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An Integrated Perspective of Wage Determination

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Abstract

While wage determination is an important research topic and has received much attention from different disciplines, researchers disagree about the nature of the mechanisms that determine wage rates. Human capital theory was criticized for its overemphasis on supply-side of labor. Dualistic approaches explained the relationship between segmented labor market and wage determination process in a different way, but were criticized for their lack of clear identification and empirical evidence. Lately, sociologists revisited Marxism and Weberian organization theory, and emphasized the importance of the social bases of wage determination. The empirical work, however, is sparse and not convincing.

In this article, we propose an integrated perspective, namely, “worker power,” to understand the process of wage determination by emphasizing workers’ social capital, the employment relationship, the size and structure of work places, and the power relationship between workers and employers.

Key words: wage determination, human capital theory, dualistic analysis, social capital, worker power.

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1. Introduction

How do people attain wages in exchange for their work in the labor market? For some economists, the attainment process exclusively depends on "market mechanism," i.e., the schedule of supply and demand of labor in the markets. For other economists, it is contingent on "non-market" mechanisms including organizational and structural elements rather than market mechanism. This has been the debate around the mechanism of wage determination in labor economics. The former represents neoclassical perspectives and the latter neoinstitutional ones.

In contrast to economics, early sociological scholarship of labor markets was not concerned about the process of wage attainment. It rather was interested in attainment of non-pecuniary rewards in the labor markets such as occupational status (Kalleberg, 1989, p. 589). As acknowledging that wage attainment process is an essential aspect of social distribution in an industrial society where wages obtained in the labor market represent one's position in social stratification system, sociologists became aware of the importance of wages in the studies of social inequality.

Sociological studies of wages, which began as late as 1970's, largely depended on existing economic thinking about wages, and, following the tradition of neoinstitutional economics, were likely to endorse "non-market" mechanism of wage determination. Their pivotal argument was that the centrality of market mechanisms neoclassical perspectives gave rise to an exclusive emphasis on individual's attributes or "supply side of labor" while dismissing structural elements or demand side of labor. They insisted on the importance of institutional aspects in determining wages. In this context, sociological studies of wages have focused on characteristics of "segmented" labor market which impose different ways to determine wage in the labor markets, rather than exclusively on workers' productivity.

However, critics of sociological perspective of wage determination process argued that existing sociological research has shown their lack of theoretical coherence and empirical support. Furthermore, they pointed out the misinterpretation of neoclassical perspectives by sociological literature of wages. Economic analysis can consider the effect of demand side as well as supply side of labor on wage determination (Cain, 1976; Lang and Dickens, 1988). Therefore, they claimed that sociological challenge to economic analysis should be reassessed and it can be at most supplementary or adjunct to economics (Smith, 1990; Granovetter, 1981). Yet, they extended to argue that despites its inclusion of structural effects on wage determination, economic analysis saw that these structural effects are not persistent. In the end or long run, market mechanisms dominate the process of wage determination.

These criticisms of sociological analysis of wages have not discouraged sociologists to pursue the centrality of structural effects on wages determination processes. For there are persistent evidence of structural effects on wages such as social inequality or discrimination not adequately handled by economic perspective (Fargas et al. 1988). In fact, these phenomena are closely related to studies of social stratification. Given structural effects on wages determination, therefore, sociologists should pursue to improve existing dualistic model and establish any structural model which is vindicated from old criticisms launched against them.

In this paper, however, I do not intend to build a "better sociological model" for wage determination. Rather, I intend to establish a "better research ground" for the task through the exploration of existing debate within labor economics between neoclassical theories and neoinstitutional economics, and through the close analysis of sociological analysis of wages, so called "new structuralism." Then, I will gauge the possibility of incorporation of purely sociological perspectives - Marxist and Weberian legacies to neoinstitutional insights of the labor market so as to produce a "better sociological model" while dealing with worker power and social capital in the process of wage determination.

2. Neoclassical Theory of Wage Determination: Beyond Human Capital Theory

Neoclassical theory has often regarded as putting much emphasis on workers' productivity as a determinant of wages. This tendency gave rise to the prevalence of "human capital theory" in neoclassical perspectives, which encouraged its advocates to emphasize "human capital" like education and work experiences, etc., as representing workers' productivity. The centrality of workers' productivity largely stems from the primacy of the concept of "marginal productivity." In purely competitive and homogeneous labor market, wages are equal to the value of product added by hiring the last unit of labor, i.e., "marginal product of labor" (Hicks, 1973, p.8).

While in human capital theory the (marginal) productivity is emphasized, which thus led to an overemphasis on supply-side of labor in wage determination process, the neoclassical perspective should be understood more than marginal productivity. The wages in which the neoclassical theory is concerned are "equilibrium wages" in a sense that at such wage level the demand for labor equals the supply of labor. In this regard, neoclassical perspectives involve demand as well as supply of labor as determinants of wages. This point can be seen in the following statement by Hicks (1973, p.9):

> If the number of labourers available on the market had been larger, the wage must have been lower, since the additional product secured by the employment of one of these extra labourer [marginal productivity] would be worth less than the previously given wage, and consequently it would not pay to employ these men unless the wage-level was reduced. If the number had been less, employers would have had an incentive to demand more labourers at the given wage than would actually have been available, and their competition would therefore force up the level of wages.

