WAGE DETERMINATION UNDER COLLECTIVE BARGAINING: INFLATION, PRODUCTIVITY AND PROFITABILITY RELATIONSHIPS (AN EMPIRICAL STUDY)

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Abstract

This dissertation focuses on disclosing the link between objective bargaining criteria (i.e. the inflation rate, labour productivity, comparative wages and ability to pay) and the realized wage outcomes in Turkey. The extent to which each of the criteria is effective in the determination of the wage outcome in Turkey, this focus constitutes the main significance of the proposed study. The set of changes brought about by collective bargaining in Turkey has implications for the standard of living of wage earners, the welfare of the firms and the economy in general. The broad problem area is the role of criteria used in wage determination under collective bargaining in major firms of the Turkish economy. The problem definition is defining the effects of bargaining criteria discussed in industrial relations literature on the determination of wages in selected unionized ISE-100 Companies from 1998 until 2005. A survey of Turkey's related labour unions and employers' associations was conducted, using the face-to-face interview method. Kruskal Wallis analysis, Cross Tabulation analysis and Spearman Correlation analysis were then used to test the proposed framework. The study attempts to shed light on the determinants of the ISE-100 companies' wages by using panel data on the firms from 1998-2005. In particular it tries to extend the results by focusing on the roles of certain factors in wage determination by also constructing an Econometric Model, using the Panel Least Square analysis in order to test the proposed framework. Overall all the dimensions of the model were found to be effective in wage determination. However, the effects of each criterion seem to vary. Thus, it was possible under some circumstances for example to determine exactly what increase in wages was required to compensate for changes in the cost of living or changes in productivity or changes in comparative wages. However the results suggest that inflation emerges as the most important criterion, followed by wage comparisons used most widely in collective bargaining. The empirical findings are consistent with the theory and confirm the importance of the link between wage bargaining criteria and the economic environment of the country in relation to wage levels. The findings are expected to contribute to research concerning the industrial relation system of Turkey.

TOPLU PAZARLIK SİSTEMİNDE ÜCRET BELİRLEME: ENFLASYON, VERİMLİLİK VE KARLILIK İLİŞKİLERİ (AMPİRİK ÇALIŞMA)

Özet

Bu tez çalışması, toplu pazarlık sürecinde kullanılan pazarlık kriterleriyle (enflasyon oranı, işgücü verimliliği, sektördeki emsal ücretler ve şirketin karlılığı) Türkiye'de gerçekleşmiş nihai ücretler arasındaki bağlantıyı göstermesi açısından önem taşımaktadır. Toplu pazarlığın sonuclanmasıyla oluşan oluşum ücretlilerin yaşam standardı, firmaların pazar durumları ve ekonominin gidişatı açısından önemlidir. Çalışmada araştıralacak konu ücret belirleme sırasında önde gelen Türk firmalarında toplu pazarlık sırasında ele alınan kriterlerin neler olduğunu saptamaktır. Bu amaçla İstanbul Menkul Kıymetler Borsa'sında 1998-2005 yılları arasında en fazla ilk 100 firma arasında yer alan firmalardan işveren sendikasına üye ve toplu iş sözleşmesi bağıtlayan 50 tanesinin toplu pazarlık sırasında kullandıkları pazarlık kriterlerini incelemeye çalıştım. Veriler, seçilen firmaların bağlı bulunduğu işçi ve işveren sendikalarındaki toplu sözleşme uzmanlarına ya da yönetim kurulu üyelerine yüz yüze anket yöntemi uygulanması yoluyla toplanmıştır. Önerilen model, Kruskal Wallis testi, Çapraz Tablo analizi ve Spearman Korelasyon analizi yollarıyla sınanmıştır. Bu amaçla 1998-2005 yılları arasında seçilen IMKB'ye bağlı seçilmiş firmaların panel verileri kullanılarak çalışmayı bir de ekonometrik açıdan regresyon analizi uygulayarak genişlettim. Bu çalışmada seçilen firmaların ücret oluşumundaki 1998-2005 dönemlerinde gerçekleşen toplu pazarlık kriterlerinin etkisini araştırmaya çalıştım. Modelin bütün boyutlarının, ücret oluşununda etkisi olduğu görülmüştür. Ancak toplu pazarlık kriterlerinin gösterdikleri etkiler, içinde bulunulan şartlara göre farklılık göstermektedir. Uygulanacak ücret artışı çalışanların hayat pahalılığıyla olan mücadelesinde farklı, verimlilik göstergelerindeki değişikliklerde farklı ve sektördeki emsal ücretlerin gösterdiği trend göz önüne alındığında farklı olacaktır. Ancak araştırma sonuçları, tarafların en önem verdiği faktörün, enflasyon kriteri olduğunu ortaya koymuştur. Ayrıca araştırma ücret oluşumunu belirleyen faktörler arasında sektördeki benzer ücretlerin önemli derecede etkili bir kriter olduğunu ortaya koymaktadır. Görgül bulgular kurama uygundur ve ücret oluşumunda ücret pazarlık kriterleri kadar ekonomik koşulların da rol oynadığını kanıtlamaktadır. Sonuçların, endüstri ilişkileri sistemi araştırmalarına bir katkı yapacağı düşünülmektedir.

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To my father

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Abbrevations

ALMPs	Active Labour Market Programs
CBT	Central Bank of Turkey
CC	Candidate Countries
CHP	Cumhuriyet Halk Partisi
COLA	Cost of Living Adjustment
CPI	Consumer Price Index
EU	European Union
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GNP	Gross National Product
HIES	Household Income and Expenditure Survey
HLFS	Household Labour Force Survey
IMF	International Monetary Fund
IMKB	Istanbul Menkul Kıymetler Borsası
ISE	Istanbul Stock Exchange
MESS	Türkiye Metal Sanayicileri Sendikası
MIDS	Metal Sanayi İş Değerlendirme Sistemi
MOLSS	Ministry of Labour and Social Security
PLWS	Productivity Linked Wage System
OECD	Organization for Economic Co-operation and Development
SIS	State Institute of Statistics
SPO	State Planning Organization
SSK	Sosyal Sigortalar Kurumu(Workers Pension Fund)
TISK	Türkiye İşveren Sendikaları Konfederasyonu
UI	Unemployment Insurance
WPI	Wholesale Price Index
YTL	New Turkish Lira

Chapter 1
Introduction

In every market there is some commercial activity where by goods and services are bought and sold. And the labour market is no exception; here the buyers are employers and the sellers are workers. The circumstances under which employers utilize labour services constitute a market. In labour markets, individuals may be employed to perform a specific task for certain periods of time. More commonly, the word job implies some type of ongoing relationship between the employer and the employee.

The wage issue features high on the agenda of collective bargaining sessions as a major priority problem. It is also directly or indirectly reflected in practices such as workforce downsizings, wage reductions and outsourcing by firms to firms, regions or countries where wages are lower. It should be noted, however, that the wage issue deserves due consideration if employers want to develop a highly qualified workforce and where firms aim to improve the performance of their employees as well as to promote their commitment to the workplace. A fair and balanced wage structure is also necessary for enhancing the morale of workers, to create a favorable organizational culture as well as to establish harmonious relations with labour unions. The establishment of a sound compensation management system is a vital human resource management function which contributes to effective managerial practices and to the satisfaction of needs of all interested parties concerned. It is also a driving force in the achievement of competitive economic advantage in international trade.

Our world is changing. This change is forcing all systems and societies. The driving force of this change is the human factor. First of all, the change of the human being is

of interest. The process of development in the change of human beings forms also the dynamics of social change. Associations, unions, political parties must be the motivating force of the change. But they face difficulties in this process. This process may make organizations and individuals confront each other as opponents.

Organizations and individuals who are working in those organizations also represent the labour market. Labour market involves an analysis of the demand for and supply of labour. Ehrenberg (2003: 424) provides a good definition of labor market, "on the demand side there are employers whose decisions about the hiring of labour are influenced by conditions in product, capital and labour markets. On the supply side of the labour market are workers and potential workers whose decisions about where to work prevail." Most people have been pursuing the goal to earn money in terms of engaging in some sort of work. Accordingly, workers' skills can also be considered as assets, since skills can be rented out to employers for a price. It is important to denote how much labour is employed and at what price. The role of labour unions come into play by changing the labour supply conditions and the environment of the labour market. As noted by Segal (1964: 96), "people view unions as the major means by which working persons can improve their economic status within the concept of equity." Unionization and human resource management are combined with the policies advocated by consultants for employers. Union practices, concepts of equity, as well as wage rates, all have an influence on nonunion employers. Ehrenberg (2003: 425) proposes that unions do not unilaterally determine wages; collective agreement is bilateral. For that reason, it is important to investigate the special nature of union wages and employment policies.

However, union power has been changing. According to Sloane and Whitney (2004: 12), in the face of the management enmity, on the other hand, unionism has shown absolutely no strong tendency to retreat. However, it is true that owing primarily to the inroads of changing technology and the resulting employment decline, as well as to changing market demands affecting manufacturing, organized labour has lost some of its membership in recent years, both in absolute and in relative terms. And, despite some arguments that the fast-growing white-collar sector will soon become more hospitable to collective bargaining, it is equally true that union penetration in this area thus far has fallen considerably short of its potential. As the nature of the

labour force changes everywhere, whatever one can speculate about the problems awaiting unionism, collective bargaining and labour unions are here to stay.

If one side feels uncertain about the others key objectives, it may feel impelled to probe the relationship. If management's suspicions were not put to test by the unions response at the bargaining table, the employer might be tempted to push the issue to an impasse. Thus anything that creates uncertainty about bargaining positions increases the probability of interruption at the negotiation stage. In collective bargaining, the potential costs of an impasse can be substantial for both parties.

The aim of the collective bargaining process focuses on the likely division of costs and benefits between management and employees; using certain criteria will enable a union to win a concession from the management during collective bargaining. In my thesis I will try to define and clarify the effect of the collective bargaining criteria in wage determination.

1.1 Significance of the Research

Once a relationship has begun, it would be difficult for workers or management to agree on precise formulas that will determine wage payments indefinitely into the future. There may be understandings that future wage determinants will be fair by establishing uniform wage policies. Management can limit its vulnerability to exploitation by refusing to haggle, but this creates uncertainty. What could be more objective and fairer in the eyes of workers and management might be wage decisions made by other employers or movements in the CPI (Consumer Price Index).

The fairness criterion may not only be determined by wage determination criteria but should also explain the preferences for flexibility in employment and working hours rather than for merely wage adjustments to cyclical movements in demand. The criteria traditionally employed by wage determination authorities can be grouped into three broad categories: (i) to maintain worker's real income, (ii) the employers' capacity to pay; (iii) wages or incomes elsewhere in the economy and the increase in the national output.

In order to throw light on effective wage determination in achieving its objectives, its consequences must be examined more closely by wage determination authorities. Wages actually paid, affect productivity and costs of production which are in their true sense reflected in changes of prices and in the distribution of income. This set of changes has of course implications for the standard of living of wage earners.

Firms are central to many theories of the labour market. The value of the production has great relevance for public policy and denotes how inflation affects firm's profitability and employment. This affects the relative importance of firms and workers in wage determination.

1.2 Objective of the Study

Wage determination is the most significant outcome of collective bargaining in unionized firms. The consequences of wage adjustments must be examined closely by the authorities concerned as well by workers and employers, taking account of the specific objectives of interested parties and the national economy. The research presented in this thesis will investigate to what extent labour unions and employers consider certain objective bargaining criteria in wage determination. The generally held assumption is that the wage outcome is mostly a result of the parties' bargaining power rather than national and objective criteria like the inflation rate, labour productivity, comparative wages, and so on. Disclosing the link between such criteria and the realized wage outcomes in Turkey constitutes the main significance of the proposed study. The set of changes brought about by collective bargaining has implications for the standard of living of wage earners, the welfare of the firm and the economy in general.

1.3 Outline of the Study

The study is composed of seven chapters in addition to the "Introduction" that gives a brief explanation of the research question.

The second chapter is a brief overview of the context in which employees and employers play out the collective bargaining process. An overview of collective bargaining is presented next in order to provide a background against which the subject of wage determination criteria in collective bargaining is to be studied.

The main theme of thesis starts at third chapter by an account of some fundamental criteria of wage setting aiming to fill the gaps or remove the deficiencies of each other and then continues with the explanation of the qualification of effects of wage determination criteria within the literature.

An overview of Turkey's economic structure is presented in chapter four in order to provide background against which the subject of the labour market will be investigated. Some structural issues concerning Turkey are also mentioned.

The fifth chapter presents the theoretical perspectives and strategies of the research through a conceptual model on which the study is based, as well as the operationalization of variables and the statement of the hypotheses of the study. The theoretical perspectives and methodology on which the study is based as well as the conceptual model explaining the effects of wage determination criteria on final wage outcomes of collective bargaining will be presented in the fifth chapter.

The sixth chapter is about the findings obtained from a survey conducted on Turkey's selected labour and employers' unions. Results of the statistical data analysis are presented on the basis of the data received from the measurement instruments. Then in the following section a model involving wage determination criteria used at the selective sectors in Turkey is presented. The thesis ends with a discussion of the findings. In the seventh chapter, conclusions are drawn from the findings obtained. Finally, the study presents limitations of the research and directions for future research.

Chapter 2

Definition of Major Terms in Wages and Collective Bargaining

The wage and effort bargain are at the heart of both the individual contract of employment and the process of collective bargaining between management and union. The formal manner in which the wage and effort bargain is expressed through the organization's wage and salary system is perhaps one of the clearest indications of organization's basic philosophy, values and attitudes towards its employees.

In addition to being the specific expression of a human right in the field of labour relations, the guarantee of these fundamental principles and rights at work "is of particular significance in that it enables the persons concerned to claim freely and on the basis of equality of opportunity their fair share of the wealth which they have helped to generate, and to achieve fully their human potential (ILO, Geneva 2004:1)."

2.1 Wage

Wage is payment for labour or services to a worker, especially remuneration on an hourly, daily, or weekly basis or by the piece (Ehrenberg and Smith, 2003:38).

The National Labour Relations Act (USA) (2004: 1) has defined wages as direct and immediate economic benefits, flowing from the employment relationship. Included in the discussion of wages in the American system, where collective bargaining is also the main developed function of unions, are hourly pay rates, overtime pay, piece rates, incentive plans, shift differentials, paid holidays, vacations and severance

pay. Other forms of compensation are also included under the wage category and are therefore considered mandatory; they include pension and insurance benefits, profit and sharing plans, non business days and other bonuses, stock purchase plans, merit wage incentives and company housing meals and discounts.

Labour often has considerable discretion over the extent to which it cooperates to provide the services required, and profit maximizing firms establish mechanisms to induce cooperation. Payment systems can be structured to induce appropriate performance or firms can monitor employee performance, penalizing slacking and rewarding appropriate behavior. Piecework systems, group bonus system, and profit related payment systems are all examples of payment systems structured to induce the desired performance by workers (Elliott, 1990: 441).

The returns workers can receive from selling their labour can take a number of forms (ibid.). Workers also receive fringe benefits, goods and services provided directly by the employer, such as medical insurance, use of car, meals and sports facilities. Together these comprise the total compensation package and constitute the pecuniary rewards from work. Salamon (2000: 331) classified the term, pay, in a restricted sense, "refer only to direct monetary payments (including allowances and bonuses) or, in a wider sense, it can also encompass a range of financial welfare benefits (including pension, company cars, cheap loans, etc.)."

According to Bulutay (1995: 70) it is wrong to consider wages only as a cost factor. Wages also constitute one of the main components of total demand by representing the incomes of an important part of the population. The same income level shows the degree of development and welfare of the country. Wages are one of the main determinants of the distribution of income, and thus, one of the indicators of the social and political situation of the country. Lastly, wage is defined as a factor of production, since a high level of wages is a strong incentive for workers to raise their own productivity.

The former member of the Board of Directors of TISK Erdoğan Karakoyunlu (Ücret Sistemimizin Sorunları ve Çözüm Önerileri Semineri, 1994: 54) proposes that;

- There is no exact and right definition of wage
- Calculation of the wage is hard and confusing
- Structure is so irregular
- It can always be argued whether it's enough or not
- Political forces are playing a greater role (mainly at state institutions)
- It must be denoted the as labour cost rather than wage.
- High wage, enforce and promote illegal commercial institutions.
- High diffusion of wage can cause inequality and injustice.
- Wage and efficiency relationship is weak
- There is a big difference between basic wage and flat wage concept.
- There are so many governmental and legal cuts from the broader the wage.
- There is a big difference between wage rates at the state owned enterprises and private owned institutions.
- There is no equitable balance between the wages of white collar and blue collar workers.
- Because of the miscellaneous funds, employment and wages become expensive.
- Unionized and non- unionized wages are different.
- Wages are not liberally established at the labour market.

Pay determination has to be seen in both economic and sociopolitical contexts (Marsden, 1986: 121). As Salamon (2000: 335) notes, regarded as the individual's desire to maximize income and, through this, living standards, and managements desire to minimize the organization's wage costs which is a negative element in the financial balance sheet; wage is a complex phenomenon. As Evans (1999: 342) notes, in the latter context, it centers on the determination of a "fair and reasonable" payment for the contribution made by one of the organization's members.

It is not the intention in this thesis to examine the operation and problems of different forms of wages or salary systems but rather to consider the principles and perceptions which underlie the determination of pay. In the thesis, I am directly dealing with the appropriate wage criteria determining basic wage rates. Wage negotiations usually are concerned with changes in basic wage rates or in the basic

rate for a key occupation. Collective bargaining usually deals with hourly wage rates. However, the worker's well-being is determined by his total income. Basic wage rates represent what may be called labour's occupational price list. These are the prices listed in the contract for the job. They usually are the key rates in collective bargaining. Unfortunately these data are not available in the overall wage-related sources published regularly by institutions or companies. Only sector specific data are available at some institutions and the Ministry of Labour. The statistics Institute of Turkey from time to time publishes data showing basic wage rates in particular industries.

In order to define the "wage" one needs to think several concepts together. First of all one needs to look at the "economic structure of the country" and the "accepted economical system" together. Unfortunately, wage related concepts are much wider than that. Wage is so closely related with the economy, employment, unemployment, and investments that while talking about wage and wage levels one should not ignore the conditions, improvements, and expectations in these fields and policies. Figure 2.1 below presents these concepts.

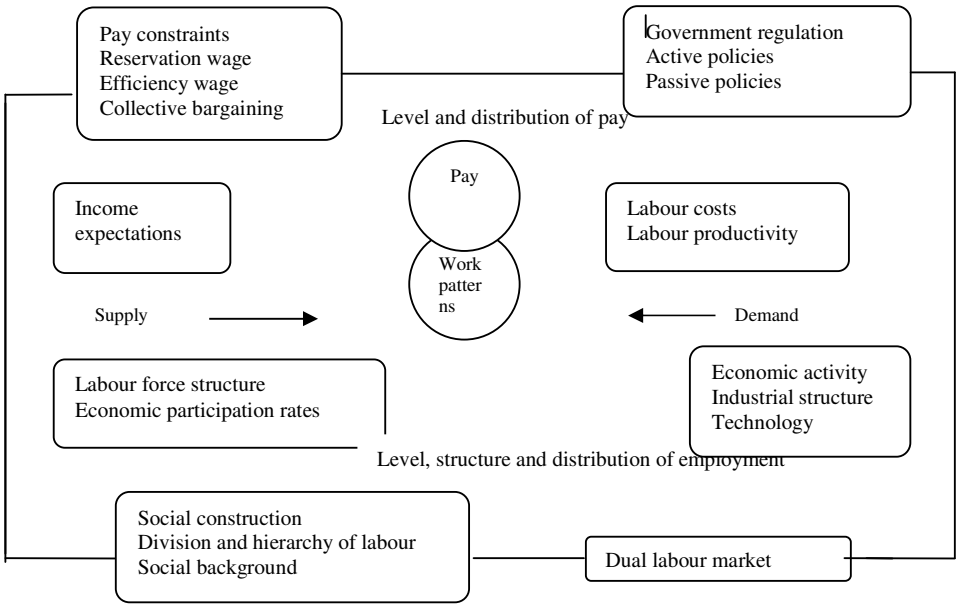

Figure 2.1 The Labour Market

Source: Salamon, Michael, Industrial Relations Theory and Practice, 4th edition, 2000, Pearson Education Limited p. 331

Of the many markets that exist in a modern economy the market for labour is the most important. It is from selling their services in this market that most families derive their income; it is also in this market that they spend the single largest part of their waking hours.

The labour market involves two overlapping elements: pay (its level and distribution) and work patterns (the level, structure and distribution of employment). However, it has long been recognized that there is not a simple free interplay of supply, demand and price in the labour market based on competitive individual maximization assumptions. There are a number of ways in which wages may be constrained.

2.2 Wage from Different Perspectives

In societies, "the wage" takes various roles. Wages fulfil a large number of different functions which may often not all be compatible one with another. For firms, wages are, in the first instance, a cost of production and the more competitive their product markets become, the greater the need to minimize wage costs. But they are also a source of motivation, a means by which managers can persuade workers to carry out the tasks they want, and increasingly, to the level of quality they require. For workers, wages are primarily a source of income, but they can also be a source of social prestige, and may be judged according to their fairness. For economists, they are seen additionally as the chief mechanism in a decentralized market economy whereby labour is allocated to the jobs in which it will be most productive. These are just a few principal social functions of wages, and it is clear that they may often conflict; making wages an easy target of conflict and social struggle (Marsden 1986: 128, as cited in Salamon, 2000:340).

2.2.1 Wage from Labor's Perspective

If the wage is to have any significance it must be related in some way to the needs of the workers. We must never overlook the fact that when we are dealing with wages we are not dealing with an economic abstraction but with the source of livelihood of millions of people (Salamon, 2000: 342).

Notes from Marsden (1986: 134), wage did not involve estimating needs in absolute terms and wage on that basis; they involved only comparisons between the earnings of different groups of workers.

Backman (1951: 6) proposed that for most people work is undertaken primarily for pecuniary gain. According to view point labour is work essential to secure the income necessary to buy the goods and services that support workers' standard of living (ibid.). Work is undertaken because it is a means to this end and, although many individuals find aspects of their work and the social environment in which they work enjoyable, few find it so enjoyable that they would be prepared to pay for the privilege. For most people work is, in the main, a source of disutility and they therefore require payment to compensate them for the time they devote to it. In the market for labour the essential transaction is therefore the exchange of work for pay.

By study Sandver (1987: 441), the "right" to an ever-rising standard of living and the primacy of human values above the values of the market place are both concepts which underlie the organization of every labour movement in the world. Most union leaders would insist that every criterion which is used at the bargaining table is derived from an inherent ethic: from these basic rights of labour emanate. This is not a rationalization of an intrinsically amoral power position, but is a passionately held belief about the nature of the productive process and the purpose of human society.

Policymakers are often interested in knowing whether a country's labour market is "working well," and what can be done to "improve" its workings. In this framework, therefore, testing for whether or not the labour market was working well would focus on whether the real wage fell sufficiently to maintain employment and output in the face of a reduction in total national expenditures (Horton *et al*, 1994: 45).

2.2.2 Wage from Employer's Perspective

I also consider. The behavior of the other important agent in the unionized labour market - the firm in the modern theory of the firm is considered. It is often suggested that management may have objectives other than profit maximization. Given the separation of ownership and control in large firms, there may be a divergence of

interests between managers who run the company and shareholders who own the company. Thus managers might be interested in maximizing their own salaries or perquisites subject to achieving a certain level of profits, or in maximizing company size dependent on sales revenues, rather than maximizing only profits which accrue to shareholders. Shareholders typically hold a portfolio of shares in different companies, and are therefore not able to monitor effectively the behavior of their agents (management) in different companies. However, in the private sector there is always the threat of a potential takeover of an inefficient company (and a subsequent change) which, it is argued, ensures that management broadly follows the profit maximization objective. It therefore seems reasonable to suppose that, for private sector firms, management is concerned with maximizing expected profits.

Thus, management will be interested in controlling costs, increasing productivity, protecting profits, minimizing losses from strikes or slowdowns and remaining competitive with other firms in the industry (Sandver, 1987: 20).

In 1978 and 1983 the Conference Board of U.S.A conducted major studies of the management of labour relations within U.S. industry (ibid.). Here the responses from the unionized companies responding to the questions in 1978 and 1983 are indicated in the Table 2.1.

Table 2.1 Criteria Used in Formulating Company Wage Objectives

1978 (N=659)	1983 (N=197)
1. Industry patterns	1. Productivity of labour cost trends in company
2. Local labour market conditions	2. Expected profits
3. Expected profits of company	3. Local labour market conditions
4. Productivity or labour cost trends in company	4. Industry patterns
5. CPI increases	5. CPI increases
6.Influence of this settlement on other settlements	6. Company wage patterns
7. Potential losses from a strike	7.Influence of this settlement on other settlements
8. Company wage patterns	8. Company benefit patterns
9. Company benefit patterns	9. Potential losses from a strike
10. Union settlements in other industries	10. National labour market conditions
11. National labour market conditions	11. Major union settlements in other industries.

*All 197 respondents had also responded to the 1978 survey.
Source: (Aundrey Freedman, Managing Labour Relations, New York, The Conference Board, 1979, p. 17 and The New Look in Wage Policy and Employee Relations, New York, The Conference Board, 1985, p.10) Marcus Sandver, Labour Relations Process and Outcomes, 1987, p. 446.

The results of the reports show a movement in employer objectives in wage bargaining away from a concern with patterns of settlement within a particular industry or within a particular labour market to more concern with productivity of the individual firms and profits. The conditions governing this exchange, determining the quantity of labour which is bought and sold and the price at which these transactions take place is the subject matter of most business environments.

The price the firm pays to obtain labour services often differs according to whether the firm satisfies its labour demand by hiring more people or by buying extra hours from existing employees. The cost to a firm of an additional hour will be the hourly wage and any addition to fringe benefits that occur but it will encounter further costs if it attempts to acquire the same number of hours by employing more people. Buying extra hours from existing employees has grown significantly in most industrial nations in recent years (Hart *et al*, 1988: 203, quoting Elliott, 1990: 61). In many circumstances it is cheaper for a firm to expand output by inducing its existing employees to work longer or harder than it is to hire additional employees. Firms are no longer indifferent to whether they use their existing employees or employ people outside the firm. They have invested in their own employees and therefore offer inducements to them to stay.

On the other hand the case of severance payments, which are shown as one of the major labour market regulations, presents a good example of the extent of non-compliance, and the power of employers to inactivate regulations. In Turkey, severance payments rise steeply after years of tenure. In order to bypass this regulation, many private firms dismiss workers and, indeed, ask them to quit before five years of employment, and then, usually rehire them OECD (1996). But again, during periods of severe crisis, just as in 1994, the private sector made use of collective and forced unpaid leave for workers, frequently without serious objections from trade unions. This is a silent consensus, accepted by the workers, as a way to bring more flexibility to the market, and to prevent job losses during a crisis (Onaran, 2002: 769).

2.2.2.1 Employers' Union's Function

The primary function of an employers' association is to support and promote the commercial objectives of its members (employers). Its major activities can be divided into four categories (Salamon, 2000: 231). The relative importance attached to each of these activities, in particular the collective bargaining role, will depend on the perceived homogeneity and common interests among the members.

First role is to direct the negotiation of collective agreements with trade unions. So far as management is concerned, negotiations should centre on the ability of the organization to fund a pay increase and, in particular, the linking of pay increases to improvements in productivity.

Employers' unions may also assist their members to resolve disputes by negotiating and operating on their behalf through a disputes procedure with recognized unions.

Employers' unions provide a range of specialist advice on law, recruitment, education, and training, performance and quality management, equal opportunities, health and safety as well as the more traditional industrial relations issues of union recognition, collective bargaining, dismissals, redundancy, etc.

Finally, employers' unions, like trade unions, undertake a representational role on behalf of their members.

2.2.3 Wage from the National Economy Perspective

Wage from national economy implies that human needs have to be interpreted relatively, in relation to the economic levels of the country concerned.

As the factor of production labour has many distinctive characteristics that set it apart from other factors of production. The efficiency with which exchange in labour markets is accomplished is a principal determinant of the efficiency of the economy as a whole. Delays in exchange result in costs which take the form of output that is foregone; output that could have been produced had labour been available. Mistakes

in and impediments to exchange can similarly result in foregone output. These occurrences diminish the volume of goods and services available to support the standard of living of the citizens of a country and therefore the efficiency of labour market exchange is of vital concern to us all.

Wage determination should in addition be aware of trends and movements in the national income or gross domestic product (G.D.P.) or gross national product (G.N.P.) at factor cost or market prices and in various elements into which this can be broken down. If the national income is increasing rapidly there is more room for wage increases than if it is not.

2.2.4 Wage from the Labour Union's Perspective

"Determining pay is not a simple technical mechanism or automatic motivator. It is primarily a subjective process, resolving around our perceptions of "equity" and the "felt-fair" factor. If we feel satisfied, or better still if we feel good, about our pay then it will help us to be motivated and committed, but if we don't…!" (Salamon, 2000: 334).

However, there are different sets of actors within the union organization and each set may have conflicting objectives. Individuals with varying preferences as to the union's strategy and also the organizational structure of the trade union are likely to be such that different groups of individuals have conflicting preferences about these objectives.

If there is diversity of interests, a given change will improve some individual's welfare at the expense of others. With a decision role such as "majority wins," a determinate outcome will result.

In such an environment, the trade union may be viewed as an organization acting on behalf of workers, expressing their views and looking after their interests. Some of the benefits provided by the union as an agent are relevant to the firm's performance, for example communication of workers' preferences to management (Freeman and Medoff, 1979: 145). Union provision of these benefits may be cheaper than individual provision, through economies of scale. It may also be the case that

individual provision is not feasible. In addition, many aspects of labour contracts and workplace characteristics, for example grievance and promotion procedures and safety arrangements are collective in nature, and are therefore subject to the usual problems of preference revelation. Individuals may be unwilling to reveal their true preferences to management, because of fear of retaliation (Booth, 1995: 35).

Further, as Nickell & Wadhwani (1991: 58) argue, the existence complicates efforts to distinguish between competing models of union behaviour. Their work and that of Hendricks and Kahn (1991: 165) are among the very few that analyze employment determination two types of union bargaining: the "right to manage" (RTM) or "monopoly union" type where unions attempt to set the wage but let firms choose the level of employment, and the "efficient bargaining" (EB) type where unions bargain over both. Efficiency wages will be differences in wage levels for workers with similar abilities and occupations with similar characteristics (Oswald, 1991: 89; Layard and Nickell, 1990: 773).

The orthodox union models assume that trade unions are concerned only with the economic welfare of the unionized sector (Booth, 1995: 36). Two assumptions have been made about union objectives; “first, that the union cares only about the economic welfare of the union sector, and secondly, that all members are identical including the leadership and rank-and-file members”.

Booth (1995: 34) favored the attitudes held by trade unions which are concerned with a wide range or issues, from the basic aim or increasing wages to broader political issues concerned with the labour movement as a whole. Union objectives may sometimes be conflicting. For example, an increase in the wages of unionized workers may reduce available jobs in the union sector, resulting in unemployed union workers crowding into the non-union sector and driving down non-union wages. If a union is concerned with labour as a whole, this might be expected to affect its behavior. The industrial relations and labour history literature contains many examples of trade unions that are concerned with issues of equity (ibid.).

It has often been argued that rules found in collective agreements, such as workplace can lead to an alternative hypothesis in that these rules are the concern of unions

because they effect worker effort which is quiet distinct from employment. According to this view, the union objective function should therefore include arguments on wages, employment and effort (Nickell, Wadhwani and Wall, 1992: 33; Rosen, 1989: 164).

For labour unions, a major goal in bargaining is establishing a price for labour, as indicated in the Table 2.2 below, in most cases measured by price per hour worked or in some cases, by some type of piece rate.

