESTIONS FOR DISCUSSION

- How would you account for the fact that although some observers claim competition is declining in the economy, every business firm insists that it faces strenuous competition?
- The attempt by sellers to make their product more attractive to consumers is sometimes called product differentiation. Is it a wasteful process, imposing costs on sellers that are greater than the benefits conferred on buyers?
- According to a survey 70% of business people mentioned unethical practices in their own industry, such as "unfair pricing", "dishonest advertising" or "cheating customers". How would you interpret these responses?

# QUESTIONS FOR DISCUSSION

- Does a firm have a monopoly if it publishes the only morning newspaper in a particular city? If it publishes the only daily newspaper? If it publishes the only daily newspaper and owns the only television channels in the city?
- It is illegal to market certain agricultural commodities, such as tobacco, unless the product was grown on land that the government has licensed for the growing of these commodities. Does this mean tobacco farmers are monopolists?
- One often reads that there are only a couple of firms in the industry and that this is too few for competition to be effective. How would you define an industry? Do firms in different industries (however defined) compete with one another? Within a single industry?

# QUESTIONS FOR DISCUSSION

- Places of amusements (e.g. discos) sponsor "Ladies' Night", occasions on which women are admitted free or at reduced prices. Was this a case of discrimination against gentlemen?
- Several restaurants use two menus. One, with higher printed prices, is handed to entering customers who look like tourists. The other menu, with lower prices, is given to customers in business clothing who look like people on their way to work. How might this two-menu policy raise net revenue for the restaurants using it?
- Why will sellers make offers like this one: "*Buy two giant pizzas at regular price and get a third one cheaper*"?

# QUESTIONS FOR DISCUSSION

- Which of the following products are being sold below cost?
  - Coffee offered by a bank to its costumers without charge.
  - Commercial television programs.
  - Soft drinks on an airline flight.
  - A roll of film given to each adult customer during a pizza shop's first week of operation.
- What is the difference between reducing prices to attract more customers and reducing prices in order to monopolize?
- Examine critically: A useful if not very precise index of the strength of cooperation is the resentment of unsuccessful competitors.



# QUESTIONS FOR DISCUSSION

- Everything has a price, and money is no exception. Its price, the interest rate, is determined in the marketplace where money is borrowed and lent. Is it correct to speak of interest as a the price of money?
- The term we use to describe a fall in the value of money relative to other goods is inflation. If an increase in the supply of money creates expectations of inflation, what will happen to interest rates?
- What form would the rate of interest take in a society that used no money but depended entirely on barter for the exchange of goods?
- What effect would you expect the rate of technological innovation to have on the level of interest rate?

# QUESTIONS FOR DISCUSSION

- A wealthy society has little difficulty paying interest. But in a poor country with almost no capital, economic planners cannot afford to take interest charges into account in their calculations. What is wrong with that argument?
- You buy shares of common stock in two corporations. Over the next six months, the price of one falls and the price of the other rises. Which was a better buy? Which would be the better one to sell if you want cash?
- Everybody knows that labourers receive wages and capitalists receive profits. Is it true? Are entrepreneurs necessarily capitalists? Why do employees ever agree to let the employer have all the profits? Why do employers ever agree to guarantee the employee a certain wage, no matter how badly things turn out?

# QUESTIONS FOR DISCUSSION

- If inflation redistributes income and wealth, there will be gainers as well as losers. Which classes and categories of people are most likely to gain and lose from an inflation?
- Why is the price level likely to be rising more rapidly when the unemployment rate is low than when it is high?
- Is it unfair for money wage rates to rise more slowly than prices? Is it unfair for some money wage rates to rise faster than others more slowly than prices?
- Public-opinion surveys show that the majority of people regard inflation as a more serious problem threat than unemployment. Does this imply that people would be rather unemployed in a period of stable prices?

# QUESTIONS FOR DISCUSSION

- Can your personal income exceed the value of your personal output, at least for a limited time? How is it possible? Is it possible without gifts or loans from others?
- Can the total income of all the members of a society exceed the total value of their output? How is it possible?
- Explain: "*There is not any one method of investigation which can properly be called the Method of Economics, but every method must be made serviceable to its proper place.*" (Marshall)
- Examine critically: Statistical figures referring to economic events are historical data. They tell us what happened in a non-repeatable historical case.

