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## Modern labour economics: the neoclassical paradigm with institutional content

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### Abstract

The contribution focuses on the development of labour market economic theory. It shows the increase in relative importance of institutions and the rising relevance of the institutional theories for the labour market economics. The labour market economics was established on the base of the neoclassical paradigm, the fundamental elements are competitive markets with internal forces capable of reaching effective solutions, and rational subjects, maximizing utilities, profits and rents according to their preferences. The Smith's "invisible hand" was restricted by institutions – governments, corporations, and unions with legislation, personal policy, and collective bargaining. The expanding regulations and interventions into labour markets and the effort to explain the reality inevitably leads to the incorporation of more and more institutional theories into the modern labour market economics. The contribution formulates the conclusion that the institutional content is entering into the neoclassical paradigm.

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**Keywords:** modern labour economics; neoclassical paradigm; institutions; regulations; institutional theories; institutional content

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### 1. Introduction

The most significant characteristic features of the labour markets in recent decades are the growing role of institutions, public policies and governmental regulations and their influence on the outputs of the labour markets – the wage rates and labour allocation. The labour market economics built its paradigm on the marginalist principles, which brought suitable instruments for analysing decisions of particular subjects on competitive markets, able to reach effective solutions. There are rational subjects acting on these markets, maximizing utilities, profits and rents according to their preferences. The Smith's „invisible hand“ has been curtailed by the institutional interventions – the government, corporations and trade unions with governmental legislation, corporate personal politics and collective bargaining. The expanding regulatory interventions into the labour markets and the effort to explain the reality inevitably leads to the fact that the modern labour market economy incorporates more and more institutional theories.

## 2. The neoclassical paradigm and the market forces

The neoclassical paradigm which grew from the principles and approaches of marginalism, laid the principles of the economic theory itself into the basis of the labour market economics.

The model of Marshall's partial competitive labour market with market supply and market demand derived from descending marginal labour product (*Principles of Economics*, 1890) was described in more exact detail by Nobel Prize winner John R. Hicks. Smith's "invisible hand" effectively distributes work tasks based on the values of their marginal products and cleans labour markets to the last sweep. This original version of neoclassical economics - *market theory* focuses on formation of prices, seeks the rules and principles of behaviour of the subjects on the market and describes it analytically.

The Hicks's *The Theory of Wages* (1932)\* is a work from the branch of labour market economic, which corresponds to the structure of the book. It deals with the demand for labour and marginal productivity theory, labour supply, competitive market and undesirable effects of governmental regulations. Hicks's analysis of labour supply was influenced by the article by L. Robbins ( *On a Certain Ambiguity in the Conception of Stationary Equilibrium*, 1930), which set the conditions for positive and negative slope of individual labour supply, and mentioned for the first time that the individual labour supply curve can be backward-bending. \_ He explained his statement through the elasticity of the work emphasis supply, respectively the elasticity of the demand for income. He thought that for majority of employees this elasticity is bigger than one. It means that an additional unit of labour will be worked only in case the income increases more than proportionally. In this case the labour supply is sloped positively. If the elasticity coefficient is smaller than one, the supply curve will be sloped negatively.† After implementation of indifference curves and the ordinalist approach, the explanation of consumer's decision making get easier. The shape of individual labour supply was explained by the significance of substitution and income effect in the wage rate increase.

Before Robbins, some economists alleged that the short time individual labour supply is sloped negatively. For example, F. Knight (*Risk, Uncertainty and Profit*, 1921) thought that a rational man will always reduce his working hours, when his wage grows. He will compare the marginal disutility from work and marginal utility from obtained income. If the wage grows, the marginal utility from income decreases. This implies that the additional disutility from the last unit of work will overrule the additional utility from the last financial unit of income. Knight based his argumentation for this conclusion on the income effect entirely. ‡

The neoclassical economics, after its return to the spotlight after the Great Depression in the 1930s, pointed to the lack of economic theory in the broadly constructed neoinstitutional essays about the labour market.§ P. Samuelson (*Economic Theory and Wages*, 1951) and M. Friedman (*Essays in Positive Economics*, 1953) unanimously missed the theoretical models, which would – instead of a sweeping complexity – enlighten the fundamental relations and tendencies, capable of simplifying and predicting. On the base of theoretical analysis, they formulate hypothesis and create models, which accept maximizing rules; on the individual level, the firms are maximizing profits and employees are maximizing income. The hypotheses are then tested on statistical data with support of econometric models.