Table 2.2 Union Goals

Craft Union	Industrial Union
Price of labour(wages)	Price of labour (wages, fringes)
Quality of trade	Individual worker protection
Levels of employment and supply of labour	Job and income security
Union security	Union security

Source: Sandver, M., Labour Relations Process and Outcomes, Little Brown Company, Boston, 1987, p.134

In much of the traditional literature of union behavior, the existence of unions is taken for granted, rather than explained. The union is usually assumed to maximize the sum of its members' utilities or the expected utility of a representative member; in either case, the union is viewed as maximizing a welfare function that depends on the wage and employment level. They are underestimating the complexity of the problem if unions ignored the importance of appeal to "objective" criteria in the name of justice and logic. This appeal to the "facts of the situation" is made for a variety of reasons. There is a fundamentally important ethical aspect to collective bargaining, an aspect which is strongly emphasized, especially by labour.

It was argued that the ability of a union to achieve a wage rate higher than the non union level depends on the existence of economic rents or surplus in the product market, and on the power of the union to act as a monopolist in the supply of labour (Layard and Nickell, 1986: 775). Hamermesh (1993: 153) need organizing workplace and this takes substantial effort by both the workers' themselves and the union organization that seeks to represent them. What primary objectives have unions held when negotiating wages?

"A fair day's pay for a fair day's work" is a commonly used phrase summing up the expectations of many employees.

Unions are to improve wages and if they were unable to deliver this service to their members they would not survive. Collective bargaining is exactly what its name implies: a bargaining process. Thus even a weak union might hold the allegiance of its members with apparent "success" at the bargaining table, whether it actually raised wages or not. If the union were unable to deliver this service to their members, it knows that it can not survive in the long run.

Table 2.3 Union at Wage Bargaining

1. **Union goals in wage bargaining**. LynnWilliams former president of the United Steelworkers Union, summarized union wage goals as (1) "achieving the maximum level of wages and benefits for its members" and (2) "maintaining all the jobs it could within as viable in an industry as possible."
2. **Union wage differential over time.** The union-nonunion wage differential continued to increase.
3. **Wage structure.** Unions have also affected the structure of the wage scales among workers within one group or industry, negotiating for differences in working conditions, skills, seniority, age and job classification.
4. **The form of compensation**. Unions in most cases have bargained for wages based on time or hours worked. They have opposed pay systems based on output, such as piece-rate-systems or evolution by supervisors.
5. **Pattern bargaining**. Unions (1) striving to pattern bargaining or (2) obtaining similar wage gains from separate employers within the same industry or sometimes within similar industries.

Source: Carrell and Heavrin, Labour Relations and Collective Bargaining Cases, Practice and Law, 7th edition, 2004 p. 449

From the worker's viewpoint, the links between pay and employment are not passive. When labour costs are passed into prices or capital is substituted for labour, it is because corporate executive decided to do so. Unions measure employers' behavior against an ethical system in which such phrases as "ability to pay" and "equitable wage adjustment" have genuine meaning. It might be profit-maximizing to pass a

pay increase into prices or to automate in response to high wage costs. But such behavior is putting profits ahead of workers' interests and is therefore wrong from the union perspective.

However, pay may include not only basic rates and pay scales but also overtime rates, minimum earnings, guaranteed payments when work is not available, and allowances for special working conditions or arrangements such as shift working. Generally these items are renegotiated annually in the light of any change in the cost of living, comparisons with the level of wages in other occupations and organizations, and the productivity and profitability of the organization or industry which is the center of this study.

A long-standing debate in the literature on union pay determination revolves around the degree of union perception of the trade-off between wages and employment. As noted by Ross (1948: 16)…. to create an economic model of the union that would be analogous to the standard model of the firm. “The firm is actually not directly concerned with either price or quantity but does have an indirect interest in them as determinants-when combined with a cost function-of profits. The assumption of profit maximization gives the firm an unambiguous index for choosing a point on the trade-off curve.”

Unions act as interest groups in the political process, lobbying for job security legislation and other sources of labour turnover costs. Unions, of course, also fulfill other important social functions, such as protecting individual workers against arbitrary and discriminatory treatment by employers, transmitting information about the production process between employees and management, and participating in the political dialogue in society at large, hence contributing to political pluralism.

2.3 Wage Determination

The structure of wage and evolution of labour costs and wages are important features of the labour market. They are closely linked to both firms' labour demand decisions and individuals' labour supply decisions. Through their link with productivity, profits and consumption they are key determinants of economic growth and overall employment performance.

For instance, there is no single theory that can honestly purport to explain completely what is currently practiced and why it has evolved. However, there are so many institutional and legal constraints that provide useful insights (Wiseman, 1951: 4).

Purpose of wage determination may be first to eliminate the "sweating of labour" through "low wages and bad conditions of employment generally". This seems to have been the primary purpose of the wage determination (ILO: No 72, 1968: 12).

One of the other purposes of wage determination is a desire to eliminate "unfair" competition. Wage determination may thus be deemed to be in the interests of not only the workers who benefit from higher wages but also those employers who provide better wages and conditions. Fairness is such an ambiguous concept that popular definitions of what is fair might change over time or might vary from society to society. In particular the publicity surrounding major union achievements and practices may influence the concept of fairness of non union workers. Thus, it is the coincidence of rapid unionization growth and the development of personnel management techniques.

There is a another conception of the purpose of wage determination which is that, while serving as an instrument to improve conditions for workers, it should also be used as an instrument more aiming at a rapid growth and equitable distribution of income (Carrell and Heavrin, 2004: 358).

In addition, it may be argued that the general level of wages is too low to meet the needs of workers and their families, or that it gives to workers an inequitable share of

the national income, or that it has failed to keep pace with increases in the cost of living.

Wiseman (1956: 10) emphasized a different point on that neither labour nor management has ever agreed to a permanent formula for setting wages, because under the present system of collective bargaining, there is no agreement on the fundamental question of how the product is to be divided between capital and labour. That question is a negotiable issue and is always open to dispute. “The same criterion will be raised by both sides with different supporting data when the economic conditions or bargaining relationships have changed. Basically, the appeal to one or another of these criteria is made to support labour’s continuing demand for "more, more, and more" and management's perennial counter arguments to resist these demands, hold the line, or retrench if possible.”

While it would be difficult for workers and management to agree on precise formula that will determine wage payments indefinitely into the future, there may be some understanding that future wage determination will be fair. What is fair may be a subject of disagreement. Possible sources of guidance to what is fair might be wage decisions made by other employers or movements in the consumer prices or ability to pay of the firm.

Long term strategy suggests that the parties should strive to understand each others goals. Both sides have an incentive to establish their most important objectives. For example the union might seek to establish over a period of time that keeping up with the CPI or with some comparison groups was a key objective and that the rank and file stood ready to hear substantial costs to obtain this goal. Management might seek to establish objectives such as profitability, competitive costs compared with rival firms or the presentation of certain management prerogatives. Obviously both sides have incentives to bluff about their objectives and neither can be sure about the other side's true feelings.

If one side feels uncertain about the other's key objectives it may feel impelled to probe the relationship. For example, if management began to suspect that keeping up with the CPI was not a key union objective, it might suggest capping or eliminating

the escalator clause to probe the union's reaction. If management's suspicions were not put to test by the union's respondent at the bargaining table the employer might be tempted to push the issue to an impasse. Thus, anything that creates uncertainty about bargaining position increases the probability of a strike. This logic makes concessions and conciliatory behavior difficult.

2.4 Collective Bargaining

Collective bargaining is a method of determining terms of employment and regulating the employment relationship, which utilizes the process of negotiation between representatives of management and employees and results in an agreement which may be applied uniformly across a group of employees (Carrell and Heavrin, 2004: 228).

The term collective bargaining originated in the British Labour movement. But it was Samuel Gompers (Presidential of the AFL) who developed the concept. Collective bargaining is defined as the "continuous relationship between an employer and a designated labour organization representing a specific unit of employees for the purpose of negotiating written terms of employment (ibid.)."

Collective bargaining described by Salamon (2000: 325) is much more than just a mechanism for pay determination. It is important to understand its significance also as a process for regulating the managerial authority aspects of the employment relationship and for providing employees with a means to participate in workplace decision making. Collective bargaining has been described by Dubin (1954: 44) as "the great social invention that has institutionalized industrial conflict" and by the Donovan Commission (1968, European Industrial Relations Dictionary) as "a right which is or should be the prerogative of every worker in a democratic society."

According to the Sandver (1987: 243) bargaining takes place within a well-structured system of relationships between labour and management and it proceeds in a progress that appears almost ritualistic. Collective bargaining may be defined as the mutual determination by labour and by management of the wages, hours and other

terms and conditions of employment for employees within a certain work group or bargaining unit.

The National Relations Labour Board has defined wages as direct and immediate economic benefits, flowing from the employment relationship. Included in the discussion of wages are hourly pay rates, overtime pay, piece rates, incentive plans, shift differentials, paid holidays and vacations and severance pay. Other forms of compensation are also included by the Board under the wage category and are therefore considered mandatory items of bargaining; they include pension and insurance benefits, profit and sharing plans, non business days and other bonuses, stock purchase plans, merit wage incentives and company housing meals and discounts.

Employer concessions tend to tighten the linkage between the firm and worker. Wage premiums make alternative opportunities less attractive to employees, thus benefits are likely to reduce. So do the fringe benefits and industrial jurisprudence processes that are associated with unionization. The union political process is likely to reflect the special interests of more senior workers and the seniority systems that are formalized in union agreements work to shield such workers from layoffs and resultant income losses. Since seniority is valuable, workers who have acquired it are likely to remain with the firm (Hazlitt, 1946: 165).

Union wage determination is the subject of the bargaining process. While capable of threatening economic damage to the firm and obtaining concessions from this threat, strikes also involve the loss of wage income to workers. Union strike benefits are generally modest (Sheldon, 1975: 20).

Wage formation systems are to large extent systems of collective bargaining, involving social partners and individual employers and employees. Main differences concern the degree of centralisation and the co-ordination of bargaining at various levels, including the national (or inter-sectoral), sectoral and company level. There are also important differences across countries in the coverage rates of collective bargaining, not least because of differences in provisions for extending these agreements to other firms or sectors. Although the Turkish system includes what is

called “extension,” it is almost never used. The frequency of wage bargaining also varies, normally between annual and multi-annual bargaining. Finally, countries differ considerably in the evolution of bargaining structures over time.

2.4.1 Structure of Collective Bargaining

The bargaining structure can be described as how unions and employers organize the collective bargaining relationship internally and with each other. As Bridgford and Stirling (1995: 125) note, there is no single uniform structure of collective bargaining.

Bean (1994: 79) “structure” refers to the regularized patterns of union management interaction or the network of institutionalized bargained relationships. The vote to certify a union as a bargaining agent takes place within a group of employees called the election unit. It is possible that the employees in the original election unit may be united with other employees represented by the same union; it is then the union that bargains with the same employer in what is called a multi plant bargaining unit. The equivalent of this is the enterprise unit in Turkey. It is possible that the employees in the election unit may be united with other employees who are represented by the same union but who work with different employers in what is called a multiemployer bargaining unit. Though there are some differences this is what is called group bargaining in Turkey. The structure of the bargaining unit depends largely upon the structures of the union and of the employer that are entering into the bargaining relationship. The structure of the bargaining unit is an important factor in determining the content of negotiations and may have an effect on the goals and the behaviors of the negotiators as well.

2.4.1.1 The Union Structure

Union structure must begin with the basic structural distinction between craft and industrial unions. The main distinction between these two types of union is that Ehrenberg *et al*, (2003: 424), “craft unions are defined as including all workers with a particular skill or trade (such as carpenters) while industrial unions are defined as including all workers in a particular industry regardless of their skill or trade or

occupation (all steelworkers)." Craft unions are illegal in Turkey, so what happens usually is bargaining legally with an industry-based union, and in practice sometimes with the branch offices of an industrial union.

Union-wide bargaining is in contrast to multi-employer bargaining, which involves participation both by the industry and the union with which it deals. Under these arrangements, the union asks the various employers to sign identical agreements; it thus maintains uniform standards for all of its members, although separate bargaining is undertaken with each company (Backman, 1951: 7). This is called "pattern bargaining," in that between company and multi-employer bargaining is found what may be called pattern bargaining, a situation in which an agreement reached with a major company in an, industry is accepted by other companies for the settlement of their own negotiations with the union (ibid.).

According to the study by Dereli (2006: 290), industry based (national) unions conductive both to local and group bargaining began playing an enhanced role in Turkish industrial relations. The growing importance of employers' unions in the post-1980 era, particularly their predominance in metal-working, food, textile, petroleum, rubber and petrochemicals, also contributed to the widening of bargaining territory.

2.4.1.2 The Employer Structure

Employers may be divided into two general structural types as well: centralized and decentralized. In a centralized corporate structure power over policy and decision making are concentrated in the hands of top management. Thus, decentralized companies are those having a local market for the product or those organized in such a way as to give decision making power to managers in certain diversified profit centers, usually corresponding to different product lines (Sandver, 1987: 297).

Table 2.4 Bargaining Units

Unit	Decentralized		Centralized	
	Single employer, Single Plant	Multiemployer (Local)	Single Employer, Multiplant	Multiemployer (national)
Industrial	Chemicals Oil Refining	Hotels and restaurants	Automobiles Rubber , Steel and Communication	Coal Mining

Source: Sandver, Marcus, Labour Relations Process and Outcomes, Little Brown Company, Boston, 1987, p. 246.

As indicated in the Table 2.4 above is the idea of the complexity of the bargaining structure concept. By combining the type of employer structure that may be single employer- single plant or single employer, multi plant with the types of union structure, there are four possible types of bargaining structure.

Wage setting is centralized; that is, centralized bargaining takes place between an economy-wide employer and a labour union; wages are determined by a national collective bargain. Wages are set in a decentralized manner (Bulutay, 1995: 55).

Flanagan (1999: 1150) predicts that relatively centralized collective bargaining arrangements will yield lower real wages and unemployment that would be ignored by negotiators in decentralized bargaining structures. In formulating wage demands under decentralized bargaining, for example, each union tends to consider only the interests of its members and to ignore the effect of the resulting price on other worker groups. In contrast, centralized bargaining arrangements should create the incentives and means to internalize the externality by pursuing more moderate wage demands.

In Turkey, however, collective bargaining as defined from a strictly legal point of view is focused on the establishment level.[1] Nowhere has Act No. 2822 used the term “group agreement”. A variation of this rule is the enterprise agreement, where the term “enterprise” denotes an entity comprising multiple plants (more than one) in the same industry belonging to an employer. Obviously, a “group agreement” may cover enterprises as well as independent plants belonging to different employers in the same industry (Dereli, 2006: 291).

[1] Court of Cassation, 9th Div., 24 April 1986, 3377/4325.

The concept of the bargaining structure is important for the bargaining process because the definition of the bargaining structure will determine who is covered by the agreement and who will be the signatory parties to the agreement.

2.4.2 Collective Bargaining Negotiations

"The process has been depicted as (i) a poker game, with the largest pots going those who combine deception, bluff, and luck, or the ability to come up with a strong hand on the occasions on which they are challenged or "seen" by the other side; (ii) an exercise in power politics, with the relative strengths of the parties being decisive; and (iii) a debating society, marked by both rhetoric and name calling. What is done at the union-management bargaining table has also been caricatured in a somewhat less dramatic way-as (iv) a "rational process," with both sides remaining completely flexible and willing to be persuaded only when all the facts have been dispassionately presented (Sloane and Witney, 2004: 84)."

The division of the product which is affected by the writing of a collective agreement is determined by the relative bargaining strength of the two parties (Wiseman, 1956: 23). As a calculated risk, both sides are prepared to resort to a test of this strength by a work stoppage. In the majority of cases, however, experienced negotiators will be able to gauge the approximate balance of power and write an agreement accordingly. Sometimes no agreement is possible until a work stoppage has affected a shift of bargaining power and caused both sides to re-evaluate their relative positions.

According to the Dunlop (1944: 234) it is not helpful to talk in terms of "relative bargaining strength," there is only a general idea of its components-the size of both the enterprise and labour unit relative to the relevant market; the state of competition in the market; the general economic conditions; the specific economic conditions in the industry; the technology of the industry; the degree of public interest in, or regulation of, the enterprise or industry; the financial resources of the two parties. The political and social temper of the community may, at certain times, be decisive or non economic factors such as the morale conditions of the labour group, the relationship between the union leadership may affect the bargaining outcome (ibid.).

At present, however, collective bargaining is most commonly an orderly process in which employee, employer, and union problems are discussed relatively rationally and settled more or less on the basis of facts. There is less and less place in bargaining sessions for emotionalism (Ataman-Lastik-iş). Advantages gained through such devices are temporary, and the side that sinks to such low levels of behavior can expect the same from the other party. Certainly, one objective of collective bargaining sessions should be the promotion of rational and harmonious relations between employers and unions. To achieve this, those to whom negotiations are entrusted should have the traits of patience, friendliness, integrity, and fairness (Şafak- Birleşik Metal-iş).

2.4.2.1 Preparation of Negotiation

Preparation for collective bargaining requires knowing the criteria to give guide to collective negotiations and to be prepared to use these 6 criteria effectively.

Samuelson, 1966, as cited in, Önsal, 1975: 591 sets forth 6 basic guidelines in collective bargaining:

i When the cost of living rises, union staff economists will dwell on the standard of living out workers; when prices fall the employer will emphasize price changes.

ii If the industry sector to which the firm belongs or the firm itself is doing well the union will emphasize the ability of the firm to pay. If the sector is not in good shape the employer will insist on the plight of the firm.

iii One or the other of the parties will base its arguments on recently increased or decreased productivity, depending on the case.

iv Concerning comparable wages, negotiations will center around higher or lower wages paid by other firms in the same region.

v The union will argue that higher wages improve purchasing power and national well-being. On the other hand the employers will dwell on the cost effects of wage increases.

vi If in basic industries like coal, steel and auto a certain wage rate increase

per-hour has been granted, in this will serve as a basis for success of negotiations being considered in a nation-wide agreement.

Preparation for negotiations ordinarily involves consideration of two principal matters; the general position that the union or the company will take in negotiations and the specific contract changes that the union or the company intends to make (Slichter, 1960: 56).

In general one may say that there is a close connection between the quality of the administration of the union management contract and the quality of the negotiations. Good administration by a union means that the management or union is well informed and is able to take an intelligent position in negotiation. Management should bear in mind that the opportunity given by negotiations to answer questions raised by the union is an extremely valuable one.

Most unions, before going into negotiations, survey, their situation and plan their position (Ataman-Lastik-iş).Union and employers need to be making continuous studies of changes in wages, markets, technology and of industrial trends generally in order to decide what changes are needed in the labour management contract. As a basis for determining the size of the package that would be appropriate, companies and unions participate in local, regional or national surveys of changes in wages and employee benefits. And unions regularly exchange information with other labour unions.

2.4.2.2 Sources of Information

Unions have different ways of selecting their demands. Local union bargaining committees may receive instructions from the union meeting. It is often easier to approve a proposal some member or group wants to make than to alienate some members of the union. Consequently there is a connection between the demands of the union and the proposals for which the negotiators seriously bargain indicated in the Figure 2.2 below.

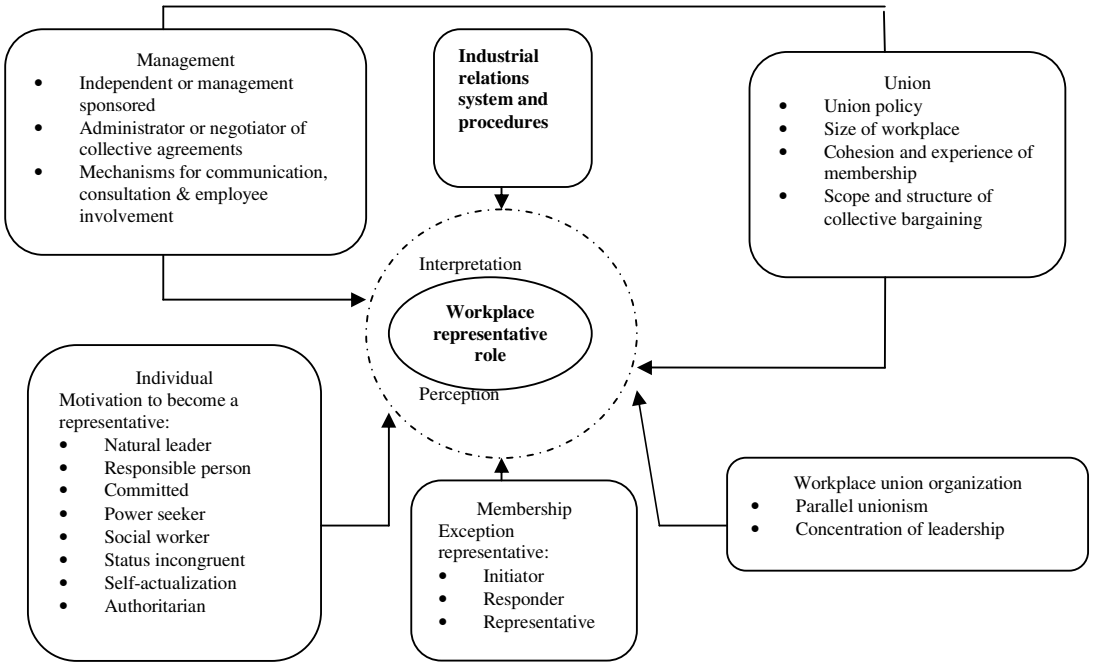

Figure 2.2 Influences on Workplace Representative Role

Source: The Labour Market (Salamon, Michael, Industrial Relations Theory and Practice, 4th edition, 2000, Pearson Education Limited, p. 502.

Warren (1971: 75) also pointed out the relationship between the workplace and nature of the collective bargaining system. The larger the size of the workplace, the greater the delegated management authority, the more issues to be resolved and the greater the opportunity for stewards to gain experience in handling industrial relations situations.

Cohesion, commitment and union experience among the union's membership is denoted to increase pressure for management's actions to be subjected to immediate and direct trade union scrutiny and agreement. The structure of the collective bargaining Darlington (1994: 94) may increase or decrease the scope for stewards to develop an independent collective bargaining role.

In today's increasingly data-conscious society, much general information can aid the parties in their advance planning. Ministry of Labour and the State Institute of Labour Statistics of Turkey are prolific issuers of information relating to wages,

employee benefits, and administrative c1ause practices-and not only on a national basis but for many specific regions, industries, and cities. Many employer groups stand ready to furnish managers with current and past labour contracts involving the same union with which they will be bargaining, as well as other relevant knowledge.

Each bargaining party may also find it advisable to procure and analyze information that is more specifically tailored to its needs in the forthcoming negotiations. Larger unions and almost all major employers today enlist their own research departments in the cause of such special data-gathering projects as the making of community wage surveys.

Management has also made use of the research services of academicians and other outsiders on an ad hoc basis. In multiemployer bargaining situations, whether or not an official employers' association actually handles negotiations, the same premium on authoritative investigation has become increasingly visible.

2.4.2.3 Negotiation Encounter

"Negotiation" applies to a particular process of dialogue between people to resolve their differences and reach an agreement. In industrial relations this is conducted primarily through representatives of management and employees.

The following appear to represent the essential aspects which theorists have undertaken to emphasize in their models of the bargaining process as applied to labour-management negotiations Cheng (1968: 163);

i The degree of precision each party possesses-in knowing his own utilities as a joint function of the terms of employment under negotiation, including wages.

ii The degree of precision each party possesses in knowing his opponent's utility function.

iii The capability of the parties in carrying out bilateral trading of benefits on the basis of principle of comparative advantage.

iv The variability of the threat point, i.e. the utility associated with the

condition and the expected duration of strike to both parties. A peaceful strike and a violent strike, for example, represent two quite different types of threat points.

v The time factor as a variable in affecting points i through iv as negotiation progresses.

vi The learning factor and the expectations of the parties as they relate to the time factor and the concession process.

vi The extent of interpersonal comparison of utilities. For example, satisfaction gained by one party induces dissatisfaction for the other.

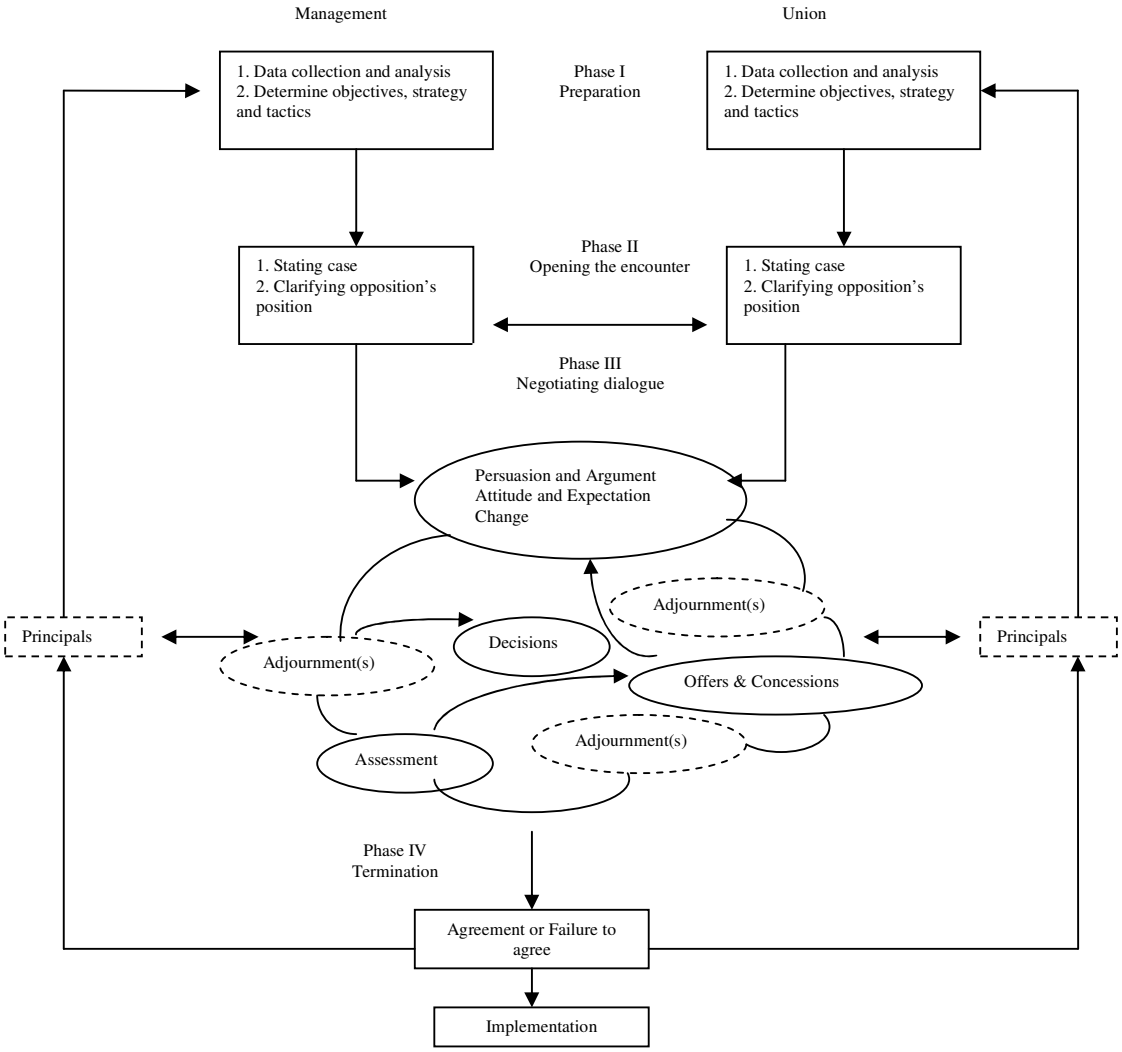

Figure 2.3 Negotiating Encounter

Source: Salamon, M., Industrial Relations Theory and Practices, Prentice Hall, New York, 2000, p.502.

The negotiation encounters distinct phases which are shown in Figure 2.3 (preparation, opening the encounter, the negotiating dialogue and the termination).

During negotiations, parties often conceal their real goals and objectives from the other side to enhance their opportunity for the best possible settlement. Every negotiator must decide how open and honest to be in communicating needs and preferences. “If a negotiator is completely open and honest, he or she often will settle for less than if he or she conceals goals and fights harder for a better settlement. However, if a negotiator is completely deceptive about goals, the talks may never move in the direction of a settlement. This dilemma of trust poses a key problem for negotiators.” As both sides begin to trust each other, this process becomes easier (Carrell and Heavrin, 2004: 215).

Bargaining practices vary considerably. Negotiations may be carried on at several levels simu1taneously. The degree of participation of various interest groups on both the labour and management sides may also vary even within a particular firm or unit. In general, however, a common practice is for some kind of internal consultative arrangements to be established on both sides.

Unions and firms engage in repeated bargaining over what are typically unlimited time horizons (Hirsch, 1989: 72). Cooperative bargaining outcomes, if possible, would maximize the sum of the firm's market value, representing the discounted stream of future expected earnings to shareholders, and the present value of expected rents accruing to the union.

Phase 1-Preparation is the unions which introduce new items to be discussed at a collective bargaining session, and management reacts to such proposals. Experts revealed that planning is the most critical element in successful negotiations. Each side, through research and member’s input, must correctly assess those issues critical to both sides.

Both union and management can also look at external sources for bargaining items. Recent contracts within the same industry can give both parties ideas on realistic

attainable proposals. Often the overall economic condition of the nation and that of the particular industry limit or expand bargaining demands.

Salamon (2000: 512) pointed out that preparation is invariably the key to successful negotiating. Negotiators can develop a clear understanding of their task and increase confidence in their ability to carry it out. As Torrington (1998: 35) pointed out, consideration must be given to what is likely to be the opposition's position and justifying arguments. Part of the preparation may involve agreeing on an agenda between the two parties. The meeting to agree on an agenda may be the only formal link between the parties during the phase of the encounter. Also, each party may well have different perceptions of the strategic or relative importance of the various issues and therefore, determining the sequence in which issues are to be considered is the first area of negotiation between the parties. Torrington (1998: 35) argued, "Both sides may welcome a sequence of topics which starts with something easy on which they can quickly agree. However, others argue that it is better to start with those items over which there is likely to be the most difficulty and on which a satisfactory conclusion to the whole negotiation is dependent.

The four most important things that a union must do in preparing for negotiating a collective bargaining agreement come as "tips from the experts; "anticipating management's proposals", "defending its own proposals", "the politics of negotiations: its own negotiating team as well as that of the managements" (Carrell and Heavrin, 2004: 211).

On tips from the experts the three most important things an employer must do in preparing for negotiations are: "(i) Select a spokesperson both for the team and for public statements; someone familiar with labour law as well as the company/industry/labour relations issues and someone who has the respect of both the union and management teams", "(ii) Establish specific goals and directions including "drop-dead" points", "(iii) Gather input from line management in terms of what is or is not working in current collective bargaining agreement from budget folks" (ibid.).

Phase 2- Opening the Encounter phase of the negotiation is often referred to as "the dialogue of the deaf" or "challenge and defiance", because, as Torrington (1998: 39) noted, "the negotiators appear to be ignoring the arguments presented by the others and concentrating their whole efforts on the presentation and consolidation of their own case". The issue of who should open the encounter, Salamon (2000: 512) noted, "is generally determined by which party is seeking the negotiation". Ataman denoted, in a negotiation relating to a wage claim, it would be the union which opens by stating its justification for an increase, while management will open the encounter if it is seeking the agreement of the union to work changes. "The style and tone adopted by the negotiators during this opening phase will set the scene for the subsequent dialogue in Phase III" (ibid.).

The elements of national wage formation systems include: co-ordination, coverage and extension of collective bargaining agreements regarding pay, working time and other working conditions; minimum wages and low pay regulation; firms compensation policies and variable pay schemes; tax/benefit systems and making work pay; and employment protection legislation. Bargaining shall include rates of pay, wages, hours of employment and conditions of employment (National Labour Relations Act).

There are various other issues which are relevant in the context of wage formation and which are sometimes subject to collective bargaining. These include working hours, working conditions, training and apprenticeship issues and the overall level of employment.

Strategy formulation helps both sides develop realistic expectations of how negotiations will proceed and what the final agreement will be (Carrell and Heavrin, 2004: 248). Each party must evaluate the opponent's current needs as well as its own, review the bargaining history between the two parties, and prepare overall strategy for negotiations. Important aspects to consider include personalities of negotiators, current financial and political position of each party, and outside influences, such as the economy, product sales, and public support of the unions.