# QUESTIONS FOR DISCUSSION

- List some ways in which increased inefficiency could cause GDP to rise. Are there any goods contributing to the total GDP whose rising output clearly reflects reduced welfare?
- If it could be shown that rising GDP is associated with a rising level of anxiety, tension and conflict in the population, would you favour deducting these psychological costs to obtain the true value of gross domestic product? How would you do so?
- As an economy industrialized, a larger percentage of its population tends to enter the labour force as conventionally measured. Fewer goods intended for use in the home are produced in the home, and a larger proportion of total product passes through the marketplace. What does this imply about the validity of GDP data in industrializing societies?

# QUESTIONS FOR DISCUSSION

- Is fiat money any less money than gold coins are? What kind of "authority" does it take to turn a "worthless piece of paper" into money?
- Explain: "*Nature has made gold rare, but people have made it scarce.*"
- How the authors of the following statements talking about money use the term? As a synonym or symbol for something else?
  - "*The love of money is the root of all evil.*"
  - "*Health is ... a blessing that money cannot buy.*"
  - "*Wine maketh merry; but money answereth all things.*"
  - "*Money speaks sense in a language all nations understand.*"
  - "*Protecting our natural environment is more important than making money.*"

# QUESTIONS FOR DISCUSSION

- Many people confuse money with wealth. Is this a confusion? Doesn't everyone's wealth increase when they acquire more money? If any one person's wealth increases when he or she acquires more money, doesn't it follow logically that more money for everyone means more wealth for everyone?
- Is stock as liquid as money? Why might people hold part of their wealth in common stocks and part in money? Why might they shift the composition of their portfolios in order to hold more of one asset and less of the other?
- Would you expect total spending to be more closely correlated with M1 or with M2?

# QUESTIONS FOR DISCUSSION

- What is the good that people want to obtain more of when they decide to increase the quantity of money there are going to hold? What sorts of events would induce you to increase or decrease your preferred stock of money balances?
- You want to buy a used sailboat if the right one comes along at the right price. You think you will be able to get a better deal if you can offer the seller immediate cash. What are some good options for you to consider as alternatives to holding M1 while you are searching for the sailboat?
- Why is the quantity demanded expressed as a percentage in the case of money rather than as a number of units?



# QUESTIONS FOR DISCUSSION

- Why can't one country have a comparative advantage over another country in the production of everything if the first country has excellent natural resources, a huge capital stock, a highly skilled labour force and ingenious technicians and managers, while the second country is poor in all four areas?
- Are the following statements true or false?
  - Two countries can achieve gains from trade even if one of the countries has an absolute advantage in the production of all goods.
  - Certain very talented people have a comparative advantage in everything they do.
  - If a certain trade is good for one person, it can't be good for the other one.

# QUESTIONS FOR DISCUSSION

- During the 1990s, technological advance reduced the cost of computer chips. How do you think this affected the market for computers? For computer software? For typewriters?
- Evaluate the following statements. Do you agree? Why or why not?
  - If the government taxes land, wealthy landowners will pass the tax on to their poorer renters.
  - If the government taxes apartment buildings, wealthy landlords will pass the tax on to their poorer renters.
  - A tax that has no deadweight loss cannot raise any revenue for the government.
  - A tax that raises no revenue for the government cannot have any deadweight loss.

# QUESTIONS FOR DISCUSSION

- Do you agree with the following statements? Why or why not?
  - The benefits of Pigovian taxes as a way to reduce pollution have to be weighed against the deadweight losses that these taxes cause.
  - A negative production externality calls for a Pigovian tax on producers, whereas a negative consumption externality calls for a Pigovian tax on consumers.
- Many observers believe that the levels of pollution in our economy are too high. If society wishes to reduce overall pollution by a certain amount, why is it efficient to have different amounts of reduction at different firms? Command-and-control approaches often rely on uniform reductions among firms. Why are these approaches generally unable to target the firms that should undertake bigger reductions?

# QUESTIONS FOR DISCUSSION

- Which schools of economic thought are considered below?

The economic thought of the period from the mid-18<sup>th</sup> to the mid-19<sup>th</sup> century, of which the greater part emerged from the UK. Its principal exponents were A. Smith, D. Ricardo, J.B. Say, J.R. McCulloch and J.S. Mill. Their theories were essentially about growth and development, as well as set out to investigate the nature and causes of the wealth of nations.

