

The Determinants of Union Growth in Taiwan: An Empirical Study

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Why trade unions grow has long been a major theoretical and empirical question in the study of Western industrial relations systems. The answers to this question revolve around economic and political factors. Economic factors include the business cycle, which covers the price index, unemployment rates, and nominal wage increases. Political factors may influence the growth and decline of trade unions in terms of changes in labor laws and public policies toward unions and employers.

This paper investigates the determinants of trade union growth in Taiwan from 1960 to 1994 by empirically testing whether the Western-based union growth model can be used in explaining union growth in Taiwan. This paper finds that unemployment rates have had a significant and positive effect on union growth in Taiwan; however, the consumer price index and wage levels in the manufacturing sector have not exerted significant effects. This paper also finds that political factors have had an important impact on the growth of unions in Taiwan.

Keywords: trade union; union growth; business cycle; industrial relations; collective bargaining

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In the past several decades, researchers have attempted to investigate the factors which affect whether workers join trade unions.¹ A large proportion of research, both theoretical models and empirical verification, has mainly focused on examining the growth of trade unions in well-developed countries, while statistical exploration of union

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¹See Gary Charison and Joseph Rose, "The Macrodeterminants of Union Growth and Decline," in *The States of Unions*, ed. George Strauss, Daniel Gallagher, and Jack Fiorito (Madison, Wis.: Industrial Relations Research Association, 1991), 3-46; Jack Fiorito and Charles Greer, "Determinants of U.S. Unionism: Past Research and Future Needs," *Industrial Relations* 21, no. 1 (1982): 1-21; George Bain and Farouk Elsheimh, *Union Growth and Business Cycle* (Oxford: Basil Blackwell, 1976).

growth in developing countries has lagged behind.²

In well-developed economies such as the United States, the major functions of trade unions are to raise workers' wages and help solve worker grievances. On the other hand, trade unionism in less-developed countries is much more concerned with the achievement of political objectives.³ Because of different functions between the two regions, researchers have usually raised the question of whether the so-called Western-based model can appropriately apply to the explanation of union growth and decline in developing countries.

The purpose of this paper is to investigate the determinants of trade union growth in Taiwan from 1960 to 1994. The next section presents union growth theories. Following these theories, I briefly examine the history of trade unions and the development of union membership in Taiwan in the past few decades. Finally, there is an empirical study testing union growth theory in Taiwan.

A Brief Review of Union Growth Theory

Why trade unions grow has long been a major theoretical and empirical question in the study of Western industrial relations systems. The answers to this question revolve around economic and political factors. Economic factors include the business cycle, which covers the price index, unemployment rates, and nominal wage increases. Political factors may influence the growth and decline of trade unions in terms of changes in labor laws and public policies toward unions and employers.⁴

Business cycle studies have attempted to explain how the macroeconomic factors encourage and discourage workers to join unions.

²Basu Sharma and Peter Sephton employed a Western-based model to examine Taiwan's union growth, but they did not include the political variable in the model. This paper tries to include this variable. In addition, I use a model which is different from Sharma and Sephton. See Basu Sharma and Peter Sephton, "The Determinants of Union Membership Growth in Taiwan," *Journal of Labor Research* 12, no. 4 (1991): 429-37; Basu Sharma, *Aspects of Industrial Relations in ASEAN* (Singapore: Institute of Southeast Asian Studies, 1985); Basu Sharma, "Union Growth in Malaysia and Singapore," *Industrial Relations* 28, no. 3 (1989): 446-58; Basu Sharma, "Korean Trade Union Growth during the Period of 1962-1984," *Economic Letters* 31 (1989): 105-8.

³Everette M. Kassalow, *Trade Union and Industrial Relations: An International Comparison* (New York: Random House, 1969).

⁴Ignace Ng, "The Economic and Political Determinants of Trade Union Growth in Selected OECD Countries," *Journal of Industrial Relations* 29, no. 2 (1987): 233-42.