Therefore, criticisms of neoclassical perspective are based on their focusing on a single parameter, i.e., marginal productivity, as the determinant of wages (Thurow, 1975; Sorensen and Kalleberg, 1981) cannot be legitimate (Cain, 1976, p.1230). However, this does not underestimate Thurow's doubt (1975) of the applicability of the principle marginal productivity to the labor market in the America after the World War II. In contrast with neoclassical theory, he argued that marginal productivity is inherent not in individuals but in jobs (p.85). Therefore, "... individuals with identical background characteristics will not necessarily have identical jobs, training investment and earnings. Depending upon the supply of workers with a particular set of background characteristics and the demand for individuals with this set of background characteristics, similar individuals will be in a lottery (pp.91-92)". The emphasis on job characteristics marks a distinctive departure from neoclassical perspectives and links to the idea of internal labor market, to which I will turn later. In fact, as Lang and Dickens (1988) argues, neoclassical economists take both demand and supply into account while developing "quite sophisticated models in which individuals' productivities vary according to their job and have concerned themselves with the process whereby workers and jobs and matched (p.

66)”. They suggest that “the hedonic wages equation is the market equilibrium locus resulting from the joint action of supply and demand (p.69).”

The neoclassical theory of wages determination requires several assumptions to be met: labor market is a perfectly competitive one; both workers and employers have perfect information on each other; homogeneous labor market, in which all workers have the same wages based on their marginal productivity. Neoinstitutional economics, which paid much attention to social policy issues including persistency of poverty and consequence social inequality, began to criticize those assumptions. They said that the assumptions are inconsistent with the real market situation.

The existence of unemployment and labor queue, which refers to excess supply of high wage jobs, indicates noncompetitive labor market. Thurow (1975) pointed out that the “persistence of unemployment despite downward rigid wages” is contradictory evidence to the assumptions of flexible wage in competitive labor market. Moreover, he argued that the “labor queue” which is based on workers’ background characteristics and their training costs, is an evidence of noncompetitive labor market.

The labor markets are heterogeneous rather than homogeneous. This criticism is linked to the distinction between internal and external labor market, and furthermore to the idea of dual labor market. In addition, in the labor markets perfect information for perfect match of workers to jobs may be impossible. As implicitly represented in a study of organizational information reflects the market failure.

Yet, Cain (1976) urges that the existence of heterogeneous workers and jobs may be compatible with the neoclassical model. According to him, even the existence of search involving imperfect and costly information allows neoclassical explanation of wage determination.

Given the distribution of wages according to each level of education, workers choose their level of education in a way that they can "maximize" their expected net wages given optimal search behavior.

Furthermore, Cain claims that the existence of noncompetitive labor markets does not seriously threaten neoclassical model. The existence of un-voluntary unemployment can be explained by virtue of "search model" in which rational workers continue to search jobs as long as the marginal benefits of further search exceed the marginal costs (Cain, 1976). In addition, wage rigidities are short-run adjustment and neoclassical position can have wage flexibility beyond short-run transitory periods. "Wage rigidity for a firm does not imply wage rigidity in the market. Some firms are expanding, some are contracting, and market diversity in wages for similar skills occurs became firms choose high or low wage policies, depending on how the firms' management decides to deal with turnover, the amount of supervision per employee and ocher non-wage respect (Cain, 1976, p. 1243)." Considering these responses by Cain, the neoclassical position should be understood as beyond supply-driven as human capital theory. It involves both supply and demand in the labor market. More process of utility (profit) maximization by wooers (employers) in more or less competitive labor market, in which market imperfection will be driven regardless it is from "tastes" or "imperfect information," would eventually been driven out of business in competitive market due to their high costs.

While this position appears to help responding to several criticisms of neoclassical model, however, there still be remain the necessity of considering "non-market mechanism " in the process of wage determination, i.e., structural effects on wages. Discriminations in the labor markets according to gender and race and intersectoral immobility indicates the existence of structural effects. In the remaining of this paper, I will examine economic approaches to structural effects on wage determination and its sociology offsprings, so-called new structuralism.

3.Dualistic Approaches

The dualistic analysis of the labor market refers to the "qualitative differences" in both behavioral characteristics of the principal actors (workers and employers) and the nature of human experience vary from one segment to another (Berger and Piore, 1980). The qualitative differences reflect differences in wage determination process in different market segment, which cannot be understood with a "single model of human behavior."

3.1 Internal Labor Market

Internal labor market is usually defined as an administrative unit, in which the pricing and allocation of labor is governed by a set of administrative rules and procedures. The labor market is distinguished from the external labor market in which pricing and allocating and training decisions are contingent on by economic variables (Doeringer and Piroe, 1970). More importantly, the rigidity of rules in the internal labor market defines the boundaries of internal labor markets and governs pricing and allocation within them, and thus the investment of the rigidity reveals characteristics which distinguish the internal labor market from the external one.

Doeringer and Piroe (1970) argue that the internal labor market is originated by the factors not envisioned by conventional economic theory: skill specificity and training process. Skills specific to jobs may increase the proportion of training costs invested by employer and reduce the rate of turnover by employer. And on-the-job training involves direct skill transmission from incumbent to successor in the process production. Both skill specificity and the on the job training foster the rules in the internal labor market.