In combination with the above key elements of wage formation systems, various other institutional settings are important to understand wage formation processes. non-wage labour costs; tax rates, in particular on labor, and provisions for employment protection.

Expectations must be established. At the same time priorities are set to establish realistic objectives, the party considers patterns and trends in contract settlements of other employers in the industry and the local community. Employers always follow their lead in the same industry and examine their current and past bargaining relationships (ibid.).

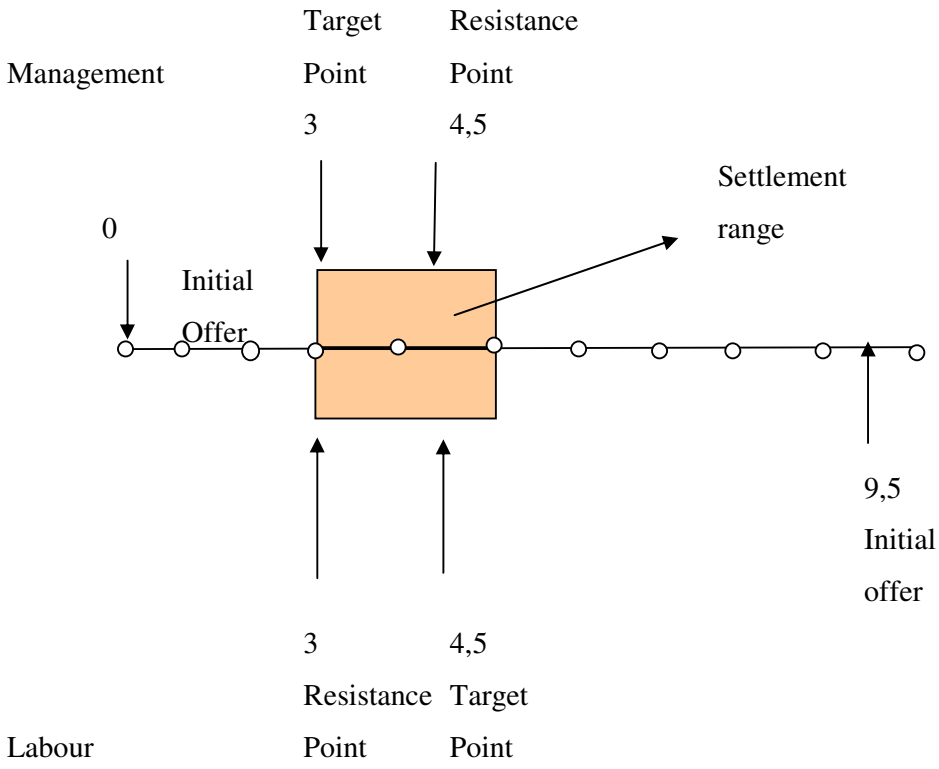

Figure 2.4 Distributive Bargaining Negotiation: First-Year Base Wage Increase (percentage)

Source: Carrell, M. and Heavrin, C.,Labour Relations and collective Bargaining Cases , Practice and Law, Prentice Hall, 7th edition, New York, 2004, p. 224

Both sides view the negotiations as a win lose situation. The limited resources include the monetary assets of the firm, which can be used for a variety of purposes. Both labour and management view any positive change from the current contract as something to be gained at the negotiating table and as a loss to the other party. Both sides must also determine their bargaining limits on the issues to be negotiated.

Once the bargaining limits have been determined, it is then necessary to prepare the information and arguments to be used during the encounter. While an overt exchange of information occurs during bargaining- i.e. that is, the parties formally state their positions, each side must try to discover the other side's final resistance point. Management needs to know at what point the union would be compelled to call a strike. Labour needs to know at what point management would decide to accept a strike or even provoke one. Obviously such needs can lead to bluffing and false information (Somers, 1953: 557). But even with bluffing, both parties have an interest in avoiding a costly conflict and accidental impasses based on false information. The bargaining process is apt to be dominated by strategic considerations and estimates of conflict costs and of the propensity for conflict of the other party. These considerations obscure other economic circumstances and help explain the relative insensitivity of union-sector wages to real economic fluctuations.

Common to all bargaining problems is the use of threats and argument by the two parties involved to try to achieve their goals. In particular, strikes, or the threat of a strike, are a prominent feature of the collective bargaining process in many countries. The attitudes of each party to the wage bargain will be determined by what each perceives to be the costs perceived to be attached to the parties disagreeing to the claim or offer. Accordingly, each party's bargaining attitude by the balance of the costs of agreeing relative to the costs of disagreeing needs to be identified (Hamermesh, 1973: 1146).

The Trade Union's Bargaining Attitude

$$\text{The Trade Union's Bargaining attitude} = \frac{\text{Costs of disagreeing with employer}}{\text{Costs of agreeing on employer's terms}}$$

From which it follows that when the costs and benefits are quantified and the ratio emerges as less than 1, the union will not be inclined to settle.

Employer's Bargaining Attitude

$$\text{Employer's Bargaining attitude} = \frac{\text{Costs of employer disagreeing with union}}{\text{Costs of agreeing on union's terms}}$$

Where again, if the ratio is less than 1, the employer will not be disposed to settle. These costs cannot by their nature be known or estimated with precision and therefore these calculations take the form of expected values (ibid.).

Phase III- The Negotiating Dialogue phase of the encounter is perhaps more characterized by a problem solving orientation, the problem to be solved being the identification of a point of mutual acceptability. Both parties need to trust each other sufficiently to be prepared to move away from the target points and towards the likely area of settlement. The negotiators may, where there is more than one item to be dealt with and there is a impasse on one of them, agree to put it aside for further consideration at a later stage in the dialogue and concentrate their attention on an alternative item.

Neither party can convince the other of the legitimacy of its position without understanding the other party's perception of that position. Therefore the first task of a negotiator is to understand the other party's perception. For example, during hard economic times, a union's non-economic demands for job security may be more important to the union than management perceives. Agreement becomes easier when the basis of the agreement is recognized criteria on which this thesis will focus.

Phase IV- Termination is the final stage that a negotiator may commit him or herself to is a course of action which may have been resisted earlier in the negotiation or even agree to something new, which is thrown in by the opposition at the last moment, without sufficiently considering its implications. Therefore, the negotiator should not regard the dialogue phase as completed until all issues have been

satisfactorily resolved and both negotiators agree there are no further issues to be considered.

2.5 Collective Agreement

For analytical purposes it is helpful to think of the terms of any labour market exchange being specified in a labour contract. Bargaining only occurs where both parties possess some degree of market power and the relative magnitudes of this influence the eventual outcome. These contracts can take the form of either an explicit written agreement or an implicit verbal understanding about the price that is to be paid and the quantity of labour that is to be bought. The terms of the contract may have been drawn up as the result of bargaining between a trade union and employer or between an employer union and trade union. In the case Elliot (1990: 56) viewed "the trade union officials who negotiate the terms as the agent acting on behalf of the principal, the union member". One problem that emerges in such a relationship "is to write the rules so as to ensure that the agent acts in a way that maximizes the utility of the members".

"Union contracts reflect the ongoing relationship between the employer and the employee. They define work rules, procedures to be followed in layoffs and promotions, safety standards and so on. Union contracts are indicative of long-term relationships. They usually cover more than one year, a practice that has been assisted by the cost of living escalator clause, which allows the parties to deal with the uncertainties of inflation (Bureau of Labour Statistics, Characteristics of Major Collective Bargaining Agreements, 2004: 40)."

Article 2 of Act No. 2822 defines the collective agreement as "a contract concluded between a labour union and an employers' union or an employer not affiliated with the employers' union, with the object of making provision for the conclusion, content and termination of individual employment contracts." Collective agreements may also contain other stipulations as to the mutual rights and obligations of the parties, application and supervision of the agreement and the peaceful settlement of disputes (Dereli, 2006: 284).

A primary feature of the union sector is the fixed duration of the collective agreement which means that the outcome of the collective bargaining process is a written agreement covering a specified time period. Such agreements are typically two or three years in duration and cover wages, fringe benefits and workplace rules (Mitchell, 1980: 19). This agreement will cover not only wages and benefits – the aspects with which economists are generally concerned-but also a wide variety of other provisions. Virtually all collective agreements provide for grievance procedures to settle disputes arising during the term of the contract. Such disputes may involve individual protests of perceived unjust discipline or any issue of contract interpretation and application. Those terms may eventually be changed. But for a significant period of time, the initial arrangement is expected to stand, a practice that imparts a certain rigidity to wage determination (Prasow and Peters, 1970: 201, as cited in Mitchell, 1980: 27).

Content of the collective agreement consists of two major parts indicated in the Table 2.5 below.

Table 2.5 Content of the Collective Agreement in the Turkish Industrial Relations System

Normative Parts	**Obligatory Parts**
Conclusion of Employment Contracts	**Mutual Rights and Obligations of the Parties**
Content of Employment Contracts	Peace Obligation
aiming to improve the economic and social well being of workers	(no strike or lock-out is allowed during the term of agreement)
	Clauses Concerning the Aplication & Supervision of the Agreement
the minimum wage	Grievance procedures
negotiated wage increases	(disciplinary procedures, generally culminate at the final step in resort to private arbitration)
overtime wages	
bonuses	
other fringe benefits	
leave pay	
working time	
Termination of the Individual Employment	
length of terms of notice the payment of severance pay	
restrictions on the employer's right to terminate the labour contacts	

Source: Dereli, T., Labour Law and Industrial Relations in Turkey, Kluwer Law International, 2006, p. 284.

Indeed, union contracts may be viewed simply as an explicit formulation of a wide variety or labour contracts that are found in labour markets. It is the explicit nature of union collective agreements that has allowed empirical research on union wage and employment determination, an avenue or research that is rather more difficult where bargaining agreements are not clearly specified in generally accessible written agreements (Booth, 1995: 78).

2.5.1 How Wage Rates are Defined in the Agreement?

During the negotiation process sides may utilize different wage-level theories to stress their outcome proposals. They are even presented depending on the history of the company's labour relations, or whether they are presented at all depends on the history of the company's labour relations and the personalities of the negotiators.

2.5. 1.1 Flat Rate (Standard Rate), Pay Range Systems

Former agreements mostly contain a flat rate of each job classification effective during the life of the agreement. Pay range for each job is the wage paid to the person in several steps within a range. In this system management seeks to find flexibility in wage administration by using a range of pay for each grade of employee. Management argues the flat rate makes little sense if it pays exactly the same wage rate for a job regardless of the performance level of the employee. Union leaders argue the pay range system is useful as a management tool but the system is normally based on supervisor's performance appraisal, so is subject to biased opinion.

2.5. 1.2 Deferred Wage Increases

Multiyear collective bargaining agreements provide increases in wage rates that are deferred to later years rather than taking effect immediately. It is used together with the cost of living adjustments and therefore is a desirable tool for both sides. Management can predict labour costs further into the future with a greater degree of accuracy, and union members feel that their buying power is protected for a period of time.

Below is given an example adopted from an American collective agreement for a three year contract (5 percent increases) starting July 1, 2006, this contract is evenly distributed through the life of the contract. It specially makes increases in the base pay to take effect on the future date.

Table 2.6 Deferred Wage Trends (I)

Pay Classification	Wage Rate on July 1, 2006	Wage rate on July 1, 2007	Wage Rate on July 1, 2008
I	12.00 YTL	12.60	13.23
II	10.00YTL	10.50	11.03
III	9.00 YTL	9.45	9.92

Source: Reed C. Richardson, Collective Bargaining Objectives (Upper Saddle River; NJ; Prentice Hall, 1977) pp. 109-110; Labour Relations and Collective Bargaining: Cases, Practice Law, pp.228-229

Whether it can be front-end loading which refers to deferred wage increase with a larger proportion of the total percentage increase package might be eventually distributed in the first year of the agreement. Or the three year total wage increase package can be front end loaded: 10-3-2.

Table 2.7 Deferred Wage Trends (II)

Year	Equal Increases 5%-5%-5%	Front-end-loaded 10%-3%-2%	Differences each year
0	20000 YTL	20000 YTL	-
1	21000 YTL	22000 YTL	+1000 YTL
2	22050 YTL	22660 YTL	+610 YTL
3	23153 YTL	23113 YTL	-40 YTL

Source: (ibid., p.229)

Union negotiators often prefer front-end-loaded wage rate increases so that their members receive the additional wages of 1570 YTL.

2.5. 1.3 Cost-of-Living Adjustments

Union negotiators have for years emphasized the need for cost-of-living adjustments (COLAs) during the life of agreement. General Motors first proposed a COLA clause during negotiations in 1948. “They contend that the real wage (the purchasing power negotiated in an agreement as wage rate) is eroded by inflation during the life of the agreement.” Therefore, it is necessary to provide COLA in an escalator clause so that wage rates will keep pace with inflation, a practice also applied in Turkey.

Carrell and Heavrin (2004: 288) proposed that “union leaders disliked COLAs because they represented a “substitute for bargaining”, meaning they would receive less credit for increases with COLA. Unions preferred wage re-openers that put them back at the bargaining table. Besides, the reopening of negotiations is not allowed even on topics which fall outside the scope of collective agreement within its duration in Turkey. Another significant problem proposed by COLA adjustments was Mitchell (1980: 222) “members may believe that the wage increases they receive on the basis of COLA provisions are not negotiated increases, and therefore they want further wage increases.” There is a decline in the use of COLA because annual base wage adjustments in contracts, provide an effective substitute to COLA adjustments as a means of compensating for inflation (Carrell and Heavrin, 2004: 288).

2.5.1.4 Profit Sharing

Management’s agreeing to make a lump-sum payment to employees in addition to their regular wages is termed profit sharing. This payment can be based on profits of the company using an agreed upon formula or an amount of specified sales levels or production formulas. Unlike COLA payments, they are not tied to inflation; they are rather related to company’s financial status. Workers pay is not linked to the productivity and not just to the number of hours they work, which gives them incentive to see themselves a part of the company.

2.5.1.5 Two-Tier Wage Systems

A wage system that pays newly hired workers less than current employees performing the same or similar jobs is termed "two-tier." The two-tier system was established in 1977 at General Motors Packard Electric Division in Warren, Ohio (Salamon, 2000: 538). Parties look at the system as providing continued higher wage levels for current employees if the union will accept reduced levels for future employees. Management claims that the system is needed to compete with nonunion and foreign competition. Two- tier systems arise in Turkish firms as well, partly due to the practice of sub-contracting.

However, firms are reluctant to replace their high-wage unionized employees with low-wage non unionized ones because of labour turnover costs, inducing costs related to the powers of insiders to intimidate underbidding outsiders.

Firms mostly incur labour turnover costs when they replace them. The most obvious labour turnover costs are the costs of hiring, firing and providing firm-specific training, but further costs can arise from the attempts of insiders according to Lindbeck and Snower (2001: 168) to resist competition with outsiders by refusing to cooperate with or harassing outsiders who try to underbid the wages of incumbent workers.

Under the two-tier wage system, workers hired after the labour agreement is signed get pay rates that are below, and sometimes well below, those in the same workforce whose dates of hire took place under a previous contract. They had been penalized as unborn employees to protect those who were already present when the negotiations were carried on. This violates union principle of equal pay for equal work.

2.5. 1.6 Lump-Sum Payments

It is a larger compensation package in the first year, not a base wage increase. Common lump-sum awards include "signing" or "ratification" bonuses to give workers a one time payment.

Chapter 3
Determination of the Basic Wage Rate

We live in an age dedicated to the search for simple mechanical solutions to life's manifold problems. The correct formula for settling labour-management disputes over wages has captured the attention of everyone. All of us are aware of the periodic and lengthy negotiations, the sporadic and often violent conflict. These aspects of collective bargaining constitute a serious drain on the time, money, and energy of both unions and companies, and of course a diminution in the welfare of the community as a whole. It would be comforting if it were possible to find a formula for settling once and for all the wage disputes, as mentioned by Wiseman (1956: 14).

If union and management representatives are exhibiting an ever-greater willingness to deal with factual information at the bargaining table, there is still no single standard for wage rate determination that has anything approaching a "scientific" base (Sloane and Whitney, 2004: 4). Both of the bargaining parties, in fact, commonly utilize at least three different such standards summarized as, has definite advantages from the viewpoint of achieving an "equitable" settlement but also has significant limitations: Each of these the comparative norm, ability-to-pay and standard-of-living criteria (ibid.).

Arbitration and fact-finding boards utilize a number of criteria in settling wage disputes. Wiseman (1956: 20) summarized these as “the most important of these are wage comparisons, ability to pay, productivity, cost of living, minimum budget”. These are the same criteria which are used in union and/or management briefs at negotiation. Although neither unions or management, nor arbitration chairmen have ever agreed on a single formula for setting wages, there has been a great deal of

discussion about these criteria in terms of finding the "correct" one or the "correct" combination[2]. Each of the criteria has been subjected to minute examination and analysis in the effort to find an underlying and universal principle of wage determination.

3.1 Criteria for Wage Determination

Many governments have sought to give guidance to those responsible for wage determination by formulating certain criteria to be borne in mind when deciding what rates to determine. Such criteria are sometimes embodied in legislation or sometimes in terms of reference or instructions given to the wage determination arbitrator. Criteria need to be examined and interpreted in the light of the purposes and consequences of wage determination.

Slichter (1947: 47) in his book presents an analysis of the economic implications of the following criteria employed in the fixing of wages by negotiation and arbitration: (i) the minimum necessities of workers, (ii) changes in the cost of living, (iii) the maintenance of take-home pay, (iv) changes in the productivity of labour, (v) the ability (or inability) of the employer to pay, (vi) the effect of wages on consumer purchasing power and employment, and (vii) comparative wages in other industries and places. Insofar as Slichter has examined each criterion critically and revealed its fallacies as the sole basis for determining wages, he has scored a valid and useful point, by extending the implications of each standard.

The underlying premise of Slichter's (1947: 56) approach is the economic principle that, for the optimum operation of our competitive system, wages should change only with changes in the demand for labour or in the efficiency of labour. The inevitable conclusion deduced from this premise is that it is economically unsound to raise wages because of a rise in the cost of living, or because of the need for a living wage, or because of the justice of giving a worker in one firm the “same wage as that"

[2] I. Bernstein, Arbitration of Wages (Berkeley, 1954). Z. Dickinson, Collective Wage Determination (New York, 1941). -A. Gitlow, Wage Determination under National Boards (New York, 1953) -M. A. Horowitz,. "The Cost of Living Criterion in Bargaining," Labour Law Journal, Vol. 5, No. 7. pp. 480-490. -J. J. Kaufman, Collective Bargaining at Railroad Industry (New York. 1954), Chap. IX. pp, 95-126.- S. H. Slichter, Basic Criteria Used in Wage Negotiations (Chicago, 1947) Symposium: "Productivity and Wages." Review of Economic and Statistics, Vol. 31, No. 4. pp. 292-309.

received by a worker doing the "same job in another firm". These reasons, insofar as they emphasize the income-to-the worker aspect of wages, are purely ethical considerations.

In discussing wages paid for comparable work elsewhere in the economy or, more generally the standard of living of other social groups, some other criteria have sometimes been mentioned; for example the cost of living or productivity, are related to one or other of these propositions. Changes in the cost of living will affect the adequacy of a given wage for meeting the needs of workers and changes in productivity will affect capacity to pay (ILO-No: 75, 1968: 76).

An understanding of wage criteria used in the "neutral" determination of wage disputes should contribute substantially to an understanding of the wage decision-making process; Meyers (1951: 343) proposed wage criteria in the following manner:

i. Wage comparisons, external and internal to the industry. Wage compar_ isons are made with proper evidence suggested by industry wage. But important differences have arisen as to what wages should be compared with industry wages and how the results should be interpreted. No two industries are alike in the skills required, or in the effort, responsibility and hazards of the job. The irregularities of hours on the job, working rules, methods of wage payment, and so on vary from industry to industry. These and many other things that are present make up the grave obstacle to meaningful wage comparisons in different industries.

ii. Changes in costs of living. All of us are confronted with the threat of inflation. Nevertheless, the labour unions did give consideration to changes in living costs in making their decisions, at least as a criterion supplementary to comparative wage changes.

iii. A living wage and the use of budget studies. The employees' case in every wage movement includes considerable evidence designed to show that annual earnings of employees generally and the lower-paid

classifications in particular are inadequate to support the employee and their families at accepted levels of living.

iv. Changes in productivity per employee. Closely related to employees' emphasis upon skill and responsibility as a significant wage determinant has been the argument that account should be taken of increased productivity per employee. Basic technological improvements, however, with a continuing effect on man-hour output and unit cost constitute one of the primary bases of wage increases.

v. Ability-to-pay. The ability to pay any proposed wage increase or to continue to pay existing rates of wages has been a subject of continuous, if often oblique, debate in wage cases. Neither side regarded the testimony on "ability to pay" as relevant but that each side introduced such testimony in order to rebut the other.

Determining wage changes in the industry have given almost overwhelming consideration to the criterion of comparative wage trends. This fact would seem to lend support to the tentative conclusion advanced by Dunlop (1944: 232) that, in a labour market where collective bargaining is of significance, more important than "market forces" in determining the magnitude and direction of change in wage rates are a limited number of key wage bargains.

There is no single standard for wage rate determination that has anything approaching a scientific base. Both of the bargaining parties, in fact commonly utilize three different such standards comparative norm, ability to pay and standard of living criteria (Carrell and Heavrin, 2000: 569).

Guiding Principles of Crane are shown as follows Önsal (1975: 108)

i. ability to pay
ii. cost of living
iii. productivity
iv. industry average

Talas (1972: 345) proposed that;

i. minimum wage
ii. change in cost of living
iii. change in labour force productivity
iv. power and ability to pay of the employer
v. high or low wages' probable effect on purchasing power and level of work
vi. comparative wages at different industries and workplaces.

This thesis treats the following criteria as important during the preparation as well as the negotiation stages of collective bargaining:

i. cost of living
ii. ability to pay/profitability
iii. productivity
iv. comparative wages

The criteria examined point to considerations that should always be in the minds of wage determination authorities, but they do not yield precise answer to the question of how to determine the level at which wages should be fixed in any particular situation in order to contribute most to the general welfare, nor do they provide precise ways in this connection. This is a matter of judgment of weighing the gains to workers who will benefit from higher wages against the various kinds of costs which higher wages may impose on industries and on the economy as a whole.

Most projections of labour requirements suggest that proper wage determination can aid the most effective utilization of the labour force and hence minimize the adverse effects of labour shortages. Thus, the proper use of the wage criteria can yield an important contribution to the most effective utilization of manpower.

3.1.1 Comparative Wages

The wage theory is expressed by Adam Smith's chapter on "Wages and Profits in the Different Employment of Labour and Stock" (1937: 99), which begins with the passage:

"All the advantages and disadvantages of the different employments of labour and stock must, in the same neighborhood, be either perfectly equal or continually tending to equality. If in the same neighborhood, there was any employment evidently either more or less advantageous than the rest, so many people would crowd into it in the one case, and so many would desert it in the other that its advantages would soon return to the level of other employments."

Wage determination is given under way to wage comparisons. Most labour economists give considerable weight to this factor, and according to them it is usually a significant part of the explanation offered by arbitrators for the recommendation they make. Backman (1951: 78) has noted that "wage comparisons provide the key relied upon by labour and management in many negotiations....comparisons with wages in other companies or in other industries frequently are the core of the material considered in collective bargaining."

Specialists in industrial relations have long pointed out a special feature of union wage determination, the phenomenon of wage comparisons. This concept has been applied in a firm's internal wage structure. Leiserson (1966: 18) said that wage differentials in a firm or bargaining unit tend to be rigid across occupations and job classifications as a result of internal wage comparisons. Dunlop (1964: 16) also said that jobs across firms or bargaining units are themselves linked in "wage contours." And there is a more general sense of wage comparison, often called "pattern bargaining," that suggests linkages between fairly diverse groups of union contract negotiations.

Stein (1950: 729) has observed that "unions and managements are generally agreed that wage comparisons are a valid criterion in wage adjustments, if indeed they are not the single most important criterion". Similarly, Berstein (1954: 66) has noted.

"Judged by the behavior of arbitrators, it is the most significant consideration in administering the intra-industry comparison, since the past wage relationship is commonly used to test the validity of other qualifications". Wiseman (1956: 17) has also denoted them at the Berstein's study of the wage criteria used by arbitrators at his notes. In those cases emphasized by the employers and unions who participated in that arbitration, the unions cited 374 criteria in these 195 proceedings. Of this total, 186 or 49.7% were referred to wage comparisons, 123 or 43.9% were comparative wages. Nevertheless, it does suggest that wage comparisons were a primary criterion.

For the purpose of determining the wages, one should in any case take account of the necessity of enabling the workers concerned to maintain a suitable standard of living. Regard should primarily be given to the rates of wages being paid for similar work in trades where the workers are adequately organized and have concluded effective collective agreements, or, if no such standard of reference is suitable in the circumstances, to the general level of wages prevailing in the country or in the particular locality (ILO:No 72, 1968: 15).

The axiom of "a fair day's wage for a fair day's work" is often put forward as if there were a universal, absolute and self-evident criterion by which it is possible to judge the merits of the outcome of pay determination. Therefore Salamon (2000: 23) noted, "What is a fair and equitable equation between the two, are matters of individual perception", indicated in the Figure 3.1 below. "Equity" is therefore, not an absolute but a relative concept, requiring comparisons to be drawn with other factors, individuals or situations, and as Jaques (1967: 146) noted, it often involves "the nature of differential treatment rather than equal treatment of individuals.

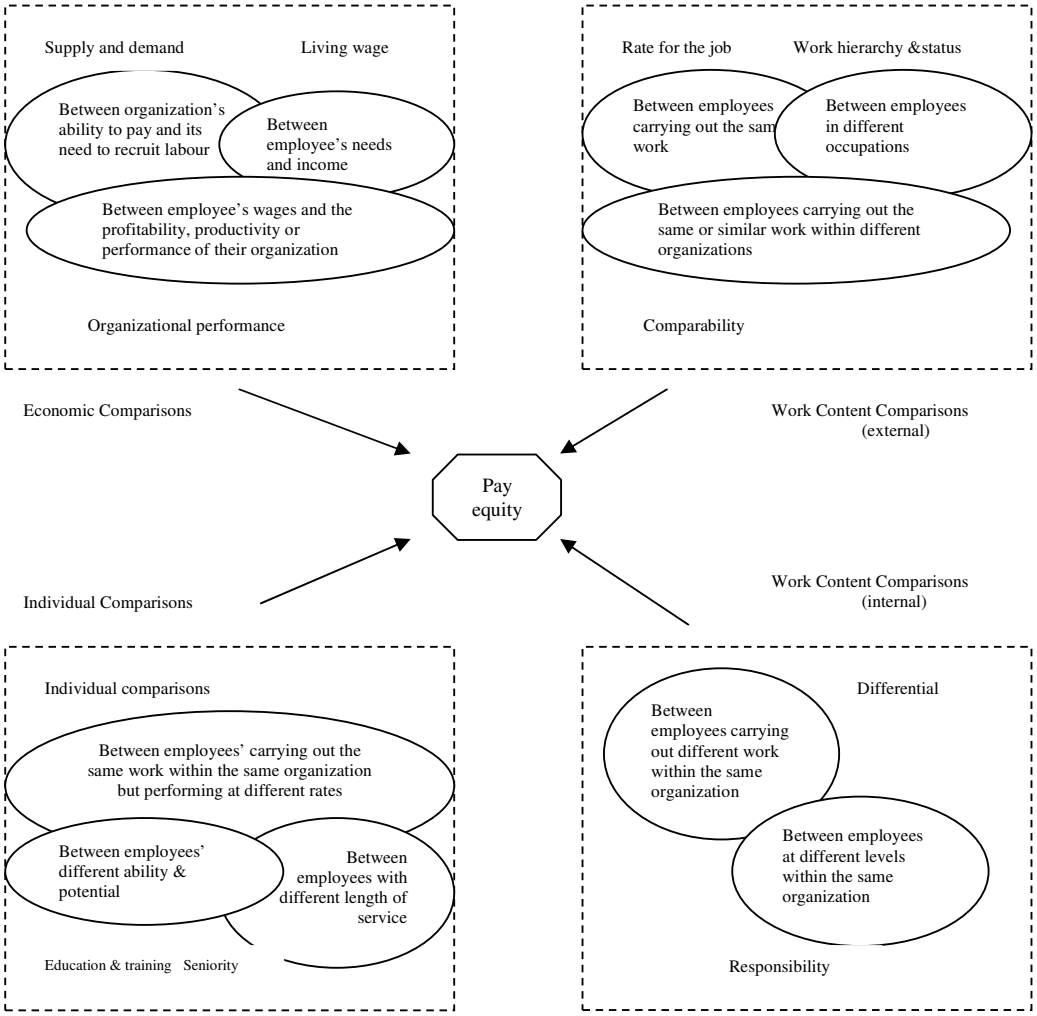

Figure 3.1 Pay Equity

Source: Salamon, M., Industrial Relations Theory and Practice, 4th edition, Prentice Hall, New York, 2000, p.24

Unionization is one way workers respond to what they perceive as management arbitrariness in the form of different compensation for workers, with the same objective characteristics and to their own desire for more equal outcomes. It would be wrong to assume that only employees and trade unions are interested in using comparability. Many organizations conduct pay surveys, which try to identify the relationship between their own wages and salaries and those of their competitors.

Wage comparisons in Turkey are carrying out the same work within the same organization get the closer pay even though performing at different rates or with

different lengths of service especially in the banking sector and state owned metal industries according to the interviews. The rate of the job principal of equity is based on a belief that employees who carry out the same work or utilize the same skills should receive the same payment. It is the type of work performance by the employee rather than individual attributes or abilities, quantity or quality of their work in the organization for which they work, should be the prime determinant of pay.

Comparing jobs is a formal method of job evaluation which compares jobs in relation to a number of predetermined factors. Within job evaluation it is the job, not the person, which is being assessed. However, it is necessary first to decide what factors are to be included and, most importantly, what weighting is to be given to each factor. The relative size of weightings indicates which job attributes should be rewarded more than others. In the Turkish metal industry employers' union, MESS has promoted a job evaluation method which is called MIDS (Metal Sanayi İş Değerlendirme Sistemi). It is an objective, scientific and impartial method of assessment. Job evaluation gives importance both to the job and qualifications of the person, who is being assessed. It has been argued that there should be differentials in pay between different kinds of work within the organization because of their respective value and importance to the achievement of the organization's objective.

Wage comparisons are important to the employer, to the employee, to the union and to arbitrators. Ross (1948: 800) has summarized their importance for each group. They help the employer to avoid "getting out of line". For the employee, wage comparisons "establish the dividing line between a square deal and a raw deal". For the arbitrator, wage comparisons "provide the basis for an award which will be acceptable to the parties". Wage comparisons are particularly important to unions; they measure whether one union has done as well as others. They show whether the negotiating committee has done a sufficiently skillful job of bargaining (ibid.).

Dunlop (1957: 17) has pointed out that the wage rates of a particular firm are not ordinarily independent of all other wage rates. The wage comparison under such a condition is an important one. The comparative norm principle of wage determination should be used as the exclusive, or the most desirable, standard for

wage settlements in collective bargaining (Sloane and Witney, 2004: 234). The wage demands of any one union are strongly influenced by comparisons with other groups of workers with whom there have been traditional parities or differentials. The logic of such comparisons is often open to question, for wage comparisons can be made in many directions.

"The basic idea behind the comparative norm concept is the presumption that the economics of a particular collective bargaining relationship should neither fall substantially behind nor be greatly superior to that of other employer-union relationships; that in short it is generally a good practice to keep up with the crowd, but not necessarily to lead it.

