
The Minimum Wage System in Japan: In Light of Circumstances in the United States and Europe

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This paper aims to provide an overview of the history of the minimum wage system in Japan and to explore why it is in its current state and how it should change in the future, in light of the state of minimum wages in the United States and Europe and the relevant debates that are ongoing in those areas. Specifically, I will make a cross-country comparison of the mechanisms whereby the minimum wage is set, explain how the differences in these mechanisms affect the level and trends of minimum wages, and shed light on the weaknesses of the foundations of theoretical models designed to verify the positive effects of a minimum wage increase on employment. This research is intended to help achieve a better understanding of the significance to Japan's labor market of the government initiative to considerably raise the minimum wage following the amendment of the Minimum Wages Act, and to examine how the minimum wage system in Japan should develop in the future, while taking account of the state of minimum wage systems in the United States and Europe.

I. Introduction

In campaigning for the House of Representatives elections in 2009, the Democratic Party of Japan, which was an opposition party at the time but which emerged as the biggest force of the ruling coalition as a result of the general election, pledged, in its election manifesto, to set the national minimum wage, applicable to workers across Japan, at ¥800 per hour, and to raise the national average of region-specific minimum wages to ¥1,000 per hour. As is indicated by this campaign pledge, there are several problems with the minimum wage system in Japan. First, although there is a growing public awareness of the existence of serious poverty as exemplified by the working poor, and although this awareness is making the reduction of income inequality an urgent issue, the level of the minimum wage is not sufficient to support the lives of the poor. Second, in many cases, people working for minimum wage earn less than they would receive from welfare benefits, even if they work 40 hours a week, the maximum regular working hours under the Labor Standards Act. Third, as wages for foreign workers tend to be set at a level close to the minimum wage regardless of their job skills or performance, there is likely to be distortion in the mechanism for the distribution of labor resources.

This paper aims to explore why the minimum wage in Japan is in its current state and how it should change in the future in light of the history of the minimum wage in Japan, the present state of minimum wages in the United States and European countries, and the relevant debates that are ongoing in these regions. The paper is structured as follows.

Section II presents a cross-country overview of the purposes of minimum wages and the minimum wage-setting mechanism, and examines how differences in this mechanism affect the levels and trends of minimum wages. Section III discusses differences in the effects produced by the minimum wage system in different labor markets in light of the state of minimum wages in the United States and European countries and relevant debates that are ongoing in these regions. Section IV provides a theoretical analysis of the effects of the minimum wage on employment. In particular, it sheds light on the weaknesses of the foundations of theoretical models designed to verify the positive effects of a minimum wage increase on employment. Section V presents an overview of the history of the minimum wage in Japan, and examines why it is in its current state and how it should change in the future.

II. Purpose of the Minimum Wage and Minimum Wage-Setting Mechanisms

Article 1 of the Minimum Wages Act states, “The purpose of this Act is to help to secure stability in the lives of workers, improvement in the quality of labor, and fair business competition, and also to contribute to the sound development of the national economy, by improving the terms of employment for low-paid workers through the assurance of a minimum wage.” The ILO convention on minimum wages (Convention 26) also stresses the need to apply minimum rates of wages and ensure fair competition, and the purpose of the minimum wage as stipulated in the above-mentioned Japanese law is common to most of the countries that have ratified the ILO convention. However, even though the primary purpose of the minimum wage is common, the minimum wage-setting mechanism varies significantly from country to country. Although there are, generally speaking, four mechanisms, the current paper looks at three of them, those other than the mechanism under which a labor court or a similar entity has the decision-making power.¹ It should be kept in mind that two or more mechanisms may be in place in a single country due to differences by industry, sector or region, for example.

(i) **Council-set minimum wage:** A deliberative council comprised of equal numbers of representatives from both the labor union and employer sides, as well as independent members, sets the minimum wage level. In some countries, the wage council has both formal and effective decision-making power while in others, it acts as a consultative body for a formal decision-making entity while maintaining effective decision-making power. The former arrangement is in place in Belgium, and it was also used in the United Kingdom when the

¹ For the classification of minimum wage-setting arrangements, see Roudou Chousakai (2009) and Funk and Lesch (2005). Arrangement involving labor courts are used in Australia and New Zealand. Under these arrangements, an agency that mediates between labor and management, such as a labor court or a labor committee, makes deliberations while collecting opinions from both sides before making a judgment or decisions on minimum wages.

country had wage councils for certain sectors (this system was abolished in 1993).² The latter arrangement is in place in many EU countries, including the United Kingdom, France, and Spain, as well as Japan. The council-set minimum wage will be discussed in detail later in relation to the minimum wage in Japan.

(ii) **Statutory minimum wage:** The minimum wage level is set forth in the law, and revisions require normal legal amendment procedures. In the United States, for example, the federal minimum wage is set through a legislative process including deliberations in the Senate and the House of Representatives, and the minimum wage level is specified under the Fair Labor Standards Act (enacted in 1938). In addition, the minimum wage is also set by each U.S. state under state law. However, in some cases, the council-set minimum wage and the statutory minimum wage co-exist. Some states also differentiate the minimum wage by industry or job type.