The explanations have employed a variety of theoretical and empirical considerations that can be grouped into four categories. The first relates price inflation to the decision of workers to join unions. The influence of price inflation on unionization is primarily based on the assumption that the rate at which workers unionize is greatest when the unions can provide protection against price inflation. Workers are more likely to join or remain union members when price inflation threatens their living standards. Although researchers have revealed that price index is an important factor in explaining the growth of unionization, the causal relationship between unionization and price inflation is still unknown.⁵

The second factor of the business cycle is nominal wage increases, which have been credited to the efforts of trade unions and can facilitate the willingness of workers' joining unions. Accordingly, wage increases and unionization are positively related to each other. In addition, there are debates on whether workers with higher wages are much more likely to become union members. Different empirical research on different countries has resulted in different findings.⁶

The third explanation of the business cycle is the unemployment rates. Unemployment is connected with union growth on the grounds that when the unemployment rate is high and increasing, the incentives to join unions decrease because of the fear of retaliation from employers and job loss.⁷ Therefore, a high unemployment rate is expected to have a negative impact on union growth. On the other hand, there is an opposing view that there is another factor which may reduce the negative effects of unemployment on union growth; that is, the threat of unemployment may also be an incentive to join unions for basic self-protection.⁸ Because of the effects of the two opposite directions, the relationship between unemployment and union growth is hard to specify a priori.⁹

The fourth factor is the unionizability of the work force. If the unionization of the work force reaches a "saturation point," this

⁵Lee Stephina and Jack Fiorito, "Toward a Comprehensive Theory of Union Growth and Decline," *Industrial Relations* 25, no. 3 (1986): 248-64.

⁶Yitchak Haberfeld, "Why Do Workers Join Unions? The Case of Israel," *Industrial and Labor Relations Review* 48, no. 4 (1995): 656-70.

⁷See Bain and Elsheikh, *Union Growth and Business Cycle*.

⁸W. J. McCarthy, "Part Six: The Economic Effects of Trade Unionism," in *Trade Union*, ed. W. J. McCarthy (Harmondsworth: Penguin Books, 1985), 287-90.

⁹See Charison and Rose, "The Macrodeterminants of Union Growth and Decline," 3-46.

implies that the successful past of trade unions has posed an impediment to future growth. When unionization reaches this point, then it is difficult to grow further.¹⁰

Political factors influence unionization in terms of labor laws and public policies. Government policy may provide the unionization opportunities with either a positive or negative environment. The legal regulations for collective bargaining are an important determinant of union growth and decline. Take the United States, for example: three labor laws (the Wagner Act, the Taft-Hartley Act, and the Landrum-Griffin Act) have exerted different effects on workers' unionization.

In addition, government policy simultaneously affects employer attitudes toward unions and the workers' organizing activities. Moreover, during periods of economic recession, employers usually oppose unionization because the bargaining of unions would pose a more serious threat to business. The attitude of employers depends on the economic situation. In recent research on decline of unions in the United States, David Blanchflower and Richard Freeman concluded that employers' aversion to unions has been seen as a major reason for that decline.¹¹

Trade Unionism in Taiwan

The History of Trade Union Development

Trade unionism in Taiwan can be divided into three different stages of development. In the first stage (1949-75), the ruling Kuomintang (KMT, the Nationalist Party of China) did not have a union policy, and union activities during this period seemed moribund.¹² In 1949, the KMT moved to Taiwan, which had been colonized by Japan for fifty years (1895-1945), because of its defeat by the Chinese Communist Party (CCP) in the mainland. At that time, the KMT's main goal was to transform the economic system established in the colonized period into a new and dominant system.

¹⁰Jelle Visser, "Trade Unionism in Europe: Present Situation and Prospects," *Labor and Society* 13, no. 2 (1988): 125-82.

¹¹David Blanchflower and Richard Freeman, "Unionism in the United States and Other Advanced OECD Countries," *Industrial Relations* 31, no. 1 (1992): 56-79.

¹²Walter Galenson, "The Labor Force, Wage, and Living Standards," in *Economic Growth and Structure in Taiwan*, ed. Walter Galenson (Ithaca, N.Y.: Cornell University Press, 1979), 384-447.

The Chinese Federation of Labor (CFL), the only national trade union, was established in 1948 and moved to Taiwan in 1950. The CFL held no meetings or elections before 1975. Many union activists and leaders were members of the ruling KMT, and the CFL in general was thought to be KMT-controlled, although there was no organic connection between them.¹³

During this period, the prohibition of strikes and the KMT's successful control led to weak trade unions in Taiwan. Unions did not contribute to the efforts of collective bargaining and the protection of worker welfare; thus the workers' voices remained quiet and union activities tended to be latent.