When a management is operating with a highly competitive product or in highly competitive labour markets, there is safety for employee relations in keeping labour costs and wage rates consistent with the local or industrial pattern but not necessarily any need to exceed this pattern. Unions tend to maintain harmony and contentment among the rank and file as long as wage conditions are competitive; on the other hand, it is at times quite difficult and embarrassing for union leaders to explain to the membership why their economic terms of employment are not at least equivalent to those of other people in the labour market area or in the industry which appears to be performing essentially the same job duties. In short, the comparative norm principle is often valid for economic, sociological, and psychological reasons. It is a well-known fact that labour is not homogeneous. There are differences in abilities, skills and education among workers. But the most important point, in our view, is somewhere else. The same worker is a quite different worker in different factories, in different firms, in different sectors, in different countries and, of course, in different times.

Comparability is an important aspect of pay determination in the several sectors and indeed remains, so far, unique (Salamon, 2000: 30). Comparisons with the level of wages being paid in other organizations implies "the existence of a common labour market and that the employer should be prepared to pay the apparent "going rate" for labour". Indeed, it is perhaps "closest an individual employee may come to

identifying the "market rate" for particular labour without actually seeking an alternative employee within another organization".

Trade union members in Turkey summarized the situation as follow. Trade union's motive may be their concern over members' relative pay. The goal of each trade union may be to match the wage rises achieved by other bargaining groups. Thus if one group secures a high wage settlement and this is subsequently imitated, the rate of nominal wage growth can be set at a rate above that warranted by productivity growth. In the absence of sufficient growth in aggregate demand, this will result in falling employment. They may award equal wage settlements to all groups and thus satisfy trade union aspirations for comparable wage increases, but achieve this at a level of nominal wage growth which is consistent with that warranted by the rate of productivity growth.

3.1.1.1 Types of Comparisons

Dimensions of the comparison are important. Will emphasis be given to comparative levels of wages? Or will attention be directed to changes in the designated wage over a period of time? The selection of periods for comparison makes it possible for the parties to prove anything that will serve their purpose.

Comparisons are proposed by Wiseman (1956: 21) as follows:

i. Direct comparisons with other companies or industries.
ii. Changes in relative ranking as compared with other industries over time.
iii. Geographic wage differentials.

Direct comparisons: the most important problem is the selection of appropriate wage data for comparison. The comparative wage rate criterion is a very uncertain one in actual use. Comparative wage rates in the area can be the most compelling of all the criteria (Stein, 1950:729, as mentioned in Taylor, 1978:458).

Ranking of wages as comparisons of levels of wages over periods of time are made by indicating the changes in the relative ranking of the given company or industry as compared with other companies or industries.

Geographic wage differentials can be different rates for the same job in a company and differences in the average wage among regions because of the types of industries located in each. “Equal pay for equal work” demand is made to eliminate such differentials within the company. Where a union represents workers in a company with plants in different regions of the country, the objective usually is to eliminate geographic wage differentials. Despite the wishes of narrowing of geographic wage differentials, there continue to be significant regional differences in the levels of wages. Usually highest wages are paid in the Marmara and Aegean region and the lowest wages are found in the Anatolian region.

Thus, the parties frequently make a careful and comprehensive study of the community and industry wage structure before negotiations begin and then compare those rates with the rates in existence at the location involved in the negotiations. The strategic implications of such comparisons are that if the employer's rates are below the community or industry pattern, the union can be expected to argue for a wage increase on that basis. When the rates are in excess of the pattern, the employer has an argument against a wage increase Sloane and Whitney (2004:235).

3.1.1.2 Opponents Views on Using the Comparative Norm

The wage comparison criterion plays a major role in collective bargaining. Under some conditions in many negotiations it appears to be the most important single factor examined by collective bargainers Backman (1951:102).

Comparative wage is not a simple criterion to apply. There are many comparisons from which selections can be drawn. What standards shall determine the selection of companies, industries, or areas with which comparisons can properly be made? The choice is wide and again there is no simple answer. Where collective bargaining has been in operation for years, the most important test is the experience of the parties in the past. Wage comparisons involve a number of problems. One of the most difficult is the determination of comparable jobs in the community. Job descriptions usually are misleading, as Karakuş (Petrol-iş) remarked during the interview. Job titles do not always cover the same activities. “It is sometimes impossible to find those jobs in the community which are identical in even the important respects to the jobs because

of differences in job content, or a work characteristic is scarcely an exact calculation".

Some unions have historically opposed such plans from their inception, through fear of management rate cutting and because of a deeply harbored suspicion that there is nothing "scientific" to any established rates. But managements that have yielded readily to union requests for higher rates have also suffered in inequities between earnings and effort and in consequent problems involving not only finances but also employee morale.

There are factors to be considered in regard to the comparative norm principle. One of them is according to unequal capabilities, employers within a given industry at any given time have unequal capabilities to meet economic demands, but frequently it is quite difficult to classify an organization in a particular industrial grouping for wage comparison purposes. What's more, same firms may logically be classified in two or more industries, because of the products they manufacture or the services they provide. And even if a firm is classified within a particular industry, there are frequently significant sub groupings in each major industrial classification. Such complicating circumstances illustrate the difficulty of classifying a particular employer in a particular industry or in a segment of an industry for purposes of wage determination.

In addition to previous limitation involved in the use of the comparative norm wage principle for collective bargaining is the fact that inter organizational comparisons of jobs are not always feasible because a job title at one place might designate a set of duties that has little or nothing in common with those embraced by an identically entitled job somewhere else.

3.1.2 Ability to Pay

"Union leaders emphasize that labour is one of the primary inputs into a company's productivity and therefore profitability and conclude that if the company is experiencing high profits, it can pay its employees who have contributed to the condition" (Carrell and Heavrin, 2004: 573).

"Profit is a variable related to the product market, not a market variable and should play no direct role in the pure neoclassical market explanation (Eckstein, 1967: 690)." Several studies have used profit variables in wage equations as an explanatory variable. In principle, a profit index might be an indicator of employers' ability to pay so that high or improving profits might be expected to be associated with higher wage gains[3]. This is a finding that wage change is highly sensitive to profits. Profits are sensitive to business-cycle developments and could pass those developments into the wage-determination process.

For simplicity, Booth (1995: 249) proposed that employer-provided benefits are encapsulated in the wages variable, since these benefits typically involve distribution of the firm's surplus to each member. Because the union is also careful about the employment of union workers as well as their wages, union objectives can now be specified as an increasing function of wages and employment.

Sloane and Whitney (2004: 324) state that the level of profits is one indicator of the wage-paying ability of the management involved in the negotiations. If a management is earning a "high" rate of profit, union representatives will frequently claim that it can afford all or most of the union wage demand. If the employer is earning a "low" rate of profit, management negotiators will resist union's demands for higher wages. But the heart of this controversy is, clearly, the determination of

3 Examples of studies using 'profit variables are Eckstein and Wilson, "The Determination of Money Wages in American Industry," pp. 379-414; Pawan K. Sawhney and Irwin L. Herrnstadt, "Inter industry Wage Structure Variation in Manufacturing," industrial and Labour Relations Review, vol. 24 (April 1971), pp. 407-19; William A. Howard, "Wage Adjustment and Profit Rates: An Error-Learning Approach to Collective Bargaining," industrial and Labour Relations Review, vol. 22 (April 1969), pp. 416-21; and Perry, "The Determinants of Wage Rate Changes," pp. 287-308.

what constitutes a rate of profits sufficient to meet a given union wage demand. “No economic formula can answer this question with precision and exactness.”

If capacity to pay is evaluated firm to firm and if some firm is more prosperous than others, as will almost certainly be the case, the capacity to pay criterion will make for different wage determination in different firms. The high profits should be shared only with the workers who happen to be employed in the particular firms concerned.

The lack of a reasonable level of profits in the current pay period does not signify an inability to pay (Ataman-Lastik-iş). It may be possible for the organization to meet a current wage increase out of reserves or through an expected return to profitability in future. On the other hand, management is likely to argue that a high wage increase may result in higher costs and prices with a resultant loss of competitiveness. The problem, for employee unions, in assessing profits and profitability is that their information is limited to that supplied by management.

“If unions reduce profitability significantly below a normal rate of return, survival rates for unionized firms will be lower than for their non union competitors. It is thus unlikely that unions can maintain large wage premiums in competitive industries with small stocks of specialized capital unless they also increase productivity significantly (Hirsch, 1991: 105).”

On rare occasions unions have agreed to wage reductions at the firm or establishment level when there has been a threat that an establishment would shut down or be relocated and the promise that a wage reduction would avert the shutdown especially during the economical crises periods. Such a position will seem credible only when taken by a management with whom the union has had good relations. Even in such cases, the union can agree only if a concession to one firm does not provide an occasion for other unionized employers to demand similar treatment from their members of the union.

According to the Backman (1951: 324) the financial condition of a company is one of the factors which influence the magnitude of the final settlement in collective bargaining. He proposed that unions often tend to overemphasize a company’s ability

to pay, whereas employers tend to underemphasize this factor. Nevertheless, profitability does provide an important part of the background for collective bargaining. Where profits are favorable, the companies tend to lean toward other criteria.

However, Bernstein (1954: 487) argued that profits data do not lend themselves to such precision. There is no way to determine what is a "fair profit" or a "proper profit" or an "adequate profit" for a company. "There are no satisfactory criteria for precisely determining the employer's financial situation in relation to a wage dispute".

Wage determination authorities take account of capacity to pay. However most trade unionist are mistrustful of the "capacity to pay" criterion, at least unless adequate and precise information is available about evaluation of profits, wages, employment and other relevant variables, and it is therefore of the greatest importance that such information should be collected and made widely available (ILO-No:75, 1968: 137).

The profitability of an organization is the most usual method of determining the organization's ability to pay in the private sector (Solomon, 2000: 307). The essential problem in this area is "how to define profits and assess whether the organization is profitable pre-tax, in the same way that wages are negotiated, or post-tax, the amount left for the organization to distribute between labour, shareholder and reinvestment (ibid.)"

One of the other proposed criteria by Sloane and Whitney (2004: 328) involved in wage determination under collective bargaining is the ability of the employer to pay a wage increase. The outcome of wage negotiations is frequently shaped by this factor; many strikes occur where there is disagreement between management and union negotiators relative to the wage-paying capacity of the enterprise. The drawbacks of the ability to pay concept for management negotiators are the following: Unions will not press this issue during hard times when profits have decreased. Unions seldom want to apply the ability to pay doctrine consistently in both good and hard times; they expect wage levels to be maintained during hard times and increased during good times (Carrell and Heavrin, 2004: 298).

Lindbeck *et al*, (1990: 378) show that under a broad range of conditions, firms stand to lose more from a breakdown in wage negotiations; the greater the profit opportunities available under agreement, the greater the capital labour ratio of the firm, and the greater the concentration ratio of the industry. Thus, employers in such settings are more willing to pay high wages to insiders.

3.1.2.1 Opponents Views on Using the Ability-to-Pay Considerations

As in the case of the preceding criteria, the problem is complicated by further considerations. In the first place, it is not certain whether a given rate of profits earned by a company over a given time in the past will hold for the future. Further, profits may fall or rise depending on the behavior of a number of economic variables that are themselves uncertain: Changes in sales, output, productivity, price, managerial efficiency, and even the state of international relations will all have an influence. Thus, a wage rate negotiated in light of a given historical profit experience may not be appropriate in the future. Moreover, if profits are to be used as an indicator of the firm's ability to meet a given wage demand, consideration must be given to anticipated government tax structures. The wage-paying ability of the firm may be quite different before and after the payment of the income tax and other taxes, as many business administrators can testify.

Companies are usually reluctant to share extensive financial information with the union during collective bargaining sessions. In the U.S. unless a company claims that it is unable to pay the demanded wage rates, the union is not entitled to financial information. If a company merely chooses to say at the negotiating table that it does not want to pay the demanded wage rates, the union can not get the financial information from the company.

There are many reasons why the ability to pay criterion has had limited usefulness in wage determination. The more important reasons are reviewed briefly below (Backman, 1951: 330): “The relationships between wage rates within an industry or between different industries are not rigidly fixed. But they do reflect various economic pressures including the relative importance of wages to costs, the growth pattern of the industry, and the type of labour required by the nature of operations.

Any attempt to base wages upon ability to pay must result in sharp changes in these relationships and act as a disturbing influence to the effective utilization of resources" "Fundamentally, the way to obtain higher real incomes for the economy is to increase the size of the pie and that means additional technological improvements, which are financed directly or indirectly out of retained profits."

There is no necessary relationship between the profits of the past and the ability to pay wages in the future. Profit relationships between companies and between industries change from year to year. In some periods, these changes take place more frequently. Textile companies were being attacked because of their allegedly high profits. However, economic conditions in the industry had deteriorated to a level where several arbitrators ruled against new wage increases and union committees announced their decisions to seek no new wage increases (Tekstil-işçileri Sendikası).

Since profits are frequently used to promote capital growth and improvement, the future plans of the enterprise itself must receive consideration by the negotiators. The problem of whether profits should be used for growth and improvement, for lower commodity price, or for higher wages is one of the most troublesome issues in industrial relations.

In addition, although the level of profits is an important factor in the determination of a firm's ability to pay wages, it is not the only factor. Other considerations that have an important bearing are the ratio of labour costs to total costs, the amount of money expended for the financing of fringe benefits, and the degree of elasticity of demand for the firm's product or service (Wiseman, 1957: 46).

Negotiators at times take advantage of such an economic environment. Wage increases are agreed upon, and the result is higher prices. From the public's view, it would be much more desirable if unions and employers could work out an arrangement whereby wages could be increased without price increases. Certainly a wage agreement that increases the prices of basic economic commodities and thereby generates a general inflation of the price level cannot be regarded as socially sound.

3.1.3 Cost of Living

In addition to the comparative norm, ability-to-pay, and standard-of-living principles, experienced negotiators pay close attention in wage negotiations to the status of the cost of living. This economic phenomenon is important because trends in the *cost* of living have an important bearing on the real income of workers. Increases in the cost of living at a given level of earnings result in decreased capacity of workers to buy goods and services. By the same token, real income tends to increase with decreases in the cost of living at a given wage level. Real income for a particular group of workers also increases for a time when money wages increase faster than the cost of living. Backman (1951: 89) noted that, "real wages, in contrast to money wages, depend on the level of production. The ultimate source of an improvement in the level of living is greater production, and this in turn is dependent in a large measure on greater productivity. Make-work practices, barriers to the introduction of new inventories and other devices designated to spread the available volume of work among more workers, can act only to affect adversely the rise in levels of living."

This cost is affected by a variety of forces, including the general climate of business activity, productivity, the financial and monetary policies followed by financial institutions, the rate of new investment, and the propensity of consumers to spend money, as well as by the wage policies that are followed under collective bargaining itself. Government policies relating to interest rates, tariffs, and the lending capacity of national banks, taxation and agriculture, also, have an impact upon the cost of living.

As a matter of fact, during the inflation periods, Slichter (1947: 126) the cost of living was the major determinant for wage negotiations, as union leaders raced to keep up with higher and higher prices to protect the real income of their members. However, wage rates exceeded productivity; negotiated wages aggravated the inflation problem. A stable price level is the way to achieve the negotiation of non inflationary wage rates.

The uncertain character of the forces determining the cost of living makes it very difficult to predict with certainty its future trends. The difficulty inherent in using the

cost of living as a determinant in wage negotiations is simply this: Wages are negotiated for a future period, whereas the cost-of-living data are historical in character. It is a comparatively simple task to adjust wages for historical trends in the cost of living if this is the desire of the negotiators. The criterion is of limited usefulness, however, in the attempt to orient wage rates to future trends in the consumer price index (CPI).

A change on the Consumer Price Index is an indication of the individual's purchasing power. It is the indicator which most employees and unions will consider to be a reasonable increase in periods of bargaining. Although the CPI is only representative of changes in the cost of living, the parties to collective bargaining, especially labour unions, do not think of providing a true reflection of the effect of inflation on a particular group's cost of living. Employers and labour unions mostly agreed on the actual inflation (Salamon, 2000: 28). This is largely because the rate of increase in the past is known, while the future rates are a matter of personal judgment and prediction which may be affected, subsequently, by a wide range of factors. Employees are, in fact always disadvantaged in that the value of their wages is being eroded from the moment it is agreed and sometimes will not be restored until the next negotiation. Indeed, most of these agreements provide for some form of indexation (yearly, semi-annually or separate times), a re-opening clause should future inflation or external pay levels exceed the levels expected when the agreements was concluded.

The Turkish Statistical institute publishes a comprehensive index showing changes in consumer prices each month. The consumer price index portrays the changes in the cost of a relatively fixed market basket of goods and services customarily purchased by families of wage earners and workers. The term CPI perhaps most accurately describes the function of what is often called a "cost of living index" which indicates the change from time to time in the average retail price of a fixed list of goods and services making up the index "market basket". According to the Turkish Statistical Institute, the index is based on prices of items which were selected so that their price changes would represent the movement of prices of all goods and services purchased by wages; they include all of the important items in family spending. They are

collected from grocery and department stores, hospitals, petrol stations and other types of stores and service establishments.

Compilation of accurate CPI is important in all countries and when such an index is used in connection with the fixing or adjustment of wage determination, it is important that the “market basket” selected should correspond to the actual purchases of wage earning families. For this purpose family expenditure surveys are necessary in order to establish how wage earners’ families do spend their money. The Consumers Price Index (CPI) is designed to measure inflation as it affects households. It measures changes in the prices of the goods and services which households purchase. It is an "expenditure" based index, not a "consumption" based index.

But if compiling the CPI can be done with reasonable precision, predicting its future movement is quite another matter. As most other attempts to envision what lies ahead, forecasts about future price movements as important as they are to both the real income of employees and the financial position of employers can be a way off base. Recognizing the latter situation as a fact of life, some labour relations parties have adopted one or both of two procedures-escalator clauses and wage re-openers in an effort to adjust for it.

3.1.3.1 Nominal Wage Increases and Inflation

Orientation of the plant wage structure to community and industry levels and ability to pay are not the only criteria utilized for wage determination in contemporary industry. Many management and, particularly, labour representatives are concerned with the problem of the adequacy of wages to guarantee workers "a decent standard of living." Disagreements arise, however, as to what constitutes such a standard. The problem is most often resolved by personal judgment and opinions of the negotiators. More objective information is, however, at the disposal of the parties, and it has frequently been used to support demands and counter demands at the bargaining table.

The concept of a living wage tends to be perceived and expressed in terms of the individual's standard of living relative to the rate of inflation and changes in the cost of living. Pay increases equal to, higher than or lower than the past rate of inflation are generally regarded as maintaining, increasing or reducing the individual's standard of living, irrespective of the level of income or pattern of expenditure. Most employees expect management to ensure, through regular pay increases, that their standard of living is not eroded and, if possible, improved. Salamon (2000: 42) notes that, many managers would argue that the levels of wages should not be beyond their ability to pay and does not need to be above a level which allows them to recruit labour of the right type, skill and experience.

The role of the current money wage is crucial to unions. If other factors are equal, workers prefer that wages not fluctuate. Unions are especially concerned with maintaining the current money wage, even at the cost of severe contractions in employment. However, they would not insist on increasing the money wage if the consequences for employment were severe (Bozkurt-Türk Metal-iş Sendikası). In other words, the weight given to the size of membership is much larger for wage cuts than for wage increases.

The labour union will determine the increase in prices in the two year collective agreement term and will make an addition on top of this price increase rate with a view to improve the workers' standard of living; the wage here should be taken in broad sense, not only in terms of the basic wage rate (Önsal, 1975: 186). Labour unions must consider all price indices in the preparation stage, the same holds true for labour and employers' union. It is very likely that the parties will tend to use those indices which seem most favorable to each. The employers' union which is not prepared enough will in most cases claim that the indices are not true; naturally the other party shall not feel content or satisfied (ibid.).

It is interesting to note that two decades ago labour unions used to demand wage increases which would also meet price increases likely to emerge within the two successive years of collective agreement as well as a wage increase rate to compensate for the lost purchasing power. The idea here was to protect members' purchasing power for possible losses in the future. This approach is not currently in

practice for unions. It represented several contradictions and at times put them into a difficult position to defend on the expiration of the present agreement as they would be beginning to negotiate the new agreement; the rationale for a wage increase designed to meet lost income in the past two years was not valid any longer because the union had already received that expected increase, so they tended to ignore such arguments and moved still forward with extra demands for the past term as well as the new term. Because of the controversies involved the public sector did not favor this practice (ibid.).

Inflation has become a dominant economic issue. Policymakers have struggled to control rising prices by traditional demand-restraint tactics by guidelines and by direct controls (Mitchell, 1980: 68). None of these have done much to restrain rising prices, partly because policymakers have also pursued other economic objectives. The failures of economic policy have focused the attention of researchers and the general public on the mechanisms of inflation.

The labour market is often cited as a source of inflationary pressure. Wage guidelines and controls with numerical norms foster the impression that inflation can be limited through action in the labour market (ibid.). However, Flanagan (1999: 1158) argues that unions could therefore be a source of inflation only if union power continually increased.

In a closed economy, the effect of negotiated wage increases on consumer prices varies directly with the scope of the bargaining unit. For a given nominal wage increase, the increase in the real consumption wage should be largest in decentralized bargaining units. But an employer's ability to pass on the wage increase by charging higher prices is greater under industry bargaining than under company-level bargaining (ibid., p.1159). Employer resistance should therefore be greatest in decentralized bargaining arrangements.

Wages can be a source of inflation inertia (Agenor, 2004: 125). Turkey has been experiencing high inflation since the 1970s and the persistence of inflation is consistent with a degree of backward indexation in wages. However, collective

bargaining agreements cover a relatively small proportion of the work force. (About 700,000 workers)

With such a small percentage of the workforce covered by collective bargaining agreements, little is known about the effects of indexation in the economy. A recent IMF study by Celasun *et al*, (2004: 29) uses a structural price setting model to test the importance of inflation expectations. The study finds that inflation expectations are forward-looking rather than backward looking and heavily influenced by fiscal variables.

Considerable previous research provides evidence that wages are not a source of inflation in Turkey (Metin, 1995; Kirmanoglu, 1998). It is also important to note that the share of wages in output and in total input costs is very low. Combined with the low degree of adjustment of wages with respect to inflation, it is difficult to explain the high level of inflation in Turkey by wage inflation. Comparing the degree of variation in real wages in Turkey with that of countries where high inflation rates ended in hyperinflation, it is apparent that real wages have been far more flexible in Turkey.

Throughout 1980s, the growth rate of real wages in Turkey lagged behind the inflation rate. Wage increases follow inflation passively, without a perfect indexation, and in the long-run they adjust below inflation. Collective agreements determine wages for a period of two years, with predefined increases every six months. The contracts, free from an automatic indexation to inflation and the downward flexibility of real wages prevent hyperinflation in times of increasing price levels in general.

The importance of the cost of living factor in wage determination was illustrated many years in Turkey by such adjustments. Those adjustments could be made only once every six months, thus resulting in a lag of money wages behind living costs. Sometimes, workers may obtain protection against increases in living costs by provisions for automatic adjustments in their wages when prices fluctuate or by a periodic review of the wage settlement through the operation of reopening clauses, (although the latter case, -reopening for new wage negotiations during the life ıf the

contract- is not allowed in Turkey; only automatic COLA-based adjustments are permissible.) With inflation very much under control after the early 2000s, no further governmental programs of this kind were in the immediate offing. History having a way of repeating itself suggests any predictions that such governmental controls would not sooner or later-amid rapidly rising prices-be tried again would be rash. And so very likely, too, would be any bets either that labour would support such controls or that the controls would be very successful in dampening inflation in any long-term way.

3.1.3.2 Escalator Clauses Arrangements

The philosophy behind the incorporation of so-called escalator clauses, also known as cost-of-living adjustment (COLA) provisions, in labour agreements is that wages of workers should rise and fall automatically with fluctuations in cost of living as determined by the consumer price index (Salamon, 2004: 521).

Union members' real wages are often protected from price inflation by escalator clauses or cost-of-living allowances (COLAs) in collective-bargaining agreements, particularly in agreements lasting more than one year (Mitchell, 1980: 258). Such clauses provide for periodic changes in money wages during the life of the agreement, based on changes in the Consumer Price Index. Though unions do negotiate COLAs in response to perceived future erosion of real wages because of inflation, the protection afforded by COLAs is rarely perfect (ibid.). Workers are willing to bear some of the risk that inflation will erode their real wages in order to bargain for other things, and they therefore accept limits on COLA adjustments.

In general, if the size of the wage gap is considered normal or average in periods of moderate prosperity and generally stable prices, then it tends to be abnormally large in depressions and severe recessions. If the extent of inflation or deflation is correctly anticipated by the parties to wage negotiations at the time of the contract agreements then wage changes can be adjusted to correct for their infrequency. Even if inflation is not anticipated COLAs provide many unionized workers with partial protection of their relative wage advantage over non-union workers in times of the rapid unanticipated inflation (Sandver, 1980: 268). The basic assumption underlying cost-

of-living adjustments is that the worker should be paid a variable wage which will protect him against changes in prices rather than a wage determined by what he contributes to production.

Cost-of-living escalator clauses may be included in labour contracts during periods of rising prices to protect workers against a decline in real wages. When long term contracts are negotiated, such clauses may be considered a must. Labour unions usually will be unwilling to sign long-term contracts without escalator clauses (Ataman-Lastik-iş).

The United States Bureau of Labour Statistics (1946: 733) has pointed out: "such a policy would freeze the level of real wages and prevent employees from participating in the benefits of expanding business and increased labour productivity and from obtaining a larger share of the national income, also that it would lead to lower wages should prices drop. Therefore they regard increases in the cost of living as only one of the elements, but not the sole or even the major factor, which justify higher wages."

Woytinsky (1949: 104) said that, "in view of this tendency, this type of contract clause introduces an element of rigidity into collective bargaining agreements. As it is, union wages tend to be inflexible during periods of declining prices. To this inflexibility is added the rigidity of a formal cost-of-living contract clause.

John Maynard Keynes, the well known British economists observed the following: Escalator clauses help to widen the gap between increases in labour costs and in output per man-hour and hence add to the pressure for higher prices. Under these conditions, fixed income groups are badly squeezed. All sectors of society are caught in a price spiral. Therefore annually based wage adjustments are provided in most multi-year contracts, providing an effective substitute to COLA adjustments as a means of compensating for inflation (Carrell & Heavren, 2004: 387).

How escalators work, always important question to answer. Although there is a wide variety of escalator arrangement, all contain a number of common principles. The most significant characteristic of the escalator formula is it has to be applied automatically. For the duration of the labour agreement, wage changes as related to cost of living are precisely determined by the behavior of a statistical index, which is almost always the consumer price index. Wages are increased or decreased in accordance with comparatively small changes in this index (Mitchell, 1980: 259).

Though a matter of only academic interest in a period of inflation, escalator provisions normally specify the floor to which wages can fall in response to a decline in the cost-of-living index. On the other hand, the escalator formula does not normally contain a ceiling on wage increases occasioned by increasing prices.

When the labour agreement provides for a cap, it means that wages can increase by only a certain specified amount during the contractual period regardless of the size of the increase in the consumer price index.

Finally, the escalator method of wage adjustment is often accompanied by a definite and guaranteed increase in wages for each year of a multiyear labour agreement. Such an increase is popularly called the annual improvement factor (Moultan, 1996: 198).

3.1.3.3 Wage Re-Openers Arrangements

A second method for wage adjustments during the life of a labour agreement involves a provision that permits either the employer or the union to reopen labour agreements for wage issues at stated intervals. Wage negotiations are typically permitted in these circumstances once each year.

During a period of inflationary price rises, it has been customary to include in many labour contracts a provision that the agreement might be reopened one or more times to reconsider the level of wages. Turkish system does not permit this arrangement. The duration and the content of the agreement can not, in essence, be changed. Wage adjustments may be made only in accordance with foreseen escalator clauses. If the

labour union can convince the employer, the parties may sign an annex contract usually called the “protocol”, as a supplement of the collective agreement, but if brought up by the union the employer is not obligated to bargain over it, which is the case in re-opener clauses.

Two major characteristics of the wage-reopening clause arrangement distinguish it from the escalator principle as a method of wage adjustment (Salamon, 2000: 237). The most important involves the fact that where the escalator arrangement provides for an automatic change in wages based on a definite formula, under wage re-openers the parties must negotiate wage changes. This could be an advantage or a disadvantage, depending on the particular circumstances of a given collective bargaining relationship. In addition, the wage re-opener arrangement can be utilized to take into account determinants of wages other than the cost of living.

Multiyear collective bargaining agreements provide increases in wage rates that are deferred to later years rather than taking effect immediately. Negotiating multi-year increases often hinges on whether or not they are evenly distributed over the life of the contact (Carrell and Heavrin, 2004: 266). However, later adjustments become a real problem for union and management alike. Annual wage rates at the end of the agreement can be lower than evenly distributed provisions. That is the reason why the union may demand a wage opener provision providing for the reopening of contract talks to discuss first only the wage rate. Such negotiations during the later years or upon the expiration of the agreement may become necessary also because of unpredictable inflation or company financial success. The problem is most often resolved by personal judgment and opinions of the negotiators.

3.1.4 Productivity

The role in wage determination of differences in quality among workers was developed by Alfred Marshall in the concept of “efficiency earnings.” Differences in weekly earnings are consistent with competitive labour markets if they correspond to differences in productivity (Marshall, 1930: 546-49).

In the industrial environment, Alfred Marshall argued that competition does not tend to equalize the hourly or weekly money wages of individuals in the same occupation, but rather tends to equalize their earnings per unit of work performed.

Possibly no wage criterion has received as much publicity in the past couple of years as productivity, and perhaps no other criterion has been the subject of so much misinformed and confused debate. Some people claimed that it was merely a variant of the old "abi1ity-to-pay" theory dressed up in a new design to impress the government and the pubic with its eminent respectability. They pointed out that productivity was pressed into service around the bargaining table when the level of consumer prices began to turn down. However, there is a kind of magic about the idea of a "productivity formula," which has proved most irresistible to even many normally disenchanted economists. Thus, they assert that a basic requirement of a non inflationary wage is that in a long-term trend money wages for the economy as a whole should not rise faster than average productivity per worker-hour in the economy as a whole. "Increased productivity it not the only possible source of wage increases; but it is the only thing that can enable a long continued and substantial wage increase to be absorbed without pushing prices up." The Bernstein (1954: 28-29) study during the period 1945-1950 showed that this criterion accounted for only 4.3% of the number of criteria mentioned by the unions and 1.4% of those advanced by employers. Not a single productivity criterion does seem to have sole or primary weight.

“Labour leaders request that their members get their fair share of the increased profits. Management may request that the value-added concept be applied.” Determining fair share becomes the problem. Management asks for its employees to perform assigned work at the stated times and accepted level of performance. The

union counters that employees seek to improve quantity and quality of output, reduce costs and minimize the waste of outputs.

The union attitude is divided. There was considerable union opposition to efficiency calculation and all the appurtenances of scientific management associated with them. Union resisted the practice of pitting one worker against another under an incentive plan, and the threat of unemployment added impetus to their opposition (Salamon, 2000: 300). On the other hand, unions such as the metal workers continued to adapt to efficiency calculation plans in most cases in the U.S. Unions frequently did not feel strong enough to fight management on the issue, particularly since some employees favored such plans. Metal unions see that work is performed in accordance with specifications, maintain quality, report small changes in methods, and cooperate in setting standards and administer allowances and guarantees.

Productivity as one of the negotiation issues concerning wages includes that employees should share in increased profits caused by greater productivity. At the heart of the issue union and management leaders see production as a combination of three factors: machinery and equipment, employee labour and managerial ability. These contribute to organization productivity (Carreell and Heavrin, 2004: 578).

Backman (1951: 368) states that "the direct impact of wage change upon the costs of a company helps to determine its attitude toward proposed adjustments. Comparisons of wages and costs between companies or industries may be made on two bases. First the total wage cost may be compared with total value of products or with total sales revenues. Second, wages can be compared with the value added by the industry or with the net income it produces."