In the internal labor market, wages are determined not by individual productivity but by the characteristics of jobs. This characteristic can be seen in Thurow's idea of job-competition model. While not addressing the notion of internal labor market, Thurow introduced the idea of "wages pertaining to jobs." With a different view of labor market from that of neoclassical theory, that is, the labor market in which most skills demanded by jobs acquired through on-the-job training, he argues that workers do compete not for wage, but for jobs. In this situation, wage is contingent on the characteristics of the job, which is technically determined.

Sorensen and Kalleberg (1981) develop Thurow's job competition model and contend that wage is determined not only by "person's potential performance to fulfill the training requirements of jobs" due to the existence of on-the-job training but by social aspect of product process. Drawing upon Weberian organizational theory, they argue that different characteristics of employment relationship give rise to different mechanism of wage determination. According to them, in these open employment relationship, in which employer make wage offer and worker bid for employment on the basis of their productivity, wage is determined by worker's marginal productivity. On the other hand, in the closed employment relationship, in which new recruits can only get access if the incumbents leave and job ladder gives rise to noncompetitive promotion in the labor market, wage pertains to their location in job ladder and its change is possible by workers' moves in mobility regimes that are chains of vacancies in the labor markets. In this situation, earning attainment is a promotion process (Sorensen, 1983).

The importance of the internal labor market may be its characterization of the process of wage determination different from neoclassical perspective. While an interpretation based on neoclassical perspective, “maximization theory,” might be possible, the emphasis on organizational difference such as closed and open employment relationships is closely linked to structural effects on wage determination process.[1] While the internal labor market contribute to reveal the fact that there exists the different mechanism of wage determination process from “market mechanism,” however, it does not provide explanation of discrimination and labor queuing in the labor market. At this point, we need dualistic analysis of the labor market by neoinstitutional economists.

In addition to the discussions on internal labor markets, the dualistic approach has two variants, which is divided by their levels of analysis (Beck et al, p. 706; Kalleberg, 1989, p.587). The first one is “dual economy theory,” which tends to explain different mechanism of wage determination between economies or industries in terms of their “different organizational structure of capital.” The second one is “dual labor market theory” which considers that the different mechanisms of wage determination stem from the difference in the nature of jobs or occupations.

3.2 Dual Economy Theory

Dual economy theory, which began with interest in the development of modern industrial capitalism, emphasizes the “impact of organizational constraint on outcomes of workers” (Hodson and Kaufman, 1982, p. 727). The dual economy theory dichotomizes economy into core and peripheral sectors, which emerged as outcome of development of industrial capitalism during the late nineteenth and early twentieth centuries. The

[1] Osterman (1984) claims that job ladder and promotion on seniority entitlement is a product of efficient solutions of management of complex environment. Facing uncertainty about worker’s productivity, in order to reduce transaction cost, employers adopt nonindividual wage bargaining and create noncompetitive promotion system.

core sector consists of large corporate enterprises which came to constitute an oligopolistic system of production. On the other hand, peripheral sector is characterized by smaller firms, operating in a more or less open, competitive capitalistic environment (Beck et al, p. 706; see also Edwards, 1979, pp. 74-76). The difference in capital organization brings about the dependence of periphery firms to core ones. The core firms extract monopoly profit from the periphery firms to which they sell and they demand "preferred" customer rebates from their suppliers (Hodson and Kaufman, p. 729). In the process, the core sector facilitates the process of capital concentration.

The intersectoral differences in the extent of capital monopolization have important implications for the opportunity structures and experiences faced by individual workers (Beck et al, p. 707). The wage is determined by the "existence of monopoly rents" (Lang and Dickens, 1988). In the core sector, workers have monopoly rents and receive higher wages than in the periphery sector. This reflects that "ability to pay" mediates the process of wage determination. The ability to pay cannot work in competitive labor market (Lang and Dickens, 1988, p. 74).[2]

In addition to the monopoly rents, the difference in job structure between firms affects difference in the process of wage determination (Hodson and Kaufman, 1982). The differences in firm size and capital monopolization produce different characteristics of job structure in each sector. According to Gordon, in core sector, which is monopolistic or oligopolistic in the product market, job structure is characterized by

2 Edwards (1979) suggests similar idea on monopoly rents while saying that "core corporations are more profitable than other firms, and hence they can devote mom resources to developing structures of workplace control. It is not simply that they start with capitals, but these capitals also generate a perpetual and more-than-proportionately flow of profits, some of which can be shared with workers (p. 87)."

internal labor market having differentiated task and wage schedules with often well-defined career patterns. In the job structure, formal education is widely used to mediate individual access to job ladders, and workers wages are largely determined by their respective access to different job dusters, by relatively rigid pattern of wage attached to the job structures through which they respectively move, and by the speed with which they pass through these structures. In the peripheral sector, which is competitive in the product market, job structure is characterized as more restricted, dampens task and wage variations. In the job structure, wages variation in individual hourly wages will depend very little on variations in individual capacities like aptitude, reasoning, and vocational skills (Beck et al. p. 407). Specifically, the weak relationship between education or schooling and incomes in segmented sector of economy, according to Cain (1975, pp. 1246-1247), stems from the improper use of methodological procedures, i.e., a methodological flaw of fitting the regression to a sample that is truncated on the values of the dependent variable. He contends that with the truncated dependent variable, the estimated coefficients of the independent variables are biased, i.e., the simple regression relations between education and earnings will be lessened.