The second stage (1976-87) witnessed economic recessions and political instability, prompting the KMT to take a positive stance toward unions and workers. In the mid-1970s, the Labor Union Law was amended and revitalized in order to enforce KMT control over workers and encourage worker support of the regime through trade unions.

Finally, since the mid-1980s, two major events—the passage of the Labor Standards Law in 1984 and the lifting of the martial law in 1987—have transformed Taiwan's industrial relations, bringing about a more autonomous development of Taiwan's labor movement.¹⁴

After martial law was lifted in 1987, there was an increase in the number of independent trade unions. For example, in 1988, the Labor Federation of Independent Unions (LFIU), which had twenty affiliated industrial unions, formed outside the current union system. Other independent organizations include the Federation of Workers, the Union Brothers, and the Association of Kaohsiung Union Leaders. A Labor Party was also established by a group of scholars and labor activists in 1987, in response to dissatisfaction with the current system. Many independent unions have also been affiliated with the opposition Democratic Progressive Party (DPP). Not only has the number of independent trade unions outside the current system increased, but the trade unions within the union have tended to be more autonomous. Many unions, including the Chinese Petroleum Workers Union, now

¹³Frederic Deyo, *Beneath the Miracle: Labor Subordination in the New Asian Industrialism* (Berkeley: University of California Press, 1989).

¹⁴Shyh-jer Chen and Koji Taira, "Industrial Democracy, Economic Growth, and Income Distribution in Taiwan," *American Asian Review* 13, no. 4 (1995): 49-77.

elect their own representatives in union elections.¹⁵

Union Structure and Collective Bargaining

Taiwan has experienced rapid economic growth and egalitarian income distribution. The rate of annual gross national product (GNP) growth between 1952 and 1990 was, on average, 8.9 percent; Gini coefficients, which measure household income inequality, declined significantly from 0.588 in 1953 to 0.317 in 1985. Researchers have also noted the importance of industrial peace in contemporary Taiwan's economic development.

Trade unions in Taiwan are regulated by the Labor Union Law, enacted in 1929 and last amended in 1975. The law sets forth the structure, formation, and obligations of trade unions. A union can be organized along craft/occupation or industrial lines when there are a minimum of thirty workers (Article 3). Only one union is permitted per plant (Article 8). Membership in the union is mandatory, i.e., all male and female workers within the jurisdiction of a labor union who are sixteen years of age have the right and obligation to join and become members of the labor union on the basis of the industry or the craft/occupation in which they are engaged (Article 12). According to the Enforcement Rules of the Labor Union Law, there is a penal provision that a worker may be suspended from employment for a prescribed period of time by the relevant labor union for refusal to join it (Article 13). But many workers, in practice, do not join unions because the penal provision is not implemented effectively.¹⁶

Unions in Taiwan can be divided into two categories: industrial unions and craft unions. Table 1 shows the published data on union members and unionization rates from 1987 to 1994. The membership figures are larger for craft unions than for industrial unions, showing that over 79 percent of total union members belonged to craft labor unions in 1993. Membership in craft unions has increased rapidly: for example, craft unions membership in 1993 was almost double that of 1987, and their unionization rate in the former year was 61.19 percent. In contrast, membership in industrial unions has decreased

¹⁵ Archie Kleingartner and Hsueh-yu Peng, "Taiwan: An Exploration of Labor Relations in Transition," *British Journal of Industrial Relations* 29, no. 3 (1991): 427-45.

¹⁶ In spite of penal provisions to coerce workers to join unions, many workers have not become union members. For example, only 9 percent of employees who work for firms hiring 50-99 employees join unions.

Table 1
Unions and Union Membership in Taiwan, 1987-94

Year	No.	Industrial Unions		Craft Unions	
		Membership (in 1,000)	Unionization Rate	Membership (in 1,000)	Unionization Rate
1987	2,510	703	30.72	1,296	36.27
1988	3,041	696	28.52	1,564	42.78
1989	3,315	698	30.57	1,721	42.79
1990	3,524	699	31.30	2,057	50.65
1991	3,654	692	29.29	2,259	59.73
1992	3,657	669	28.88	2,389	59.70
1993	3,689	651	28.51	2,521	61.19
1994	3,704	637	27.38	2,640	60.26

Source: Council of Labor Affairs, *Monthly Bulletin of Labor Statistics, Taiwan Area* (Taipei: Executive Yuan, various issues).

in the last five years, while unionization rates have fluctuated around 28-30 percent. The trend of declining membership in industrial unions shows that it has become more difficult to organize industrial unions due to increased employer opposition.

