

Lecture Notes # 1

The lecture notes #1 are not free standing notes. They should be read in conjunction with Ch.1 of the textbook. They include extensions and examples which complement rather than replace the text.

1. Why is labour economics an important subject to study?

- Labour economics deals with the determination of wages/salaries and employment (quantity of hours of work) in the labour market.
On an individual, personal level, work for pay whether regulated in a contractual employment relationship or through self-employment is one of the most important activities in our daily life.
 - First of all, most Canadians derive their main income from work. The wages or salaries we earn are, therefore, essential in determining our material well-being. Labour income is by far the largest category of compensation in national income accounts, representing anywhere between 65 to 70% of total income in Canada. In 2010, for example, wages, salaries and supplementary labour income constituted 69.6% of total national income followed by corporate profits which amounted to only 14.8%.
 - Aside from sleep, work takes up most of the time of a 24-hours day. Nutritionists claim “We are what we eat”. In analogy, we could argue “We are what we do”. Work is essential in building our self-esteem, our identity and in determining our place in society, in the social hierarchy. A typical question when you meet with strangers at a party or at meetings is: What are you doing for a living? Aside from being an easy starter in conversation, this question consciously or unconsciously, is raised in order to rank you in the social pecking order.
- **On a larger, social level**, work is the essential foundation of a civil society. Lack of work is the major source of social ills, such as crime, drug addiction, family breakups, etc. We have recently witnessed major upheavals in the suburbs of large European cities (e.g. Paris and London). It should not come as a surprise that if unemployment rates among young people in these suburbs reach 50 – 80 percent that their frustration can turn to violence. But we don’t have to turn to other countries. Here in Canada Aboriginal communities show the devastating effects of lack of work and the concomitant poverty. Suicide rates in Nunavut and in several northern First Nation communities are three to five times higher than the national average.
- Because work is so essential to the individual and society the analysis of trends in the labour market which may affect an individual’s employment/wage prospects presently or in the future are relevant. We will look at major labour market trends in this course, e.g.:
 - The rise of non-standard employment;
 - The changes in technology, especially skill biased technological progress;
 - The effects of the aging of the labour force
- The prominence of work and its financial remuneration is reflected in a multitude of public policy debates. Should the minimum wage be raised? Do Canadian employment standards reduce the competitiveness of Canadian companies? Should labour

legislation regarding union formation become more or less restrictive? Should employment insurance benefits be reduced for repeat users?

- Relevance of labour economics to HR professionals: Firms operate within markets, for example, in financial markets to raise capital and to manage cash flows; in commodity markets to buy intermediary goods and services and to sell their goods and or services and they operate in labour markets. Since HR departments are concerned with managing human resources it is this latter market which is of most importance to HR managers because it is in the labour market where labour services are exchanged. HR employees/managers have to have an understanding of the functioning of the labour market. They have to think outside of the box which means outside of their own firm.

The importance of human resources, human work, in the economy is increasingly recognized. Modern ages have tended to over-evaluate physical and financial capital and to under-evaluate human capital. Only recently have nations realized the importance, in fact the overriding importance of human resources. In the end it is human ingenuity that creates technological devices and thus spurs economic development.

- Not only companies increasingly have come to realize the importance of the human factor in production and how the market mechanism allocates labour, but also the academic community of economists are acknowledging the importance of labour economics within their discipline. Three labour economists (Peter A. Diamond, Dale Mortensen and Christopher Pissarides) shared the 2010 Nobel Prize in Economic Sciences (The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel) for their research into the difficulties of matching supply and demand, particularly in the labor market. "These three guys have really changed the way people think about the labor market," said Robert Solow, winner of the Nobel Economics Prize in 1987 "Their work has been the foundation, the fundamental basis for understanding flows through the labor market and the way they're influenced by things like unemployment insurance benefits".

2. What do labour economists study?

2.1 What is the focus of economics in general?

Every discipline has its particular focus, its set of main questions, its way of reasoning and often its own language/terminology that seems foreign and arcane to the layman. Economics is no exception.

Economics is a social science and as such deals with behaviour of people. Obviously, economics cannot deal with every type of human behaviour. It focuses on one particular aspect of human activity, namely the production, exchange and consumption of goods and services. ("The natural human propensity to truck, barter and exchange one thing for another" (Adam Smith, *Wealth of Nations*, pp.21). To study human behavior in the context of production, exchange and consumption is **the first focus of economics**.

What are the central behavioural assumptions in economics?

- **The pursuit of self-interest**

The first essential behavioural assumption in economics is that in producing, exchanging and consuming goods and services people are assumed to pursue their self-interest. Adam Smith in *The Wealth of Nations* famously stated: "It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest."

It should be noted that economists do not deny the existence of altruism, love and other emotions and motivations. But in the production, exchange and consumption of goods and services they assume that the general driving motivational force is the pursuit of self-interest. The importance attached to this principle has its origin in 18th century Utilitarianism in particular in the writings of Jeremy Bentham. Followers of Utilitarianism in fact, considered the pursuit of self-interest as the basic unifying principle of all human behaviour. They went so far as to call it a law in the social world as basic as the law of gravity in the physical world. This egotistic and egocentric view of human nature earned economics the label "the dismal science." The pursuit of self-interest, or its crass expression – greed - is based on the expectation of pleasure and pain. Utilitarianism assumed that the pleasures of an individual were measurable and that they could be added up into a quantity called utility, or satisfaction or happiness. Individual utilities in turn could be added up – all equally weighted- into a social total which yielded the normative principle of Utilitarianism namely the "Greatest Happiness of the Greatest Number". As each individual pursues her happiness (utility), society will attain a state of greatest happiness.