The most common criteria used to establish an improvement in overall productivity are some measures of quantity or value of output per employee (Salamon, 2000: 313). Comparisons between the changes in either or both of these may also be made with the changes in the employees' earnings in order to demonstrate that the former have been greater than the latter and thereby justify a pay increase. Even though the organization's profitability has not improved, unions may seek to justify a wage increase on the grounds of an improvement in the overall productivity of the

organization. It is therefore not necessary, as with direct productivity bargaining, to identify a precise linkage between some change in the utilization of labour and the change in the level of output. The assumption is simply that, if overall productivity has improved, the labour element must have made some contribution and therefore should be rewarded. Whether the contribution has come from using new machinery or simply working harder does not matter and does not have to be proved.

Productivity- wage relationship was started in developed countries and continued in developing countries. In Turkey application of this practice started at 5-year development plans during the 70's, where the crucial point denoted was equal pay for equal work; then equal labour efficiency and equal work principles were proposed.

Many organizations have operated pay systems based on grade scales with progression by annual increments related to service (seniority), or have provided accelerated increments or other forms of additional payments for qualifications or skills acquired by the individual (education and training). At the same time, many people would argue that an equitable payment system should recognize the employees' differing capacities for effort and performance and reward them differentially. Such performance related pay arrangements which seem to be quite popular in modern management are intended not simply to reward employees when they periodically exact extra effort in their work but to motivate employees to work permanently at a higher level of effort and performance.

In general, good personnel management is thought to be characterized by formality, central control and the elimination of situations in which individual workers are subject lo arbitrary treatment by supervisors. Thus, employees of a firm with good human resources management policies can expect to hold their jobs for as long as the firm needs to have the job performed, assuming satisfactory performance. They can expect to advance through the wage structure and possibly up a promotion ladder on the basis of unbiased merit reviews and performance evaluations.

Management's attitude toward wage determination is possibly somewhat as follows: efficiency calculation per worker is desirable in plants where output is measurable and jobs sufficiently standardized. In some industries, notably the processing ones,

efficiency reflections were recognized as virtually impossible. Within that the large segment of manufacturing where efficiency reflection appeared feasible, there was a reasonably clear distinction between particular jobs that could be placed on efficiency. Coverage in some plants and industries might thus be a relatively large proportion of the work force and in others a small one. However, as Slichter *et al*, (1947: 56) have argued, bargaining in some of the labour incentive industries has been preoccupied with the wage level and rates. It is labour cost, not worker efficiency that is being bargained.

Kendrick (1956: 2) has pointed out: "In order to measure changes in productive efficiency as such, output must be related to the aggregate of corresponding inputs. This is so because the proportions in which factors are combined usually change over time because of changes in relative factor prices or in technical knowledge. We do not mislead that productivity sometimes causes new capital investment and mechanization for our economy's expanding productivity. A particularly important problem is how to make proper comparisons between wages and output per man-hour. This is an area abut which there has been considerable misunderstanding. The introduction of a new machine may make it possible to increase output by using fewer man-hours of labour.

In recent years, the relationship between changes in wages and in output per man-hour has been given increasing attention in wage determination (Lindblom, 2004: 566). "Change in output per man hour has not been among the main factors considered in collective bargaining. The change in productivity is only one of the factors that enter into wage determination. In wage negotiations emphasis is given primarily to output per man-hour rather than to productivity. Productivity reflects the relationship between all the inputs of factors of production- labour, land, capital, and entrepreneurs and the resulting output."

Although gains in productivity arise from the contribution of all of the factors of production, they usually have been stated in terms of output per man-hour. It is not accurate to refer to these gains as increased "labour" productivity or as increased "labour" output. When total production is divided by total man-hours, the resulting

figure is “output per man-hour”. But economists have begun to estimate changes in productivity in terms of total input rather than in terms of output per man-hour alone.

3.1.4.1 Problem of Measurement

Productivity estimates originally were made by relating the physical volume of output to the number of man-hours or workers required in its production.

It is useful to distinguish between two kinds of labour productivity Köhler (2006: 38) between physical productivity and value productivity. In the general definition, labour productivity is equal to output divided by labour input. Both components of the formula - namely, "output" and "labour input", can be measured in a variety of ways.

The component of "labour input" may be measured in various ways - e.g., as hours of labour, or as number of workers multiplied by time, or as labour cost. The component of "output" may be measured either in physical terms or in value terms the currency value of the tonnes (ibid.). That leads to two or more significantly different concepts of productivity that are different not only in measurement terms, physical productivity and value-productivity. In the physical concept of productivity, output is counted as objects produced or services. When, on the other hand, using the value concept of productivity count the monetary value produced and the number of currency units produced (per worker).

Value productivity= physical productivity x product prices by Köhler (1996: 39).

Value productivity, the second concept of productivity, contains a price dimension, which is missing in the concept of physical productivity. In general terms, value productivity (money-valued labour productivity) may be defined as in the equation below:

value productivity = (physical output) x (product prices) / labour input

or,

value productivity = value added / labour input

The fact that product prices are included in the definition of money-valued productivity is very important; namely, for a given labour input, value productivity (money-valued labour productivity) is controlled by two variables, namely, physical output and market value (price) of the output, rather than by only one factor (physical output).

3.1.4.2 Productivity Bargaining

McKersie and Hunter (1973: 5) defined the essential characteristic of productivity bargaining, which differentiates it from other forms of bargaining or payment systems, "as being management and union formally negotiating a package of changes in working method or organization, agreeing on the precise contents of the package, their worth to the parties and the distribution of the cost savings". Salamon (2000: 358) defines "productivity bargaining" by "emphasizing formal changes in a series of often interrelated working arrangements which may hinder the efficient utilization of labour." Stettner (1969: 267) described productivity bargaining as "bargaining to make change acceptable" and in this context it requires a greater degree of trust and cooperation than conventional wage bargaining. The productivity payment to employees is fixed at the time of negotiating the agreement and paid on the employees' acceptance of the new working arrangements without being linked to the achievement of any specified level of extra production.

Nevertheless, there has been an increased management emphasis on linking pay more closely to performance related pay concepts of pay equity. Fowler (1988: 30) noted that "paying more to employees who work well rather than to those who work less well is a practice as old as employment itself. The trade union response to performance related pay may be to resist it on principle and not cooperate with management in its introduction. Efficiency wage hypothesis which states that if work effort depends positively on the wage level, a profit maximizing firm would find it profitable to pay above the market clearing level. If the linkage between wages and effort differs across firms and industries, then the optimal wage will differ across firms and industries. Consequently, there will be differences in wage levels for workers with similar abilities and occupations with similar characteristics (Şeref, 1998: 38). One of the handicaps productivity based wage setting is faced with is that

there will be a tendency for the productivity gain to be captured in the form of higher wages. In this situation, the incentive for the firm to expand output and employment is much reduced (ibid.).

Chapter 4
Labour Market Indicators for Turkey

An overview of Turkey's econonomic structure is presented in order to provide a background against which the subject of the labour market will be investigated.

4.1 Labour Market Analysis

The labour market for Ehrenberg (2003: 54) is an analytical construction used to describe the context within which the buyers and sellers of labour come together to determine the pricing and allocation of labour services. Before exchange can take place in any market there has to be both buyers and sellers of the required service.

According to Horton *et al,* (1994: 36), the system of interlinked individual labour markets in a country can be called, "the labour market". The labour market is itself linked to other markets in the economy: it influences their workings and is in turn influenced by them.

Some labour markets function on a very casual basis, as argued by Neil (1982: 4). In such markets, individuals may be hired to perform a specific task for a day or other short periods of time. Haggling over the payment to be made for the service may occur for each separate transaction. More commonly, the word job implies some type of ongoing relationship between the employer and employee; legally termed the employment relationship.

There are many characteristics of the labour market that, with its assumptions about costless wage adjustments and free labour mobility, are difficult to interpret in simple demand-supply framework. The most important of these is that the response

of employers to changes in business conditions focuses much more heavily on quantity adjustments (hours and employment) than on wage rates. In addition, wage rates seem to be adjusted in response to variables (such as the consumer price index) or in ways that are hard to explain in a simple market context (Mitchell & Kimbell, 1982: 32).

4.2 The Structural Adjustment of the Labour Market in Turkey

Labour market structural adjustment is presented in order to a provide background against which the subject of the labour market in Turkey and how it is affected.

Starting in 1980, and continuing to the present, Turkey has shifted from an import substituting industrialization strategy to an export-led growth regime, and has implemented structural adjustment policies.

The main purpose of the structural adjustment reforms as noted by Onaran (2002: 767) was to manage the integration of the country into the global economy, shifting the source of effective demand from the domestic to the foreign market. Changes in labour law and the institutional structure of the labour market have also contributed significantly.

The military rule of 1980-1983 periods banned union activity and ended strikes. The foundation of enterprise unions was prohibited and more exacting demands were imposed for the founders of unions. Union leaders were required to have at least 10 years seniority in that branch and not to assume any office in a political party. In order to conduct collective bargaining, in addition to representing the majority of the workers at a certain enterprise, the unions were compelled to organize at least 10% of the total workers in that branch (Dereli, 2006: 164). And any particular group of employees who feel that they have the same interests and desires and therefore should negotiate together may not satisfy the requirements of the act as an “appropriate” unit of employees for collective bargaining purposes (ibid., p.165). Unions were banned from involvement in politics and commerce, and organizing meetings outside their stated aims was forbidden (Onaran, 2002: 776). Organization on a national industrial level became compulsory and craft unions and federations

were prohibited. In the new act on collective bargaining, strikes and lockouts, strikes waged for rights disputes were banned. The Supreme Council of Arbitration was furnished with the authority to postpone and to ban strikes, as well as broad powers in connection with collective negotiations. Its decisions were to be in the nature of collective labour contracts. The industrial branches were re-regulated and their number was reduced from 32 to 28. Furthermore, the social insurance legislation was amended to increase the financial responsibilities of the workers mentioned by Boratav *et al*, (1994: 50); Yeldan (1995: 38), Onaran (1999: 103) for an analysis of labour market developments in Turkey during structural adjustment.

The change in the institutional structure of the labour market and the erosion of the power of trade unions over the past two decades is to understand Turkey's implementation of structural adjustment policies Kuban (1997: 67). The limited number of legal regulations, the absence of an unemployment insurance system throughout this period, the absurdly low level of the legal minimum wage all leave little room for arguments that attempt to attribute unemployment to labour market regulations and the 'distortions' in the formal sector (Onaran, 2002: 768).

The beginning of the period 1980 is characterized by a severe repression of labour rights and a parallel reduction in real wages (Onaran, 2002: 771). Real wages declined by an average annual rate of 5% during 1980-1988 periods as the Table 4.1 below indicates. Export-oriented trade policies and deregulation of financial and product markets necessitated upward adjustments, particularly in the prices of foreign exchange, energy, and industrial goods (Celasun, 1989: 14). After 1980, Turkey tried to overcome the severe foreign exchange crisis of 1977-1979 through the liberalization of domestic financial system, foreign trade and foreign exchange regimes. The burden of these large increases in price levels over the profit margins were more than offset by radical decreases in real wages (Boratav *et al*, 1994: 43; Onaran and Yentürk, 2000: 68).

Internal dynamics of the 1980s was summarized by Celasun (1989: 14); Onaran and Yentürk (2000: 69), as dependent on excessive export subsidies, real devaluations and a shift of industrial capacity towards international markets via a significant

contraction of real wages, rather than new investments. This growth regime was unable to lead to an increase in wages through its internal dynamics (ibid.).

Table 4.1 Real Wages of Turkey

Years	Real wages(a)	Total Real Profit for Private Sector
1980	100	100
1981	104.3	96.6
1982	97.8	95.6
1983	94.4	126.4
1984	88.6	141.3
1985	85.4	137.9
1986	81.7	155.9
1987	80.2	267.1
1988	74.4	232.3
1989	93.2	238.4
1990	110.4	264.4
1991	182.1	203.4
1992	162.6	346.7
1993	166.4	467.7
1994	137.4	498.2

Source: Yeldan, E. "Structural Sources of 94 Crise in Turkey" Bilkent University, Department of Economy, 1995, Ankara

Furthermore, the growth process relying on wage suppression slowly came to conflict with the economic and socio political conditions (Öniş, 1991: 27; Yeldan, 1995: 64; Yentürk, 1995: 50). In 1989 the trade unions demands developed along with these proper economic conditions, leading to important increases in real wages. The 1989-1993 periods reversed previous trends in terms of rising real wages and expansionary fiscal policies in real wages and was as high as 21 % between 1989 and 1991(Onaran, 2002: 769). The Table 4.1 indicates fluctuations in unionized workers' wages (Yeldan, 1995).

Many of OECD's 1996 labour related recommendations dea1ing with increasing wage flexibility, reducing wage and labour costs and reforming employment security 1egislation and benefits systems were irrelevant for Turkey (Onaran, 2002: 771).

4.2.1 Labour Market in Turkey

Turkey's labour market outcomes reflect the interaction of demographic and economical factors. Thus, the characteristics of the Turkish labour market affect the formal employment sector. The existence of a poor employment creation capacity of the Turkish economy point's structural problems of the economy and thus high unemployment level undermines the bargaining power of the labour force.

Bulutay (1995: 64) summarized the principal characteristics of the Turkish labour market as regards employment, unemployment and wages in Turkey, as follows:

i. There is a high rate of population growth and a large population.
ii. A large proportion of the population lives in rural areas and work in agriculture with low productivity.
iii. There is a serious employment problem, with the unpaid family workers having a special weight in the economy.
iv. Transformation of the population to the cities is a necessity for the development of the country. But the job-creating capacities of cities and industry are limited. Thus, causing a serious unemployment problem in the cities.
v. The labour market is segmented in several ways. Labour is heterogeneous with large wage differentials.
vi. The economy and the labour markets are somewhat insensitive to trade cycles.
vii. The inadequacy of new job creation is more important for the Turkish labour market than the destruction of jobs.

Population growth has outpaced employment growth for many years in Turkey. As Bulutay (1995: 134) stated the working age population grew by 23 million from 1980 to 2004; however, only 6 million jobs were created. As a result, the employment rate, denoted as the percentage of adult population that is employed, is one of the lowest in the world.

A rapid demographic transition has raised population growth and skewed the age structure toward the young. The working age population is growing particularly rapidly, and large numbers of young workers have proved difficult to be absorbed into employment Kristal-iş (Türkiye - AB İlişkileri ve Çalışma Yaşamı).

Employment rate as a percentage of population at the working age is also lower in Turkey when compared to the EU and other candidate countries (CCs) (ILO, 2004: 3). The employment rate is only 48.2 % in Turkey whereas it is 63.2 % in the EU, and it is well above 50 % in all CCs in 2000 indicated in the Table 4.2 is below. One of the main reasons behind low employment rate in Turkey is the fact that the participation rate is also low, especially for urban women. Turkey is expected to increase its employment rate in the future that intensifies pressures for employment generation.

Table 4.2 Employment Indicators, the EU and Group of Candidate Countries, 2000

	Turkey	EU	Bulgaria	Hungary	Poland	Romani
Total population (000)	64059	370914	6832	9927	30535	22338
Population aged 15-64 (000)	41147	247708	5502	6760	25652	15213
Total employment (000)	20579	165537	2872	3807	14518	10898
Employment rate (% population aged 15-64)	48.2	63.2	51.5	55.9	55.1	64.2
FTE employment rate (% population aged 15-64)*	49.3	57.9	50.3b	56.0	53.0b	63.8
Self-employed (% total employment)	24.5	15.0	14.7	14.5	22.5	25.4
Part-time employment (% total employment)*	20.7	17.8	.3.4b	3.6	10.6	16.4
Fixed-term contracts (% total employment)*	10.0	13.6	5.7b	5.8	4.2	1.6
Employment in Services (% total employment)	47.3	69.0	54.0	59.8	50.3	29.0
Employment in Industry (% total employment)	18.2	26.7	32.8	33.8	31.1	25.8
Employment in Agriculture (% total	34.5	4.3	13.2	6.5	18.7	45.2
Unemployment rate (% labour force)	6.6	7.9	16.2	6.6	16.3	7,0
Youth unemployment rate (% labour force 15-24)	13.2	15,5	33.3	12.3	35.7	17.8
Long term unemployment rate (% labour	1.3	3.7	9.5	3.1	7.3	3.4

a Candidate Countries with more than 5
B 2001
* calculated from SIS, HLFS 2000.

Sources: Turkey from SIS, HLFS 2000; all other countries: EU-ILO (2004:4)

As mentioned, one of the most important characteristics of the population in Turkey is observed in its age composition. The fact that the share of young people is relatively high is due to the high birth rate. The birth rate tends to decline, but will remain higher than the European average in the coming decades (the population

growth rate was about 1.8 % in the 1990s) (Taymaz *et al*, 2004: 38). The high proportion of young people could be an advantage for Turkey because it leads to a dramatic rise in the share of active population, but imposes a heavy burden on the educational system, and makes employment generation one of the main social issues (ILO, 2004: 2).

On the other hand, educated young people have difficulty finding jobs. Unemployment rates are especially high for educated young people as indicated in the Table 4.3 below. The economy may not be generating jobs that can absorb educated young, but also the educated young may not be well-suited to the job market. Older workers appear to find jobs more readily than younger workers, independent of the education level.

Table 4.3 Unemployment Rates for the Young and Educated, 2003

Age group	Illiterate	No diploma	Primary	Secondary	Tertiary
15-19	18.0	27.7	13.7	29.5	0.0
20-24	17.0	37.5	16.1	23.4	38.5
25-29	16.3	14.8	12.2	12.2	14.8
30-34	13.3	16.7	10.3	7.1	5.3
35-39	11.4	16.7	8.1	5.4	4.1
40-49	7.5	9.5	7.8	4.6	2.5
50-59	5.0	4.9	5.9	5.7	2.2
60+	1.6	1.5	1.4	4.0	0.0

Source: Turkey from SIS, HLFS 2003.

As noted by Bulutay (1995: 114), the necessary or expected result of these tendencies ought to have been an important increase in open unemployment, but there was no clear sign in the statistics to show this. Some of the educated unemployed establish their businesses easily. But the majority of the educated unemployed had no unemployment compensation, no social security, and no family support to depend on. They had to find a way to secure a livelihood by some kind of employment in the so-called informal sector. Self-employment and part-time and fixed term employment rates seem to be quite high in Turkey (24.5 %, 20.7 % and 10.0 %, respectively) as indicated in the previous Table 4.2.

4.2.2 Informal Labour Market in Turkey

The importance and extent of the informal sector needs to be considered. The determinant characteristic of the informal enterprises is that they operate free from the obligations and controls of labour market regulations, tax laws and other types of rules with respect to firms' behaviours. The wages of the informal and unregistered workers are sometimes even below the legal minimum wage (Dereli, 2006: 136). The flexibility in the wage and employment movements in the informal sector affects the formal sector as well. The existence of a group of workers, choosing to work under more flexible conditions, but for lower wages in the informal sector undermines the bargaining power of the labour force in the formal sector. Additionally, although the formal sector is expected to account for the group of workers with social security coverage, formalized wage contracts and trade unionization, there is a significant degree of non-compliance with the regulations among the formal firms as well.

The absence of transfer mechanisms to change the work incentives, such as unemployment insurance and other types of public income assistance, increases the flexibility of the labour market by increasing the opportunity cost of being employed (Onaran, 2002: 780). On the other hand, the lack of unemployment benefits also facilitates informalization. In the absence of unemployment compensation Bulutay (1995: 194) describes that employees who lose their jobs in the formal sector become self-employed, part-time, casual or unpaid family workers in the informal sector; or they take jobs without social security in small-scale firms, where most regulations are ineffective.

Onaran (2002: 771), argues the OECD's 1996 definition presents a method for calculating the size of the informal sector, which incorporates unregistered workers. According to this definition, the non-agricultural informal sector includes unpaid family workers, self-employed, employers with fewer than four employees and unregistered wage earners. The number in the last category is computed by subtracting the number of registered wage earners, according to the recordings of the Ministry of Labour, from the total number of wage earners reported in the Household Labour Force Surveys.

According to the definition of the International Labour Office (ILO, 1993: 48), the informal sector consists of non-agricultural informal own-account enterprises owned and operated by own-account workers which may also employ family workers and employees on an occasional basis, though not continuously. Depending on this definition the ILO, is described the informal sector as inc1uding self-employed persons, unpaid family workers, and employers with fewer than four employees in the non-agricultural sector (Bulutay, 1995: 197).

Bulutay (1995: 197) also proposes another view; the people of the informal sector are innovative people with entrepreneurial originality. They are, therefore, highly dynamic people who create jobs for themselves and for the economy. The larger part of the employment in the informal sector is in manufacturing, commerce and services. Furthermore, the commerce and service sectors have generally higher importance in the informal sector than manufacturing (Souza and Tokman, 1976: 360; Tokman, 1979: 1187; Richardson, 1984: 10-12). However, the majority of self-employed and part-time employed are working in agriculture, and the fixed-term employment is dominant in the construction sector (Taymaz, *et al*, 2004: 40). In Turkey although the structure of the economy is changing with modernization, about 45 percent of the labour force is still in rural areas and 40 percent is engaged in agriculture at 2004 and are not registered with social security institutions (Kuban, 1997:69).

Turkey has a large informal economy. Yentürk (2002: 80) states that approximately, one in three workers in urban areas and three in four in rural areas are not registered with social security institutions. So labour law and industrial relations and social security programs have been designed for wage and salaried workers in industrial settings. The self employed and unpaid family workers are not covered by labour law or Turkey's formal social protection system (pensions, health insurance and unemployment insurance) is based on membership in the social security institutions. Informal sector workers are denied these protections. The self employed is covered by BağKur. BağKur membership is slightly more than 3 million. In the employed workforce about half the workers are wage and salary employees indicated below in Table 4.4.

Table 4.4 Employed Labour Force by Employment Status, 2004

Employment status	In thousands	% distribution
All wage/salary employees	11079	50.8
Regular Employee	9279	42.6
Causal Employee	1800	8.3
Employer	1020	4.7
Self employed	5388	24.7
Unpaid family workers	4303	19.7
Total employed workforce	21790	100.0

Source: BağKur - Kristal-İş (2004). *Çalışma Raporu*. İstanbul: VIV. Olağan Genel Kurulu, 20-22 Ağustos, s.34.

OECD (1996) reports that the informal non-agricultural sector is about 21% of the total employment as of 1993 in Turkey. The same calculation is repeated for 1997 and finds that the proportion of workers in the non-agricultural informal sector in total employment has increased to 23% (Ansal *et al*, 2000 as cited in Onaran, 2002: 780). The private formal sector constitutes 19% of total employment, and public sector makes up the 12%, and the rest (45% of total employment) is employed in the agricultural sector at 2000. Thus, the informal non-agricu1tural sector Onaran (2002: 781) is even larger than the private formal sector, consisting of approximately 4.8 million workers.

According to the Bulutay (1995 as cited in Onaran, 2002: 769) study, the informal sector represents 16% of total and 26% of urban employment without taking into account the unregistered wage earners. However, even the definition of the so-cal1ed 'standard' employees who have full-time regular jobs inc1udes a large number of workers who are not only non-unionized, but also unregistered and uninsured.

4.2.3 Labour Productivity in Turkey

The period of import substitution was marked by the necessity of creating a mass-consumption market for the national production under a protectionist trade regime. The export-led growth regime requires improvements in productivity; wages could play the role of sustaining the level of effective demand, while profits as a share of industrial value-added could preserve a level high enough to maintain the level of investments (Onaran and Yentürk, 2000: 67).

It is, thus the case that manufacturing employment in Turkey started with a very low contribution in the 1920s and reached only moderate levels in 1988. Bulutay (1995: 196) determined the actual figures of Turkish industry by giving the share of manufacturing employment that are presented in the Table 4.5 below. This share was around 3% in 1923, 1930; 5.5% in 1940, 1950; 10% in 1970; 14% in 1988.

Table 4.5 Employment by Sector, 1980 and 2004 (millions)

	1980	2004
Employment, total (15 years and over)	15.7	21.7
Employment in agriculture	8.4	7.4
Employment in industry	2.3	4.0
Employment in construction	0.9	1.0
Employment in services	4.1	9.4

Source: Bulutay, T. (1995) for 1970-87, SIS HLFS for 1988-2004: ILO (2004:196)

Long-term movement of labour force is shifting from agriculture to manufacturing, characterized by higher real product per man-hour as indicated in the Table 4.5 above. But the precise impact of a shift of workers from low wage to high wage industries will be influenced by the accompanying price and income effects. Increases in output in the expanding sectors of the economy usually have been accompanied by decreases in the relative prices of their products (Bulutay, 1995: 72).

These relative price reductions have necessarily disposed of the expanding supply of goods. Thus set the stage for general wage increases. In new rapidly growing industries there are increases in output per man-hour but this does not mean parallel increases in wages (Öniş, 1991: 29; Yeldan, 1995:68).

Onaran (2002: 773) denotes that the poor employment-creation capacity of the Turkish economy points to structural problems of the economy. One important thing is that the structural problem is the poor investment performance of the economy. A long-term and stable increase in employment requires productivity increases that rely on new investments. The strategy of export promotion based on wage suppression proved unable to stimulate new investments and, consequently, employment growth has been weak in the absence of industrial restructuring (Amsden and Hoeven, 1996: 14; Boratav *et al*, 1996: 54; Yentürk, 1998: 78; Yentürk and Onaran, 2000: 9).

According to Yeldan (1995: 65), employment has been influencing unfavourable what in Turkey. First the advanced technologies have limited job-creation capacity. Secondly, they have increased the demand for jobs by accelerating population growth and exploiting the aspirations of the people.

Amsden (1996: 506) has noted a declining trend in output in both developed and developing countries, but a tendency for employment to rise in developing countries and fall in developed ones; it is no surprise that labour productivity depressed by value added should behave differently in the two sets of countries. Decline in 1980s in real manufacturing output, the developing countries suffered staggering decreases in real wages. Three experienced stagnation in real wage growth and as many as four suffered from real wage declines (India, Indonesia, Sri Lanka and, especially, Turkey).

Table 4-6: A Mapping of Different Output, Employment and Wage Regimes in Asian Countries in 1980s

I. Falling or stagnant wages, falling or stagnant (output, falling or stagnant employment)				
Philippines				
II. Falling wages, falling or stagnant output, rising employment				
India	Turkey			
III. Rising wages, rising output, rising employment				
Malaysia	South Korea	Singapore	Thailand	

Notes: 127 industries (excludes petroleum and coal products)

Source: (UNIDO, Industry and Development Global Report [1991].) Amsden, *et al*, (1996:512).

It is also clear, however, that declining real wages were positively correlated with declines in labour productivity. Turkey is the country where, in the 1980s, wage decline has allowed rising employment without noticeable increase in output, due to lack of industrial restructuring.

A key factor for the comparatively slow employment growth in Turkey has been the high starting share of agriculture. “When the largest sector is shedding workers, even relatively fast employment growth in the smaller sectors is not sufficient to generate fast overall employment growth “Bulutay (1995: 60) Table 4.6. The comparatively weaker employment performance of Turkey from 1980 to 2004 is partially explained by the shift out of agriculture, which happened much earlier in the compared countries.

The demand for labour is derived from the demand for goods and services produced in the economy. Thus increasing employment is dependent on growth in the economy and increasing productivity. The changing relationship between output growth and employment growth is driven by changes in productivity, but can also be affected by regulations that affect the incentives to hire workers. Employment growth in Turkey since 1980 has trailed output growth relative to other countries. Bulutay (1985: 46) argued that “productivity increases can slow down employment growth in the short run, but sustained job creation is not possible without productivity growth.” While this indicates that productivity has been increasing, according to the situation indications that the job creation performance reflects the impact of labour market regulations that reduce the incentives to hire new workers.

One strategy that firms can follow to minimize such costs is to increase working hours for existing workers rather than hire new workers. In this way, production can be increased without incurring severance costs. High working hours in Turkey suggest that severance requirements and favorable tax treatment of overtime work are discouraging creation of new jobs (Tunalı, 2002:12).

Table 4.7 Hours Worked per Week in Manufacturing

	2004
Turkey	52.1
EU-15	38.5
Greece	42.7
Portugal	39.6
Spain	38.9
Ireland	39.1
Czech Republic	40.3
Estonia	40.1
Hungary	40.3
Lithuania	39.2
Poland	41.8
Slovenia	40.3
Mexico	44.7
Korea	48.0

Source: Eurostat for Turkey- 2004; ILO data based on Labour Force Survey for Other Countries

These incentives were strengthened in the 2003 Labour Code, which allowed employers and employees in some instances to mutually agree to longer work weeks. Firms can also rely on informal labour, which does not incur some of these costs. According to 2004 figures, Turkey has highest hours of work in manufacturing per week, compared with selected EU and middle income countries, as indicated in the Table 4.7.

The main beneficiaries of the increases in output per man-hour can be the wage earner, the consumer or the stockholder. The government, too, shares in the form of higher taxes. It is highly important to consider the most desirable way in which gains in output per man-hour should be distributed if the national welfare is to be advanced. The ultimate goal is a balanced relationship between prices, wages and profits. Further, despite increases in GNP, studies conducted by the SIS, and formerly by the State Planning Organization, reveal a pessimistic picture, reflecting the rather distorted nature of income distribution in Turkey, indicated Table 4.8.

Table 4.8 Percentage of Households

% of Households	1963	1968	1973	1987	1994	2002	2004	2005
Poorest 20%	4.5	3.0	3.5	5.2	4.9	5.3	6	6.1
2nd20%	8.5	7.0	8.0	9.6	8.6	9.8	10.7	11.1
3rd 20%	11.5	10.0	12.5	14.1	12.6	14.0	15.2	15.8
4th 20%	18.5	20.0	19.5	21.2	19.0	20.8	21.9	22.6
Richest 20%	57	60	56.5	49.9	54.9	50.1	46.2	44.4
Rate of Richest 20% to Poorest 20%	12.7	20	16.1	9.5	11.3	9.5	7.7	7.3
Gini Coefficient	0.55	0.56	0.51	0.43	0.49	0.44	0.40	0.38

Source: Dereli, Toker, Labour Law and Industrial Relations Turkey, R. Blanpain, Kluwer Law International, United Kingdom, 2006, p.26.

Comparison of the respective rates in different years reveals that there has not been a significant change in income distribution among the percentiles. Absence of significant ameliorations in income distribution is attributable to problems exacerbated by economic shocks, unemployment and neo-liberal economic policies which have generally ignored social development since the 1980s. The fall in the Gini coefficient (from 0.44-0.38) implies that there was a certain amelioration in income differentials in 2005, as compared with the year 2002.

4.3 Economic Environment in Turkey

Bulutay (1985: 18) said that viewed in this way, the principal determinants of the Turkish wage movements, particularly after 1950, are all of macro level, due to the following factors:

i. Economic development and industrialization.
ii. The political situation
iii. Trade unions.

It is tempting to argue that in the intense price competition in the product market and resulting from firms, low capital per worker dictates product price competition. Labour cost is the strategic cost element in competition (Slichter *et al*, 1960: 112). Certainly labour costs for the company means uncertainty in employee earnings. Profit margins of the company give the union some opportunity to manoeuvre, but there is the constant threat of non-union and union competition (ibid.).

Backman (1951: 246) proposed that "the general level of wages for a company or industry is determined largely by economic conditions. When business activity is at a high level, labour is in active demand. Industry, by offering higher wages and other benefits, attempts to attract additions to its labour force and to retain experienced employees. Some companies are in a poorer position to grant similar increases because higher costs make their competitive position precarious. In addition, cost-price relationships may be such that an industry does not have the ability to pay large increases unless it raises prices."

The firm operates in a world of imperfect information or uncertainty, and that employment relationships are frequently long-term, perhaps because of specific human capital or other labour turnover costs (Leibenstein, 1966).

In Turkey as a strategy, wages are low and this has kept labour costs internationally competitive. As indicated in the Table 4.9 below.

Table 4.9 Manufacturing Labour Cost Per Unit Value Added, 2004

Turkey	0.27
Portugal	0.65
Spain	0.68
Greece	0.44
Poland	0.61
Hungary	0.54
Mexico	0.31
Korea, Republic	0.49

Source: SIS, OECD, STAN database for Turkey (2004); for Portugal, Spain, Greece, Mexico, and Korea (2003); Labour Market Study 2006.

The study denotes the refined measures of productivity, "these data suggest that the cost of labour in Turkey is not the critical factor in slowing job creation relative to other countries."