In comparing the two kinds of unions, craft unions play a less important and active role in Taiwan's industrial relations, partly because craft unions do not have specific employers to bargain with and partly because workers join craft unions mainly to participate in publicly-subsidized labor insurance programs.¹⁷ Consequently, increases in craft union unionization rates and membership is an autonomous development because the incentive for self-employed workers (e.g., cab drivers and food suppliers) to join is simply insurance program availability.

Collective bargaining is governed by the Labor Union Law, the Labor Standards Law, and the Collective Agreement Law. The Collective Agreement Law was promulgated in the early 1930s in wartime

¹⁷Stephen Frenkel, Jon-chao Hong, and Bih-ling Lee, "The Resurgence and Fragility of Trade Unions in Taiwan," in *Organized Labor in the Asia-Pacific Region*, ed. Stephen Frenkel (Ithaca, N.Y.: ILR Press, 1993), 162-86; Gee San, "A Critical Review of the Labor Standards Law in Taiwan, ROC—With Emphasis on the Pension and Severance System" (Paper presented at the Conference on Labor and Economic Development, Taipei, December 21-23, 1988), Chung-Hua Institution for Economic Research Conference Series, no. 11 (1988): 343-66.

China, and has never been amended. This law gives unions and employers the right to bargain collectively. However, there has been a low incidence of collective agreement between unions and employers. For example, in 1993, out of 3,689 unions, only 292 collective agreements had been signed. Of the 292 agreements, 5 had been signed by craft unions.

There are several reasons to explain the low incidence of collective agreement between employers and unions in Taiwan. First, labor laws in Taiwan are highly controversial. For example, the Collective Agreement Law has many provisions which restrain bilateral negotiations between employers and employees, although collective bargaining is the government's major labor policy. The law specifies that competent authorities can cancel and amend the said provisions of collective agreement if the provision is contrary to laws or regulations, incompatible with the progress of the employers' business, or is not suited to ensuring the maintenance of the workers' normal standards of living (Article 4). Second, Gee San points out that the high labor standards in the Labor Standards Law have left little room for employers and workers to bargain collectively.¹⁸

Data and Model

Empirical research on union growth and attitudes has been on the rise in many industrial relations journals. Building econometric models to explain union growth has been attempted, including models which have been established by Orley Ashenfelter and John Pencannel, George S. Bain and Farouk Elsheikh (B/E), Ignace Ng, and so forth.¹⁹ Almost all of the above research mentioned agree that union growth is affected significantly by both economic and political factors. As for union growth in less-developed countries, Basu Sharma has been a pioneer in examining labor relations in Malaysia, Singapore, South Korea, and Taiwan. However, Sharma has not incorporated political variable into his models; his main concern is with the effects of economic factors.²⁰

¹⁸Gee San, "Taiwan," in *Industrial Relations Around the World*, ed. Miriam Rothman, Dennis R. Briscoe, and Raoul C. D. Nacamura (New York: De Gruyter, 1993), 371-87.

¹⁹See Orley Ashenfelter and John Pencannel, "American Trade Union Growth 1900-1960," *Quarterly Journal of Economics* 23 (1969): 434-48.

²⁰See Sharma and Sephton, "The Determinants of Union Membership Growth in

This paper includes the B/E and Sharma models to reevaluate whether they exert similar effects on Taiwan's union growth in response to previous theoretical explorations. The model tested in the paper is as follows:

$$\Delta T(t) = \beta_0 + \beta_1 \Delta P(t) + \beta_2 \Delta W(t) + \beta_3 U(t) + \beta_4 D(t-1) + \beta_5 G + \epsilon(t)$$

The dependent variable (ΔT) in the model is the rate of the change in union membership, which is defined as (membership in t year – membership in $t-1$ year)/(membership in t year). Union membership is the total number of labor who join trade unions each year.