In line with the utilitarian thinking of the era, the U.S. declaration of Independence in 1776, enshrined the Pursuit of Happiness as an unalienable right. "We hold these truths to be self-evident, that all Men are created equal, that they are endowed by their creator with certain unalienable rights, that among these are life, liberty and the Pursuit of Happiness."

In spite of this simplistic view of human nature, the principle of self-interest became basic to economic theory. The British economist Stanley Jevons of the late 19th century defined economic theory as the "calculus of pleasure and pain". To the credit of economists, most of modern economics has been salvaged from utilitarian preconceptions. Nevertheless, the pursuit of self-interest is assumed to be the central motivation in economic behaviour. From this assumption derives the importance economists attach to the role of incentives. Economists assume that people respond positively to rewards/incentives and negatively to costs (the equivalent of pain). In this regard, economics resembles Skinnerian psychology. The famous American behavioural psychologist Ferdinand Skinner viewed human behaviour as being mainly shaped by rewards and punishment.

- HR students are familiar with the use of certain compensation schemes, bonuses and promotion ladders as work incentives.

- Incentives offered by the price mechanism are essential in explaining how markets function. If the price of an item, e.g. oil rises, the cost (pain) to firms and households increases. There is an incentive for people to substitute other sources of energy for oil. The demand for oil will decline, all other things being the same. Likewise, if the price of an item declines, there is an incentive to buy more of this item.

- Public policies often alter costs and benefits and thus alter incentives. A tax on gasoline is an incentive to use public transportation or to drive smaller more fuel efficient cars.

People in Europe drive smaller cars compared to residents in North America because gasoline taxes are generally higher in Europe.

- Some economists attribute the collapse of the socialist economies in Eastern Europe to one single factor: the lack of effective incentives for their workers. To declare workers, decade after decade, as heroes of the socialist society and to decorate them with some medal or batch without noticeably improving their standard of living was obviously not a sufficient incentive to motivate them to excel in their work. Labour productivity in Eastern Europe under communist rule was abysmally low.

Critique of the assumption:

The assumption that human behavior is largely determined by powerful selfish interests disregards the common observation that even in the economic sphere human beings often cooperate in the pursuit of the common good and that altruism is widespread. In their most recent book "*A Cooperative Species: Human reciprocity and its evolution*," (Princeton University Press, 2011), Samuel Bowles and Herbert Gintis describe how, for thousands of generations, cooperation with fellow group members has been essential to survival. Groups that created institutions to protect the civic-minded from exploitation by the selfish flourished and prevailed in conflicts with less cooperative groups. Key to this process was the evolution of social emotions such as shame and guilt, and our capacity to internalize social norms so that acting ethically became a personal goal rather than simply a prudent way to avoid punishment. The authors demonstrate how genetic and cultural evolution has produced a species in which substantial numbers make sacrifices to uphold ethical norms and to help even total strangers.

Even within economics, sub-disciplines such as **behavioural economics** and **experimental economics**, increasingly focus research on the importance of co-operation and collaboration in improving productivity and innovation. Example: Toyota, in their first foray into the North-American market, took over the worst performing plant of GM. Toyota closed the plant for 2 years, totally reconfigured the assembly line, changed the inventory system and most importantly reorganized the work force which the firm took over from GM. The main feature of the reorganization was the formation of work-teams which largely depended on co-operative behavior. (Toyotism) In short time, the plant was the third most productive automotive plant in North-America.

The tragedy of the commons:

The term "commons" was used in England to refer to the shared pastures, fields, forests, irrigation systems and other resources that were found in many rural areas until well into the 1800s. Similar communal farming arrangements existed in most of Europe, and they still exist today in various forms around the world, particularly in indigenous communities.

In an article entitled "The Tragedy of the Commons" (Science 1968), Garrett Hardin argues that in communities that commonly share resources self-interest of community members inevitably leads to the destruction of the resource. Hardin provides the following example: Assume villagers grazing their cattle on a commonly owned field. A herdsman who wants to expand his personal herd will calculate that the cost of additional grazing (reduced food for all animals, rapid soil depletion) will be divided among all, but he alone will get the benefit of having

more cattle to sell. Inevitably, “the rational herdsman concludes that the only sensible course for him to pursue is to add another animal to his herd.” But every “rational herdsman” will do the same thing, so the commons is soon overstocked and overgrazed to the point where it supports no animals at all.

An example closer to us in Canada is the collapse of the cod fishery in the Maritimes. In this example, the sea within a 200 mile zone is the common. Before the collapse, licensed fishermen were not constrained by quotas. Trying to catch as much as they could for their own benefit led to overfishing and the collapse of the fish stock. While the tragedy of the commons is certainly not inevitable as Hardin claimed – there are many examples of communities which have successfully self-regulated the use of commonly shared property – it nevertheless refutes the argument that the pursuit of self-interest always leads to the maximum social welfare, in the examples given everybody ends up worse off.