3.3 Dual Labor Market Theory

Dual labor market theory divides labor market into two distinctive sectors, i.e., primary and secondary sectors. The dual labor market classification is based on the interest in the labor force problems of disadvantaged: the existence of barrier to mobility into good jobs. In this regard, Piore (1973; 1975) attempted to explain dual or tripartite labor market in terms of mobility chains, which represents that socioeconomic movement is not random, but more or less structured. According to him, primary labor market consists of jobs with relatively high wages, good working conditions, chance of advancement, equity and due process in the administration of work rules, and employment stability. On the other hand, the secondary labor market consists of jobs with low-paying, poor-working conditions, little chance of advancement (Piore, 1975:126). Between these two groups of jobs, Piore argued, there are barriers to mobility. Within this perspective, therefore, the important distinction for analyzing the labor market is that between good and bad jobs rather than between skilled and unskilled workers (Kalleberg and Sorensen, 1979, p. 357).

Yet, it is more the distinction between good and bad jobs that the dual labor markets implies. The distinction among segment owes to the differences of ways in which people learn and understand their work. This means the "psychological differences of workers" according to two distinguishing learning processes: abstract vs. concrete concepts (Berger and Piore, 1980).

What are foundations of dual labor market? Berger and Piore (1980) summarize the discussion on the causes of the economic dualism. One trend emphasizes the role of demand side of the market. Treating a certain portion of workers as a quasi capital gives rise to the emergence of primary market. Influenced by human capital theory, the workers are more valuable for employers when they are treated as capital. Therefore, workers as quasi-capital tend to form primary market in order to maximize profit.

This argument is also related to the importance of technology in the formation of dual labor market. Piore (1975) points out that, the specialized capital intensive techniques tend to generate primary jobs, which are accompanied with standardized market and, stability and certainty of demand. As technology is specialized and capital intensive, the worker's value becomes high. On the other hand, he sees that unspecialized, labor intensive techniques tend to generate secondary jobs, which are associated with less standardized market, and uncertainty and instability of demand.

The other perspective emphasizes the role of supply, particularly the workers of primary labor forces. Piore (1983) suggests that (1) trade union organization and activity; (2) the outgrowth of national employment contract between workers and their employers in which the latter, in return for certain concessions in the level of wages, agree to stabilize the variability of wages and employment, are responsible for economic dualism.

It is interesting to note that segmented labor market reflects class subculture. Piore's tripartite labor market, i.e., periphery, low-tier of core, and upper-tier of core sectors is related to the working of class subculture. He explains the process while emphasizing lower-class adult life-style is essentially a derivative of the working-class style. The transitions of youths who start from secondary work vary according to family formation and the availability of stable jobs not only to the individual but also to enough other members of his or her peer groups so to have group norms enough to support the change in the individual's life style. Therefore, the middle-class youths tend to move into the upper-tier of primary jobs, and the working-class into the lower-tier of primary jobs, leaving the lower class in the secondary jobs.

There is difference in the level of wages among segmented labor markets. Why primary jobs offer higher wages than do secondary jobs? There are two kinds of explanations. First, the type of skills that primary job requires is responsible for high wages in the jobs. The primary jobs demand job-specific skills, which are sequentially arranged due to the utilization of advanced technologies and integrated production processes. When most cost efficient method of procuring workers with the requisite skills is via on-the-job training, turnover of workers costs much to employers and thus profit maximizing core firms provides job security and other incentives such as higher wages, fringe benefits, better working conditions in order to reduce turnover. In this explanation, we can detect the relationship between internal labor market and the characteristic of skill, which in turn affect the mechanism of wage determination in dual labor markets. Additionally, dual labor market theorists argue that secondary labor markets are characterized by production technology which place limited value on experience. Therefore, workers receive few, if any, returns to seniority, and employers do not care about labor turnover. In contrast, where production technology requires workers who have specific skills, firms will train their new workers to give them the needed skill, and pay their experienced ones a higher wage (DiPrete, 1990）.

The second theory tries to explain high wage in the primary jobs in terms of labor control and class consciousness. This interpretation underlies the idea of the fragmentation of the working class within the firm by creating artificial inequalities and gradations between different factions of the working class. The fragmentation eventually contributes to long-run profit maximization by undermining the development of working-class organization aimed to increase the relative wages of the working class (Hodson and Kaufman, 1982, p. 730).