Generally speaking, the state minimum wage rate is equal to or lower than the federal minimum wage rate. This is because in most states, the state minimum wage is almost universally applicable to all the workers in the state while the federal minimum wage is applicable only to workers that meet certain criteria, such as those engaging in interstate commerce (including transactions, transportation and communications that extend across state borders) and those employed at companies of a certain size or larger. However, as the frequency of revisions to the federal minimum wage has decreased in recent years, some states have adopted the policy of setting their respective minimum wages at a level higher than the federal minimum wage in order to avoid a drop in inflation-adjusted, real minimum wages.³

(iii) **Collectively agreed-upon minimum wage:** The minimum wage specified under a labor union-employer agreement concluded through collective bargaining is applied automatically, based on the extension law that authorizes an extension of the agreement, to workers other than members of the labor union that is party to the agreement. However, for the collective agreement to be applicable to external workers, it must be one that originally covers a legally prescribed percentage or more of workers employed in a specific industry or workers engaging in a specific type of job in a specific region. This means that the original coverage rate must be high. Collective bargaining is seen in Germany, Italy, Austria, Denmark, Sweden, and Norway. According to Funk and Lesch (2005), the percentage of work-

² When a deliberative council comprised solely of representatives from labor and management makes decisions on minimum wages, the deliberation process becomes similar to collective bargaining. Machin and Manning (1997) classified Belgium as a country where minimum wages are set as a result of collective bargaining. In the United Kingdom, the Wages Councils Act was abolished as part of the deregulation initiative promoted by the Thatcher government. However, the Low Pay Commission was later established under the National Minimum Wage Act of 1998. Based on recommendations made by this commission, the UK government sets minimum wages.

³ For the historical trend of minimum wages in the United States and relevant empirical research, see Brown (1999) and Neumark and Wascher (2007), for example.

ers covered by collectively agreed-upon, sector-specific minimum wages through the extension procedure is 69% in Germany, 100% in Italy, 98% in Austria, 81-90% in Denmark, and 70% in Norway.⁴

In France, the collectively agreed-upon minimum wage, used in specific industries, and the council-set minimum wage (known as SMIC, or *salaire minimum interprofessionnel de croissance*), universally applied to workers across all industries in the whole of France, co-exist. When the collectively agreed-upon minimum wage is higher than the SMIC in a specific sector, it is under the extension law applied to workers engaging in that sector. In principle, this arrangement is also in place in Spain.

Meanwhile, in Germany, a sector-specific statutory minimum wage is starting to be introduced. The minimum wage level is not set by a deliberative council; rather, the government adopts a collectively agreed-upon minimum wage for a specific sector as a statutory minimum wage. A sector-specific statutory minimum wage was introduced first for construction-site jobs, in 1997, and then for such jobs as painting, roofing, and demolition/wrecking, in 2004. The German government has proposed to apply such minimum wages to all sectors. This proposal is intended to prevent wage dumping in Germany by introducing minimum wages for foreign workers coming from such countries as Poland and the Czech Republic.

In Japan, as well, the extension of collective agreement was legislated, and minimum wages were set for workers engaging in painting in Hiroshima and Shiga Prefectures based on labor-management agreements. However, as a result of the amendment of the Minimum Wages Act in 2007, such local minimum wages were abolished, as they were regarded as not suited to the labor-management relationship in Japan.

III. Debates in the United States and Europe

In recent years, the unified theory⁵ has become a popular object of debate among Western economists. This theory attributes the divergence in economic performance between major continental European countries, such as Germany, France, Italy, and Spain, and Anglo-Saxon countries like the United States and the United Kingdom, to the difference in labor market flexibility as represented by wage rigidity and wage inequality in particular. After the global financial crisis was triggered in 2008 by the subprime mortgage crisis, the unemployment rate rose steeply in the United States, reaching 9.7% in August 2009, and surpassing the 9.5% recorded in the 16-country euro zone (as of July 2009).⁶ However,

⁴ It should be noted that the figure for Germany is for 2003. In the case of Italy, the coverage ratio comes to 85% if non-regular workers are included. The arrangement in the Netherlands, whereby the government is supposed to set minimum wages based on the results of collective bargaining, can be classified in effect as collective agreement.

⁵ For further details, see Blau and Kahn (2002).

⁶ The source is JETRO Daily (September 18, 2009).

previously, the unemployment rate in the United States had remained mostly around 5% from the 1960s through 1990s, except for a brief spike above 7%. In contrast, the unemployment rates in the United Kingdom, pre-unification West Germany, and France, which used to be just around 2 to 3%, started to rise in the 1970s. In the early 2000s, the rate surged to around 8% in France and Germany. What is noteworthy is that the unemployment rate in the United Kingdom took a downturn in the latter half of the 1980s, declining from over 10% to around 5%, similar to the level seen in the United States. The decline presumably reflected the effects of deregulation measures implemented under the Thatcher government in the 1980s.⁷

Western economists generally stress the difference between the United States and continental European countries in their responses to various economic shocks that have arisen since the 1960s, including the two oil shocks and the technology innovation that disproportionately favored skilled workers: the United States managed to adapt itself to those shocks through flexible adjustments of real wages, while continental European countries saw wages generally rise, with relative wages for unskilled workers kept at a high level. As a result, they argue, the unemployment rate dropped and wage inequality widened in the United States and the United Kingdom, whereas in Europe, the unemployment rate rose, particularly among younger people, and wage inequality narrowed. According to the OECD Employment Outlook (2004), the earnings dispersion expressed as the 90-10 percentile ratio of the gross earnings of full-time employees was relatively high in the United States and the United Kingdom, at 4.59% and 3.45%, respectively, while the ratio was 2.87% in Germany and 3.07% in France. Moreover, for more than 20 years, wage inequality has been widening in the United States and the United Kingdom. In short, the unified theory suggests that unemployment and wage inequality are two sides of the same coin.