A prominent school of economics which has provided an opposing view to much of mainstream economics since it was founded by C. Menger in the 1870s. The school shared an interest in expounding a subjective theory of value based on marginal utility. They took the view that economic laws are based on simple elements such as needs and satisfaction.

# QUESTIONS FOR DISCUSSION

- Which schools of economic thought are considered below?

A school of economic thought in Switzerland which placed great emphasis on the use of mathematical techniques to show the interdependencies in a market economy. The great achievement of L. Walras and V. Pareto was the demonstration of a general equilibrium system.

The economic philosophy of merchants and statesmen during the 16<sup>th</sup> and 17<sup>th</sup> centuries, which relied upon a strong state, the regulation of economic activity and export. This school of economics can be viewed as promoters of policies which would create national strength and growth.

# QUESTIONS FOR DISCUSSION

- Which schools of economic thought are considered below?

A school of economic theory which developed in France in the 18<sup>th</sup> century, associated principally with the names of F. Quesnay and J.J. Turgot. They criticized the mercantilists' belief that wealth was created in exchange. They were proponents of *laissez-faire* and opposed all government intervention in industry.

This school concerns itself variously with the analysis of crisis in capitalism, the role and distribution of the surplus product and surplus value in various types of economic systems, the impact of class and class struggle on economic and political processes, and the process of economic evolution.

# QUESTIONS FOR DISCUSSION

- Which schools of economic thought are considered below?

A group of 19<sup>th</sup> century economists, e.g. W. Roscher, K. Kries, G. von Schmoller, who emphasized the historical relativity of economic organization policy and doctrines. They sought a comprehensive economic history which would explain economic phenomena with reference to aspects of human motivation.

A group of liberal US economists which first acquired its identity in the 1930s under the leadership of F. Knight, J. Viner and H. Simons. Prominent in this group since the 1950s has been M. Friedman. The group believes that man is a rational agent constantly attempting to maximise his advantages, as well as that economics can be value-free as the physical sciences.

# QUESTIONS FOR DISCUSSION

- Which schools of economic thought are considered below?

A type of economic analysis which emphasizes the role of social, political and economic organizations in determining economic events. This movement flourished in the early 20<sup>th</sup> century particularly in the US under the influence of T. Veblen, W. Mitchell and K.G. Myrdal.

The school of economics emerging in the UK and the USA in the late 19<sup>th</sup> century, after 'the Marginal Revolution'. W.S. Jevons. A. Marshall, F.Y. Edgeworth, and I. Fisher were its most prominent founders. This school dominates much of US economics today. It provides little macroeconomic analysis, except in its aggregation of individuals' choices.



# QUESTIONS FOR DISCUSSION

- Which schools of economic thought are considered below?

Successive generations of economists at Cambridge University, UK. The school was founded by A. Marshall and was made famous in the 1930s by J.M. Keynes. After 1945 its prominent leaders included N. Kaldor, A. Robinson, J.V. Robinson and P. Sraffa. In its attack on neoclassical economics, a principal target has been the use of the aggregate production function, especially in growth theory.

A school which emphasizes that the principal determinant of the rate of growth of national output is the allocation and efficient use of the labour and capital. It gained particular prominence in the early 1980s under President R. Reagan; thus on occasions these ideas have been labelled 'Reaganomics'. They represent a return to classical economics.

# QUESTIONS FOR DISCUSSION

- Consider the following cases of government intervention in the economy: regulations to limit air pollution, research on an AIDS vaccine, income supplements to the elderly, price regulation of a local water monopoly, a monetary-policy step to curb inflation. What role of government is being pursued in each case?
- When a good is limited, some means must be found to ration the scarce commodity. Some examples of rationing devices are auctions, coupons and first-served systems. What are the strength and weaknesses of each?
- Comment: *"Lincoln freed the slaves. With one pen stroke he destroyed much of the capital the South has accumulated over the years."*

# QUESTIONS FOR DISCUSSION

- Explain why each of the following is false:
  - A freeze in Brazil's coffee-growing region will lower the price of coffee.
  - "Protecting" American tomato producers from Mexican tomato import will lower tomato prices in the United States.
  - The rapid increase in college tuitions will lower the demand for college.
  - The war against drugs will lower the price of domestically produced marijuana.
- Explain whether quantity demanded changes because of a demand shift or a price change:
  - As a result of a decreased military spending, the price of army boots falls.
  - Fish prices fall after the pope allows Catholics to eat meat on Easter Friday.
  - An increase in gasoline taxes lowers the consumption of gasoline.
  - After Black Death struck Europe, wages rose.