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\* Two years later, in 1934, the same-named book *The Theory of Wages* by Paul Douglas differently from Hicks combined the theoretical approach with real problems and the aids of public policies on the labour market and followed up with the neoinstitutional line. Institutional labour economics looked at the labour markets from a different point of view and also a structure of their book was different. Included for example chapters on the situation of women and children on the labour market, immigration, poverty, on trade unions, education, labour laws, and improving the living condition.

† Blaug, M., 1992, *Economic Theory in Retrospect*, s. 316.

‡ Blaug, M., 1992, *Economic Theory in Retrospect*, s. 315.

§ The neoinstitutionalists were oriented on the real phenomena on the labour market. For example, the job choice was understood as a multidimensional decision, while the wage rate is only one, and not the only or the most important, features, which contribute to the people's decisions. According to Rosenberg (1956), personal reasons are more important than the offered wage, people are making decisions under conditions of rational ignorance and this implies that they cannot decide rationally. They attribute a great importance to the certainty of labour.

### 3. The new horizons or the imperialistic nature of the neoclassic labour economics

In the following years, another shift took place, and it was towards a greater openness and broadening the scope of the neoclassic labour market theory. The methodology and the research topics changed. G. Becker no longer examines the functioning of markets "per se", but creates a model of rational economic behaviour and decision making in favour of the welfare of the subject, applied to all aspects of human life (*The Economic Approach to Human Behavior*, 1976). This modern version of neoclassical theory, the *choice theory*, expects a rational economic entity, which maximises its advantages with the resources that it has at its disposal based on its preferences. It compares the costs and revenues of each alternative and selects the one that will bring the most utilities. Besides different situations, Becker also describes behaviour on the labour market.

He contributed to the development of the modern labour market economics with three fundamental contributions. In 1957, he published *The Economics of Discrimination*, where he analysed economically the discrimination and related decision making based on discrimination preferences of the discriminating subject itself. The preferences were measured by the discrimination coefficient. Together with T. Schultz, he brought to the economic science the topic of the human capital (*Human Capital*, 1964), while the education and job preparation is understood as a form of investment: people and companies decide according to cost and expected profits about the extent of this investment.

The third contribution of G. Becker to the labour market economics was *the theory of household production*, where people are deciding between the housework, work on the labour market and leisure time časem (*A Theory of the Allocation of Time*, 1965). The theory of household production was then elaborated by Becker including various aspects of family decisions in *A Treatise on the Family* (1981). The analysis of women's participation on the labour market and their decision making between housework and work on the labour market was brought by J. Mincer in 1962 (*Labor Force Participation of Married Women*). The married women participation rate on the labour market is, according to Mincer, in a negative relation to the income of the whole family (the income effect) and in a positive relation to their own wage rate (in case of a constant income, the substitution effect). The line of women's participation on the labour market research in all possible connections and consequences was later developed by other authors, among the contemporary ones there are for example Hoffman, Averett: *Women and the Economy. Family, Work, and Pay*, 2010.

### 4. The neoclassic theory and its confrontation with the reality of the labour markets

Despite the content expansion of labour market economics, it expected another confrontation with a new reality on the labour market. The neoclassic theory presupposes maximizing behaviour of agents and a flexible wage, which, using the supply and demand forces, cleans the market and leads to the equilibrium. The persisting unemployment caused the origins of new theories. G. Stigler in 1960s developed the economic theory of information, which includes also *the theory of job search*, where the information is understood as valuable goods which is costly to get. Getting information is a costly activity of job searching (Stigler, 1962). A person will continue to look for a job as long as the expected revenues are equal to searching costs. Because searching is necessary, and as to the alternative costs cheaper, when one does not work, and when it is not optimal to accept the first job offer. This means that people often stay unemployed through a rational decision and continue to search. Stigler opened a new view on job searching useful for broadening the analysis of unemployment. A certain share of unemployed people is a voluntary feature of market equilibrium. A. Alchian (1970) described such unemployment as a "self-employment in information collection". The economic theory of job searching was further developed by D. Mortensen (1970). According to him, "the search unemployment" is an equilibrium outcome of voluntary behaviour on the both sides in the labour market. After him, a wide range of authors with both theoretical and empirical research on job searching on the labour market followed.