What is the situation in Japan? The unemployment rate in Japan has shown an up-trend, and it surpassed the rate in the United States temporarily as it rose to 5.6% in 2003. However, the unemployment rate has generally stayed lower in Japan than in the United States. Meanwhile, wage inequality among full-time employees is almost the same in Japan as it is in France, although larger than in Germany, and it has not widened. However, if non-regular employees are taken into account, wage inequality is probably widening in Japan, too. This is because wage inequality between part-time employees and regular employees is widening and the ratio of part-time workers to the overall labor force is rising.⁸

What is wrong with the institutional framework of the labor markets in continental Europe? Four problems are frequently cited. First, whereas the wage-setting process is de-

⁷ For a brief summary, see Howell (2005).

⁸ According to the 2006 White Paper on the Labour Economy (Ministry of Health, Labour and Welfare, 2006), inequality in hourly regular salary has narrowed slightly in recent years, after continuing to grow in the 1990s through 2002. Meanwhile, the 2008 Annual Report on Health, Labour and Welfare shows that the percentage of non-regular workers has been rising since 1985 in every age group, with a notable rise recorded for workers aged 15 to 24.

centralized in the United States, with wage bargaining held on a company-by-company basis, the process is centralized in continental Europe, with negotiations conducted on an industry-by-industry basis or on a nationwide basis. Although company-by-company bargaining makes it possible to set wages in light of the circumstances of individual companies, the centralized negotiation process is disposed to lead to a uniform level of wages. Moreover, in many continental European countries, collectively agreed-upon wages are applied to non-unionized workers under a law authorizing an extension of collective agreements, thereby narrowing the wage distribution.

Second, social security systems in continental Europe are generous. For example, the average substitution rate of unemployment benefits (unemployment benefits in the first year of unemployment as a percentage of the former salary) is 59% in Germany and 37% in France, while the rate is much lower in the United States and the United Kingdom, at 29% and at 17%, respectively. Moreover, unemployment benefits are provided for a longer period of time in continental Europe. These generous terms are said to be blunting the incentive to work.⁹

Third, the rigidity of job protection systems in continental Europe is often raised as a problem. If the system is too rigid, it makes the labor market less flexible, leading to a higher unemployment rate. As the benchmark to measure the rigidity of job protection, it is designed to comprehensively take account of such factors as the period of notice of dismissal, the level of severance pay, and the duration of fixed-term employment. But it has drawn criticism for allegedly including arbitrary elements.¹⁰

The fourth problem is the mechanism whereby the minimum wage is set. First, we provide a concise comparison of the council-set minimum wage, the statutory minimum wage and the collectively agreed minimum wage in relation to the levels and trends of minimum wages in individual countries. According to Table 1, which shows the levels of minimum wages in selected EU countries, the United States, and Japan (expressed in yen), the statutory minimum wages¹¹ in EU countries other than Spain and Portugal are higher than ¥170,000 and far above the ¥115,000 in Japan and the ¥89,000 in the United States. However, a comparison of nominal wages alone is not sufficient. The Eurostat (news release: July 13, 2006) issued a report on minimum wages adjusted for the purchasing power parity for private consumer goods (as of December 2005). According to that report, Ireland, which was ranked top in terms of unadjusted minimum wage, drops to fifth place in terms

⁹ See Howell (2005). According to Pellizzari (2006), the ongoing social security reforms in Europe are aimed primarily at reducing the amount and duration of social security benefits. A concise summary is also provided by Ohashi (2007).

¹⁰ For an overview, see Nickell and Layard (1999) and Kuroda (2002).

¹¹ Different countries apply different minimum wages according to not only the worker's age, gender, job type, number of years of service, and length of weekly working hours but also other factors. For further country-by-country details, see Ragas (2004). According to the data cited here, the minimum wages in EU countries are those applied to full-time adult workers. For the source of the data, see *Sources* of Table 1.

Table 1. Cross-Country Comparison of Minimum Wages

	Minimum wage (yen) 2006	Change (%) 2000-2006	Application rate (%) 2004	Kaitz Index (decimal) 1991-1993	Kaitz Index (%) 2005
<i>EU</i>					
Germany	Collectively agreed-upon wage			0.55	
France	170,520	16.1	15.6	0.50	55
Italy	Collectively agreed-upon wage			0.71	
Spain	88,340	48.5	0.8	0.32	42
Netherlands	178,220	16.6	2.1	0.55	52
Portugal	61,180	17.8	5.5	0.45	44
Belgium	172,760	12.6	n.a.	0.60	56
Austria	Collectively agreed-upon wage			0.62	
Sweden	Collectively agreed-upon wage			0.52	
Finland	Collectively agreed-upon wage			0.52	
Ireland	181,020	36.8	3.3	0.55	60
United Kingdom	177,660	41.8	1.8	0.40	42
<i>Non-EU</i>					
Switzerland	Collectively agreed-upon wage			0.52	
Norway	Collectively agreed-upon wage			0.64	
United States	89,095	0	1.4	0.39	37
Japan	115,045	1.4	1.4*		29

Sources: The Kaitz indexes for 1991 to 1993 were cited from Dolado et al. (1996) and those for 2005 are from the European Foundation for the Improvement of Living and Working Conditions (Minimum wages in Europe: Background paper, 2007). Data were also cited from Funk and Lesch (2005), eurostat (news release, July 13, 2006), and eurostat (MINIMUM WAGES, 2005).

Note: *As the minimum wages in the selected European countries are those applied to full-time workers and expressed in terms of monthly wages, the minimum wages in the United States and Japan, originally expressed in terms of hourly wages, were adjusted to a monthly basis through multiplication by 173 hours. While the prevailing exchange rates at the time of the survey are significantly different from the current rates, the figures in the above table are based on the assumed exchange rates ¥140 to the euro and ¥100 to the dollar. The application rate represents the percentage of workers receiving minimum wages except in the case of Japan. The application rate for Japan represents the percentage of workers whose wages were lower than the minimum wage before the latest revision. The changes in the minimum wage amounts were calculated in terms of the currencies of relevant individual countries.

of adjusted minimum wage. The positions of other countries remain unchanged.