Both dual economy theory and dual labor market theory appear to challenge neoclassical theory while rejecting market-clearing wages, i.e., equilibrium wages. In core firms or primary jobs, wages are above the market clearing wages. The reasons why they pay more than market-clearing wages may be attributable to the existence of monopoly rents and the consideration of profit-maximization processes, which are for the adjustment to specific characteristics of skills or for the creation of labor control. It is important to note that Lang and Dickens (1988) argue that the absence of market clearing wages can be explained in the neoclassical way, which they called “efficiency wage model.” The efficiency wage models provides an idea that firms do not have to choose the lowest possible wage, rather they can choose the wage that maximizes their profit, even if it is above market clearing point. In most efficiency wage models, output is assumed to depend on the wage and not just on the quantity of labor employed. This models, particularly morale model, fit easily into the neoclassical paradigm of profit-maximizing firms and utility-maximizing workers with constant preferences (Lang and Dickens, p. 80). Lang and Dickens argue that the difference in efficiency wage among industries or firms may the foundation of segmented labor maskers. They said, “If the costs of monitoring workers or the costs of worker malfeasance differ among industries, the wage levels that maximize profits will differ among industries; if there is a set of firms that pay efficiency wages and a set of firms that do not pay efficiency wages, then there will be two sectors of the labor market (Lang and Dickens, 1988, p. 81)”.

4. Criticisms of Structural Approaches to Wage Determination

Structural approaches to wage determination have been criticized for their lack of theoretical coherence and empirical support. Cain (1976) criticizes segmented labor market theories, which encompass the literature of anti-neoclassical dualistic approaches, as “sketchy, vague, and diverse if not internally conflicting (p.1221).” This is due to the state of their theoretical model, in which its key concepts such as core sector and primary jobs, has not been clearly defined. For example, Baron and Bielby (1980) raise a question about whether occupations and industries are adequate units of analysis. They argue that neither occupations and nor industries are homogeneous dimension. Therefore, classification in dual model cannot be adequately done. In the dual economy theory, the link between these concepts and other components of the model has not been clearly laid out. Hodson and Kaufman (1982) said that in dual economy model, the ability of exploitation in core sector is believed to produce dualistic market structure. However, since there are many mechanisms of exploitation (e.g., monopoly pricing versus preferred customer status versus the existence of satellite firms), so it is unlikely that there is only a dualistic relationship between firms (p. 732).

The lack of well-specified link between components of the dual model makes the dual approach more or less descriptive rather than theoretical. In fact, the model depends on contrasting characteristics of sectors or jobs in the analysis of the labor market structure. In addition to descriptive characteristic of dual approach, it can be said that operationalization of the model is dangerously circular. In the model, "industrial characteristics are combined with labor characteristics and with outcome variables and a summary measure of the dual economy is extracted (Hodson and Kaufman, 1982, p. 733)." That is, causal and outcome variables are circularly combined in generating major explanatory concept.

With respect to empirical issue, Cain (1976) criticizes that the dual approaches do not have empirical support and even do not come up with the criteria for empirical test. The dual model do not specify some criteria for what assigns a worker to a certain sector and what degree of' bimodality or immobility would be considered sufficient to justify the dual label (p.1231). In dual economy theory, the various dimensions of economic structure should together in to a single factor or dimension of economic structure, for example big firm size leads to monopoly sector. However, Hodson and Kaufman (1982) report that there are mixed empirical support for that. In addition, there is not any empirical support for the uniform effect within a sector on wages level and job stability.

Finally, Hodson and Kaufman (1982) criticize the parallelism between dual economy and dual labor market. More often than not, it is believed that core firms consist of primary jobs and competitive firms secondary jobs. However, the existing empirical evidence shows that the core and periphery sectors are anything but homogeneous in labor market characteristics (p. 734).

In light of these serious critiques against theoretical and empirical aspects of dualistic approach, can we conclude that it is not a well-defined alternative theory to neoclassical theory and that serious empirical inconsistencies have rendered existing models of the dual economy unusable? The answer to this question, however, should be reserved until we assess the sociological researches, which have centered upon the establishment of empirical foundation of dualistic approaches.

5. Toward Sociological Theories on Wage Determination

5.1 New Structuralism

From the beginning, sociological scholarship on the labor market has tried to establish empirical foundation for structural effects on wage determination. Some contend that the sociological scholarship of wage determination was a reaction to a sociological supply-side explanation of earnings process, that is, status attainment theory. However, it is important to note that the status attainment theory is not intended to the labor market process. In fact, it is concerned in the mechanism of intergenerational transmission of social status. In search of the mechanism of status attainment process, researchers centered on the relationship between schooling and social origin (Bielby, 1981). Further, Bielby (1981) attempts to incorporate the status attainment theory into the scholarship of wage determination. While admitting that unlike human capital theory, the status attainment theory is not wall-designed to study labor market structures and processes, in general and the process of wage determination, in particular, the status attainment theory individual's occupational status representing one's market capacity is indirectly related to one's income in the labor market (Bielby, 1981, p.14; Wright, 1979, p.71). Also, Bielby claims that the status attainment theory can be compatible with the theory of income determination if it is admitted that resources that vary by social origins can affect the costs and returns to human capital acquisition (Bielby, 1981, p.15). Put in other way, in order to understand income determination within status attainment theory, it is necessary to understand both the ascriptive and achievement process and their influence on income in their occupational status (Wright, 1979).

Sociological perspectives on the process of wage determination, therefore, have tested the relationship between structural factors, such as employers and firms, and earnings (Tolbert et al. 1980; Beck et al. 1978; Stolzenberg, 1978). However, it is unfortunate that these sociological approaches inherit the weaknesses that their counterpart in economics have.

