

Topic 5.3 - Union Impacts

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Economics 471

Union Impact on Wages and Benefits

- ◆ A great deal of research has focused on estimating the impact of Unions on wages
- ◆ A simple approach to doing this is to compare the average wages in the two sectors
- ◆ Union –nonunion wage differential:
 - ◆
- ◆ There are a number of problems with using this simple method

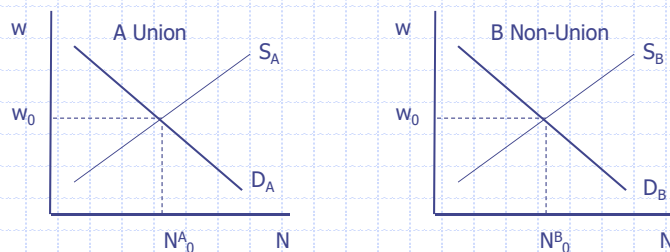
Problems/Difficulties

1. The nonunion wage that prevails in the presence of unions may differ from that which prevails in the absence of unions (endogenous)
 -
 - ◆ As we noted previously, the presence of unions may also influence wages in the nonunion sector
 - a.
 - ◆ To illustrate, consider the following two-sector general equilibrium model

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Two-Sector General Equilibrium Model



- ◆ Both sectors employ the same type of labour
- ◆ In the absence of unions the labour market is competitive with equilibrium wage w_0
- ◆ Suppose unions enter and raise the wage in sector A to w_U
- ◆ Employment decreases to N^A_1
- ◆
- ◆

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Problems/Difficulties

- ◆ Notice that the estimated union-nonunion wage differential is bigger than the true union impact

Other possibilities

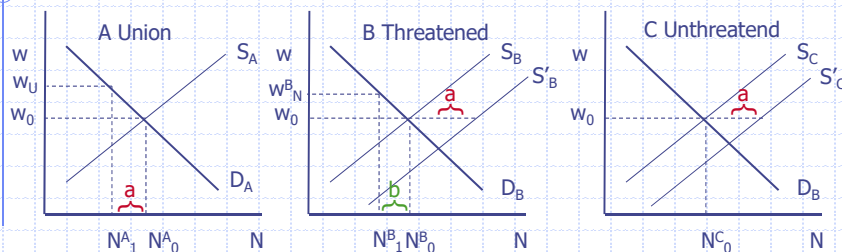
b.

- ◆ We need to distinguish between those that are willing to pay higher wages and those that are not
- ◆ Some may face very little threat of unionization.

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General Equilibrium With Threat Effects



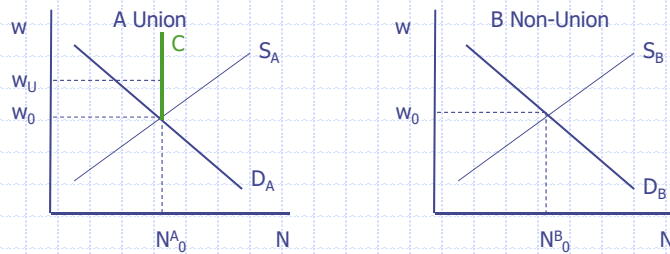
- ◆ Sector B raises its wage to compete (w^B_N)
- ◆ Employment declines in sectors A and B
- ◆
- ◆
- ◆ The average non-union wage can be higher or lower than the previous case
- ◆ However, the union-nonunion wage differential still doesn't measure the union impact on wages

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Vertical Contract Curve

- c. It is possible that the firm and union will negotiate off of the demand curve
- ◆ An interesting case occurs when the contract curve is vertical



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Union Sector Queuing

- d.
- ◆ Wages are higher in the union sector, thus, it may be rational to wait
- e.g. -
- ◆ Here the increased supply of workers to the non-union sector will be less than the reduction in employment in the union sector
 - ◆ Wages in the nonunion sector won't be depressed quite as far

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Problems/Difficulties

2. Selection Bias

- ◆ What we want to do is compare differences in wages controlling for other wage determining differences

Examples:

- ◆ Unionized sector may utilize skilled workers more than the nonunion sector
 -
- ◆ Unionized firms may be larger (have more capital) than non-unionized firms
- ◆ Some of these differences can be controlled for in a regression setting because they are observable
- ◆

Problems/Difficulties

- ◆ The problem arises when the unobserved factors that influence wages also influence selection into the union sector

- ◆ The estimated effect will be biased

Example:

- ◆
- ◆ This is likely to be the case if unions are able to create queues of workers wanting higher wages
- ◆ The solution is to use panel data
- ◆

Empirical Results

- ◆ Estimates of the union-nonunion differential vary depending on statistical method and data used
- ◆ Early studies, primarily using US aggregate data estimate the union-nonunion differential to be around 10-15 percent (Lewis 1963)
- ◆
- ◆
- ◆ Because these studies are based on aggregate data they are not very reliable
- ◆ Studies based on individuals or individual firms estimate the impact to be greater than 10-15 percent

Empirical Results

- ◆ However, it has been argued that such studies may overstate the true union wage impact
- ◆
- ◆
- ◆ Recent studies attempt to deal with these issues
- ◆ Account for the joint determination of union status and the wage impact
- ◆ These studies find the impacts to be smaller
- ◆ Longitudinal studies have been used to control for person-specific characteristics (not observed)
- ◆

Empirical Results

- ◆ US longitudinal studies find the union-nonunion wage differential to be around 10 percent
- ◆
- ◆ Others have suggested that the lower estimates may result from mismeasurement of union status in longitudinal data

Variation in Impacts:

1. The differential tends to be higher the higher the proportion of the industry/occupation organized



Empirical Results

2. The impact is larger the larger the firm
 - ◆ This is even more true in the non-union sector
 - ◆ Therefore, the wage differential declines with firm size
 - ◆
 - ◆
3. The union impact is higher for blue collar than white collar workers
 - ◆ In general, the impact is larger at low skill levels and smaller at high skill levels



Empirical Results

- 4. In Canada, it appears that women benefit more, in terms of wages, than men from unionization
 - ◆
- 5. The union impact tends to be smaller in the public sector than in the private sector
- 6. The union wage impact varies countercyclically
 - ◆ Widening in recessions and narrowing in booms
 - ◆

Non-Wage Impacts

- i) Unions tend to have a larger impact on non-wage benefits than they do on wages
 - ◆
- ii) Unions also tend to reduce worker “turnover”
 - ◆ Quit rates are lower in union firms even after controlling for wage differentials
 - ◆ May reflect the fact that workers are reluctant to leave these high wage jobs
 - ◆

Non-Wage Impacts

- iii) Empirical studies find that unions may either increase or decrease worker productivity
 - ◆ The overall impact depends on the magnitude of various offsetting factors
 - ◆ It is important to distinguish between
 - a.
 - b.
- Union firms will respond to an increase in the wage by:
- 1.
 - 2.
 - 3.

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Impacts on Productivity

- ◆ Thus, we might expect the union wage impact to raise productivity
- ◆ To get the underlying impact of unions, therefore, we must control for capital, worker characteristics and job characteristics
- ◆ Through work stoppage and featherbedding we might expect unions to have a negative impact on productivity
- ◆ On the other hand, reduced turnover and improved worker morale may increase productivity among union workers
- ◆ Estimates of the impacts of unions have been both positive and negative

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Impacts on Productivity

The estimates depend on:

- ◆
- ◆
- ◆
- ◆