In collective bargaining, data may be presented concerned with the outlook for business activity, the presence of inflation, the importance of sustaining purchasing power, the relationship between wage adjustments and employment. In connection with specific industries, emphasis may be given to factors affecting those industries or to changes in local environment. When these questions are complicated, any economic or national data may be introduced into the negotiations. Obviously, different conclusions may be drawn by the parties from the same information. At other times there may be greater agreement as to where the economy is heading, but marked disagreement as to the proper wage policy.

The periods of recession do not provide an environment conductive to increasing wages or non-wage benefits. Declining volume is associated with a series of developments which affect, adversely, the various wage criteria (Amsden, 1996: 54). "The impact of a recession upon output per man-hour depends in part on the magnitude of the decline in the economic activity. During periods of sharp reductions in economic activity, output per man-hour also may decline." At such times job opportunities decline. Moreover, new entrants into the labour force find it more difficult to find jobs. Unemployment tends to increase as a result of both factors. The decline in profits under these conditions certainly indicates that increased labour

costs cannot be financed out of large profits. Prices can not be increased easily to meet the higher labour costs at such times.

4.4 Competition

Many developing countries suffer from a shortage, often critical, of foreign exchange and anything that makes it more difficult for them to sell goods abroad is liable to be bad for their economic growth. Wage increases may have to meet competition, whether in export or domestic markets, from foreign producers whose wage costs have not risen. This leads to a more general question of considerable interest and importance, that of the role of wage determination in connection with certain problems of competition in international trade. It is sometimes possible that some countries have an unfair competitive advantage in international trade because of their low wage levels and that such countries should be called upon to raise wages before other countries can be expected to admit imports from them freely.

The increased price competitiveness of foreign producers may be the primary force triggering the changes in the industrial relations system we are witnessing today. The increased price competitiveness of foreign producers has put tremendous pressures on local producers to decrease costs and increase productivity. Wage rates are a prime target for reduction as employers increasingly feel the foreign competition.

Mitchell (1976: 4) has noted that unions can avoid direct non-union competition by unionizing an entire industry, thereby "taking wages out of competition." However, if the industry concerned operates in world markets, as either an exporter or an importer, the market is international, then the entire industry cannot be unionized and the prospect of substitution remains. But if import competition is a problem, unions can seek government protection in the form of quotas or tariffs, with the former usually preferred.

4.5 Turkey and EU Labour Market Policies

Turkey needs to fulfil the EU's accession criteria and adopt the EU's regulatory framework for the EU membership. This process will lead to a rather dramatic transformation in the Turkish labour market through two channels (Taymaz *et al*, 2004: 2). First, Turkey should ensure the existence of a functioning market economy as well as the capacity to cope with competitive pressure and market forces within the Union to satisfy the economic criteria for membership, (i.e. Copenhagen criteria). Second, Turkey is required to implement fully the acquis of the EU in force (including all rules and regulation in the field of employment and social policy).

When we look at the Turkish economy from the view of Dereli (2006: 25), despite the recent impressive growth rates, the economy has been unable to create enough jobs to alleviate the unemployment problem, probably because growth is achieved mostly through increased imports prompted by the overvalued New Turkish Lira. Dereli (2006: 25) also proposed that despite the positive developments, however, most indicators are below the Maastricht criteria. Threatened by a high "current deficit" the economy is still fragile. Though real wages have followed a declining trend, foreign direct investment is discouraged, in addition to various other factors, by seemingly high labour costs because of the overvalued Turkish lira.

The gap between the employment rates in the EU and Turkey presents a particular challenge on the road toward EU accession. The European Council meeting in Lisbon in 2000 adopted an employment rate target of 70 percent to be reached by 2010. With a population that is still growing, Turkey will have to generate about 10 million jobs in six years to reach the current EU average employment rate in 2010, and will have to generate about 14 million jobs to reach the Lisbon target employment rate. Under current trends of GDP and employment growth, only 1.5 million jobs will be created by 2010. The magnitude of the jobs deficit suggests that immediate action is needed. Therefore, the eventual membership will have a profound impact on both Turkey and the EU countries, and the impact of membership will be determined, to a large extent, by the peculiarities of the structure of population and labour markets in Turkey.

4.6 The Periods of Unionization and Factors Which Affect Unionization in Turkey

In Turkey, it is possible to study the history of unionization into three periods (Mahiroğulları, 1998: 161); the first period began in 1947 under "Unions Law number 5108", the second was between years 1963-1983 and the third, after 1983.

The first period was the years of experimentation for the unions. The first workers organizations comparable to trade unions appeared in Turkey after 1908 during the Second Constitutional Period, under such names as mutual benefit funds, associations or leagues. Between 1920 and 1925 appeared professional organizations. But the Associations Act that was enacted in 1938 prohibited definitely all organizations based on class.

After the end of the Second World War, there was a transition to a multiparty system as a result of both internal and external pressures, it led to the lifting of the ban on class-based organizations on June 10, 1946. Soon afterwards two parties (the Socialist Party of Turkey and the Socialist Labour and Peasant Party of Turkey) were founded, to be followed by the establishment of numerous trade unions at the initiative of these parties. These unions are termed as "the unions of 1946" in the history of the Turkish trade union movement.

In the view of these developments, the CHP (Cumhuriyet Halk Partisi) government prepared a trade union act which was promulgated by the parliament as Act number 5108 and became effective as of 20.2.1947. Thus, for the first time in Turkey, workers and employers were granted the right to establish unions, albeit with certain restrictions. A large number of unions were founded after the act came into force, and the already established associations of workers converted themselves into unions.

Act no. 5108 also provided for the unions of employers. However, these unions were for the most part established after 1960, and starting from 1965 the state-owned enterprises began to become organized in employer unions as well. This was in

deeded the period in which unionism developed in the real sense. Above all, the right of the collective bargaining with strikes was granted to workers in this period.

The constitutional rights to organize and to bargain collectively were first implemented with the promulgation of Act Number 274 on Trade Unions and Act Number 275 on Collective Bargaining, Strikes and Lockouts in 1963. These new laws introduced a system of collective bargaining and collective labour contracts and recognized the right of the workers to strike, but in return the employers were legally entitled to declare lockouts.

Since the passage of the Trade Unions Act of 1947, and particularly the enactment of collective bargaining legislation with the right to strike in 1963, collective labour relations has become extremely important in Turkish labour law (Dereli, 2006: 30). It includes such subjects as:

- Trade union freedoms
- The organization, structure and functions of labour unions and employers' unions;
- Collective bargaining (competence and authorization, certification, structure and territory of bargaining, legal nature of collective agreements)
- Settlement of collective labour disputes (mediation and arbitration);
- Strikes and lock-outs
- Exceptions of the right to strike, and resort to compulsory arbitrations

Martial law was declared in industrial regions, trade union activities became subject to prior permission and strikes were banned because of the 12.3.1971 military intervention. This ban lasted until the end of 1972. In the 1970s, union movement defined as "class and mass unionism" and grew rapidly in Turkey. But the military coup of September 12, 1980 put an end to this development. The liberal external trade concept was accepted to replace import substitution policies by bringing major changes after 1980.

In the third period, the average unionization rate was approximately 60 perecent; according to data from Ministry of Labour Statistics in 2001 of 4.537.544 workers, 2.580.927 were members of a union. However, the true number of unionized workers was closer to 1,000,000. The difference in between arises from the tendency of the unions to exaggerate their membership in order to be able to pass the minimum branch and workplace thresholds and to become authorized to conduct collective bargaining (Mahiroğulları, 1998: 172). As of July 2001 there were 4 labour union confederations, 3 public servants confederations, 1 employers confederation and dependent or independent from these confederations, 111 labour unions, 59 public servants unions, 52 employers' unions in Turkey.

4.6.1 An Overview of Turkish Unions Today

Completely reliable statistics relating to union membership in this country have never been available (Mahiroğulları, 1998: 172). Some unions in reporting their figures have traditionally exaggerated to gain respect and influence for the union itself within the total labour movement, to make the union officers look better by showing a rise in enrollments during their term of office, or merely to hide a mass of non-membership.

Collective bargaining reflects the restrictive rules regarding the authorization of the bargaining agent status under the 193 Collective Labour Agreements Strikes and Lockouts Act (Act 2822). The legislation imposes two conditions. First the union must represent at least 10 percent of the total employed in the relevant industry. Second it must represent at least 50 percent plus, of the employees in the workplace[4]. The original intent of this "double criteria" was to create more order in an environment that was characterized by an extremely fragmented labour movement, with large numbers of small unions with little capacity to represent workers effectively in negotiations with employers. There were 2.95 million union members in Turkey, according to the July 2005 labour statistics of the Ministry of Labour and Social Security. However active (dues paying) union membership was considerably lower. According to the 2002 HIES (Household Incomes Expenditures Surveys) slightly less than 1.3 million workers reported being trade union members. This

[4] It should be noted that this "double criteria" applies only to the bargaining agent status of unions .

represents 12 percent of all wage and salaried employees and about 5 percent of total employed labour force. Unionization is essentially a public sector phenomenon in Turkey. Only 4 percent of private sector wage employees are union members, compared to 28 percent in public enterprises and 51 percent in government. Moreover, even among active trade union members, only about 700,000 are covered by a collective agreement (Tunalı, 2002: 36).

Öke (2006) proposed the following about the subject. As ‘‘An idiom can explain the attitude of labour union in Turkey; small and mine” or, which means, it is a small union, is ineffective; there are about hundred active unions running, about half of which are without an effective and efficient role in the society.

The second characteristic of Turkish union is its economical role, with its only function being to make collective agreements. So, as always mentioned, unions lack a political and democratic role in the society. Unfortunately, as the main topic in the agenda is making collective agreements and trying to create islands with high wages in the labour market. Therefore, the fact that this thesis focuses on the high-wage, highly-organized firms seems to be meaningful.

The third characteristic of Turkish unions is the attitude of professionalism. Most elected leaders are elected almost for a life long period. They never intend going back to the workplace.

The other characteristic of Turkish Trade Unionism is Legalism, meaning the greater part of the union movement’s strength is accounted for by legislative rights granted from above, rather than being a rank-and-file movement emerging from within: in an effort to bring the Turkish industrial system into compliance with EU standards and to meet the demands of the ILO regarding changes to be made with respect to freedom of association and collective bargaining, Turkey is in the process of amending Acts no. 2821 and 2822 as well as to adopt formal mechanisms of workers’ participation. Draft laws are being debated presently, and when enacted into legislation, it is hoped that a more viable collective bargaining system will penetrate the unorganized segments of the Turkish labour market, thus paving the way for

higher wages and better protection for workers already enjoying union rights as well as the unprotected workers in the informal market.

4.6.2 Union Density in Turkey

Union density, the ratio of union members to employed wage and salary workers, is probably the most commonly used measure of union strength in empirical work (Flanagan, 1999: 1162). It is variously used as an indicator of the scope of union influence and union bargaining power, but it is an inadequate measure of either concept.

"In an economy in which unions organize either the majority or a substantial minority of the workforce, unions will have a substantial impact on the general wage level. One approach to evaluating the role of unions in aggregate wage setting in such an economy is to construct models of, and estimate the effects of, union wage setting in each of the submarkets that comprise the aggregate economy (Layard. and Nickell, 1987: 98)."

Some firms pay their workers higher wages than other firms do, regardless of the occupations, ages, and tenure groups from which the workers are drawn. Numerous studies have found that industries that pay comparatively high wages tend to have relatively high profits, high concentration ratios in product markets, high capital-labour ratios, and high union density (Dickens and Katz, 1986: 54). The union, non-union wage differential has often been used as a measure of union power. Macroeconomic models and models of the aggregate labour market commonly use it for this purpose since this differential is argued to be positively correlated with union power see (Layard, *et al*, 1978: 289; Nickell *et al*, 1983: 326 and Layard *et al*, 1986: 774). It was argued that, at the microeconomic level although the existence of economic rents was a necessary condition for union differentials, higher union wages would be found only where the trade union had the necessary power to force the firm to give up some of its surplus.

Union density appears to be declining in most industrialized countries and that in some countries only a minority of the workforce is unionized. In parallel to the

decline in collective bargaining coverage rates, the trade union density – the share of unionized workers in total employment – has also been decreasing over the last decade. This is most noticeable in many of the countries since the practice of compulsory union membership was abolished. Table 4.10 shows the uncovered workers figure in Turkey.

Table 4.10 Ratio of Uncovered Workers at Establishments which are Members of TISK

Years	Uncovered %
1990	22,3
1991	23,5
1992	22,3
1993	25,9
1994	30,4
1995	28,8
1996	27,3
1997	28,7
1998	33,1
1999	33,9
2000	33,3
2002	37

Source: TİSK Çalışma İstatistikleri ve İşgücü Maliyeti Araştırmaları, 2002, p.18.

Main explanations of union membership decline are based on many factors, but cyclical and structural factors carry most weight as explanations of union membership decline. This has induced a process of reflection, and trade unions have been endeavouring to find organizational strategies to meet some of these challenges and provide representational security to all workers (Visser, 2000: 97). More educated workers have usually acquired skills that enable them to avoid the worst effects of any management arbitrariness. Formal education teaches many skills, one of which may be an ability to "get by." More educated workers do vote less frequently for unionization when confronted with the opportunity (Hammermash, 1993: 243).

4.6.3 Strike

Strikes produce the overall rate of time lost from work. That rate is affected both by the incidence of strikes (the percentage of workers who strike in a year) and by the duration of strikes (the average length of a strike).

Percent of time lost= (strikers/ employment) * (strike duration/250)*100

Where 250= number of work days in the year.

Since each negotiation raises the potential for strike costs to both sides, both parties have an incentive to reduce bargaining costs. They do so by extending contract duration and thus reducing the frequency of bargaining. They require that the parties make projections concerning developments during the life of the contract and/or include contingency clauses with formulas to deal with future events.

Table 4.11 Decreasing Strike Propensity

Years	Number of Employees Attended to Strike	Number of Lost at Working Days
1985	2410	194296
1986	7926	234940
1987	29734	1961940
1988	300057	1892655
1989	39435	2911407
1990	166306	3466550
1991	164968	3809354
1992	62189	1153578
1993	6908	574741
1994	4782	242589
1995	199867	4249920
1996	5461	274322
1997	7045	181913
1998	11482	282638
1999	3263	229825
2000	18705	368475
2001	9911	286015
2002	4618	43885

Source: Ministry of Labour and Social Security

Cyclical indicators other than the aggregate unemployment rate are also correlated with strike activity. Increases in the unemployment rate in the labour market where the plant is located reduce the likelihood of a strike. This is to be expected, for when

the local labour market is loose, workers are especially aware that they have few alternative opportunities. If the market the firm sells in is loose, the likelihood of a strike increases (Tracy, 1986: 423; McConell, 1990: 130). Table 4.11 above shows decreases in strike propensity in Turkey.

4.6.4 Third Party Intervention in Negotiations

Strikes tend to decline because of rising costs to one or the other of the parties, and this is usually the case. In some cases, however, the public or other third parties believe that the social costs are rising much faster than those to the parties involved in the labour dispute. When the actual or potential costs of a strike to third parties become very high, government's or other neutrals' intervention in the dispute usually occurs. Three kinds of intervention are used-in increasing order of forcefulness Hammermash (1993: 149): mediation (or conciliation), fact-finding, and binding arbitration.

David L. Cole arbitrator: "Wage determination is by no means an exact science. If it was simply a matter of applying a formula, the parties could so provide in their collective bargaining agreement, and disagreements and arbitrations could be avoided" (ibid.).

Table 4.12 Factors Accounting for the Failure of Mediation in Turkey

Cause	Effect
Staggering rate of inflation- rapid erosion in real wages.	Leading high demands by unions-resistance by employers.
Absence of a full-fledged job security system	Pressing to negotiate notice pay and severence pay.
Demand for fringe benefits	Lengthening negotiation
Denial of formal powers to mediators	Lack of authority
Short-term duty of mediators	Lack of mediating efforts during strike stage
Mediators are not full time professionals	The high work load of most mediators in labour disputes

Source: Dereli, T., Labour Law and Industrial Relations in Turkey, Kluwer Law International, 2006, p. 331.

The role of a mediator in a wage negotiation is often to discover "through separate private talks with each party a position that is acceptable to both that they have been unwilling to reveal to each other".

The fact-finder's job is to "issue a public report detailing the conditions surrounding the dispute and suggesting an appropriate settlement." Fact-finding is invoked if mediation fails to resolve an impasse. Fact-finding is not a formally valid case in Turkey, though the mediator's recommendations play a similar role.

4.6.5 Why Managers Resist Unions in Turkey?

The outcome of this particular labour-management struggle is unknown. As already indicated collective bargaining necessarily decreases the area of management discretion. Every contractual concession to the union subtracts from the scope that the management has for taking action on its own.

There are, undoubtedly several such reasons for resistance Sloane and Witney (2004: 56) summarized them as follows: In the first place, many employers tend to look upon the union as an outsider, with no justifiable basis for interfering in the relationship between the management and its employees. Where the former seeks to maximize profits within certain limits, the union seeks such goals as the maximization of its own membership and of its general bargaining power. Second, the manager may look upon the union as a troublemaker; bent upon building cleavages between management and workers where none would otherwise exist. Third, many managers view unions as underminers of employee loyalty. In order to understand this point of view, one does not have to fully embrace the philosophy that high worker motivation levels depend on appreciative employees who view the employer as a benefactor and work for him or her to a great extent out of gratitude. A fourth root of tension may arise simply because the reputation of the labour movement has preceded the arrival of unionism in the workplace.

Slichter *et al*, (1961: 23), an alternative view is that unionization reduces morale and motivation, and obstructs the efficient organization of capital and labour, since it constrains the choice set of management. Moreover, some unions enforce restrictive

practices, for example over manning rules that are likely to reduce productivity. Unionization is also at times associated with industrial action that may have an adverse effect on productivity, and unions may also adversely affect investment. Further, some unions follow an adversarial rather than a co-operative approach to industrial relations, engendering a low level of cooperation and morale, and thereby lowering productivity (Carrell and Heavrin, 2004: 287).

Chapter 5
Methodology of the Research

The study attempts to shed light on the determinants of the selected ISE-100 companies' wages by using panel data on the firms from the year 1998 to 2005. In particular, The results will be extended by focusing on the roles of certain additional factors. This research will start by an account of some fundamental criteria of wage setting, all aiming to fill the gaps or remove the deficiencies of each other and then continues with the explanation of the qualification of the chosen sectors. Some structural issues concerning Turkey will also be described. Then in the following section appropriate research techniques will be applied to the collected data. For the questionnaire scaling will be applied to identify differences between the most significant factors from the standpoint of both labour and employers' organizations. As a result of this descriptive study it is hoped that research into the collected data will pave the way for a model of wage determination in industrialized market conditions.

5.1 Problem Definitions

A broad problem area is recognized in the role of criteria for generally employed wage determination under collective bargaining in major firms of the Turkish economy.

Problem definitions are defining and clarifying the relationship of bargaining criteria discussed in industrial relations literature to the determination of wages in selected unionized ISE – 100 companies.

The study does not seek to identify and test causal relationships between variables. Rather it seeks to find out correlations between the criteria used, if any, and the determination of wages under collective bargaining in Turkey in the selected unionized ISE- 100 companies. As such, the proposed study is descriptive in nature, aiming to pave the way for new hypotheses development for future research.

Discussions of wage determination and inflation often center on the unionized sector of the labour force. Our study opens a sight on answering the questions of what the driving forces behind wage determination are as well as the reaction of unions to these forces. The literature on this issue is also accounted for.

5.2 Research Questions

- To what extent do labour unions and employers use the wage criteria generally accepted in industrial relations theory?
- To what extent does each of these established criteria explain the variation in the wage outcome?
- The labour union's basic goal is the preservation of the real income of its members and to enable them to share in the firm's productivity, while at the same time providing workers with secure employment. Given the wage criteria studied, how could a wage increase formula be achieved so as to maintain worker's purchasing power plus their share in the firm's productivity and profits?
- When the expected level of inflation deviates from the actual level, how do the parties correct the wage lag caused by unanticipated inflation?

5.3 Conceptual Model of the Proposed Study

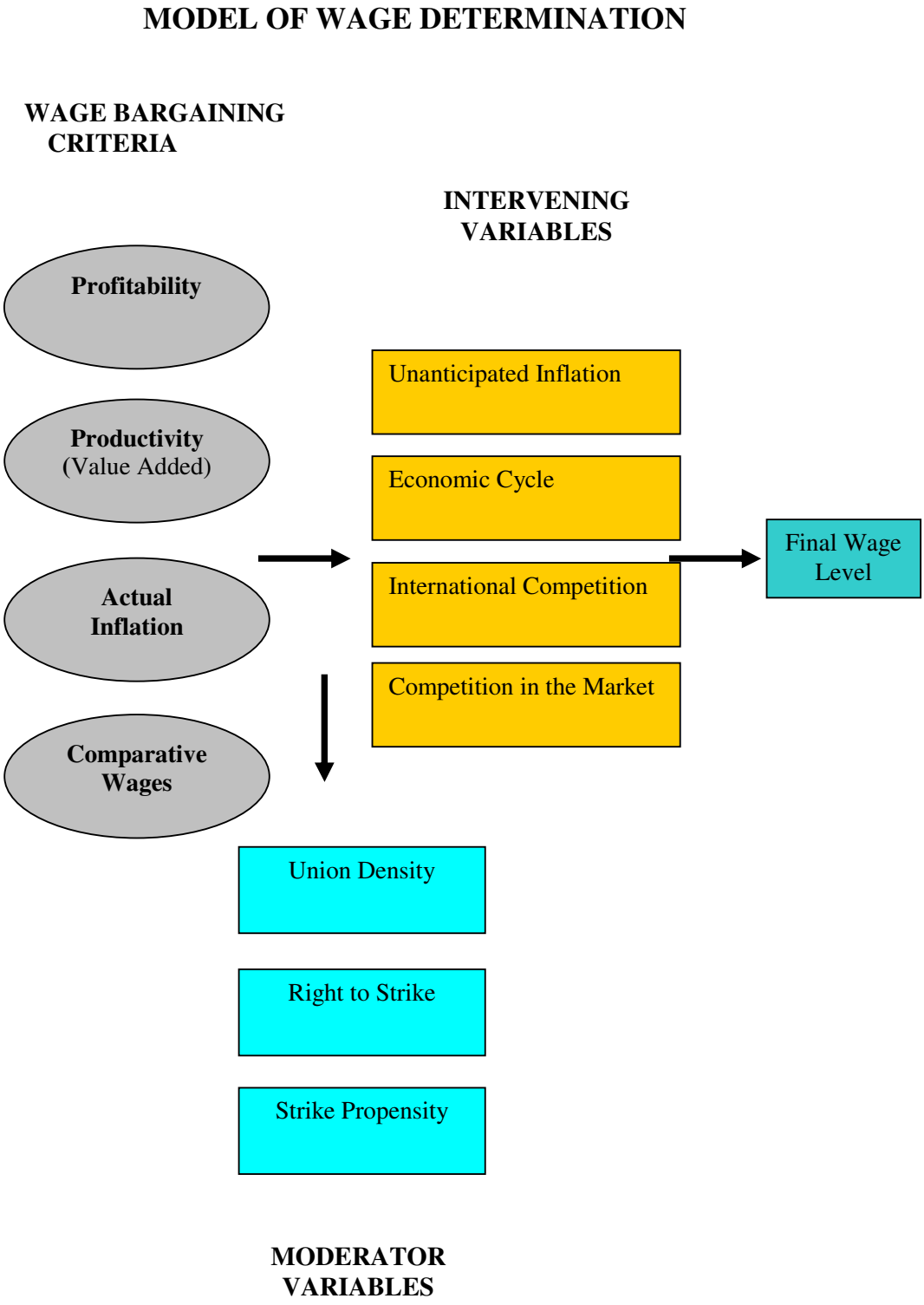

Figure 5.1 A Conceptual Model Wage Bargaining Criteria

5.3.1 The Research Model Framework

The conceptual model is defined, above, showing the relationships between dependent, intervening and moderating variables.

Though the proposed research does not aim to investigate causal relationships between wage bargaining criteria and wage outcome, the proposed criteria such as “inflation rate (actual)”, “productivity”, “profitability” and “comparative wages at the sector” may be conceived of as independent variables for purposes of facilitating analysis, while the wage outcome will be assumed to be the dependent variable.

Moderating variables are; union density, the legal existence of the right to strike in the sector and strike and lock out propensities realized in the companies under study as indicators of bargaining power.

Intervening variables are; unanticipated inflation, the state of the economic cycle, changes in the exchange rate and international competition. Parties usually make projections concerning development during the life of the contract and include common contingency clauses with formulas to deal with future events.

5.4 Hypotheses

The main hypotheses of the study are presented below as follows:

1. H_0: The wage determination criteria used by labour unions in wage bargaining (the criteria being inflation-comparative wages- profitability and productivity) have equal impact.
   H_A: The wage determination criteria used by labour unions in wage bargaining (the criteria being inflation-comparative wages- profitability and productivity) do not have equal impact.

2. H_0: In fixing wage demands, criteria (the criteria inflation-comparative wages- profitability and productivity) have equal importance.
   H_A: In fixing wage demands, criteria (the criteria inflation-comparative wages- profitability and productivity) do not have equal importance.

3. H_0: Effective intervening variables (i.e. market conditions, condition of the firm, power position of the parties and government policy) have equal impact on wage determination.
   H_A: Effective intervening variables (i.e. market conditions, condition of the firm, power position of the parties and government policy) do not have equal impact on wage determination.

4.a Ho: The method of wage increase (flat rate method) tends to narrow wage differentials.
   H_A: The method of wage increase (flat rate method) does not tend to narrow wage differentials.

4.b Ho: The method of wage increase (percentage wise method) does not tend to narrow wage differentials.
   H_A: The method of wage increase (percentage wise method) tends to narrow wage differentials.

5. H_0: Wage differentials in the establishment have effects different from the effects on business costs.

H_A: Wage differentials in the establishment have effects no different from the effects on business costs.

5a. H_0: Skill wage differentials in the establishment have an effect on business costs.

H_A: Skill wage differentials in the establishment do not have effect on business costs.

5b. H_0: Types of job differentiation in the establishment have effect on business costs.

H_A: Types of job differentiation in the establishment do not have effect on business costs.

6a. H_0: The labour union and the employer perceive the wage concept differently.

H_A: The labour union and the employer perceive the wage concept as the same.

6b. H_0: Reducing the payroll taxes applied by the government tends to ease wage negotiations.

H_A: Reducing the payroll taxes applied by the government does not make any difference in wage negotiations.

7. H_0: The labour union and the employers' union perceive the welfare share differently.

H_A: The labour union and the employers' union perceive the welfare share as the same.

8a. H_0: Reflecting the current changes in CPI to the wages will compensate for the loss in the real income of workers.

H_A: Reflecting the current changes in CPI to the wages will not compensate for the loss in the real income of workers.

8b. H_0: Generally actual inflation level is used in wage determination in order to recover possible loss in the workers' real income.

H_A: Actual inflation level is not used in wage determination in order to recover possible loss in the workers' real income.

9. H_0: As a wage determination criterion productivity increase does not impact on the wage outcome.

H_A: As a wage determination criterion productivity increase impacts on the wage outcome.

10. H_0: Increase in the firm's profit affects the wage outcome.

H_A: Increase in the firm's profit does not affect the wage outcome.

11. H_0: As a wage determination criterion comparative wages have a forceful impact on the wage outcome.

H_A: As a wage determination criterion comparative wages do not have a forceful impact on the wage outcome.

5.5 Research Method and Data Collection

This study aims to identify the ultimate wage determination of workers at the 100 largest companies traded in the ISE as of the end of 1998 to prior to 2005, by sector, employment, production or service capacity, together with their union density and strike propensity.

The identification of such variables in these companies is expected to result in a better understanding of the Turkish companies wage structure and industrial relations environment.

5.5.1 Sample

The sample used in this thesis is from the selected companies listed on the ISE 100 from years 1998 to 2005, but especially those which are unionized and active in collective bargaining periods. Those selected companies are chosen by their frequency of listing at ISE -100 between the mentioned years. 50 companies from ISE-100 were found to meet these criteria.

The reason behind the choice of ISE-100 companies among others of the economy is not only their size or high shares in GNP, but also availability of data related to the wage determination, especially data concerning productivity, employment, profits and hours of work.

The profitability of the ISE-100 companies relative to the sector will be shown, as an indicator of a company's ability to meet unions' wage demands.

An employer must see to it that the wage rate gives workers the market level of utility. Except through bargaining employees are unable to appropriate any of the returns to an improvement in their firm's prosperity.

The objective was to learn about the wage settlements in the top 100 companies listed on the Istanbul Stock exchange, but especially those which were unionized and

active in collective bargaining periods. As of January 2000, the market capitalization of the ISE was £77.4 billion or 79 per cent of 1999 GDP (Demirağ and Serter, 2003).

And the study deals only with the basic wage in which pay for normal time actually worked is included; thus, fringe benefits and otter supplementary payments are excluded.

Wage settlements and wage adjustments reflect to a degree current profitability of the firms. The top 100 companies listed on the ISE are the leading firms and the competitive ones in the Turkish market. Their profitability relative to the sector profitability can be an indicator in assessing the wage determination procedure. On the other hand, another explanatory variable can be the earnings over the price of each ISE-100 firm relative to the corresponding sector.

Earning adjustments of the 100 largest companies traded in the ISE companies were selected because of the publicity surrounding their negotiated wage changes. It is important to make a distinction between industry hourly earnings data and collectively bargained wage rates. First, earnings differ from rates, since they reflect changes in work force composition and percentage of overtime hours in total hours. The industry is regulated on the price side with labour costs and other costs passed through to subscribers. However, productivity growth has been rapid, offsetting labour-cost increases.

Parties do also extend contract duration and thus reduce the frequency of bargaining. Longer horizon for wage setting tends to attenuate the significance of short-term labour market tightness or looseness at negotiation time. They require that the parties make projections concerning developments during the life of the contract and/or include contingency clauses with formulae to deal with future events. But in Turkey parties have to await the expiration of the contracts in order to begin negotiations for a new one. However, within the contract time, if necessary, parties may come together and make a protocol agreement, due to changing economic and market conditions in order to readjust the wage level. The most common contingency clause is the cost of living escalator that gears wage adjustments to the consumer price index (CPI), but there are other contingency clauses as well.

5.5.1.1 Istanbul Stock Exchange Companies' Qualifications

Comparatively large enterprises with capital-intensive techniques have played an important role in Turkish economic development for the following main reasons: technological progress, productivity advantages dictated by capital-intensive, high-technique equipment which can generally be utilized in large firms. It is not possib1e to arrive somewhere with the intense utilization of the surplus factor of production, i.e. the abundant labour. The great weight of statism was an additional impetus for firms to get larger since the public enterprises were generally large establishments.

The creation of more productive jobs has, in our view, the central role even in the analysis of wages (Bulutay, 1995: 125). Higher wages are the natural result of highly productive jobs, mainly jobs in industry. As there will be large numbers of people working in agriculture, at least in the initial phases of development, the substantial wage differentials are natural facts of economic life during the process of economic development.

If firms have market power and consequently monopoly profits because of the exclusion of competition provided by customs and protection walls or otherwise, they could pay high wages. Another factor that makes less likely the resistance of employers to wage increase demands is the prevailing atmosphere of inflation in the Turkish economy. If there is inflation, particularly at a rate of 60 or 70perecent, which has been generally the case since 1980, it is comparatively easy to shift the increases in costs arising from wage increases to the consumers (ibid.).

Trade unions, by emphasizing the collective interests, minimize competition between workers and foster a cooperative atmosphere which is more conductive to productive behavior. The desirability of such attitudes and behavior will depend on the technology employed and the product produced and is evidently more essential in some workplaces than others. Trade unions may also increase productivity by reducing turnover. This they do by negotiating firm-specific remuneration packages. Fringe benefits are higher in unionized firms, because fringe benefits represent one of the ways in which unions can differentiate their production in an attempt to attract union members to Turkish firms.