- **The law of diminishing marginal utility or satisfaction**

The second central assumption of economic behavior relates to the consumption of goods and services. Marginal utility is the change in total utility that results from a one-unit increase in the quantity of a good/service consumed. The assumption is that with increasing consumption of a good the marginal utility we derive from the additional consumption declines. Expressed in income terms the law implies that as a person’s income rises, the extra well being or utility derived from the additional dollar of income declines. In other words \$100 is worth more to a poor person than to a hedge fund manager. If the goal of government is to increase the well being of each citizen, the law makes a case for a more egalitarian society through income redistribution. By taking \$100 from a rich person, the loss in well being of the rich is less than the gain in utility of the poor receiving the \$100.

The explanation of the law is physical and psychological satiation. As we reach the point of satiation, the satisfaction we derive from an activity rapidly declines. To avoid satiation, new products and services are permanently created and marketed.

Scarcity and the concept of opportunity cost

In producing, exchanging and consuming, economic agents are constantly facing the central phenomenon of scarcity, whether scarcity of natural resources (arable land, oil, minerals, etc), physical capital resources (plant, machinery, tools), financial resources, human resources or time. Individuals and society do not have all the resources to meet their wants. Note that while there is an absolute scarcity of many resources, scarcity is largely a relative phenomenon, relative depending on the extent of human needs and wants. These needs are only partly determined physically (by the minimum subsistence needs) they are mostly culturally determined. If Canadians were content to live at the level of a Bolivian campesino, there would be hardly any scarcity in Canadian society. As our ability to produce more has risen so has the level of our wants. Our wants seem to be always steps ahead of our ability to satisfy them. Because of scarcity people have to make choices and these choices imply **trade-offs**. Any resource devoted to satisfying one set of desires could have been used to satisfy another set,

which means that there is a cost to any decision. As the saying goes: “There is no such thing as a free lunch”. Economists define **opportunity cost** as the value of the item that has to be given up as we obtain another item.

- The time practicing the piano cannot be spent working for pay. The pay foregone are the opportunity cost of becoming a famous concert pianist.

- Free health care has an opportunity cost in that resources devoted to the healthcare system cannot be allocated to other uses. When the government decides to spend \$10 billion more on the healthcare system, these \$10 billion cannot be spent on post-secondary education, roads, water and sewage systems.

- A farmer growing potatoes on a 100 acre farm cannot grow wheat on the same acreage in the same year. The crop of wheat foregone are the opportunity cost of growing potatoes.

- Clean air and clean water have value. But to achieve clean air not only involves direct cost but also opportunity cost. The money spent by companies on reducing air pollution cannot be spent, for example, on wage increases or improvements of fringe benefits.

- A hockey star of college age who could make millions in the NHL but decided to attend university would face huge opportunity cost. It is, therefore, not surprising that one finds hardly any players of NHL caliber at universities.

In 1963, Mick Jagger gave up a promising career as an economist to develop his music skills and eventually to earn millions of dollars with the Rolling Stones. He obviously thought the opportunity cost not being too high to make the career switch.

• **Rational/Optimal decision making**

As we have seen, society is constrained, in a given period, by the scarcity of resources. Economics dealing with the improvement of material welfare, therefore, is concerned with the allocation of these scarce resources. A central principle of the economist’s approach to analyzing choice and decision of firms and households in allocating resources is the principle of optimization, i.e. the concept that firms and households do the best they can, given their objective and the constraints they face. This principle is anchored in the pursuit of self-interest. The objective of households, as postulated by economists, in purchasing goods and services is the maximization of their level of satisfaction or well being, or happiness or utility, whatever term we want to choose. The objective of firms in producing goods or services is to maximize profits. Part of the goal of profit maximization is the minimization of costs. Optimal decision making thus involves the maximization or minimization of an objective function. However, given scarcity, decision makers always face constraints. In the case of households a basic constraint is the income constraint. There is only a certain amount of income each month at a household’s disposal. The constraint can be extended by taking a loan but that extension has limits as well. In the case of firms, the constraint can be a production capacity constraint (the production facility or the workforce are limited) or a financial constraint. Optimal decision making, therefore always implies solving an optimization problem given one or several constraints. Economic agents who make optimal decisions and do so consistently are considered to act rationally.

How would, in simplified terms, a typical optimal purchase decision of a household look like? (Economists have developed a highly technical set of axioms and tools to answer this question on which I will not elaborate here).

In a first step the household would list the services and consumer goods (let us exclude financial assets for simplicity sake) that are potentially purchasable in a given day, week or month. These goods and services would be components of various baskets of goods and services. The various baskets constitute the set of choice. In a second step, the household would rank these baskets based on the household's preferences following certain logical principles. After having ranked all the baskets in ascending or descending order with the possibility of ties being allowed, the consumer then introduces the constraint, e.g, an income constraint. Given a certain disposable income the purchase of certain baskets is no longer feasible. The constraint thus defines the subset of choices in the overall field of choice that is feasible. In a last step the consumer determines the basket(s) in the feasible set of choice which maximizes his/her satisfaction.

I can hear your immediate response: Hey Prof this is not how most consumers make their choices. To which most economists would reply: Too bad, if they don't make their decisions as described they have violated our assumptions of rationality, i.e. they have not acted rationally even though they should act rationally.