It showed that in case of cyclical decline of demand, the wages on the labour market are not declining, as the neoclassical theory would predict, which would clean the market, but employees are being fired. The absence of market cleaning wage pointed on the inconsistency between theory and reality. C. Azariadis (1975) developed a *theory of implicit wages*. Because workers are usually risk averse, they prefer lower secure wage paid for longer period to higher but uncertain. The firms therefore offer long-term quasi-contracts, guaranteeing longer income security.

Economists focusing on the new institutional economy basically do not reject mathematical models of optimising behaviour, which leads to maximisation of benefits, but they point out that people's motivations can be much more extensive. An individual's benefit can also come from altruistic actions for others, and a person can work hard not only because he is motivated by expected high earnings and promotion, but also for a feeling of pride from work well done ("*intrinsic motivation*"). People do not have to maximize their benefits directly, but they can consider it sufficient when they achieve a certain acceptable level of benefits, which may be fewer than the maximum potential benefits. According to these authors\*\* people act and decide less rationally than expected by the traditional neoclassical model. The final calculation also includes emotion.

The new institutional economy works with preferences, in relation to which two aspects in particular are relevant.†† First it is assumed that people's preferences are mutually dependent: the preferences of one person influence others' preferences. Second, preferences are not automatic, exogenic, but endogenic, and are subject to changes and are formed based on changes in the economic system.

Institutional forces represent the influence of various organisations, such as trade unions, governments and corporations, on prices on prices and the allocation of work. Institutions influence labour market output at two different levels. They fragment the labour market into a large number of segmented, mutually connected sub-markets. Institutions implement structures, artificial boundaries and barriers, which cause rigidity on the labour market. In Smith's competitive market, the wage rate changes in response to changes in supply or demand, and workers move from markets with excess supply to those where demand prevails. The boundaries of this natural market are based on the limits of competition, the flow of information, transferability of skills and workers' willingness to commute to work.

Institutions implement rules, standards, directives and regulations, which artificially define dimensions of the labour market. These rules are either formal (written) or informal (habitual). They determine for example who is competent to carry out a certain profession or hold a certain work position, and they relate to the issuance of licences and certificates and create barriers for entry into professions. They determine who will be given priority during creation of a work collective. These rules have the form of corporate HR policies, union contracts and government legislation.

## 5. Neoclassical labour market process with institutional theories

The neoclassical theory says that employees with the same abilities and in the positions with the same characteristics should be remunerated with the same wage. If it was not so, the employees with lower wage would migrate to better paid jobs, and the wages would gradually reach equilibrium. The wage differentials should correspond the different characteristics of employees, e.g. differences in their human capital (supply side) or non-financial characteristics of the position, e.g. work conditions, risk rate (demand side) and not sectors or the capacities of individual firms to pay the employees. However, the real labour markets produce persisting wage differentials among sectors or firms hiring similar workers for similar positions.

The internal labour markets can be one of the explanations. *The theory of internal labour markets* is connected to P. Doering and M. Piore (*Internal Labor Market and Manpower Analysis*, 1971), who precized it. They followed earlier theories of institutional labour markets, which are directed by formal and informal rules and norms applied inside a branch or a firm, instead of market forces and economic quantity. In these institutional labour markets, there are divided groups of employees moving, who are not competitive to each other. Those who are inside the market are not in competition with those outside. Doering and Piore (1971) understood the internal labour markets as an administrative unit, where prices and allocation of labour are directed by administrative rules and procedures. A self-contained market with its own rules, dividend from external labour markets, where prices and allocation of labour are directed by economic quantity, is being created. Between these two types of markets, there are barriers and the move

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\*\*Napf. Simon, H., 1978, *Rationality as Process and as Product of Thought*, Kaufman, B.E., 1999, *Emotional Arousal as a Source of Bounded Rationality*.

††Kaufman, B.E., Hotchkiss, J. L., 2006, *The Economics of Labor Markets*, s. 30.

is possible only through artificially created entries and exits. The literature<sup>\*\*</sup> on internal labour markets is rich; it focuses on customary of firms about hiring new employees and determining their wage, on causes of internal labour market and on consequences for firms and for external labour markets.

The theory of internal labour market in principal leads to the division of labour market on primary and secondary markets. The primary sector comprises well-paid posts with advantageous work conditions, stability in the job and probable promotion. On the other hand, on the secondary market, there are posts with low wage, high fluctuations of employees, bad work conditions and only a little promotion possibility. The primary sector is connected to the internal labour markets, which are difficult to get in. On the secondary markets, there are low qualified people with bad professional past, who are most likely to be unemployed. The existence of the internal labour markets influences the remuneration distribution and it causes different economic opportunities. It broadens the interest of the economic theory not only to the principles of decision making and determinants of wage on the market, but also to the procedures used inside individual firms. And this is a challenge for further expansion of neoclassical economy.