Union leaders want to provide evidence during negotiations to management and their own members that the wage rates they are negotiating are fair and justified by market conditions.

The parties to collective bargaining seek wage survey information from three general sources. The first source is published labour market information from the Ministry of Labour. Second, industry wage surveys published by various interested parties within the industry. Third, their own surveys, which are the products of costly and time consuming processes.

Wage determination authorities require a good knowledge of the basic economic conditions and problems of the country, and they need also a basis for estimating the effects of different decisions that they might take regarding minimum wages on key economic variables such as costs of production, productivity, prices, the balance of payments, the rate of economic growth, employment and the distribution of income. The types of data required are those which will help to meet these needs.

There are several government and private institutions in Turkey which collect and publish data on wages. The following are the main ones: SIS (State Institute of Statistics), YDK (Supreme Council of Supervision), SSK (Social Insurance Institution), TİSK (Turkish Confederation of Employers Unions) and DPT (State Planning Organization). They usually apply the available international standards in their procedures, especially in recent years.

Two types of problems are involved in negotiating wage surveys. Survey information is available from many sources; it is often difficult to agree which source contains jobs and data applicable to a particular firm. A second problem involves the question of how the negotiating company should compare itself with other firms.

5.5.2 Data Collection

In the study the basic wage in which pay for normal time actually worked in the firms under study will be included. Payments for time not worked as well as quasi-fixed labour costs (i.e. fringe benefits, social security as well as other legally mandated premiums (which are independent of the hours worked) are excluded.

For productivity data, total units of yearly production divided by the hours worked (overtime hours included) should be used. But it is hard to find the exact working hours and that is why it is planned to use Istanbul Chamber of Commerce labour productivity method by finding out the net value added productivity of each firm of our sample.

For changes in the cost of living, consumer price indices and the contingency (escalator) clauses that gear wage adjustments to the CPI in collective agreements will be used.

In collecting the data I have used the 1998-2005 Year Books of Companies published by the ISE has been used which provides data on unionization and wage determination in these 100 companies changing on a yearly basis.

The study will also be based on a questionnaire interview aimed at finding out the parties' behavior in wage negotiations. Determining the measurement tool(s) used in a research is as important as determining the scope and strategy of the research. According to the research, the objective is to collect more factual data- rather than perceptual- on the organizational and environmental factors and on how collective bargaining operations between the parties are executed. Field based research, based on interviews with managers at the unions and employers' organizations was considerably easy to conduct due to the limited number of respondent groups. The research instrument best applicable to this research was a survey that would enable receiving data from face to face interviews from the labour unions and employers' organizations and some of the firms in the sample.

Because the survey form involved questions answers of which could be widely known and coordinated by Members of the Union Management Board, research specialist, and Collective Agreement specialists were included in the research. Since only one interview for this particular survey was required and obtained from each union, the unit of analysis for the research was then "headquarters of the unions".

10 employers' organizations (MESS , Çimento Müstahsilleri Sendikası, TUHİS, Kağıt İşverenleri Sendikası, Tekstil İşverenleri Sendikası, Gıda İşverenleri Sendikası, Toprak İşverenleri Sendikası, Cam İşverenleri Sendikası, Kiplas, İlaç İşverenleri sendikası), 2 firms' headquarters (İşbank and Akbank) and 13 labours organizations(Birleşik Metal –İş Sendikası, Türk Metal İşçi Sendikası, Çimse-iş, Hava-iş Sendikası, Selülüz-iş Sendikası, Teksif-iş Sendikası, Tek Gıda iş Sendikası, Kristal-iş, Tez Koop İş, Banksis, Basısen, Petrol-iş Sendikası, and Lastik –iş Sendikası) made up the main population of the research. In the data collection process all the interviews were completed without any exception. I am thankful to Mr. Dereli for his help and support in enabling me to reach the respondents.

The survey form used in the research was composed of 7 parts. On the front of the survey form is a cover letter explaining the study. Part I involves questions set up in order to acquire the basic information about union or organization. Part II covered questions about information relating to wage determination structure of wages of the unions. Part III involved questions about the employer's /union's approach to labour costs. Part IV, questions related to the collective bargaining wage determination criteria (i.e. the criterion of inflation in wage determination, productivity criterion, profitability criterion and comparative wage criterion). Part V was composed of questions as to how wage determination proceeds according to these criteria. Part VI covered questions on information relating to the factors which affect wage determination. Finally Part VII was composed of the questions regarding to learn about how the wage determination process takes shape. Two separate sheets of survey forms were developed and administered to labour unions and employers' organizations separately.

The measurement scale used in the survey form was interval scale. Part I and VII were ordinal. The measurement scale involved preference measurement which was

used in Part VII only. Generally the respondents were asked to judge which interval fitted best to their answer. Interval scale is used which consisted of statements that express a ranking order toward the frequency of the item in question. But in Part VII, the respondents were asked to score their perceptual point of view regarding the questions in consideration. The survey form was developed in Turkish and English.

5.5.3 Pilot Study

1) The questionnaire has been reviewed by a panel of experts, including academicians and union specialist.
2) Face to face interviews with key union and employer association informants, involving questions and answers of which could be widely known and coordinated by Members of the Union Management Board, Research specialist and Collective Agreement specialist. Since only one interview for this particular survey was required and obtained from each union, the unit of analysis for the research was "headquarters of the unions". In order to increase the reliability two interviews for this survey were obtained from one Union; again the unit of analysis for the research was "headquarters of the union".

Questionnaire Revision:

Questions that did not reveal any variance were dropped from the study. The structure of some questions was changed in order to elicit more information. Following an in-depth literature review over a 4 month period, some variables that were measured with one question were replaced by scales adapted from the literature.

5.5.4 Data Analysis

The purpose and type of the research questions corresponded to a general type of statistics used in a study. When the general purpose in the study is description only descriptive research questions are asked and descriptive statistics are used. Descriptive statistics summarize data without making generalizations to a larger population. When the general purpose of the study is to explore relationships between two variables, then inferential statistics must be used. Inferential statistics are appropriate for types of research questions that reflect difference inferential or associational inferential relations. Difference inferential statistics are used for issues testing the differences between groups. Associational inferential statistics are used for relationships between variables or in disclosing the strength of those relationships. Inferential statistics help researchers make generalizations about the population beyond the specific sample data.

In this descriptive study including several variables with regard to the collected data, first the means and standard deviations of the independent and dependent variables should be found, and then, to see the nature, direction and significance of the bivariate relationships, data related to criterion variables are used (i.e. wage determination criteria and wage outcomes). On the basis of the dependent variable at the nominal level of measurement and independent variables with two or more levels used within the measurement tool in this research, Cross-Tabulations (Cross-Tabs) and Chi-Square test (X^2) (2x2 Test of Independence) were to be the most comprehensively used analyses. 2x2 test of independence is a chi-square calculation used for comparing frequencies of one attribute variable for different values of a second attribute variable. Cross tabulations and chi-square tests are considered to be within the pool of bivariate analyses. Bivariate analyses enable examining the relationship between two variables.

For instance, the Cross-tabs indicate whether or not the individual scores given by the labour and employer unions are different from each other. These data were obtained for all the classification variables. Before testing the statistical significance of a relationship between two variables, cross tabulation helps to demonstrate the presence or absence of a relationship. The cross tabulation of two variables will be

presented within a table often referred to as a contingency table. A panel of associated statistics and measures for each value of the layer factor will be developed.

Chi-Square test (X^2) answers the question of whether there really is a relationship or no relationship between these two variables or whether the relationship has arisen by chance (such as sampling error). When the latter is the case, concluding a relationship would imply that an erroneous inference is made and the findings can not be generalized to the population.

A Spearman Correlation Matrix was used where the correlation would not show us which variable causes which, but it would indicate that the two variables are associated with each other. This type of investigation is therefore correlational rather than causal. And by its very nature, the time horizon will be longitudinal rather than cross-sectional.

In order to identify difference between the most significant first two factors (criteria) from the standpoint of both the labour and employer unions under these conditions, the "mean rank" value helps us show the said variation. Here, Kruskal Wallis Test is applied. Kruskal Wallis Test is used for some non parametric tests, when used with more than two independent samples on an interval scale (more than 2 groups).

Here, Mann Whitney U Test is a nonparametric test for examining the significance differences between the two independent samples. Mann Whitney is used in order to analyze 2 independent samples on ordinal data. The function is an analogue of the 2 independent sample, t-tests.

The objective is to determine score averages separately for labour and employers' unions. Here analysis shows the extent to which averages between the two groups are meaningful.

The qualitative data obtained from firms and labour unions through a semi structured question with open-ended questions where relevant, shall be categorized and coded according to some meaningful classification scheme. Frequency counts can then be

taken and X^2 or other appropriate nonparametric tests can be done. The questionnaire was processed at SPSS.

Chapter 6
Research Findings

6.1 The Reliability Analysis of the Measurement Instruments

By conducting estimations on validity, it was possible to view in this study how, with the data received from the measurement tool; variables being measured could be tested. The measurement instrument was first presented face to face to the Collective Bargaining Specialist in each of the labour union and employers' association for their judgment and feedback to see whether or not the items in the questionnaire were meaningful and important for the research objectives. Secondly, the questionnaire was presented again to a member from the union with whom the interview was already completed in order to validate his judgment. By this means, it was possible to develop to reliability of the questionnaire.

Before starting research with an appropriate measurement tool, it is necessary to evaluate the accuracy or precision of the tool. One of the major criteria to test this issue is the reliability of the measurement instrument.

The reliability refers to the consistency of measurement or degree to which a measurement tool measures phenomena the same way each time it is used under the same conditions with the same objects. Reliability is actually estimation, not measurement. It is concerned with estimates of the extent to which a measurement instrument is free from error. Reliability estimations help the researchers satisfactorily draw conclusions, formulate theories or make arguments about the generalization of their research findings.

The perspective used in this study in order to measure reliability is the internal consistency approach. It estimates the homogeneity among the items in the measurement instrument. The Cronbach's coefficient alpha is frequently used for this purpose in this approach. This study has been conducted by a measurement instrument involving nominal and ordinal data. Generally the respondents were asked to judge which interval fits best to the question. For data at the interval level of measurement, the reliability scores will produce Cronbach's coefficient alpha scores.

Table 6.1 The Reliability Scores of Variables for the Sample

Variables	Number of Items Testing the Variable	Alpha
Structure of Wages	4	,7541
Information Relating to Wage Increase	4	,7179
Comparative Wages Criterion at Wage Determination	4	,7329
Productivity Criterion at Wage Determination	4	,7513
Employer's/ Union's Approach to Labor Costs	2	,7236
Employer's/ Union's Approach to Payroll Taxes	2	,7453
Employer's/ Union's Approach to Welfare Share	2	,7863

The reliability and the validity estimations of the measurement instrument helped to make changes on the questionnaire in accordance with these analyses. In addition, the reliability of the data should also be estimated on the basis of the data received from the sample (N=25). The reliability scores of the sample are explained in Table 6.1 above:

6.2 Descriptive Non-Inferential Statistics

The characteristics of the sample of labour unions and employer organizations and the information about the respondents of the sample unions are presented in the Table 6.2 below.

On the distribution of the sectors of unions; 17 unions are active at the manufacturing, and 8 unions at the service sector. The ratio of affiliated employers with (numbers of employers between10-50) is 43.5%. The ratio of employees in the establishment where the union is authorized represents 60% between (0 -10000 workers). The number of members in the establishments with between 0-10000 workers where the union authorized is at the ratio of 72%. 84% of the sector represents mostly private institutions.

Table 6.2 Characteristics of the Sample (n=25)

N			%	
Sector where the union is active	Service Manufacturing	8 17	Service Manufacturing	32% 68%
Number of affiliated employers(employers' union)	10-50 50-100 100-200 200-350	10 9 2 2	10-50 50-100 100-200 200-350	43.5% 39.1% 8.7% 8.7%
Number of employees in the establishment where the union is authorized?	0-10000 10000-15000 15000-25000 25000-35000	16 5 1 3	0-10000 10000-15000 15000-25000 25000-35000	60% 20% 4% 12%
Number of members in the establishment where the union is authorized?	0-10000 10000-15000 15000-20000 20000-30000	18 4 1 2	0-10000 10000-15000 15000-20000 20000-30000	72% 16% 4% 8%
Nature of the sector	Public Private Mostly (Public/private) Other	1 21 3	Nature of the sector	4% 84% 12%

The characteristics of the sample of labour unions and the information about the respondents of the sample unions are presented in the Table 6.3 below.

In the distribution of sector of the unions concerned, 9 unions are active at the manufacturing and 4 unions at the service sector. The ratio of Türk-iş Confederation members with which most unions are affiliated is 76.9%. The ratio of affiliated employers with (numbers of employer between10-50) is 38.5%. The ratio of employees in the establishment (with 0-1000 workers) where the union authorized is 53.9%. Percentage membership at the affiliated establishments is 46.1% in between (covered 50-60% membership). The ratio of members in the establishments with between (0-10000 workers) where the union authorized is 69.2%. Private institutions represent 92.3% of the sector.

Table 6.3 Characteristics of the Sample of Labour Unions (n=13)

N			%	
Sector where the union is active	Service Manufacturing	4 9	Service Manufacturing	30.8% 69.2%
With which the union is affiliated Confederation	Turk-iş Disk Hak-iş Independent Other	10 2 1 	Turk-iş Disk Hak-iş Independent Other	76.9% 15.4% 7.7%
Number of affiliated employers(employers' union)	10-50 50-100 100-200 200-350	5 7 1	10-50 50-100 100-200 200-350	38.5% 53.9% 7.7%
Number of employees in the establishment where the union is authorized?	0-10000 10000-15000 15000-25000 25000-35000	7 3 1 2	0-10000 10000-15000 15000-25000 25000-35000	53.9% 23.1% 7.7% 15.4%
Number of members in the establishment where the union is authorized?	0-10000 10000-15000 15000-20000 20000-30000	9 2 2	0-10000 10000-15000 15000-20000 20000-30000	69.2% 15.4% 15.4%
Percentage of membership at the establishment	%50-60 %60-80 %80-100	6 2 5	Percentage of membership at the establishment	46.1% 15.4% 38.5%
Nature of the sector	Private Mostly (Public/private) Other	12 1 	Nature of the sector	92.3% 7.7%

The characteristics of the employer unions and the information about the respondents of the sample unions are presented in the Table 6.4 below.

In the distribution of the sectors of employers' unions, 8 unions are active at the manufacturing and 4 unions at the service sector. The ratio of affiliated employers with (numbers of employer between10-50) is 41.7%. The ratio of employees in the establishment where the union is authorized represents 75% in between (0 -10000 workers). The number of members in the establishments, with between (0-10000 workers) where the union authorized is at the ratio of 75%. 75% of the sector is mostly private institutions.

Table 6.4 Characteristics of the Sample of Employers' Unions (n=12)

N			%	
Sector where the union is active	Service Manufacturing	4 8	Service Manufacturing	33.3% 66.7%
Number of affiliated employers(employers' union)	10-50 50-100 100-200 200-350	5 2 2 1	10-50 50-100 100-200 200-350	41.7% 16.7% 16.7% 8.3%
Number of employees in the establishment where the union is authorized?	0-10000 10000-15000 15000-25000 25000-35000	9 2 1	0-10000 10000-15000 15000-25000 25000-35000	75% 16.7% 8.3%
Number of members in the establishment where the union is authorized?	0-10000 10000-15000 15000-20000 20000-30000	9 2 1	0-10000 10000-15000 15000-20000 20000-30000	75% 16.7% 8.3%
Nature of the sector	Public Private Mostly (Public/private) Other	1 9 2	Nature of the sector	8.3% 75% 16.7%

6.3 Hypotheses Testing

6.3.1 Analyses of Wage Determination Criteria

H_o: The wage determination criteria used by labour unions in wage bargaining (the criteria being inflation-comparative wages- profitability and productivity) have equal impact.

H_A: The wage determination criteria used by labour unions in wage bargaining (the criteria being inflation-comparative wages- profitability and productivity) do not have equal impact.

Kruskal Wallis Test is applied in order to test the hypothesis that there is an equal impact of wage determination criteria used by labour and employer unions in wage bargaining. There are several criteria which are used in the settlement of wage disputes and in contract negotiation.

Kruskal Wallis Test is used on non parametric test, when used with more than two independent samples on an interval scale (more than 2 groups). A function of the Kruskal Wallis Test is an alternative to one way ANOVA where normality of distributions cannot be assumed.

Statistically expressed: H10: μI=μP=μC=μN=μPD

Table 6.5 Kruskal Wallis Test Wage Determination Criteria in Wage Bargaining

Kruskal Wallis Test

	KRITER	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Rank	inflation	25	21,98	71,623	4	0,000
	profit	25	51,80	71,623	4	0,000
	comprative wages	25	57,38	71,623	4	0,000
	productivity	25	84,04	71,623	4	0,000
	national income	25	99,80	71,623	4	0,000
	Total	125				

Grouping Variable: KRITER

In examining the relationship between wage bargaining criteria, the combined test was administered both to the labour and the employers' union. Here, the scores given to the factors differ. The rank score given to the most important one with a mean

rank of 21.98 is “inflation” criterion which follows the score mean rank of 51.80 “profitability” criterion. Inflation plays an important role in the determination of wage increases. The score mean rank of 84.04 and 99.80 obtained differ widely from the other factors. Those two factors are the “productivity” and “national income” criteria, meaning the two factors reflect the same degree of insignificance for both sides at the test.

Then there seems to be no difference between the values of the “profitability” and “comparative wages”, meaning the 2 factors reflect the same degree of significance for both sides. The rank score given to the “profitability” criterion is the mean rank of 51.80 which follows “comparative wages” criterion with the score mean rank of 57.38. There seems to be difference between these two criteria in wage determination, but inflation criterion seems to reflect the most significant one for both parties. Therefore the hypothesis that there is an equal impact of wage determination criteria used by labour unions in wage bargaining is rejected.

6.3.1. 1 Analysis of Wage Determination Criteria for Labour Unions

Indicated in the Table 6.6 below is Kruskal Wallis test; the purpose is to identify the difference between the most significant factors (criteria) from the standpoint of labour unions under these conditions; the “mean rank” value helps us show the said variation in order to test if there is a difference in the rank scores between the criteria from the standpoint of labour unions.

Table 6.6 Kruskal Wallis Test for Wage Determination Criteria Used by Labour Unions in Wage Bargaining

Kruskal Wallis Test

	KRITER	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Rank	inflation	13	13,46	35,313	4	0,000
	comprative wages	13	26,23	35,313	4	0,000
	profit	13	28,15	35,313	4	0,000
	national income	13	48,58	35,313	4	0,000
	productivity	13	48,58	35,313	4	0,000
	Total	65				

a Kruskal Wallis Test
b Grouping Variable: KRITER
c ISC_ISV = isci

For labour unions, there seems to be no difference between the factors "comparative wage" and "firm's profitability", meaning the 2 factors reflect the same degree of significance, although the ranks score 26.23 given to the "comparative wages" at the relative industries factor a bit more significant than "profitability of the firm" factor with a mean rank of 28.15. Although "wage comparison" criterion is important, some sectors could not manage "wage comparisons" at their industry as such. The air lines industry has not generally used "wage comparisons" at all. Textiles present another difficult case for the application of wage comparisons. It is quite likely that on the basis of other community or inter industry comparisons, a strong case could be made for wage increases. Nevertheless, the industry is undergoing what appears to be a secular decline. Here the chairman must weigh the demands of labour based on various criteria, including community and inter industry wage comparisons, against the argument that the industry is unable to support wage increases. Obviously, if the industry is an important one and if it employs a significant amount of labour, a decision on wage policy involves much larger questions of general economic policy.

In addition, there seems to be a significant difference between wage determination factors. The rank score given to the most important one with a mean rank of 13.46 is the "inflation" criterion. The cost of living is used as a criterion in wage determination mainly in periods of inflationary pressures. Its rationale rests upon the belief that real wages should not be reduced by general price movements in the economy beyond the control of any group of workers; it is not often used as a serious

argument by employers for wage reductions in periods of stable or slightly falling prices.

The rank scores 48.58 mean that the two factors "national income" and "firm's productivity" reflect the same degree of insignificance for labour unions. The subject of productivity is so complex and the problems of reliable measurement and isolation of influences so difficult that much more extensive theoretical analysis is needed before satisfactory indices either in national or for individual industries are available.

6.3.1.2 Analysis of Wage Determination Criteria for Employers' Unions

Indicated in the Table 6.7 below is Kruskal Wallis test; the purpose is to identify the difference between the most significant criteria from the standpoint of employers' unions under these conditions. The "mean rank" value helps us show the said variation, in order to test if there is a difference in the rank scores between the criteria from the standpoint of employers.

Table 6.7 Kruskal Wallis Test for Wage Determination Criteria Used by Employers' Associations in Wage Bargaining

	KRITER	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Rank	inflation	12	8,88	39,628	4	0,000
	profit	12	24,21	39,628	4	0,000
	comprative wages	12	31,63	39,628	4	0,000
	productivity	12	36,54	39,628	4	0,000
	national income	12	51,25	39,628	4	0,000
	Total	60				

a Kruskal Wallis Test
b Grouping Variable: KRITER
c ISC_ISV = isveren

The rank score of the most important factor with a mean rank of 8.88 is given to "inflation". Inflation is followed by the "profitability of the firm" criterion; with a mean rank of 24.21, which is a meaning relatively important factor for employer unions.

For instance, for employer unions, there seems to be no difference between the factors "comparative wages" and "firm's productivity", meaning the two factors reflect the same degree of significance for employers' unions although the rank score

of “comparative wages at the relative industries” criterion with the mean rank of 31.63 is a bit more significant than “productivity of the firm” criterion with the mean rank of 36.54. The intra industry wage comparison is often as important in wage determination as is the community rate. “Profitability” may be used negatively (called "inability-to pay") in the case of a firm, carrying here the implication that any upward movement in wages would drive the firm into bankruptcy; implying that a wage increase would place the company at a more or less serious competitive disadvantage. In addition, the rank score 51.25 is given to the “national income” factor by the employer union.

6.3.1.3 Analysis of Wage Determination Criteria Using Mann Whitney U Test

Mann Whitney U Test is a nonparametric test for examining the significant differences between the two independent samples. Mann Whitney is used in order to analyze 2 independent samples on ordinal data. The function is an analogue of the 2 independent sample, t-test. The objective is to determine score averages separately for labour and employers’ unions. Here the purpose is to analyze the extent to which averages between the two groups are meaningful. (See Table B.1 at Appendix B)

Although the wage determination factor “profitability” is the same for each group, the rank scores given to other factors by labour and employers’ unions differ from each other. For labour unions “productivity” has a value of “16.23” percent while for the employers’ unions it is “9.50” percent. In the 25 interviews, wage determination factor “productivity” occupies the 9th rank for employers while for labour unions it appears to be at the 16th rank, meaning that this factor is more important for employers.

Here for “comparative wages” the “mean rank” is same for each group; for “inflation” the “mean rank” is the same for each group as well. “Comparative wages” occupies the 12th rank for the labour unions but it appears to be at the 15th rank for employers’ unions, meaning that this factor is more important for labour unions. “Inflation” occupies the 11th rank for the employers’ unions; thus it’s the most significant factor. In our present society there is not such a generally agreed upon or explicitly determined goal. There can be, therefore, no such formula.

6.3.2 Analyses of Criteria in Fixing Wage Demands

H_o: In fixing wage demands, criteria (i.e. inflation-comparative wage- profitability and productivity) have equal importance.
H_A: In fixing wage demands, criteria (i.e. inflation-comparative wage- profitability and productivity) do not have equal importance.

Statistically expressed: H10: μI=μP=μC=μN=μPD =μM

Kruskal Wallis Test is applied in order to test the hypothesis that there is an equal impact of wage determination criterion used by labour and employers' unions in fixing wage demands. In this analysis the combined test was administrated both to labour and the employers' unions. (Please see the Table 6.8 below.)

Table 6.8 Kruskal Wallis Test Criteria in Fixing Wage Demands

Kruskal Wallis Test

	criteria	N	Mean Rank	Chi-Square	df	Asymp. Sig.
order	inflation	25	24,48	60,136	5	0,000
	profit	24	53,81	60,136	5	0,000
	comparative wages	25	60,16	60,136	5	0,000
	minimumwage	9	63,00	60,136	5	0,000
	productivity	24	88,90	60,136	5	0,000
	national income	17	96,59	60,136	5	0,000

Grouping Variable: criteria

Here, there seems to be differences in the criteria of wage fixing; the "inflation" factor seems to reflect the most significant one for both parties. Here the scores given to the 6 factors differ. The rank score given to the most important one with a mean rank of 24.48 is "inflation" criterion which follows "profitability" criterion with the score mean rank of 53.81. The score mean rank of 88.90 and 96.59 obtained differ widely from the other factors. These two factors are the productivity and national income criteria, meaning the two factors reflect the same degree of insignificance for both sides at the test.

Then there seems to be no difference between the values of the minimum wage and comparative wages, meaning the two factors reflect the same degree of significance. The rank score given to the "minimum wage" criterion is the mean rank of 63.00 which follows the score mean rank of 60.16 for "comparative wages".

There seems to be significant difference between the criteria used in fixing wage demands, "inflation" criterion reflecting the most significant one for both parties. The hypothesis that there is an equal impact of wage determination criteria used by labour unions and employers in fixing wage demands is therefore rejected.

6.3.2.1 Analysis of Fixing Wage Demands Criteria for Labour Unions

Indicated in the Tables 6.9 below is Kruskal Wallis test; the purpose is to identify the difference between the most significant factors (criteria) from the standpoint of labour unions under these conditions; the "mean rank" value helps us show the said variation, in order to test if there is a difference in the rank scores between the criteria from the standpoint of labour unions.

Table 6.9 Kruskal Wallis Test for Fixing Wage Demands Criteria Used by Labour Unions

Kruskal

	criteria	N	Mean Rank	Chi-Square	df	Asymp. Sig.
order	minimumwage	3	7,00	39,460	5	0,000
	inflation	13	16,00	39,460	5	0,000
	comparative wages	13	28,00	39,460	5	0,000
	profit	12	28,67	39,460	5	0,000
	national income	12	50,33	39,460	5	0,000
	productivity	12	50,33	39,460	5	0,000
	Total	65				

a isci_isv = isci

For labour unions, there seems to be no difference between the factors "comparative wages" and "firm's profitability", meaning the 2 factors reflect the same degree of significance, although the rank score given to the "comparative wages at the relative industries" criterion with a mean rank of 28.00 is a little more significant than the "profitability of the firm" criterion which has a mean rank of 28.67. Nevertheless, in any given case, either side may propose a profitability criterion as a relevant factor in

the determination of wages. This might well place the board chairman in an uncomfortable position, since there are a number of difficulties involved in the use of the factor. The first problem is that the criterion to be employed is that of definition. If the ability-to-pay argument is used, the party introducing it must be able to prove that in some sense profits are above or below "normal," as the case may be. The difficulty inherent is in explaining what is meant by "normal" profits.

In addition, there seems to be a significant difference between wage determination factors. The rank score to the “minimum wage” factor is 7.00; although the number of respondents to the “minimum wage” factor is relatively smaller than the respondents to other criteria. A mean rank of 16.00 is given to the “inflation” criterion. Here the rank score is 6 and the two criteria “national income” and “firm’s productivity” reflect the same degree of insignificance for labour unions. Minimum wage represents an attempt to define in monetary terms the content of a budget providing a "commonly accepted standard of living" within the cultural environment of the community.

6.3.2.2 Analysis of Fixing Wage Demands Criteria for Employers Unions

Indicated in the Table 6.10 below is Kruskal Wallis test; the purpose is to identify the difference between the most significant factors (criteria) from the standpoint of both employers’ unions under these conditions; the “mean rank” value helps us show the said variation, in order to test if there is a difference in the rank scores between the criteria from the standpoint of employers.

Table 6.10 Kruskal Wallis Test for Fixing Wage Demands Criteria Used by Employers’ Associations

Kruskal

	criteria	N	Mean Rank	Chi-Square	df	Asymp. Sig.
order	inflation	12	9,00	31,814	5	0,000
	profit	12	25,71	31,814	5	0,000
	comparative wages	12	32,67	31,814	5	0,000
	productivity	12	39,42	31,814	5	0,000
	minimumwage	6	42,25	31,814	5	0,000
	national income	5	47,00	31,814	5	0,000
	Total	59				

a isci_isv = isveren

Here, there seem to be significant differences between the criteria of wage determination. The most important factor with a mean rank of 9.00 is given to the "inflation" factor. Inflation is, however one of the least contentious of the wage criteria commonly employed. Since it only provides at best for the stabilizing of real wages, inflation obviously cannot be utilized as the sole criterion. The main point about minimum wage is that they quite explicitly represent an ethical, that is normative, judgment and are used in this manner by union representatives in negotiations.

Inflation is followed by the "profitability of the firm" factor with the rank score of mean rank 25.71, which is a relatively important factor for employer unions. In other words, the union will rarely accept the company's definition of profitability, and indeed, labour generally views the financial reports of company accountants with a great deal of suspicion. It is significant that neither party at the bargaining table is very happy with answers given for reasons of this general mistrust and hostility.

For the employer unions, there seems to be no difference between the "comparative wage" and "firm's productivity" criteria, meaning the 2 criteria reflect the same degree of significance for employers' unions although the rank score is given to the "comparative wages at the relative industries" criterion, with a mean rank of 32.67 is a little more significant than the "productivity of the firm" criterion with a mean rank of 39.42. In addition, the rank score with a mean rank of 47.00 is given to the "national income" and mean rank of 42.25 to the "minimum wage" criterion by the employers' unions. Those two factors reflect slightly the same degree of insignificance. On the other hand, the productivity changes which are the consequence of a whole complex of dynamic variables in the economy and not simply improvements in the labour factor cannot be so easily pressed into the service of wage determination.

The use of this criterion illustrates to an extraordinary degree the clash of ethics in collective bargaining. Labour argues in terms of justice, morality and human dignity, rights. The implication is that wages should be "need-oriented." The only possible counterargument is that wages are related to jobs and production, and ultimately to the evaluation of the market, and need is really irrelevant.

6.3.2.3 Analysis of Fixing Wage Demands Criteria Using Mann Whitney U Test

Mann Whitney U Test is a nonparametric test for examining the significance differences between the two independent samples as the objective is to determine score averages separately for labour and employers' unions. (See the Table C.1 at Appendix C.) Here is defined the extent to which averages between the two groups are meaningful.

As a wage determination factor, "profitability" is the same for each group, the rank scores given to other factors by labour and employers' unions differ from each other. Here for "comparative wages" the "mean rank" is slightly different for each group and for "inflation" the "mean rank" is also not the same for each group. "Comparative wages" occupies the 12th rank for the labour unions but it appears to be at the 15th rank for employers' unions, meaning that this criterion is more important for labour unions. Inflation occupies the 11th rank for the employers' unions, thus it's the most significant factor for employers' unions. "Inflation" criterion occupies the 15^{th} rank for the labour unions.

For labour unions "productivity" yields a percentage value of "15.04"; for the employers' unions it is "9.96" percent. This means that in the 25 interviews, as wage determination factor "productivity" occupies the 15th rank for labour unions but for employers, it appears to be at the 9th rank, meaning that this factor is more important for employers.

For labour unions "national income" yield a percentage value of "8.46"; for the employers' unions it is "10.30" percent. This means that in the 25 interviews, as wage determination factor "productivity" occupies the 8th rank for employers while for labour union it appears to be at the 10 th rank, meaning that this factor is more important for employers.

As a wage determination factor "minimum wage" is important for each group. But the rank scores given to other factors by labour and employers' unions differ from each other. It appears to be at the third rank for labour unions and 6th rank for employers' unions.

6.3.3 Analyses of Intervening Variables Effects on Wage Determination

H_0: Effective Intervening Variables (i.e. market conditions, condition of the firm, power position of the parties and government policy) have equal impact on wage determination.

H_0: Effective Intervening Variables (i.e. market conditions, condition of the firm, power position of the parties and government policy) do not have equal impact on wage determination.