$\beta P(t)$, the rate of change in consumer price index (CPI), is defined as (CPI in t year – CPI in $t-1$ year)/(CPI in t year). $\Delta W(t)$, the rate of change in the average nominal wage in the manufacturing sector, is defined as (monthly wage in t year – monthly wage in $t-1$ year)/(monthly wage in t year). $U(t)$, the unemployment rate, is the annual rate of unemployment (in percent). $D(t-1)$ represents union density in a one-year lag. The union density is calculated as the ratio of the number of union members to the number of employed workers. This variable attempts to test whether the unionization of Taiwan's work force has reached its "saturation point."

$G87$, a dummy variable, is defined as the year after 1987. $G87$ takes the value one for the period of 1987-94 and the value zero for the remaining years. The demarcation of the year, 1987, is based on the following reasons. First, martial law in Taiwan was lifted in 1987. Second, in 1986, two KMT worker-legislator nominees were defeated by two DPP nominees in a national election. The event shocked the ruling KMT, which asked for a further review of labor policy after election. A cabinet-level agency, the Council of Labor Affairs, was thus established in 1987.

Data used to calculate the consumer price index, unemployment rates, and average wages are taken from the *Statistical Yearbook of the Republic of China* (various years), published by the Directorate-General of Budget, Accounting, and Statistics. Data on union membership and union density are taken from the *Yearbook of Labor Statistics*

Taiwan"; Sharma, "Union Growth in Malaysia and Singapore"; and Sharma, "Korean Trade Union Growth during the Period of 1962-1984" (cited in note 2 above).

Table 2
Trade Union Growth in Taiwan, 1960-94

	(1)	(2)	(3)	(4)
$\Delta P(t)$				0.004 (0.088)
$\Delta W(t)$	-0.111 (0.149)	-0.073 (0.076)	-0.118 (0.076)	-0.122 (0.112)
$U(t)$	-0.017** (0.008)	-0.007* (0.004)	-0.010** (0.004)	-0.010** (0.004)
$D(t-1)$		0.736*** (0.078)	0.755*** (0.075)	0.756*** (0.078)
G87			-0.016** (0.008)	-0.016** (0.008)
Constant	0.117*** (0.028)	0.061*** (0.015)	0.076*** (0.008)	0.076*** (0.016)
R^2	0.08	0.76	0.78	0.78
Durbin-Watson	1.172	1.89	2.15	2.15
N	34	34	34	34

Notes:

1. Standard errors are given in parentheses.

2. *Significantly different from zero at the 10% level; **significantly different from zero at the 5% level; ***significantly different from zero at the 1% level.

(various years), published by the Council of Labor Affairs.

Results and Discussions

The OLS estimation results are presented in table 2. The negative wage variable, although not significant, is not consistent with the prediction of theory. The explanations for this may be twofold. First, the ability of Taiwan's trade unions to bargain collectively over wages with their employers is rather weak. As mentioned previously, there have been few incidences of unions in Taiwan engaging in collective agreements with their employers. Second, the aggregate wage in the manufacturing sector may not really represent the average wage of union members because different industrial sectors have a variety of structures. In addition, the consumer price index does not exert a significant impact on the rate of changes in union membership.

The coefficients on lagged union density are significant and positive. The positive coefficient of lagged union density implies that past unionization was successful and might contribute to further union growth in the future. In comparing the first and second columns in table 2, the lagged union density contributes most of variances to explain union membership growth.

Political factors, G87, exert a significant yet negative effect on union membership growth. The negative coefficient suggests that after 1987, when martial law was lifted, the government gradually lost its impact on the trade union affairs, compared to the period before 1987. In other words, the increasing rate of unionization in Taiwan decreased after 1987. This result shows that the lifting of martial law has brought about an autonomous and independent labor union movement in Taiwan.

Conclusion

This paper has discussed Taiwan's union growth and the determinants of union growth in the past several decades, and applied the Western-based model to empirically test the impacts of economic and political factors on the rate of changes in union membership. The result clearly shows that unemployment rate has had a significant and positive effect on union growth in Taiwan; however, the other two variables—the consumer price index and wage levels in the manufacturing sector—have not had significant effects. This paper also finds that political factors exert an important impact on the growth of unions in Taiwan.