The Kaitz index represents the ratio of the minimum wage to the national average wage. In Germany and Italy, where the collectively agreed-upon minimum wage is the standard, it is necessary to weight the figures according to the ratio of workers to whom the collectively agreed-upon minimum wage is applied, as the minimum wage level varies considerably by age, industry, and job type. Dolado et al. (1996) reported on the Kaitz index recorded for various countries in the early 1990s. Statutory minimum wages, which usually include minimum wages set by deliberative councils as well as those set under law, are generally lower than collectively agreed-upon minimum wages according to Table 1. The Kaitz index was higher than 0.5 in all of the countries that adopt collectively agreed-upon minimum wages. In countries that adopt council-set minimum wages, however, the index was 0.32 in Spain, 0.39 in the United States, and 0.40 in the United Kingdom. The index was the highest in Italy, at 0.71, followed by 0.64 in Norway and 0.62 in Austria. All of the three countries adopt collectively agreed-upon minimum wages. The application of minimum wages set with the involvement of strong labor unions to non-unionized sectors under a law authorizing their extension tends to contribute to a rise in the absolute level of minimum wages and the level relative to the national average.

The Kaitz indexes for 2005 in the table, related only to statutory minimum wages, which are not weighted according to the ratio of workers covered by the minimum wage, are not much different from the indexes recorded in the early 1990s. The index for Japan, at 29%, was lower than the 37% for the United States, and was the lowest among the countries listed in this table. However, it should be kept in mind that the indexes for EU countries other than the United Kingdom concern minimum wages for full-time adult workers.

Table 1 also shows the growth rates of statutory minimum wages between 2000 and 2006. The growth was higher than 10% in all of the selected EU countries. The growth was particularly high for Spain, at 48.5%, for Ireland, at 36.8%, and for the United Kingdom, at 41.8%. In the case of Spain, the steep growth was presumably due to the high annual growth rate of consumer prices in the country, which averaged more than 3% in 1995 through 2005, the highest rate among the selected EU countries. With regard to the United Kingdom and Ireland, countries where consumer price growth was 2%, lower than in other countries such as France, the sharp minimum wage growth probably reflected their need to raise their relatively low minimum wages close to the levels in other EU countries in line with the deepening integration of the EU. Presumably, the United Kingdom and Ireland, which adopted the new minimum wage system only in 1999 and in 2000, respectively, can be inferred to initially set their minimum wages at a low level relative to their levels of productivity and living standards.

In both the United States and Japan, the level and growth rate of minimum wages are low. In recent years, the expansion of wage inequality has been empirically verified in the United States. In Japan, too, the presence of income inequality has emerged as a social problem, and the trend of minimum wages cannot be ignored as a background factor. In the

United States (the situation in Japan will be discussed later), the minimum wage is kept low because of the preference for the freedom of a market economy that is prevalent among the American people. Another factor may be the statutory minimum wage. For as long as about 10 years through 2007, the U.S. federal minimum wage was kept at \$5.15 per hour, and this probably reflected the policy of the Republican government of President George W. Bush, who took office in 2001. As the U.S. president has the power of veto, a minimum wage revision approved by both the Senate and the House of Representatives would not necessarily be legislated. As a factor behind the minimum wage revision in 2007, we may point out that the Democratic Party won a majority of seats in both the Senate and the House in the mid-term elections held in 2006, creating a situation in which President Bush faced pressure to approve the revision. Likewise, for about 10 years from 1981 (between 1981 and 1989, President Reagan, a Republican, was in office), the federal minimum wage was kept at \$3.35 per hour. As a result, the real value of the minimum wage, which was not linked to the inflation rate or a productivity rise, dropped significantly.

Among economists upholding a traditional economic theory that respects market forces, Blau and Kahn (2002) and Heckman (2003) are arguing that in order to lower the unemployment rates in continental European countries, minimum wage, social security, and job protection systems should be reformed. International organizations like the OECD and the IMF have also joined the chorus calling for such reforms. However, as those systems constitute the core of the welfare state, some European economists, including Nickell and Layard (1999) and Howell (2005), are contending that the advocates of structural reforms have a stereotyped view of textbook market economy theories. The next section examines how the minimum wage affects employment.

IV. Effects of the Minimum Wage

It is largely due to a series of empirical studies, including those by Katz and Krueger (1992) and Card and Krueger (1995), that the effect of the minimum wage on employment has started to attract the attention of economists. The study by Katz and Krueger examined the difference in the impact of the revision to U.S. federal minimum wages on the employment of low-paid and relatively higher-paid workers at fast food restaurants in Texas. The study by Card and Krueger looked at the difference in the impact on employment at fast food restaurants in New Jersey, where the minimum wage was raised in 1988, and at restaurants in neighboring Pennsylvania, where it was not. Both studies concluded that an increase in the minimum wage has statistically significant positive employment effects. As traditional economic theory held that minimum wages have negative employment effects, a storm of controversy arose among economists over the validity of the findings of these studies. The points of debate concerning empirical research techniques and the method of creating variables, and the evolution of arguments over these, are described in detail by Neumark and Wascher (2006) and by Kawaguchi (2009). In particular, Neumark and

Wascher examined the findings of more than 100 studies, selected 33 of them as reliable and pointed out that 85% of the 33 studies recognized negative employment effects of minimum wages.