There also have been sociological traditions that affected the sociological analysis of the labor market. They were influenced by Marxism, Weberian organization theory, and social network analysis. These sociological traditions, I think, may provide structural approach in economics with conceptual clarity and unique insight to the analysis of labor market. This can be dealt after the review of sociological debate around supply or demand sides explanation of wage determination.

Perspectives which emphasize the demand side of labor market are heavily influenced by dual economy theory. The so-called new "structuralism" attempts to investigate empirical supports for the fact that individual achievement in the labor market is a function of structural factors such as organizational size or labor market sector (Baron and Bielby, 1981), Tolbert et al. (1980), based on dual economy theory, argue that economic segmentation distinguished by levels of competition/oligopoly makes significant difference in earnings between sectors. They find out that core worker earn more than their counterparts in the periphery even when the difference in schooling is less than one year between two sectors (p.1112). Beck et al. (1978) also suggest the sectoral differences in earnings while observing that "there is a considerable cost borne by periphery worker over and above that which we can account for by the quality of that labor (p. 714)." Moreover, they also find out that differential contribution of human capital between sectors, that is, schooling has an important positive effect on annual earnings in the periphery but nonsignificant in the core (p. 715). Therefore, they conclude that sectoral differences in earnings cannot be explained by differences in labor force quality, but from discriminations embedded in economic segmentation. More empirical research results support these arguments latter on. Jacobs (1982) finds that the most consistent predictor of inequality is the degree of competition. His results widen the impact of the sectoral argument and show that institutional arrangements in the economy have important effects on aggregate inequality in a highly industrialized society. Jacobs (1983) also finds that for all groups, collar color inhibits career mobility significantly more than does industrial sector.

Further, Stolzenberg (1978) criticizes neglect of the role of employers in the empirical sociological research on occupational attainment and earnings. While acknowledging segmented economy theory provides a specific linkage between firm size and the mechanisms governing employee socioeconomic achievement he suggests that the size of an employer organization affect indirectly through other dimensions of organizational structure to alter the effect of workers' schooling on their earnings and occupational attainment.[3] Kalleberg, Wallace and Raffalovich (1984) find that the degree of capital concentration in the industry affects the "labor's share"---the distribution of benefits between employers and workers. Villemez and Bridges (1988) also find that the effect of organizational size and/or the industrial/market scale on individual outcomes are not straightforward, it varies by gender, occupation, and industry. Thus, Kalleberg and Buren (1996) conclude that institutional forces may induce large organizations to pay high wages and provide better fringe benefits and opportunities for promotion, especially in the firms with internal labor market.

New structuralism's commitment to dualistic approach makes it inevitable to inherit the problems of the dualistic approach. We can add some criticisms by sociologists. Granovetter (1981) criticized it as theoretically incoherent revision of neoclassical perspective. In a more critical article, Smith (1989) claims that there is little uniqueness in sociological analysis, particularly new structuralism. According to him, the new structuralism has not provided a convincing counterevidence against neoclassical theory. Rather sometimes it can be distinguishable from neoclassical theory. For examples, persistent inter-industry differences in earnings can disappears in the long periods of time; efficiency wages approximates to the marginal product in the long run; seniority can be a human capital measure if not assuming bargaining power entangled with the possibility of quitting; even bargaining power is based on the superior productivity of the experience worker. In light of this arguments, Smith contends that "new structuralist" can be described

[3] In a fairly close replication of the Stolzenberg's empirical analysis, however, Sakamoto and Chen (1991) suggest a negative interaction between establishment size and schooling. While showing a contradictory result from the often-cited model of the relationship between schooling and firm size, they find exaggerated conclusion and some statistical problems in Stolzenberg's analysis.

as an exercise in relabelling (p. 836), and concludes that sociology can be complement to economics rather than a vehicle for its refutation, while paying attention to the explanation for shifts in demand and supply elasticities or obstacles of equilibrium, that Granovetter (1981) suggested earlier.

Upon Smith's criticisms of the new structuralism, Sorensen (1989) replies that Smith's attempt to assimilate new structuralism with neoclassical theory is a very weak defense of neoclassical theory. He further mentions that even if the conceptual framework employed by sociologists at time appears unsatisfactory, it should be noted that they have provided interesting and valuable knowledge about the process and structures ignored by economists (p. 844).

5.2 Social Capital

In addition to the new structuralism, the discussions on social capital by sociologists have received much attention these decades (e.g., Burt, 1992; Granovetter, 1981; Knack and Keefer, 1997; Portes, 1998, 2000; Paxton, 1999, 2000). As a matter of fact, about the factors which affect individual achievement, social capital has been seen a noticeable one. Bourdieu (1985) defined the concept of social capital as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition." Social network must be constructed and are not natural given.