This answer reveals that the notion of rational behaviour has two dimensions: a positive and a normative one. As a descriptive assumption it claims to produce a reasonably good explanation of actual economic decision making. If the assumption is valid, optimality analysis should serve as a relatively good predictor of economic behaviour. It would allow an economist to predict what an optimally behaving decision maker would do. If decision makers would widely follow non-optimal decision rules, economic theory would obviously fail as a positive science to explain actual decision making of firms and households. But the optimization principle could still be justified as a normative principle, how decision maker should act (see the above answer of the economist to the objection that consumers are most likely not acting rationally). As a normative yardstick it still serves a useful purpose. By providing optimal solutions to economic problems economists assist decision makers in acting rationally rather than relying on the application of the rule of thumb. The many optimization techniques developed under the umbrella name of operation research are in fact being used in the day-to-day operations of many companies (admittedly much less so by consumers).

Here is a speculative thought. Even though many decision making units may in reality not behave rationally the increasing use of optimization techniques in daily business life may over time change behaviour in such a way that it conforms more and more to the assumption of optimal behaviour.

To make optimal decisions economists postulate that decision makers should think at the margin, i.e. in terms of incremental changes. Instead of thinking in average terms they should think in marginal terms.

- Suppose you are a sales manager with sales offices across the country and you have to decide in which of the sales regions to add one additional salesperson. Choosing the region where the sales per salesperson are highest (reasoning based on the maximum average sale) would be sub-optimal if the addition to revenue (marginal revenue or marginal benefit) compared to the marginal cost of that salesperson would be larger in a different region. The profit maximizing decision rule would be: Send the additional salesperson to the region where the marginal revenue generated by the salesperson compared to the marginal cost of that person is highest.

- Assume you received your BHRM degree and you are considering whether it is worthwhile to pursue a master's degree. In order to make the decision, you need to know the additional benefits that an additional year in school would bring (e.g. higher earnings over your work-life, more job opportunities, more career advancements) and the additional costs that you would incur (e.g. tuition fees, foregone earnings) while being in school. Comparing the **marginal benefits with the marginal cost** you can evaluate whether or not to pursue graduate studies.
- See the example in the text of a hiring decision using the marginal cost/marginal benefit comparison.
- Suppose the flight of a 200 seat plane from Toronto to San Jose (Costa Rica) costs an airline \$150,000. The average cost of each seat is \$750. Should the airline refuse to sell a ticket below \$750? No, obviously the airline can raise its profits by thinking in marginal terms. Assume 48 hours before departure, there are 5 seats unsold. Adding an additional passenger will add little to the overall costs of the flight (some juice, a meager sandwich, a very small addition to the overall weight of the plane i.e. fuel cost and some other minor expenses). Say the marginal cost is \$20. Selling tickets for these five seats in excess of the marginal cost will add profits to the company. It is of no surprise, therefore, that you can find on the internet ticket prices offered by the airline company 24 hours before departure at \$90.00.

Critique of the assumption of rational decision making.

The assumption that people follow rational decision making is increasingly facing criticism from different disciplines:

- **Neuroscience.** The recent economic crisis caused by the financial crisis in the US, however, cast doubt on the assumption of rational decision making. Rational behaviour stays in contrast to the recurrent sudden changes from euphoria to despondency, from irrational exuberance to fear driven panic which are at the heart of the boom and bust in stock, commodity such as gold and real estate markets. While most people contain within themselves the capacity for rational thought we are, at the same time, the product of hundreds of thousands of years of evolution. The brain is the organ that controls behaviour. It is surprising, therefore, that only very recently neuroscience research results have been linked to economic behavior. One example is Professor Lo, director of MIT's Laboratory for Financial Engineering, who conducts research of investor psychology by using insights of evolutionary biology. According to Lo, neuroscience research shows that rallies and crashes, for example, in the stock market are to a large part the outcome of hard-wired circuitry of our brains. He claims that a steady diet of financial gains work like drugs on the brain. In exactly the same way that drugs can lead one to make decisions that are detrimental to one's health, financial rewards over an extended period of time can blow any prudent, precautionary behaviour out the window. The same holds in reverse. Once the high is gone, the bubble bursts, fear sets in. Lo points out that our brains are magnificent instruments of protection. The amygdala, derived from the Greek for almond, sits in the brain's medial temporal lobe, a few inches from either ear. Coursing through the amygdala are nerves connecting it to a number of important brain centers, including the neocortex and visual cortex. Phylogenetically it is a very old part of the brain, seat of emotional or affective behaviour, such as fear and anger, and as such plays largely a protective role. Natural selection has left us hard-wired to react with fear to threats overriding rational reasoning. He claims that people do not differentiate between financial and physical threats. "Because evolution hasn't had

time to allow us to adopt to financial challenges, we react as if they are physical threats, i.e. instinctually with fear. Fear feeds on itself. As Franklin Roosevelt famously said in the Great Depression: "The only thing we have to fear is fear itself". As the media and politicians focus heavily on the negative economic signs they exacerbate consumer, business and investor fears causing them to retreat further which in turn leads to a further weakening of economic activity.

- **Behavioural Psychology.** Psychologists, for example, Daniel Kahnemann, who received the memorial nobel prize in economics, have shown that much of our decision making is distorted by powerful biases. In his most recent book *Thinking Fast and Slow*, (Farrar, Straus and Giroux, 2011), Kahnemann introduces two mental systems, one that is fast and the other slow. Together they shape our impressions of the world around us and help us make choices. System 2 thinks slowly; it considers, evaluates, reasons. Its work requires mental effort. While we attribute most of our opinions and decisions to this thinking, in reality, most of our decisions are determined by System 1. System 1 acts fast, is largely unconscious and it makes snap judgments based upon our memory of similar events and our emotions. It is the agent of our automatic and effortless mental responses. System 1 is equipped with a nuanced picture of the world, the product of retained memory and learned patterns of association ("Florida/old people") that enable it to spew out a stream of reactions, judgments, opinions. System 1 is wrong as often as it is right.