Here, I would like to highlight the weakness of the theoretical basis of economic models designed to verify positive employment effects of minimum wages. Generally speaking, it is impossible to completely control explanatory variables in empirical research related to social sciences, which means that no research finding is very reliable if the theoretical basis is weak. There are three models designed to verify positive employment effects from minimum wages: the monopsony model, the search model, and the efficiency wage model. Described below is my critical assessment of each of the three models.

According to the monopsony model, when a company holds a monopolistic position in a certain region as a buyer of labor, wages rise as the company hires more workers. Therefore, the marginal cost of labor (extra costs arising from the employment of extra workers) includes a rise in wages for existing workers as well as wages for new workers. As a result, the employing company curbs new hiring in an attempt to keep the lid on wages. Accordingly, in a monopsonic labor market, the value of the marginal product of labor (value of the extra output a firm gets by employing one extra unit of labor) rises above the level of wages (which is equivalent to the price of labor at which a worker is willing to accept a job), leading to lower levels of wages and employment than in a competitive market. The monopsonic model holds that if the minimum wage is set at a higher level than the wages in a monopsonic market and employers are obliged to comply with it, employment will grow because the marginal cost of labor comprises only wages for new workers. However, this is true only so far as the minimum wage is lower than the value of the marginal product of labor. If the minimum wage is raised beyond that, employment will decline in line with a decrease in the value of the marginal product of labor.

The monopsony model is questionable in several respects. First, while an examination of the employment effects of minimum wages requires that consideration be given to small and medium-size enterprises (SMEs), which mostly employ non-regular workers, including part-time workers, companies that hold a monopsonic position in a certain region are generally large companies, where wages are higher than at SMEs. Second, wages for workers at SMEs are not necessarily close to the level of minimum wages, as the employment arrangement at such companies has become diverse. Moreover, the increased importance and productivity of part-time and contract workers in the workplace leads to a drop in the ratio of low-paid, unskilled workers. This means that the effectiveness of an increase in the employment of low-paid workers in raising the marginal cost of labor through a rise in the total amount of wages of currently employed workers will be limited. Third, it is questionable to assume, as the monopsony model does, that since a rise in minimum wages increases employment along the labor supply curve, the employment effects of minimum wages grow as the wage elasticity increases—in other words, that the more a rise in wages increases the supply of labor, the greater the employment effects of minimum wages are. According to

Cahuc and Zylberberg (2004, chap.12), studies by researchers in the West have found that on average, wage elasticity of labor supply is not large.

The search model, which was promoted by researchers such as Card and Krueger (1995, chap.11) and by Manning (2003), directs attention to imperfections in information in the labor market. As the labor market is frictional, not all people can obtain information concerning job offers, job seekers, and wages at once. As a result, various levels of wages exist in the market. Workers have to spend time and cost on finding a job, while employers have to make an effort to secure the necessary labor. Assuming that the volume of labor is represented by “L,” wages by “w” and the job separation rate by the function $q(w)$ ($q' < 0$), the number of workers who leave a company in a given business term is represented by $q(w)L$. To keep the volume of employment L at an adequate level, a company needs to hire new workers. Assuming that the number of new workers employed by a company is represented by the function $H(w)$ ($H' > 0$), the formula $q(w)L = H(w)$ must hold good at the point of equilibrium, which means the equilibrium volume of employment is arrived at through the formula $L^* = H(w)/q(w)$. Since the number of new workers “H” is an increasing function and the job separation rate “q” is a decreasing function, the equilibrium volume of employment is an increasing function for wages. If a company is to secure a higher volume of labor, it needs to pay higher wages, which means that this function is a labor supply function for individual companies. Thus, companies are placed in a monopsonic position in a labor market where there are imperfections in information, a situation which creates room for a rise in the minimum wages to lead to growth in employment.

The search model may also be criticized in several respects. First, most of the jobs for which the level of wages are close to the minimum wage do not require a high level of skill, and market wages for such jobs are generally kept low. Therefore, it would not be very rewarding for job seekers to go to great expenditure in looking for a high-paying job. Stigler (1946) pointed out another problem. In the functions related to the job separation rate and the number of new workers that were mentioned above, the wage distribution at other companies is assumed to be uniform regardless of changes in the wages at the relevant companies. However, the larger the increase in the minimum wage, the more companies are led to set their wages at or around the increased minimum wage level. Under such conditions, raising wages in line with the minimum wage is unlikely to lead to a significant change in the number of job leavers or seekers.¹²

Burdett and Mortensen (1998) promoted a refined version of the search model and indicated positive employment effects of minimum wages.¹³ The study by Card and Krueger

¹² Brown (1999) also points to the arbitrary nature of this model’s logic, arguing that even a minor modification of the function adopted in the model would lead to a significantly different conclusion.

¹³ Masters (1999) presented a concept similar to the model developed by Burdett and Mortensen (1998) under the assumption that beneficial factors other than wages exist for both workers and employers in relation to worker-employer matching.

er (1994) is also based on the refined search model. The critical point of their model¹⁴ is that in cases where different workers search for jobs at different labor supply prices, or reservation wages, companies are not necessarily willing to employ workers whose labor supply price is low relative to their productivity when they find such workers. As a result, insufficient and inefficient employment is achieved at the point of equilibrium. This is because companies continue their search for workers in an effort to hire workers with a lower labor supply price from among workers seeking jobs. If a minimum wage is set, continuing the search for workers would become worthless, as it is prohibited to conclude a labor contract at a lower wage and the hiring of workers at the minimum wage would be promoted.