Portes (1998) notes that Bourdieu's definition makes clear that social capital is decomposable into two elements: (1) the social relationship itself that allows individuals to claim access to resources possessed by their associates, and (2) the amount and quality of those resources. Baker (1990) defines the term as "a resource that actors derive from specific social structures and then use to pursue their interests;

it is created by changes in the relationship among actors." Schiff (1992) defines the term as "the set of elements of the social structure that effects relations among people and are inputs or arguments of the production and/or utility function." Burt (1992) sees it as "friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital." From these definitions, we can see that social capital is the level of a man who contact with the others in his social network, and the network can makes him own benefit. Granovetter's "weak ties" theory, Burt (1992), Padgett and Ansell's (1993) "structural holes" or "net holes" were based on the similar point of view. According to this viewpoint, a man with better social capital will get better opportunity in labor market and higher wage.

Lin, Ensel, and Vaughn (1981) find that the job seeker's personal resources as well as his use of weak ties affect his ability to reach a contact of high status. Wegener (1999) finds that individuals with high status prior jobs benefit from weak social ties, whereas individuals with low status prior jobs do not. However, Portes (1998) claims that "social ties can bring about greater control over wayward behavior and provide privileged access to resources; they can also restrict individual freedoms and bar outsiders from gaining access to the same resources through particularistic preferences." Similarly, Lin and Bian (1991) find that the benefit from social resources in the job search is existence, but the degree is different by gender. Thus, "social capital" could not only be a new perspective to rethink the study of individual attainment, but also a good way to develop the phenomenology of attainment. However, the relationship between job and wage isn't clear yet, and a job seeker uses his social resources to get the job he wants maybe not because of higher wage. Therefore, "social capital" is still not sufficient, or at least, is controversial to explain the wage determination process independently.

5.3 Worker Power

Sociological approach to wage determination has been to specify the demand side in the labor market. However, it has been suffered from the problems in theoretical as well as empirical aspects, of which we discussed earlier in this paper. Moreover, the sociological approach cannot enjoy the previous privilege by mere commitment to demand side of wage determination because the neoclassical theory also appears to convincingly explain the demand side of wage determination based on the principle of profit (utility) maximization even in a different way. In this regard, it is required to modify and to elaborate the existing new structuralism to more clearly reveal "non-market" mechanism in the process of wage determination. In the remaining of this paper, I will do this job by focusing on the ignored aspect of previous analysis of wage determination.

Worker power often refers to "the ability of employees, individually or collectively, to obtain an advantaged position in the stratification system, which provides workers with the different market capacity (Kalleberg et al. 1981)." The worker power may come from individual's productivity associated with human capital. However, it is important to note that it does not refer to individual ability before entering the labor market. In this sense, it is distinguished from human capital theory. Furthermore, the worker power is also associated with collective ability of workers, which is continuously interrelated with the labor market structure and organizational settings, which surround them. In this sense, the worker power analysis is also distinguished from individualistic approach of newly interpreted neoclassical theory.

New structuralism has not given much attention to "workers power." Even the implication of worker power appears in the discussion of monopoly rent is dwarfed by the emphasis on "ability to pay" in the new structuralism (see Lang and Dickens, 1988). In fact, the new structuralism has stressed the effect of firms or industries on wage determination process. For example, in core sector having monopoly market position, capitalists are likely to manipulate workers to reduce turnover costs and to diffuse discontent. The new structuralism thus appears to not allow the role of worker in the wage determination.

However, in the sociological tradition the worker power has been one of central issues in Marxist analysis of capitalist society. Weber's theory of organization also provides an important knowledge about employment relationship. In fact, there are several approaches to wage determination with Marxist or Weberian framework. In a neoMarxist tradition, Wright (1979) argues that income in the labor market is determined by "the location within the structure of class relations" and "individual characteristics and the location within exchange and technical relations." In particular, those of semiautonomous employees and manager who have control over labor power is affected by their "possession of authority." Drawing on Weber's organizational theory, Sorensen and Kalleherg (1981) argue that the nature of employment relationship in the labor market is a power relationship, for each party tries to control something of interest over the other party. And they also contend that the level of wages is conditioned by the extent of the power relationship between workers and employers.

In the labor market, worker's possession of power or control is conditioned in the labor market structure by the combination of firms, industry and job characteristics (Hodson and Kaufman, 1982). While few sociologists attempted to find out the sources of the worker power, their studies tend to converge on the affect of the "internal labor market," "unions," and "segmented economy" on the worker power as determinant of wages.

Regarding the internal labor market as a source of worker power, Sorensen and Kalleberg (1981) presented it in terms of employee control over the jobs drawn on Weber's concept of employment relationship. Their arguments suggest that workers can gain the control in the closed employment relationship, i.e., internal labor market. Therefore, they presented several characteristics of the internal labor market as sources of worker power. On-the-job training in the internal labor market is an important source of worker power. For it represents employers' investment to employees, to secure their investment employers have to admit employee control over the access to the jobs. They suggested that the existence of job ladder in internal labor market maybe source of worker power. In the situation, new recruits can only get access if the incumbent leave, which facilitates employee control over decision to leave by assuming noncompetitive promotion in the labor market. Sorensen also pointed out that job tenure in the internal labor market becomes a source of worker power because it gives worker with experience and knowledge on which employers to depend.

Sorensen (1983) also suggested that the sources of worker power lie in the formation of more or less collective, institutionalized arrangements between employers and workers, i.e., unions. According to him, effect of union on worker power in the process of wage determination stem from the facts that it is barriers to entry and it reflect labor market monopolies and that it create and maintain internal labor market.