Kahnemann explores the nuances of our two-system minds, showing how they perform in various situations. Psychological experiments have repeatedly revealed that our intuitions are generally wrong, that our assessments are based on biases and that our System 1 hates doubt and despises ambiguity. One such bias is optimism which according to Kahnemann is pervasive in human decision making. "We are prone to overestimate how much we understand the world and underestimate the role of chance in the events". Optimistic individuals underestimate the odds they face and vastly overestimate their odds of success. **Example:** It is a fact that $\frac{3}{4}$ of restaurants don't survive the first five years after opening, and yet people are constantly opening new restaurants. Obviously they are confident that they will belong to the 25% of restaurateurs who will succeed, which given the odds facing them reflects an irrational optimism. Optimists tend to believe that their fate is entirely in their own hands, that skill and hard work will invariably lead to success. They generally ignore that success depends often on external factors which are beyond their control, including luck. Other examples of illogical behaviour: People buy more cans of soup when there's a sign on the display that says "Limit 12 per customer." *Framing.* Test subjects are more likely to opt for surgery if told that the "survival" rate is 90 percent, rather than that the mortality rate is 10 percent. *The sunk-cost fallacy.* People seek to avoid feelings of regret; thus, they invest more money and time in a project with dubious results rather than give it up and admit they were wrong.

Second focus: The interaction of firms and households in markets.

Every day millions of individuals/households make economic decisions: on their way to the office they buy a cup of coffee, at different points in time they withdraw money from their accounts, they go to a movie, buy clothes or sell their used labour economics text. Regarding

labour services they are deciding on whether or not to work, whether to work part-time or full-time. Firms and government agencies decide whether to hire new employees or lay off workers, to invest in research and development or to invest in a known technology. How is it possible that given these millions of decisions taking place at any time across the country, there is not anarchy and chaos? How are the decisions that millions of companies and households make every day coordinated?

The answer of economists is: through the market. It is through the market mechanism that the countless independent actions of self-interested individuals are translated into a coherent social order.

The market model

We can see a market in action by going to the Kensington market or the St. Lawrence Market where buyers and sellers exchange goods face to face. Most markets, however, are not confined to a particular geographical location. How can we describe their operation?

Economists do so by constructing a model.

Young children learn much about the world around them by playing with toy versions of real objects. Often they put together models, for instance, of cars, trains, planes. The models are far from realistic, they contain only very few of the details of the real object. But the model builder learns a lot from them nonetheless. The model represents the essence of the real object it is designed to resemble. Economists also use models to understand the real world. Their models are not of plastic, wood or glue, but consist of graphs, equations. They are helpful because they help us focus on the essential elements and to do away with the details that often distract from the essential underlying relationships.

The market model is the most celebrated model in economics. According to this model, prices and self-interest guide the decisions of buyers and sellers in a way that not only promotes their personal well-being but at the same time also greatly increases the level of material well-being of society in large. The British economist Adam Smith envisaged in his book *An Inquiry into the Nature and Causes of the Wealth of Nations* published in 1776 how the “invisible hand” of competitive market forces coordinates the decisions of households and firms in a self-regulating manner.

- The market for pizzas

Suppose you are interested in figuring out what determines the price and quantity of pizzas sold. An economist would proceed by developing a model that describes the behaviour of pizza buyers (the demand side in the pizza market), and the behaviour of pizza sellers (the supply side in the pizza market) and how both sides will interact in the market for pizzas through the price mechanism.

A simple model would describe the behaviour of buyers, or the quantity of pizzas demanded (Q_d), as being determined by the price of pizzas (P) and the level of disposable income of the buyers (Y). The demand equation would read $Q_d = f(P, Y)$

The behaviour of sellers, or the quantity of pizzas produced (Q_s), would be assumed to depend on the price of pizzas (P) and the price of ingredients that go into making pizzas such as cheese, tomatoes, flour, etc. i.e. the cost (C). The supply equation would read $Q_s = g(P, C)$

The two equations describing the demand and supply side constitute the model of the market for pizzas. Graphically we can describe the model by a two-dimensional graph in which the vertical axis denotes the various prices of pizzas and the horizontal axis denotes the quantities

demand and supplied. In drawing a negatively sloped demand curve we assume that the demand for pizzas is inversely related to the price of pizzas. Customers will buy less pizzas if prices increase. The supply curve is assumed to be positively sloped, i.e. the quantity of pizzas produced increase as the price of pizzas increases. At the intersection of the demand and supply curve, the equilibrium price and quantity sold in the pizza market is established. At that particular price the quantity of pizzas that buyers are willing to buy exactly balances the quantity of pizzas sellers are willing to sell. (See Figure 2.5 in the text¹) We will see in more detail in chapter 2 how the price mechanism moves markets towards this equilibrium point.

Like all models, this model of the pizza market makes many simplifying assumptions. For example, the model does not take into account the fact that each pizzeria is in a different location which may lead to a location advantage which may allow a pizzeria to set a higher price (location premium). Our simple model would not explain price differences between different pizzerias based on location differences. Should we therefore disregard it? It depends on what we want to explain. If we want to explain how changes in the price of flour or cheese affect prices of pizzas in general the model is sufficient. The model is also sufficient if we want to explain how changes in consumers' income affects prices and quantities of pizzas. But if we want to explain why neighbourhoods with several pizzerias have lower pizza prices than a neighbourhood with only one shop, the model is less useful.