The refined search model, which analyzes the employment effects of minimum wages under the framework of the general equilibrium theory, uses overly strict assumptions. For example, it is not realistic to assume, as this model does, that the marginal productivity is constant at each company regardless of changes in the volume of labor, and that the distribution of workers' labor supply prices has no relation to their skills or productivity. Meanwhile, Brown (1999) criticized this model for assuming a sequential distribution of wages, whereas in reality, spikes are observed in the distribution of wages at a level close to the minimum wage.

The efficiency wage model maintains that minimum wages have positive employment effects, on the basis of the efficiency wage theory. This theory argues that when wages have a positive correlation with labor productivity, companies set wages at a higher level than the labor supply price. Drazen (1986) maintains that as a higher average wage attracts higher-quality workers to the labor market, bringing a benefit to individual companies, increasing the minimum wage also brings a benefit to the market as a whole. Rebitzer and Taylor (1995) argue that as an increase in a company's workforce size leads to a rise in the possibility of workers committing illegal acts, since it is more difficult to monitor them, the company has to increase the possible losses of workers dismissed due to such acts by paying higher wages. This leads to a rise in the marginal cost of labor above the average wage at the company, as in the case of a monopsonic company, creating room for a rise in the minimum wage to increase employment. Moreover, Manning (1995) clarified the conditions under which minimum wages have positive employment effects by developing the efficiency wage theory based on generalized assumptions.

Originally, the efficiency wage theory was devised to explain the assumption that wages acquire downward rigidity and a large wage inequality across industries arises because high wages are paid by companies in which it is essential to improve the quality of labor, make training cost-efficient, and reduce the cost of monitoring workers. It seems somewhat impractical to analyze the employment effects of minimum wages by applying this theory to the employment of low-skill workers regarding whom the quality of labor and

¹⁴ The research paper by Card and Krueger (1995) precedes that by Burdett and Mortensen (1998), as the former was written in reference to a paper which constituted the basis of the latter.

training are not issues of concern.

My critical assessment of these models, which are designed to verify positive employment effects of minimum wages, does not indicate an intention to argue that minimum wages have “negative” employment effects. Raising the minimum wage immediately leads to a rise in the labor costs of companies that employ workers to whom it is applied. If the companies seek to absorb the cost increase by replacing workers at the bottom of the wage scale with higher-skilled workers or by raising product and service prices, the employment of low-skill, low-wage workers will decrease. However, if something offsets the labor cost increase, the impact on employment will be insignificant. The “something” could take the form of an increased incentive for workers due to a wage hike. However, as Bewley (1999) pointed out, such an offsetting effect does not last long. This is because workers will forget about the wage increase over time or because they will come to believe that the increased wage is nothing more than what they rightly deserve.

Another way to offset the cost increase would be expanding the scope of employees’ work duties or extending their working hours so as to make their jobs commensurate with the increased wages. As Card and Krueger (1995) pointed out, each fast food restaurant employee performs multiple tasks, such as cooking, facility management, cleaning, taking orders, and operating the cash register. If the scope of each employee’s work duties is expanded, it increases the flexibility of the workplace in responding to changes. Meanwhile, if working hours are extended, it helps to reduce commuting times and costs, and to cut such fixed costs as education and training expenses. If a rise in the minimum wage prompts companies to review their work processes and make an effort to increase the value of labor, the negative employment effects of minimum wages could be offset.

V. Minimum Wage in Japan

First of all, we will take a cursory look at the history of the minimum wage in Japan.¹⁵ In 1947, Japan enacted the Labor Standards Act, which had provisions for minimum wages. However, it was not until 1959 that the Minimum Wages Act was enacted as a specific measure. Nonetheless, something akin to minimum wages already existed before that time. An incipient form of the minimum wage came into being in 1956, when a canners’ association in Shizuoka Prefecture concluded an agreement on the starting pay for canners under the guidance of the director-general of Shizuoka’s Labor Standards Bureau. This was in effect the first agreement on a minimum wage to be concluded voluntarily by a business group in Japan. It was not legally binding. Moreover, it was different from the kind of collective agreement that is seen in countries like Germany and Italy, as no labor union was involved in the decision-making process. It was nothing more than a minimum wage

¹⁵ The following descriptions were made in reference to Fujinawa (1972), Nakamura (2000) and Roudou Chousakai (2009).

agreement among employers. Similar agreements were concluded in regions across Japan, promoted vigorously by the former Labor Ministry. By April 1959, when the Minimum Wages Act was enacted, a total of 127 such agreements were concluded. The legislation for agreement on minimum wages among employers came as the United States and other countries accused Japan of engaging in “social dumping” following a surge in Japanese exports, thereby impeding Japan’s accession to GATT. The legislation was also apparently intended to prevent a rise from being curbed, effected by means of a wage-fixing cartel, in the starting pay for workers in low-wage industries such as textiles, metals, and machinery, at a time when Japan was about to enter a period of high growth.

While the Minimum Wages Act had provisions that would enable collectively agreed-upon minimum wages and council-set minimum wages, minimum wage agreements among employers represented the prevailing arrangement in those days. At the same time, regional minimum wages based on agreements among employers also became widespread. However, minimum wages were applied unevenly from industry to industry and from region to region amid the high economic growth, and the minimum wage system came under fire for a lack of effectiveness due to the low level of minimum wages. Therefore, the Central Minimum Wages Council (comprised of seven representatives from each of government, labor and management), which was established after the enactment of the Minimum Wages Act, issued a recommendation report entitled *Business Sectors Covered by Minimum Wages and Minimum Wage Targets* in 1964. This report indicated region-specific and sector-specific numerical targets (three regions and two business sectors) for minimum wage levels. However, in 1966, sector-specific targets were abolished while region-specific targets continued to be indicated. Moreover, as the Central Minimum Wages Council called for a shift from minimum wages being agreed upon among employers to council-set minimum wages, a legal amendment was made so as to make the latter the standard, and minimum wage agreements among employers were abolished in 1968. This move was prompted by the fact that Japan was unable to ratify the relevant ILO convention as long as minimum wage agreements among employers that did not involve labor representatives in the wage-setting process were the standard.