Worker power is conditioned by economic segmentation. Hodson and Kaufman argued that workers' resource to be used in improving their conditions in workplace including wage depends on their place in segmented economy. Workers in large firms have greater possibilities for communication and organization than workers dispersed in multitude of small shops. Here the size can be used as a worker resource (Hodson and Kaufman, 1982, p. 736). Besides, Kalleberg, Wallace, and Raffalovich (1984) argue that in the industry with greater capital concentration, e.g. the auto industry, union organization is along industrial rather than craft lines; and strike propensity is greater. Another related study is Finlay's (1988) immersing himself in the lives of longshoremen and stevedoring managers in the Ports of Los Angeles and Long Beach for eight months in 1981. He offers insights into the micro-sociology of the workplace, tempered by a look at the economic and historical forces that shape it. Finally, he finds embroidering upon "the deal" is a way for longshoremen to beat the system merely for the sake of it, the labor agreement that gives longshoremen their enduring protection is undermined by these symbiotic deals: union officials can't invoke the contract to counter employer abuses on jobs with only half the required work force present. He contends that mechanization does not necessarily shift the balance of control away from workers, but rather that its impact on workers' control is contingent upon the capacities of firms, workers, and unions.

From another perspective, "lay-off costs" is an important factor affects the hiring standard of the firms. Strand (2000) surveys the relations between wage bargaining and turnover cost, he finds that when firing costs are high relative to hiring costs, the lowest hiring standard chosen by firms is higher than the planner's standard, but may be lower in the opposite case, and a tendency for a high initial unemployment rate remains high, particularly for low-skilled workers. Ljungqvist (2002) points out the strong negative employment effects of lay-off costs arise through an increase in the effective bargaining strength of workers. In other words, in addition to the factors derived from workers' characters, structure, and institution, the interactions between employers and workers in the industries with different capital concentration and lay-off costs also have significant effects on wage determination process. From the discussion on the sources of worker power, we can perceive that wage in the labor market is determined by the interrelated process between worker and structure. The emphasis on worker power leads sociologist attention into worker as active participants in the process of wage determination.

6. Conclusion

As one of primary labor market processes, the process of wage determination is closely related to that of social inequality. When conceding that social phenomena of social inequality are central in sociological inquiry of the labor market, we can say the importance of the process of wage determination in the field. Regarding this crucial link of wages to social inequality, a conventional economic approach puts much emphasis on the market mechanism, i.e., the schedule of supply and demand of labor. The neoclassical theory tends to explain how wages are determined by heavily relying upon the process of maximizing individual pecuniary rewards from participating in labor markets, which are competitive and homogeneous.

However, real labor market situations do not allow that wages are determined only in terms of the market mechanism. The observation of discriminations due to "structural" or "organizational" reasons forced neoinstitutional and sociological perspectives to come to the fore. The non-market mechanisms like internal labor market and, dual economy and dual labor market make us approach the process of wage determination or social inequality in a different way. However, exiting structural approaches to wage determination process have suffered from the dearth of theoretical coherence and empirical support.

The weaknesses of structural approaches, however, do not justify the move of centrality in the study of wages away from structural to economic one. We should keep the centrality of non-market mechanism in explaining the process of wage determination. To evade the existing weaknesses that sociological perspectives are encountering, new approaches should be necessary. As one of them, in this paper I propose "worker power" perspective that has been more or less ignored by the researchers of sociology of labor market. Combined with elements of structure and workers, the worker power approaches may provide abound opportunities to test empirical relevance of the argument. Moreover, by adopting purely sociological concepts on the labor market from the Marxian or Weberian legacy, sociologists may find the autonomous areas in studying the labor market processes, in particular time process of wage determination.

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薪資決定論的整合觀點

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摘要

長久以來，職場上薪資的決定標準一直是個被廣泛討論的重要議題。諸多理論對此等標準雖各有說法，卻始終遍存著爭議。傳統人力資本論所強調的勞工邊際生產力，似嫌過度強調勞動之供給面；經修正的主張兼論了供需兩方，卻又因無法描述真實的勞動市場情形而飽受批評。雙元對立的分析取向對職場的區隔與薪資決定的過程提出說明，但仍因其定義不明確及缺乏實証研究依據而充滿爭議。晚近的社會學者們企圖點出勞動市場結構的力量，並重新引用馬克思主義及韋伯的組織理論來從事理論鋪陳及實証分析，不過至今的研究成果多屬片段，也存有不易讓人信服的質疑。

經仔細回顧新古典理論、新結構主義及社會學取向的相關文獻，整理其間之諸多討論與爭議後，我們認為勞動市場結構與薪資決定過程間的關係必須重新深入思考。我們嘗試提出以「工人權力」的思考角度，透過對其社會資本的討論，分析職業關係、職場規模、及雇主與職員之間的權力關係，來了解勞工薪資與諸多結構因素之間互動過程。希望能藉此較為統合的觀點，降低過去各派學說遍存的爭議，彌補其不足，並為日後的經驗研究提出一可能實際操作的方式。

關鍵字：薪資決定標準、人力資本論、雙元分析、社會資本、工人權力