*The efficiency wages* can be another explanation of persisting unemployment. A wage higher than equilibrium improves productivity and effort of employees. For an employer who wants to maximize profit, it is worth paying higher wages, because productivity of employees grows faster than costs of them (Akerlof, Yellen, 1986). The relation between wage and productivity is in some branches more important than in some others. In some branches, the employees become a wage higher than equilibrium. In the others, where such wage would not be profitable for firms, the equilibrium wage remains. So the efficiency wages contribute to segmentation of labour markets. Bulow and Summers (1986) created a model of dual labour market based on the relation of wage and productivity and used it for explaining intersectoral and intrasectoral wage differentials, discriminations and involuntary unemployment.

The version of the theory of efficiency wages with the no-shirking supply curve (Shapiro, Stiglitz, 1984) is useful in cases when the control of employees is very expensive and the firm decides to motivate their effort through wage higher than equilibrium. It presupposes that the effectiveness of the employee depends on the wage prevailing on the market, on the efficiency wage and also on the unemployment rate. The higher the unemployment is and the bigger the difference between the efficiency and equilibrium wage, the more effective the employee is. If the unemployment is low, the firm will have to offer relatively high wage, because shirking work is becoming expensive.

One of the latest versions of the efficiency wage theory „fair wage-effort hypothesis“ (Akerlof, Yellen, 1990) explains that employees with suspended effort are paid with a lower wage than they find justifiable (fair). This fair wage is higher than equilibrium that cleans the market. If they get it, they improve their effort and become more productive.

In the recent years, the neoclassical economics began to deal with other new topics, which can be named as personal economics. The interest in them is led by the effort to understand and interpret how the employers and employees really behave on the labour market. The neoclassical economy uses purely economic principles in explaining manager behaviour: maximizing strategies stemming from given restrictions. For example, the interpretation of manager decisions about hiring employees, about investment into job training, or remuneration and motivation of employees can be named.

## 6. Conclusion

The neoclassical labour economics is opening itself to the institutional topics. It incorporates the analysis of institutions, acting and deciding on the labour market under different rules than the market ones, to its neoclassical paradigm. It is getting clear that the neoclassical economics, if it wants to keep the status of mainstream economics and also the competence of explaining real problems of the labour market, cannot function without accepting and incorporating institutional interpretation of real labour market phenomena. The institutional content, restraining and bringing into line the market forces, enters into the neoclassical paradigm with its starting points, fundamental theories

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<sup>\*\*</sup> For example Např. Dunlop, J., Harrison, B., Gordon, D., Thurow, L. and others. Some authors understand the segmentation of markets to the primary and secondary sector, as the markets with trade unions having certain privileges, and markets without trade unions, or for example, the markets with and without discrimination.

and models.<sup>§§</sup> At the same time, there is an attack to the monodisciplinarity with imperialistic approach in methodology, which is based on expansion of standard economic, resp. microeconomic instruments of analysis into new research braches. The institutional economy is supported by an interdisciplinary approach, accepting and processes useful methods from other scientific disciplines.

Both approaches differ in the question of the acceptable, effective and profitable rate of institutional interventions. The neoclassical economics stresses the competitive character of labour markets and the priority of market forces in the determination of wages employment and solving the problems of the labour market and is ready to accept only a minimal rate of disruption of market order. The institutional economists see bigger problems in the market imperfections and confer a greater decisive role to institutions while solving them. They point out that in presence of institutional and societal forces cannot the market ones work so effectively, as is stated by the neoclassic economists.

The contemporary authors<sup>\*\*\*</sup> are - through their analysis and findings - sharing the debate to which extent are the labour markets able to coordinate themselves on the base of their market forces and to reach effective results and to which extent this market mechanism is deformed and replaced by decisions of institutions.

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<sup>§§</sup> Kaufman, Hotchkiss (2006) close their view on the modern labour economics by stating that the contemporary modern labour market economics is more neoclassical in the form and more institutional in content. (s. 15).

<sup>\*\*\*</sup> Ronald Oaxaca, Jacob Mincer, Solomon Polachek, Francina Blau, Claudia Goldin, Catherine Hakim, and others.



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