In 1971, Japan ratified the ILO conventions on minimum wages (ILO Conventions 26 and 131) at long last. In the same year, deliberations on region-specific wages started under Article 16 of the Minimum Wages Act, which provided for the setting of minimum wages based on deliberations by a minimum wages council. Later, region-specific minimum wages spread rapidly under the Labor Ministry’s annual plans for promoting minimum wages, with workers throughout each prefecture becoming beneficiaries. Meanwhile, region-specific minimum wages collectively agreed upon under Article 11 of the Minimum Wages Act did not become widespread as an arrangement under the Japanese industrial relation based on company-based unions. Rather, council-set minimum wages came to be adopted as minimum wages specific to broad categories of business sectors.

The framework of Japan’s current minimum wage system was established in

1978, when the Central Minimum Wages Council started proposing targets to regional councils for increases in region-specific minimum wages. Under this system, prefectures were divided into four classes, for each of which a target for a minimum wage increase was indicated. However, agreement on a minimum wage increase was reached among government, labor, and management only for the first three years. Since 1981, labor and management have expressed, in their respective written opinions, their dissatisfaction with the targets indicated to each region by the council. Meanwhile, as the nature of industry-specific minimum wages changed, the existing arrangement was replaced in 1982 by a new industry-specific minimum wage system targeted at narrow categories of industries for which minimum wages need to be set at a higher level than region-specific minimum wages. Moreover, as a result of a legal amendment in 2007, industry-specific minimum wages applicable to contract workers, were introduced, as well.

The key features of the legal amendment of 2007 are provisions in Article 9 stipulating that for region-specific minimum wages, “consideration should be given to consistency with measures relating to public assistance” when the living expenses of workers are taken into consideration. This is based on the argument, made in a report entitled *Research Report on the Desirable State of the Minimum Wage System* (Ministry of Health, Labour and Welfare, 2005), that the fact that the level of minimum wages for single workers aged 18 and 19 in some regions are lower than the level of welfare benefits is inappropriate from the viewpoint of ensuring the minimum living expenses necessary for a healthy and civilized life and providing an incentive to obtain a job. While the former viewpoint is reasonable, the latter is somewhat questionable. Recipients of public assistance must pass a rigorous means test, and they also face inconveniences in their daily lives as they are subject to restrictions related to savings and ownership of securities, houses, and cars. In light of this, working at minimum wage and living on welfare benefits are not alternatives to each other. Still, it would be wrong to deny, as Tachibanaki and Urakawa (2006) did, the argument that it is difficult for human nature to accept that the income of people who work is lower than that of people who do not.

The level of minimum wages in Japan is low compared with minimum wages in other countries, as with the level of welfare benefits in Japan. What is wrong with Japan’s minimum wage system?

I used to serve as an independent member of Aichi Prefecture’s regional minimum wage council in the mid-1990s. According to my experience, members of the regional minimum wage council received reports on: the economic conditions in Japan, including the unemployment rate and the consumer price index; the state of spring wage negotiations; the results of a survey in June on wage revision; and the situation in other prefectures. Currently, the council may also receive reports on the level of welfare benefits in Aichi Prefecture. In the council’s deliberations, the management side always begins by insisting on not increasing wages, while the labor side calls for an increase larger than the target increase indicated

by the Central Minimum Wages Council. Independent members consider what an appropriate increase would be in light of the situation in neighboring prefectures like Gifu and Shizuoka and prefectures similar in economic strength to Aichi Prefecture, such as Osaka and Saitama. Unlike the Central Minimum Wages Council's decision-making process related to wage increase targets, the regional council's deliberations cannot be concluded unless the labor and management sides reach an agreement. As a result, deliberations could go on indefinitely over a wage increase of one yen. In many cases, council members who represent the labor side are union officials of major companies and representatives of the management side are executives of business associations. For such people themselves, whether or not to increase wages by one yen would not be an issue of personal interest. However, they have to explain the results of deliberations to their unions or associations. If they fail to provide convincing explanations, they could be taken to task for not performing their duties. Therefore, they cannot afford to accept an increase that is much different from the indicated target. What independent members should do is to find an acceptable compromise and explain it in plain terms to the representatives of labor and management.

The critical role of the Central Minimum Wages Council is presenting wage increase targets that both labor and management in each prefecture are likely to find easy to accept. In particular, care should be taken to ensure that the wage increase targets are set at a level that is acceptable to prefectures at or near the bottom of the wage league table. Further, the Central Minimum Wages Council needs to set targets at a moderate level in cases where the target is presented while labor and management remain sharply divided.¹⁶ Meanwhile, the level of welfare benefits is set at approximately 60% of the consumption expenditures of a typical household, based on the standard level of welfare benefits determined by household type. In this sense, we may say that the level of welfare benefits is automatically determined. In the determination of the level of welfare benefits, Japan started with the market basket method and then shifted to Engel's coefficient method, the inequality-narrowing method, and the current balancing method in that order. The Social Security Council, comprised mainly of academics such as university professors, is responsible for deciding which method to use. Presumably, the difference in the level-setting method and the composition of the relevant deliberation council between minimum wages and welfare benefits has resulted in the difference in the "minimum living expenses necessary for a healthy and civilized life" as recognized under the minimum wage system and under the welfare system.