In summary: The two subjects,

- how households and firms make decisions and
- how these decision makers interact in a market, constitute the core of **microeconomics**.

Digression: Supply and demand in the marriage market.

The market logic is not restricted to the supply and demand in a market of goods or services. It can be applied, for example, to the marriage market. While the choice of a partner is clearly very different from the choice of a car or a suit it seems to obey very much the same market forces.

Take the example of China (taken from an article by Robert H. Frank in the N.Y. Times Sunday edition, August 7/2011.): The Chinese government's one-child policy, combined with a cultural preference for sons and technology that allows selective abortion, have helped create a large sex ratio imbalance among young Chinese. For every 100 women there are more than 120 men. In market terminology, the demand for young women exceeds the supply which means that the terms of trade in the Chinese marriage market have shifted in favour of women.

Evidence in fact suggests that young Chinese women have become more selective in recent years focusing more on the earnings potential of prospective mates. Because house size is often taken as a reliable indicator of wealth, a family can enhance its son's marriage prospects by spending a larger portion of income on housing. Such shift appears to be occurring. When Shang-Jin Wei, an economist at Columbia University examined with a colleague the size distribution of Chinese homes, they found that families with sons built homes sizeable larger than families with daughters, even after controlling for family income and other factors. They also found that the higher a city's male-to-female ratio the bigger the average house size of families that have sons. Mr Wei reports that many families have begun to add a phantom third

story to their houses, one that looks normal from the outside but whose interior space remains completely unfinished.

Third focus: The interaction of markets in an economy

There are many different types of markets:

- commodity/service markets, i.e. markets in which goods and services are traded or exchanged;
- asset/ financial markets (bond, stock, real estate, gold market etc.)
- labour markets (in which labour services are exchanged). While the focus in our course will be on the functioning of the labour market, it is only one of many different markets.

The interconnection of these markets underlies the operation of an economy. This is the subject of **macroeconomics**. In macroeconomics, for example, we analyse how through the interaction of different markets variables such as

- the price level
- aggregate output (GDP)
- the unemployment rate, or
- the exchange rate

are determined and how government policies can affect these variables.

The present economic crisis provides an example of how various markets (sectors) in the economy are interconnected. The crisis started out in the financial markets in the U.S. Mortgage brokers and banks, eager to cash in on the boom in the US real estate market, engaged in riskier and riskier lending practices, thus providing the money that led to a further accelerated rise in real estate prices which in turn encouraged further speculation. As debt accumulated it was being served by issuing new liabilities. As credit became more and more scarce, institutions which had covered their future liabilities by issuing more debt were forced to sell assets to meet their liabilities. These distress sales caused house prices to fall, at which point banks and organizations exposed to these markets started to collapse.

The crisis in the financial sector and the concomitant freezing up of credit then spread to the real economy affecting commodity and service markets and leading to a dramatic decline in total output produced (GDP). As companies cut production, they reduced hours of work and laid off workers. The unemployment rate started to rise, i.e. labour markets now started to be negatively affected.

Fourth focus: The interconnection of national economies in the global economy

The poet John Donne wrote that “no person is an island”. Similarly, nations around the globe are no longer isolated from economic developments in the major economies. We live in a world economy where the economies of individual countries are closely intertwined. Again, this has been brought home very recently through the financial crisis that started in the summer of 2008 in the United States and has spread since then to every continent. The hope, for example, that the emerging economies of China and India could stand on their own and counter the recession in the western economies turned out to be unfounded.

The study of the interconnection of markets within an economy and of the process of economic globalization constitute the core of **macroeconomics**.

2.2 What is the focus of labour economics?

- **The application of economic reasoning to the labour market**

Mainstream labour economics focuses on the exchange of labour services in labour markets and the central outcomes of these exchanges: the level and structure of wages and employment. As such it is seen as a branch of microeconomics in which the principles of supply and demand are applied to the labour market. As in the case of commodity and financial markets, buyers and sellers in the labour market are assumed to pursue their self interest.

- **Labour supply and labour demand decisions**

The role of households and firms are reversed in the labour market. While firms in a commodity market are the sellers of goods they are the buyers of labour services in the labour market. Households are the buyers of goods in commodity markets but are the sellers of labour services in the labour market. The wage rate is the price per hour of work. In a two-dimensional labour market diagram, the wage rate is denoted on the vertical axis, and the quantity of hours of work supplied and demanded is denoted on the horizontal axis.

The behaviour of households supplying labour services is summarized by an upward-sloping supply curve. Households are assumed to increase the hours of work supplied as the wage rate increases. The behaviour of firms buying labor services in order to produce for profit is summarized by a downward sloping demand curve indicating that firms reduce their demand for labour services as wages increase. Equilibrium in the labour market occurs at the wage rate that equates quantities demanded and supplied. At that wage rate households offer exactly the number of hours of work that firms are willing to buy. (See Figure 10.1 in the text) The wage mechanism is the central mechanism that leads the labour market towards an equilibrium. The wage mechanism is the price mechanism in labour markets. We will see in later chapters how this simple model can be used to predict labour market outcomes as a result for example of technological innovations, demographic changes or labour legislation.