# QUESTIONS FOR DISCUSSION

- Is this statement correct: "*A good harvest will generally lower the income of farmers*"?
- For each pair of commodities, state which you think is more price-elastic and give your reasons: perfume and salt, penicillin and ice cream, automobiles and automobile tires, ice cream and chocolate ice cream
- Why is it wrong to say: "*Utility is maximized when the marginal utilities of all goods are exactly equal*"?
- Explain why a firm might supply goods at loss.

# QUESTIONS FOR DISCUSSION

- Explain the fallacies in each of the following:
  - Average costs are minimized when marginal costs are at their lowest point.
  - Because fixed costs never change, average fixed cost is a constant for each level of output.
  - Average cost is rising whenever marginal cost is rising.
  - A firm minimizes costs when it spends the same amount on each input.
  - A competitive firm will produce output up to the point where price equals average variable cost.
  - A firm's shutdown point comes where the price is less than minimum average cost.

# QUESTIONS FOR DISCUSSION

- Explain the fallacies in each of the following:
  - A firm's supply curve depends only on its marginal cost. Any other cost concept is irrelevant for supply decisions.
  - The  $P=MC$  rule for competitive industries holds for upward-sloping, horizontal and downward-sloping MC curves.
  - The competitive firm sets price equal to marginal costs.
  - Monopolists ignore the marginal principle.
  - A monopolist maximizes profits when  $MC=P$ .
  - The higher the price elasticity, the higher is a monopolist's price above its MC.
  - Monopolists will maximize sales. They will therefore produce more than perfect competitors and their price will be lower.

# QUESTIONS FOR DISCUSSION

- Many economists believe that the state should not interfere in a market where there are no important externalities. Are there externalities in population growth that would lead to positive or negative spillovers? Consider such items as education, national defense, roads, pollution or the creation of geniuses like Mozart and Einstein.
- Decide whether each of the following externalities is serious enough to warrant collective action.
  - Steel mills emitting sulfur-oxides into the air.
  - Smoking by people in restaurants.
  - Smoking by a student without roommates in their own room at the student hostel.

# QUESTIONS FOR DISCUSSION

- Explain: *"If the government strengthens intellectual property rights, subsidizes basic science, and controls business cycles, we will see economic growth."*
- Explain: *"With zero population growth and no technological change, persistent capital accumulation would ultimately destroy the capitalist class and might lead to the disappearance of profits."*
- Explain: *"During periods of inflation, people use real resources to reduce their holdings in fiat money. Such activities produce a private benefit with no corresponding social gain, which illustrates the social cost of inflation."*
- Explain: *"Reducing the deficit does not reduce the government debt."*



# QUESTIONS FOR DISCUSSION

- State whether or not each of the following is correct and explain your reasoning:
  - *"We Mexicans can never compete profitably with the Northern colossus. Her factories are too efficient, she has too many computers and machine tools, and her engineering skills are too advanced. We need tariffs, or we can export nothing."*
  - *"If American workers are subjected to the competition of cheap Mexican labour, our real wages must fall drastically."*
  - *"The current account for a country need not balance bilaterally, but it must balance multilaterally."*
  - *"The principle of comparative advantage applies equally well to families, cities and states as it does to nations."*

# QUESTIONS FOR DISCUSSION

- Explain why the first sentence is correct, and why the second sentence does not follow from the first: *"Trade is supposed to raise the incomes of all nations involved – or at least this is what Adam Smith and David Ricardo taught us. If our economic decline has been caused by the economic growth of our competitors, then these philosophers – and the entire discipline of economics they founded – have been taking us on a 200-year ride."*
- How economic growth of Country A could lower the standard of living in Country B?
- For what reasons might economists allow the foreign exchange market to be an exception to a general inclination toward free market?

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