The situation changed considerably in 2007. The widening of income inequality, the presence of the working poor, and the reversal of the levels of minimum wages and welfare benefits have emerged as social problems, putting pressure on the government to seek to raise wages. To do this, the government decided to break with the conventional approach to minimum wages and achieved an increase of ¥14 in the national average minimum wage

¹⁶ Professor Tomoko Furugohri of Chuo University, who used to serve on the Central Minimum Wages Council, provided detailed descriptions of the deliberative process.

per hour. This was the first increase of more than ¥10 since the current system of indicating a target minimum wage increase in terms of hourly wages was introduced in fiscal 2002. In addition, as a result of the revision of this system following the amendment of the Minimum Wages Act in fiscal 2008, a new arrangement was introduced whereby in the 12 prefectures where the level of minimum wages is lower than the level of welfare benefits based on comparisons made under certain assumptions, the amount obtained by dividing the minimum wage shortfall from the expected number of years necessary for resolving the shortfall, or the target amount indicated by the Central Minimum Wages Council for their own class, whichever is higher, is adopted as a minimum wage increase target. As a result, a national average increase of ¥16 was achieved on a weight-averaged basis.

In 2009, the Central Minimum Wages Council proposed to maintain the current minimum wage level with regard to the 35 prefectures where the level of minimum wages is higher than the level of welfare benefits, and to refrain from raising minimum wage increase targets in light of the weakness of the economy. However, in all of those prefectures except for Niigata and Gifu, minimum wages were raised. As for the 12 prefectures where the level of minimum wages is lower than the level of welfare benefits, minimum wages were raised by a margin larger than the indicated target in some of them, including Tokyo. Moreover, in 2010, the comparison between the levels of minimum wages and welfare benefits was overhauled based on updated data, and a new target increase intended to resolve the shortfall of minimum wages against welfare benefits was adopted. Specifically, a target increase of ¥10 was indicated for all classes, and for prefectures where the minimum wage shortfall is larger than that figure, the amount of the shortfall was adopted as their target increase. Consequently, a national average increase of ¥17 was achieved. As described above, the minimum wage situation has changed considerably in recent years.

In 2009, the Democratic Party of Japan pledged, in its election manifesto, to seek to raise the national average minimum wage to ¥1,000 per hour while taking account of economic conditions. To honor that pledge, the national average minimum wage needs to be raised by nearly ¥270 per hour, as it stood at ¥713 in 2009 and at ¥730 in 2010. Nobody would expect for such a sharp minimum wage increase to have positive employment effects.¹⁷ What should be considered is which types of workers will be significantly affected by a minimum wage increase. There are various types of low-paid workers, including homemakers and students working in part-time jobs, who are not necessarily members of low-income households, as well as workers who need to support themselves and their family members with their wages. Some workers accept low wages for the time being, as they

¹⁷ As described by Kawaguchi (2009), while few empirical studies have been conducted on the employment effects of minimum wages in Japan, three of the four studies which used prefecture-by-prefecture data found negative effects. Moreover, Abe and Tanaka (2007) found that region-specific minimum wages, which rose at an almost uniform rate across Japan in the 1990s, underpinned wages for part-time workers, a finding implies that the employment effect was significant in low-wage regions.

need training for the purpose of career formation. While all these workers are treated uniformly in terms of hourly minimum wages, it will be necessary to vary minimum wages according to the attributes of workers. According to eiroline (2005), in many EU countries, including the United Kingdom, France, the Netherlands, Ireland, and Belgium, minimum wages for young people are set low by age compared with those for adults. For example, in Belgium, a reduced minimum wage is set for each age category for young people: 70% of the full minimum wage for minors aged 16 or younger, 76% for 17-year-olds, 82% for 18-year-olds, 88% for 19-year-olds and 94% for 20-year-olds. In the Netherlands, the reduced minimum wages range from 30% for 15-year-olds to 85% for 22-year olds. In the United Kingdom and Ireland, reduced minimum wages are applied to new workers and trainees, as well.

Given that low-paid workers in Japan include homemakers and elderly people working as part-timers, it would be more rational to vary reduced minimum wage rates by the length of daily or weekly working hours than by age. An example of varied reduced rates might look like this: the low-end of starting pay for high school graduates working at small businesses¹⁸ could be the minimum wage for workers who work 40 hours or more per week, and workers who work between 35 and 40 hours could be eligible for 94% of the full minimum wage, those who work between 30 and 35 hours for 88%, those who work between 25 and 30 hours for 82%, and those who work less than 25 hours for 76%. In this case, reduction of each five working hours means a cut of six percentage points compared with the full minimum wage. This reduction would take account of two factors, regardless of the reduction rates. One is a demand-side factor—the nature of a job and the scope of work duties vary according to the number of working hours, which means there are differences in productivity among workers with different working hours that cannot be explained by the length of working hours alone. The other is a supply side factor—some workers, such as homemakers and students working as part-timers, prefer shorter working hours, while others need longer working hours to earn enough to make a living.

In the future, as the employment arrangement diversifies, it will become increasingly important to vary minimum wages by the type of worker. While doing so will take effort and cost money, it will be essential to do away with what has become anachronistic because of globalization, such as industry-specific minimum wages intended to ensure fair competition, so that the necessary money and effort can be put into that task.

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¹⁸ The approach of adopting the low-end of the starting salary for senior high school graduates as a minimum wage is in accordance with an agreement reached at the “growth potential-boosting roundtable,” which was established under the Cabinet Office.

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