- **Labour market outcomes and labour market processes**

In this course we will distinguish between labour market outcomes and labour market processes. Labour market outcomes, for example, are the compensation workers receive and the level of employment. A negative outcome is the level of unemployment. To understand how labour market outcomes come about we have to understand the processes that lead to these outcomes. Labour market processes involve three broad categories of forces: market forces, institutional forces and sociological forces.

- **Market forces, institutional and sociological forces.**

When economists refer to market forces they generally have in mind how competition on the supply and demand side of a market determines prices and how through the price mechanism

scarce resources are allocated. The price mechanism is the central rationing mechanism in market economies.

- When there is a shortage of wheat, wheat prices go up.
- When there is a shortage of economists with Ph.D.s the entrance salaries of assistant professors in economics go up.
- When there is a shortage of loanable funds, interest rates go up.

Price increases sort out those people who are no longer able or willing to pay the higher prices. The price increases ration the demand.

When there is a surplus in a market, prices move in the opposite direction:

- When the number of graduates from HR programmes exceed the demand, entrance salaries of HR professionals start to decline.
- When there is a glut in the car market, car dealers slash prices.
- When the supply of oil exceeds demand, oil prices drop.

Declining prices ration the supply.

Throughout the last 70 years there has been persistently a tension between those labour economists who simply extend microeconomic market analysis to the labour market and those who argue that there are distinctive qualitative differences between labour market transactions and exchanges in other markets, that the application of the standard market model to the labour market cannot do justice to the institutional complexities and regulatory practices which shape and complement the operation of labour markets.

- See the reference in the text to internal labour markets, markets that result from the practice of companies to fill vacancies from within the firm rather than hiring people from the outside.
- The existence of unions restricts hiring and firing decisions of firms (for example the application of the seniority principle in lay-offs, or the conversion practice at York U, i.e. the practice each year to convert a number of contract faculty into permanent faculty. This practice was a major issue in the recent bitter strike.
- The strike threat gives unions an institutional power to affect the level of wages.
- Governments through legislation restrict market forces (for example minimum wage legislation determines a floor for wage rates, pay equity legislation affects wages of men and women).

In addition to market and institutional forces, social forces such as social norms and customs have an impact on wage determination.

- Fifty years ago, women working for pay in the labour market was socially not widely accepted.
- Whether self-interest or greed is innate is open to debate. Its extent, however, is largely determined by social conventions and norms. An example is the explosive growth of CEO earnings since the 1970s.

According to a Federal Reserve study, in the 1970s the chief executives at 102 major U.S. companies (those that were in the top 50 as measured by sales at some point over the period 1940-90) were paid on average about \$1.2 million in today's dollars. That was about 40 times what the average worker in the U.S. economy as a whole was paid at the time. The CEO of GM, the largest company in the US at the time received in 1969 \$795 000, about \$4.6 million in 2007 dollars which created quite a stir. By the early 2000, CEO pay averaged more than \$9 million a year, 367 times the pay of the average worker. The CEO of Wal Mart, America's

largest company today, was paid in 2005 almost 23 Million, more than five times the inflation adjusted salary of the GM CEO in 1969. If you look at the earnings of most CEOs on Wall Street's investment banks the average pay of \$9 million pales in comparison. According to the US Securities and Exchange Commission Filings the earnings of the CEO of Goldman Sachs (Lloyd Blankfein) in 2007 was 70 million, of JPMorgan Chase (James Dimon) was 28.8 million, of the Bank of America (Ken Lewis) was 24.8 million.

What had happened over the last 30 to 40 years? Had the work of CEOs become so much more valuable? An explanation based on a typical market model would run as follows.

Suppose

- that the profitability of a company depends on the quality of its CEO,
- the bigger the company, the larger the CEO's impact on its profitability
- the quality of a CEO is observable, everyone knows who is the 100th best, the 99th best, the 98th best and so on.

Given the supply of the best executives and the demand for these executives there will be a competition for executives that ends up by assigning the best executives to the biggest firms, where their contribution matters most. Even small differences in perceived quality will translate into big differences in salary. For a huge company the difference in profitability between having the best 10th or best 9th CEO may easily be in the tens of millions of dollars. According to this model, top CEOs earn their pay.

If one looks at this explanation critically, however, one realizes that the pay of CEOs is far less tied to competitive market forces than one is made to believe. Linking the productivity of a CEO to the profitability of the company is rather questionable, (i) because many factors other than the CEO's quality affect profitability of a company; (ii) because profitability can be in the eye of the beholder. Several recent scandals (see Enron) reveal that the profitability of a company can be manipulated by CEOs, and the incentive to do so if bonuses constitute a large portion of the pay is great since the bonuses are tied to a company's profit. Also, who determines the quality of a CEO? The answer is corporate boards, largely selected by the CEO, hire compensation experts, often chosen by the CEO. This arrangement is conducive to overstatements of a CEO's quality and how much this quality contributes to the bottom line of a company.

The position that CEO paycheques depend little on market forces but largely on soft factors such as social attitudes and norms was strongly stated by Lucian Bebchuk and Jesse Fried in their 2004 book "Pay Without Performance" in which they argue that neither the quality of the executives nor the market for talent has any real bearing. The only thing that limits executive pay, they argue, is the **outrage constraint**, the concern that very high compensation will create a backlash from shareholders, workers, politicians, the public in large. It is not what the market bears but what society bears, i.e what society tolerates. The CEO pay-outs tolerated by society over the last decades were indeed phenomenal. With the latest economic crisis, CEO earnings, however, have come under close public scrutiny. The level of earnings at which the outcry constraint sets in has dramatically fallen. An example is President Obama's condemnation of Wall Street executives. He called it "shameful" that Wall Street executives received 18.4 billion USD in 2008, a year in which US taxpayers provided \$350 billion USD in bail-out money. After being publicly humiliated in the hearings of the House Committee for Financial Services, some Wall Street CEOs suddenly show remorse and express publicly their

regret. Citigroup CEO, Vikram Pandit, volunteered to take a \$1 salary without any bonus until his company is producing profits again. In its latest \$787 billion stimulus bill, Congress limits bonuses for executives at all financial institutions getting government money to a maximum of a third of their salary. And these are not cash bonuses -- instead they'll be paid in company stock that executives can't sell until the government investment has been repaid.

In Canada, the three chief executives of the Royal Bank Canadian Imperial and the Bank of Montreal announced in February 2009, that they voluntarily took a cut totalling \$15 million in compensation for last year, mostly on stock options. In February 2009, shareholders at CIBC, Royal Bank, National Bank have won the right to vote on executive pays. 15 other major Canadian companies (e.g. BCE, Manulife) so far this year received say-on-pay resolutions from shareholders.

3. The distinction between labour economics, human resource management and industrial relation

see text

4. The two hats of a labour economist: Scientist versus policymaker.

In labour economics we do two things:

- We seek to understand the functioning of the labour market and the role the labour market plays in the overall economy. The objective is to explain things. This is the role of the scientist.
- We try to improve labour market outcomes by designing and implementing policies that change some of the outcomes by interfering in the market process directly or by correcting some labour market outcomes. This is the role of the policymaker.

We are thus concerned both with explanation and policy prescription. Both are different operations.

Economic policy formulation and implementation leads inherently to conflicts of values because the solution of an economic problem always involves a trade-off. There are almost always losers and winners.

When economists are asked to advise governments are they acting as scientists or does their advice merely reflect their personal values?

Example: Mandatory retirement.

In December 2006, a law came into effect in Ontario abolishing mandatory retirement. The issue of mandatory retirement has been debated for many years. In this debate one can distinguish the two dimensions discussed here: the positive and normative one. The effects of mandatory retirement can be discussed in a scientific way. For example, the statement that mandatory retirement enables deferred wage compensation systems by providing a clear termination date, is a positive statement. It can in principle be assessed by reference to facts, it can be tested. In fact, empirical studies have shown that mandatory retirement provisions are more prevalent in situations with deferred wages. A subsequent statement that deferred

compensation systems reduce turnover rates in the workforces of companies is also a scientific statement. It also can be subjected to empirical tests, it can be falsified. On the other hand, the statement that mandatory retirement should be prohibited because it discriminates against individuals on the basis of age is a normative statement. It is based on human rights values and involves a value judgement: A person who wants to continue to work and is capable to do so should have the right to do so.

Example: Minimum wages (see text)

Example: Regulation versus Deregulation. The role of government in a market economy.

Economists advising governments to deregulate markets and to privatize crown corporations often base their recommendations on two values: personal freedom and economic efficiency. Markets unconstrained by regulations and laws allow individuals to freely pursue their self-interest – freedom of action. Given scarcity of resources we have to use these resources efficiently and this is supposedly best done through unregulated markets. Policies that are designed to promote values such as personal freedom and economic efficiency, however, often collide with the value of equality. When the masses in the French revolution shouted *liberte, egalite, fraternite*, they did not realize that freedom and equality are largely incompatible.

If we deregulate, for example, the transportation sector and privatize CN Rail, we may increase efficiency, because the private rail companies will concentrate their services on the routes with high passenger density. By canceling routes in rural and more remote areas or rising airfares in these areas we increase, however, the inequality in living conditions among people. People are not born equal in terms of their mental, physical endowments and their material possessions. Policies that propagate freedom and efficiency invariably lead to greater inequality. See the growing inequality in income and wealth in the United States resulting from neo-conservative policies since the late 1970s. Economists who see the role of governments to assist the weak and disadvantaged are guided in their policy recommendations by notions of equity and consequently will be opposed to deregulation and privatization. The disagreements regarding the priority of certain values are at the core of the debate on the desirability and effectiveness of government interventions. People focusing on freedom and efficiency will advocate a minimum of government intervention. People emphasizing the value of equity will be in favour of government intervention.

For example, labour market outcomes might be efficient and yet involve discrimination against certain workers on the basis of gender, race, ethnicity, age, or sexual orientation, i.e the outcomes violate notions of fairness. Some people might defend such practices on grounds of efficiency and reject government intervention, others will call for government intervention to discourage or prevent discriminatory practices.

These value conflicts and policy debates cannot be resolved by science.

Even the promotion of a single value such as individual freedom is not unproblematic and can lead to policy disagreements. If everybody was free to do what he/she wants to do, the result would be chaos and anarchy. Individual freedom is limited when it inflicts on the freedom of

others. There is a simple relationship between individual freedom and numbers. The more people, the less individual freedom. A bill that restricts the bargaining rights of unions will be praised by company owners as a reaffirmation of their private property rights that will allow them greater freedom and flexibility in their decisions. It will be fought by unions which see it as a restriction of their rights of collective bargaining over the terms of pay and working conditions, i.e. a restriction of their freedom.