Statistically expressed: H10: $\mu M=\mu CF=\mu PP=\mu N=\mu G$

Along with this shift in economic and social policy, market liberalization, coupled with the impact of major technological developments, created the force now termed globalization, which is posing an additional set of challenges to the way in which the principles of freedom of association and the effective recognition of the right to collective bargaining through the formation of trade unions, employers' organizations and processes of collective bargaining operate (Lee, 1997: 62).

Kruskal Wallis Test is applied in order to test the hypothesis that intervening variables have equal impact on wage determination used by labour and employers' unions. In this analysis the combined test was administrated to both labour and the employers' unions. (See the Table 6.11 below.)

Table 6.11 Kruskal Wallis Test of Intervening Variable's Impact on Wage Setting

	Factors	N	Mean Rank	Chi-Square	df	Asymp. Sig.
important	condition of the firm	25	32,00	42,990	3	0,000
	market conditions	25	33,00	42,990	3	0,000
	power position of the parties	25	63,00	42,990	3	0,000
	government policy	25	74,00	42,990	3	0,000
	Total	100				

a Kruskal Wallis Test
b Grouping Variable: ETKEN

Here there seem to be differences; in the intervening factors of wage determination, rank scores of the two, that is “market conditions” and “condition of the firm”, were so close to each other when the combined test was administered to labour and the employers’ unions both. Mean rank comparison of the two factors reflect the same degree of significance. The rank score is given to the “market conditions” factor with a mean rank of 33.00 which follows the score mean rank of 32.00 the “condition of the firm” factor. “Condition of the firm” factor means to reflect significance for both parties. For employers’ organizations the economic rationale offered for such strategies is that the “granting of freedom of association and the right to organize and collective bargaining would lead to higher wages that would undermine comparative advantage and deter foreign investors, setting back growth.” According to this view, the realization of these fundamental principles and rights at work is affordable only when economic growth has secured a high level of per capita income and absolute poverty has fallen substantially.

Here the scores given to the 4 factors differ from each other. The score mean rank of 63.00 and 74.00 obtained differ widely from the remaining factors. These two factors are the “power position between the parties” and “government policy” factor, meaning the 2 factors reflect the same degree of insignificance for both sides at the test. The rank score is given to the “minimum wage” factor with a mean rank of 63.00 which follows “comparative wages” with the score mean rank of 60.16.

For instance there seems to be important difference between the intervening factors (i.e. market conditions, condition of the firm, power position of the parties and government policy), “condition of the firm” factor seems to reflect the most significance for both parties. The hypothesis that there is an equal impact of intervening variables (i.e. market conditions, condition of the firm, power position of the parties and government policy) have equal impact on wage determination is rejected.

6.3.3.1 Analyses of Intervening Variables for Wage Setting from Labour Unions' Perspective

Indicated in the Tables 6.12 below is Kruskal Wallis test; the purpose is to identify the difference between the most significant factors (criteria) from the standpoint of labour unions under these conditions; the "mean rank" value helps us show the said variation, in order to test if there is a difference in the rank scores between the criteria from the standpoint of labour unions.

Table 6.12 Kruskal Wallis Test Effects of Intervening Variables on Wage Setting from Labour Unions' Perspective

Kruskal Wallis Test

	Factors	N	Mean Rank	Chi-Square	df	Asymp. Sig.
important	condition of the firm	13	17,00	25,892	3	0,000
	power position of the parties	13	22,00	25,892	3	0,000
	market conditions	13	23,00	25,892	3	0,000
	government policy	13	44,00	25,892	3	0,000
	Total	52				

a Kruskal Wallis Test
b Grouping Variable: ETKEN
c LAB_EMP = isci

For labour unions, there seems to be no difference between the factors "power position between the parties" and "market conditions", meaning the 2 factors reflect the same degree of significance, although the rank score given to the "power position between the parties" variable with a mean rank of 22.00 is a little more significant than "market conditions" variable with the mean rank of 23.00.

In addition, there seems to be significant difference between factors which affect wage determination. The rank score is given as mean rank of 17.00 to the "condition of the firm" factor. Same analysis from the employer union perspective seems to be the significant difference between the factors which affect wage determination. The rank score given to the most important factor with a mean rank of 17.00 is to the "condition of the firm". Here out of the rank scores of 4 factors "government policy" reflect the rank score of "44.00" which seems to be insignificant for labour unions.

"Condition of the firm" is important because the structural factors of the firms carry most weight. Today as employment is shifting from sectors with high rates of union organization, such as transport and large parts of manufacturing, to the less organized service sectors, union density levels fall. The downsizing of large and often organized plants and the growth of smaller and harder to organize units of employment probably compound this effect. Increased part-time employment, where union presence is weak, is a further factor, although a pronounced trend towards increased women's membership of unions has worked in the opposite direction in a number of countries. In general, workers with less secure employment status are less likely to join unions and the trend towards short-term contracts and the informalization of employment relationships may explain part of the decline in union density in some countries under current situation.

6.3.3.2 Analyses of Intervening Variables for Wage Setting from Employers Unions Perspective

Indicated in the Table 6.13 below is Kruskal Wallis test whose purpose is to identify the difference between the most significant factors (criteria) from the standpoint of employers' unions under these conditions; the "mean rank" value helps us show the said variation, with a view to testing if there is a difference in the rank scores between the criteria from the standpoint of employer.

Table 6.13 Kruskal Wallis Test: Effect of Intervening Variables on Wage Setting from the Employers' Union Perspective

	Factors	N	Mean Rank	Chi-Square	df	Asymp. Sig.
important	market conditions	12	10,50	39,297	3	0,000
	condition of the firm	12	15,50	39,297	3	0,000
	government policy	12	30,50	39,297	3	0,000
	power position of the parties	12	41,50	39,297	3	0,000
	Total	48				

a Kruskal Wallis Test
b Grouping Variable: ETKEN

Here, for employer unions there seem to be differences between the variables. The rank score given to the most important one with a mean rank of 10.5 is "market

conditions" which follows the score mean rank of 15.50 for "condition of the firm" variable; those are important variables for employer unions. A mean rank of 30.50 is given to the "government policy" variable and 41.50 is given to the "power position of the parties" variable by the employers' unions. Those two factors reflect slightly similiar degree of insignificance for the employer unions.

6.3.3.3 Analyses of Intervening Variables for Wage Determination, Using Mann Whitney U Test

The objective is to determine score averages separately for labour and employers' unions. Here is analyzed the extent to which averages between the two groups are meaningful. Mann Whitney U Test is a nonparametric test for examining the significance differences between the two independent samples as the objective is to determine score averages separately for labour and employers' unions. (See the Table D.1 at Appendix D.) Defined the extent to which averages between the two groups are meaningful.

For labour unions "market conditions" gives the value of "16.54" percent while for the employers' unions it is "9.17" percent. In the 25 interviews, as a wage determination variable "market conditions" occupies the 9th rank for employers while for labour union it appears to be at the 16th rank, meaning that this variable is more important for employers. As a wage determination factor "condition of the firm" has the same significance for each group. It appears to be at the 12th rank for labour unions while it occupies the 13th rank for employers' unions. The rank scores given to the other factors by labour and employers' unions differ from each other.

Here, for "power position between parties" the "mean rank" is different for each group; and in the "government policy" the "mean rank" is also not the same for each group. "Power position between parties" occupies the 7th rank for the labour unions but it appears to be at the 18th rank for employers' unions, meaning that this factor is more important for labour unions. The "government policy" occupies the 7th rank for employers' unions, so it's the most significant variable, but only at the17th rank for labour unions.

6.3.4 Analyses of the Importance of Negative Factors in Wage Bargaining

Suppressing negatively effective factors is likely to have a negative affect in fixing wage demands and thus not give the parties any added advantage. On the other hand, the realization of these negatively effective factors at working life could lead to a more productive collective bargaining and an increase in wages.

In the tables below no hypothesis is formulated. The purpose is only to describe negative factors in wage bargaining from the perspective of each party (labour and employers' unions).

The Kruskal Wallis Test is applied in order to signify the negatively effective factors which are likely to have a negative effect on fixing wage demands on the sides of labour and employers' unions. In this analysis the combined test was administered both to labour and the employers' unions. (See the Table 6.14 below.)

Table 6.14 Kruskal Wallis Test; Negative Factors Impact on Wage Bargaining

Kruskal Wallis Test

	Negative factors	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Rank order	intense competition	25	42,00	41,902	4	0,000
	unemployment	25	52,00	41,902	4	0,000
	current economic program	25	58,00	41,902	4	0,000
	illegal employment	25	61,00	41,902	4	0,000
	wage levels obtained by other unions	25	102,00	41,902	4	0,000
	Total	125				

Grouping Variable: Negative factors

Here, there seem to be differences in the perception of negatively effective factors in wage bargaining; "intense competition at the market" factor seems to reflect the most significant one for both parties. Here the scores given to the 5 factors differ. The rank score is given to the most important one with a mean rank of 42.00 "intense competition at the market", which follows the score mean rank of 52.00 "high level of unemployment" factor.

Then there seems to be no difference between the values of the "high level of unemployment" and "current economic program", meaning the 2 factors reflect the

same degree of significance. The rank score is given to the "current economic program" factor with the mean rank of 58.00 which follows the score mean rank of 52.00, "high level of unemployment". Another important factor is "informal economy" with the mean rank score of 61.00.

The least important factor is "wage levels obtained by other unions" with the mean rank score of 102.00, meaning the factor reflects the same degree of insignificance for both sides. There seem to be a difference between the negative factors in fixing wage demands, "intense competition at the market" factor seems to reflect the most significant for both parties.

6.3.4.1 Analysis of Negative Factors for Labour Unions in Wage Bargaining

Indicated in the Table 6.15 below is Kruskal Wallis test whose purpose is to identify the difference between the most significant variables from the standpoint of labour unions under these conditions; the "mean rank" value helps us show the said variation, in order to test if there is a difference in the rank scores between the variable from the standpoint of labour unions.

Table 6.15 Kruskal Wallis Test; Negative Factors Impact on Labour Unions in Wage Bargaining

Kruskal Wallis Test

	Negative factors	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Rank order	unemployment	13	14,00	35,825	4	0,000
	illegal employment	13	27,00	35,825	4	0,000
	intense competition	13	29,00	35,825	4	0,000
	current economic program	13	40,00	35,825	4	0,000
	wage levels obtained by other unions	13	55,00	35,825	4	0,000
	Total	65				

a Kruskal Wallis Test
b Grouping Variable: Negative factors
c IS_ISV = isci

For labour there seems to be no difference between the factors "informal economy" and "intense competition at the market", meaning the 2 factors reflect the same degree of significance for labour unions, although the rank score given to the

"informal economy- illegal employment" factor with a mean rank of 27.00 is a little more significant than the "intense competition" factor which has a mean rank of 29.00. In addition, there seems to be significant difference between negatively effective factors on wage bargaining. The rank score given to the "unemployment" factor has a mean rank of 14.00. Here the rank scores of 2 out of 5 factors "current economic program" and "wage levels obtained by other unions" reflect the same degree of insignificance for labour unions. The rank score given to the "current economic program" factor is a mean of 40.00 which is a little more significant than "wage levels obtained by other unions" factor which has a mean rank of 55.00. The "Wage levels obtained by other unions" factor is also significant because the community rates set by the pioneering company are pretty closely followed by all industries. Any firm which is unable to fit into the pattern set by the leader usually has a strong motive for moving out unless the labour market softens up.

6.3.4.2 Analysis of Negative Factors on Employers Unions in Wage Bargaining

Indicated in the Table 6.16 below is Kruskal Wallis test whose purpose is to identify the difference between the most significant variables from the standpoint of employers' unions under these conditions; the "mean rank" value helps us show the said variation, in order to test if there is a difference in the rank scores between the variable from the standpoint of employer.

Table 6.16 Kruskal Wallis Test; Negative Factors Impact on Employers' Unions in Wage Bargaining

Kruskal Wallis Test

	Negative factors	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Rank order	intense competition	12	13,50	32,860	4	0,000
	current economic program	12	18,50	32,860	4	0,000
	illegal employment	12	34,50	32,860	4	0,000
	unemployment	12	38,50	32,860	4	0,000
	wage levels obtained by other unions	12	47,50	32,860	4	0,000
	Total	60				

a Kruskal Wallis Test
b Grouping Variable: Negative factors
c IS_ISV = isveren

The employers' unions perspective seem to differ in the negatively effective factors of wage determination. The rank score given to the most important negative factor with a mean rank 13.50 is "intense competition" for employers.

"Intense competition" is followed by the "current economic program" factor with the mean rank score of 18.50, which is a relatively important negative factor for employer unions.

For the employers' unions, there seem to be no difference between the factors "unemployment" and "informal economy- illegal employment" factors, meaning the 2 factors reflect the same degree of significance for employers' unions although the rank score given to the "informal economy- illegal employment" factor with a mean rank of 34.50 is a bit more significant than the "unemployment" factor with a mean rank of 38.50. In addition, the rank score with a mean rank of 47.50 is given to the "wage levels obtained by other unions" factor by the employer unions. This factor reflects same degree of insignificance for employers union.

6.3.4.3 Using Mann Whitney U Test; Analysis of the Negative Factors Effect

Mann Whitney U Test is a nonparametric test for examining the significance differences between the two independent samples as the objective is to determine score averages separately for labour and employers' unions in the Table E.1 at Appendix E. Here, is tried to define the extent to which averages between the two groups are meaningful.

Here for "unemployment", the "mean rank" is different for each group; and in the "current economic program" the "mean rank" is also not the same for each group. "Unemployment" occupies the 7th rank for the labour unions. It appears to be at the 19th rank for employers' unions, meaning that this factor is more important for labour unions. The "current economic program" occupies the 7th rank for the employers' unions, so it's the most significant factor for them but only at 17th rank for labour unions.

For labour unions “intense competition” gives a value of “15.58” percent while for the employers’ unions it is “10.21” percent. In the 25 interviews, as a wage determination factor “productivity” occupies the 15th rank for employers while for labour union it appears to be at the 10th rank, meaning that this factor is more important for employers.

For labour unions “illegal employment” gives a value “10.77” percent while for the employers’ unions it is “15.42” percent, meaning that in the 25 interviews, “productivity” as a wage determination factor occupies the 10th rank for employers while for labour unions it appears to be at the 15th rank, meaning that this factor is more important for employers.

As a wage determination factor “wage levels obtained by other unions” is close in each group. It appears to be at the 12th rank for employers union while it occupies the 13th rank for labour unions. But the rank scores given to the other factors by labour and employers unions differ from each other.

6.3.5 Analysis on the Advantage of Wage Policy

Stronger coordination of social and economic interests through the participation of a broad range of representative organizations, including unions and employers' organizations, is increasingly seen as critical to comprehensive development strategies aimed at poverty reduction. Stronger emphasis on the institutional frameworks for poverty reduction would also create opportunities to examine how the wage strategies of unions relate to the development of aggregate demand, rather than a narrow emphasis on wages as costs (Rama, 1997: 527; Layard and Nickell, 1998: 955 and Krueger and Pischke, 1997: 453).

In these tables below, no hypothesis is formulated. The purpose is only to describe the advantage of wage policy from the perspective of each party (labour and employers' unions).

Kruskal Wallis Test is applied in order to signify a central element of wage policy involved in formulating some judgment of the effects of alternative wage structures on the sides of labour and employers' unions. In this analysis the combined test was administrated to both labour and the employers' unions. (See the Table 6.17 below.)

Table 6.17 Kruskal Wallis Test on the Advantage of Wage Policy

Kruskal Wallis Test

	advantage	N	Mean Rank	Chi-Square	df	Asymp. Sig.
sıralama	cost wage balance	23	52,13	18,229	5	0,003
	wage increase	22	52,77	18,229	5	0,003
	employment level	25	53,00	18,229	5	0,003
	encourage work	25	65,00	18,229	5	0,003
	simple	16	83,31	18,229	5	0,003
	other	14	88,00	18,229	5	0,003
	Total	125				

Grouping Variable: advantage

Here, there seem to be not much difference in prioritizing the wage policy factors, "yielding a much higher wage increase" and "protecting the employment level" mean to reflect the significant factors for both parties. Here the scores given to each factor differ. The rank score is given to the most important one with a mean of rank 52.13 "cost and wage balance" factor, which follows the score mean of rank 52.77 for

"yielding a much higher wage increase" and the score mean of rank 53.00 for "protecting the employment level". There seem to be no difference between the values of the "cost and wage balance", "yielding a much higher wage increase" and "protecting the employment level", meaning the three factors reflect approximately the same degree of significance.

The rank score given to "encourages work" factor has a mean of rank 65.00 which follows the score mean of rank 53.00 "level of unemployment". The scores mean of rank 83.31 and 88.00 obtain differ widely from the other factors. These factors are the "simple wage policy principle" factor and "other" factors, meaning the two factors reflect the same degree of insignificance for both sides at the test. In the respondents' answer to the "other" factor; the "other" means getting closer to the expectations of their members, getting closer to the equal pay and equal work concepts and encouraging union membership.

In prioritizing the wage policy factors of wage determination, there seem to be both equivalence in some of the factors and wideness of difference in some of them, "cost and wage balance" factor meaning to reflect the most significant one for both parties.

6.3.5.1 Analysis of Advantage of Wage Policy for Labour Unions

Indicated in the Table 6.18 below is Kruskal Wallis test; the purpose is to identify the difference between the most significant variables from the standpoint of labour unions under these conditions; the "mean rank" value helps us show the said variation, in order to test if there is a difference in the rank scores between the variables from the standpoint of labour unions.

Table 6.18 Kruskal Wallis Test on Advantage of Wage Policy on Labour Union

Kruskal-Wallis Test

	advantage	N	Mean Rank	Chi-Square	df	Asymp. Sig.
sıralama	wage increase	13	15,00	30,832	5	0,000
	employment level	13	22,00	30,832	5	0,000
	encourage work	13	38,00	30,832	5	0,000
	cost wage balance	11	38,91	30,832	5	0,000
	other	10	48,60	30,832	5	0,000
	simple	5	51,20	30,832	5	0,000
	Total	65				

a Kruskal Wallis Test
b Grouping Variable: advantage
c is_isver = isci

For labour unions there seems to be no difference between the factors “cost wage balance” and “encourage work”, meaning the two factors reflect the same degree of significance although the rank score given to the “encourage work factor” with a mean of rank 38.00 is a little more significant than “cost wage balance” factor which has a mean of rank 38.91. In the first place, wage changes cannot be automatically correlated with changes in labour cost according to labour unions; the two may move at unequal rates and even in opposite directions.

In addition, there seems to be significant differences in prioritizing the wage policy factors. The rank score with a mean of rank 15.00 is given to the “wage increase” factor. The rank score given to the most important factor, the “wage increase”, is followed by the score mean of rank 22.00 for “protecting the employment level”.

The rank scores with means of 48.60 and 51.20 imply that the two factors “simple” and “other” reflect the same degree of insignificance for labour unions. It should be noted that in the respondents answer to the factor “other”, the “other” means “getting closer to the expectations of their members”, “getting closer to the equal pay and equal work concepts” and “encouraging union membership”. The demand for parity-"equal pay for equal work" is of very old vintage in the labour movement.

The assumption made by Segal (1978) is that unions are concerned both with raising wages and with the employment of their members but that the weight attached differs. These two variables differ; these objectives vary, depending on

circumstances. Union policy will be influenced by employment effects of a potential wage increase when such effects can be clearly perceived, and when they endanger the jobs of employed members. Union wage demands will also be moderated by the fact that there is high current unemployment among former or present members Segal (1978). In contrast, under conditions of relatively full employment of members, a union will be normally a litt1e concerned about the fact that a given wage increase may eventually slow down or even impede the growth of the industry's employment. Unions can also be expected to resist wage cuts even in periods of high unemployment. Such cuts will be accepted without a strike only in those special circumstances where it is fairly obvious that they may save current jobs or increase job opportunities for laid-off members.

6.3.5.2 Analysis of Advantage of Wage Policy for Employers Unions

Indicated in the Table 6.19 below is Kruskal Wallis test whose purpose is to identify the difference between the most significant variables from the standpoint of employers' unions under these conditions; the "mean rank" value helps us show the said variation, in order to test if there is a difference in the rank scores between the variables from the standpoint of the employer.

The rank score given to the most important factor with a mean of rank 15.50 is "cost-wage balance" factor. Cost-wage balance is followed by "encourages work" factor with a mean of rank 27.50 which is a relatively important factor for employer unions.

Table 6.19 Kruskal Wallis on Advantage of Wage Policy on Employers Union

	advantage	N	Mean Rank	Chi-Square	df	Asymp. Sig.
sıralama	cost wage balance	12	15,50	16,154	5	0,006
	encourage work	12	27,50	16,154	5	0,006
	employment level	12	31,50	16,154	5	0,006
	other	4	36,50	16,154	5	0,006
	simple	11	37,05	16,154	5	0,006
	wage increase	9	42,50	16,154	5	0,006
	Total	60				

a Kruskal Wallis Test
b Grouping Variable: advantage
c is_isver = isveren

There seems to be not much difference in prioritizing the wage policy factors of "employment level", "other" and "simple wage policy principle". Those three factors mean they reflect approximately the same degree of significance for employers' unions although each tends to differ but differences are narrower. The rank scores given in order to prioritizing the wage policy factors are "employment level" with a mean rank 31.50, which is followed by the scores "other" with a mean rank of 36.50 and "simple wage policy principal" the score mean of which is 37.05.

Finally, with a mean of rank 42.50 is "wage increase" factor which is the most insignificant factor for the employers' union. In an economic environment the objective of the employers might be to achieve as rapid a rate of investment as possible. Each wage decision would be made in the light of this particular goal: "What is the wage which will allow us to achieve the highest rate of investment in the total economy?" is asked by employers.

6.3.5.3 Using Mann Whitney U Test on "Advantage of Wage Policy"

Mann Whitney U Test is a nonparametric test for examining the significance differences between the two independent samples, as the objective is to determine score averages separately for labour and employers' unions, (see the Table F.1 Appendix F). The purpose is to analyze the extent to which averages between two groups (employers and labours) are meaningful. For instance, in prioritizing the wage policy factors, "wage increase" is different for each group. For employer's unions "wage increase" gives a value of "17.67" percent while for the labour unions it is "7.23" percent.

For labour unions "cost wage balance" gives value of "15.91" percent while for the employers' unions it is "8.42" percent. In the 25 interviews, as a wage determination factor "cost wage balance" occupies the 8th rank while for labour union it appears to be at the 15th rank, meaning that this factor is more important for employers.

"Encouraging work" factor has a percentage value of "14.77" for labour union while for the employers' unions it has a percentage value of "11.08". It appears to be at the 14th rank for labour unions; while it occupies the 11th rank for the employers'

unions, so it seems to be the most significant factor, meaning that this factor is important for employers union.

For labour unions “simple wage policy” gives a value of “10.10” percent while for the employers’ unions it is “7.77” percent. In the 25 interviews as a wage determination factor “simple wage policy principle” occupies the 7th rank for employers, while for labour union it appears to be at the 10th rank, meaning that this factor is more important for employers.

In prioritizing the wage policy factors, “employment level” seems to be different for each group. For employers unions, it gives a value of “16.25” percent while for the labour unions it is “10.00” percent, meaning that this factor is more important for labour unions. Here, “other” factor differs for each group. Employer’s union gives a value of “5.88” percent while for the labour unions it is “8.15” percent. The rank scores given to “other” factor by labour and employers’ unions also differ from each other.

6.3.6 Analysis of Union's Bargaining Power

One of the factors driving globalization and the liberalization and mobility of capital has fundamentally changed the bargaining power of firms governments and workers. The implicit and sometimes explicit, threat of relocation and the transnational nature of firms in some sectors have changed the political economy of industrial relations, weakening the bargaining position of workers. However some other tools also exist which affect the union's bargaining power.

In this table no hypothesis is formulated. The purpose is only to describe the factors affecting union power from the perspective of labour unions.

The Kruskal Wallis Test is applied in order to signify tools which also exist and affect the union's bargaining power. (See the Table 6.20 below.) In this analysis the test was administered to labour unions. The "mean rank" value helps us show the said variation in order to test if there is a difference of the rank scores between the factors from the standpoint of labour unions.

Table 6.20 Kruskal Wallis Test on Bargaining Power of Unions

Kruskal-Wallis Test

	power	N	Mean Rank	Chi-Square	df	Asymp. Sig.
order2	membership	13	15,00	21.166	6	0,002
	other	7	23,71	21.166	6	0,002
	right to strike	11	34,18	21.166	6	0,002
	experience	11	40,09	21.166	6	0,002
	strike propensity	3	41,67	21.166	6	0,002
	rivalry	13	42,00	21.166	6	0,002
	monopoly power	7	42,29	21.166	6	0,002
	Total	65				

Grouping Variable: power

(other: comparative wages at the sector, reflecting the demands of the members and their trust to the union)

There seem to be differences in the factors affecting union power. The rank score given to the most important factor with a mean of rank 15.00 is "membership" factor which follows the score mean of rank 23.71 of the "other" factor and then the score

mean of rank 34.18 concerning the “right to strike” factor. The respondents define the “other” by meaning “getting closer to the comparative wages” and “public support.”

Scores for “rivalry” and “monopoly power of the unions” factors mean to reflect the same significance for labour unions. The rank score given to “rivalry” with a mean of rank 42.00 and “monopoly power of the unions” with a mean of rank 42.29 reflect approximately the same degree of significance.

Then, there seems to be no difference between the rank scores of the “strike propensity” and “experience”, meaning the 2 factors reflect approximately the same degree of significance. The rank score given to the “strike propensity” factor with a mean of rank 41.67 is followed by the score mean of rank 40.09, “experience”.

There seems to be equivalence between some of the factors as well as wide differences among some in affecting the union’s bargaining power in wage determination. “Membership” factor seems to reflect the most significant one for labour unions.

6.3.7 Analyses of the Hypothesis that Wage Increases Narrow Wage Differentials

H_o: The method of wage increase (flat rate method) tends to narrow wage differentials.
H_A: The method of wage increase (flat rate method) does not tend to narrow wage differentials.

The aim is to answer whether different wage increase methods affect wage differentials in Turkey. The main questions posed were:

We prefer flat-rate wage increases
We prefer percentage- based wage increases
Does the wage increase method that you use narrow the wage differentials?
Does the wage increase method that you use widen the wage differentials?

6.3.7.1 Flat Rate Wage Increase Method

In some instances job evaluation is applied by using single rates for labour grades rather than rate ranges. If single rates are used, all employees on each job receive the same pay. Single rate systems have eliminated wage distinctions among individuals based on ability and seniority. Variation in payment to individual employees has been eliminated.

Backman (1951: 123) proposed that uniform wage increases are sought by labour unions to minimize internal dissension or complaints of impartiality and to promote union solidarity. Union solidarity is especially strengthened by wage patterns involving flat wage increases of a given amount of money per hour because the relative position of the lower-paid employees is improved in this way.

Table 6.21 The Cross-Tabs and Chi- Square Results for Flat Rate Wage Increase Method in Narrowing Wage Differentials

FLAT * NARROW Crosstabulation

			NARROW		Total
			Occasionally	Generally and Always	
FLAT	Occasionally	Count	7	4	11
		% within FLAT	64%	36%	100%
		% within NARROW	100%	50%	73%
	Generally and Always	Count		4	4
		% within FLAT		100%	100%
		% within NARROW		50%	27%
Total		Count	7	8	15
		% within FLAT	47%	53%	100%
		% within NARROW	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	4.773	1	0.029	
Continuity Correction	2.558	1	0.11	
Likelihood Ratio	6.307	1	0.012	
Fisher's Exact Test				0.077
Linear-by-Linear Association	4.455	1	0.035	
N of Valid Cases	15			

a Computed only for a 2x2 table

b 2 cells (50,0%) have expected count less than 5. The minimum expected c 1,87.

The cross tabulation count indicates that of using flat rate wage increase method, “occasional usage” is 11 and “general usage” is 4. Narrowing differentials “occasionally” is 7 and “generally” wage differentiation tends to narrow is 8. It may be seen that the Chi-square value of 4.77 with 1 degree of freedom is significant. In other words, the flat rate wage increase method and the narrowing of wage differentials is related. Hence hypothesis (H_0) has been substantiated.

Table 6.22 The Spearman Correlation for Flat Rate Wage Increase Method and Narrowing Wage Differentials

Correlations

			FLAT	NARROW
Spearman's rho	FLAT	Correlation Coefficient	1	0.564
		Sig. (2-tailed)	,	0.029
		N	15	15
	NARROW	Correlation Coefficient	0.564	1
		Sig. (2-tailed)	0.029	,
		N	15	15

* Correlation is significant at the .05 level (2-tailed).

The result in Table 6.22 shows that the higher the usage of flat rate wage increase method, the narrower the wage differentials become. In this study the correlation coefficient is 0.56 at the 0.05 level for a 2 tailed test. Flat rate wage increase method usage is positively correlated with narrowing wage differentials. The hypothesis has been substantiated.

The same Spearman Correlation Analysis is repeated separately for Labour Unions and Employers' Union. Results in Table H.10 at Appendix H shows that the higher the usage of flat rate wage increase method, the narrower the wage differentials become. The correlation coefficient is 1 at the .01 for a 2 tailed test, it is significant. Flat rate wage increase method usage is correlated with narrowing wage differentials for employer organizations. The correlation coefficient is 0.5 at the 0.05 level for a 2 tailed test; it is significant. "Flat rate wage increase method" usage is also correlated with narrowing wage differentials for labour unions.

The main arguments against uniform wage adjustments are that they are incompatible with the functioning of a free economy and that they ignore the fundamental differences in industry and company characteristics. Thus, the flat rate increase that was applied widely in the past blocks the total contract order and causes the unions to lose their force and to weaken, although from the labour union perspective this is debatable (Karakoyunlu, 1994: 27).

6.3.7.2 Percentage-Wise Wage Increase Method

H_o: The method of percentage wage increase (percentage wise method) does not tend to narrow wage differentials.

H_A: The method of percentage wage increase (percentage wise method) tends to narrow wage differentials.

Now most pay negotiations focus on defining a percentage wise increase on the basic rate, which "has the effect of maintaining differentials between grades". There has been variety of reasons for management interest in job evaluation. Of course, the primary direct purpose was to develop an equitable and simplified job rate structure.

Table 6.23 The Cross-Tabs and Chi- Square Results for Percentage Wise Wage Increase Method in Widening Wage Differentials

WIDEN * PERCENTAGE Crosstabulation

			PERCENTAGE		Total
			Occasionally	Generally and Always	
WIDEN	Never	Count	1		1
		% within WIDEN	100%		100%
		% within PERCENTAGE	50%		4%
	Occasionally	Count	1	10	11
		% within WIDEN	9%	91%	100%
		% within PERCENTAGE	50%	44%	44%
	Generally	Count		12	12
		% within WIDEN		100%	100%
		% within PERCENTAGE		52%	48%
	Always	Count		1	1
		% within WIDEN		100%	100%
		% within PERCENTAGE		4%	4%
Total		Count	2	23	25
		% within WIDEN	8%	92%	100%
		% within PERCENTAGE	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.648	3	0.005
Likelihood Ratio	7.236	3	0.065
Linear-by-Linear Association	5.301	1	0.021
N of Valid Cases	25		

In line with the theory, wage differentials do not tend to narrow under percentage-wise increases. On the contrary, percentage-wise increase tends to widen wage differentials, as evidenced from the Table 6.23 above.

The cross tabulation count indicates that using the percentage-wise increase method, "occasional usage" is 2 and "general usage" method is 23. In widening wage differentials, "never" is 1, "occasionally" is 11, "generally and always" widening wage differentials is 13. It may be seen that the Chi-square value of 12.64 with 3 degree of freedom, is significant. In other words, the percentage wise wage increase method tends to widen wage differentials.

Table 6.24 The Spearman Correlation for Percentage - wise Wage Increase Method and Widening Wage Differentials

Correlations

			WIDEN	PERCENTAGE
Spearman's rho	WIDEN	Correlation Coefficient	1	0.41
		Sig. (2-tailed)	,	0.042
		N	25	25
	PERCENTAGE	Correlation Coefficient	0.41	1
		Sig. (2-tailed)	0.042	,
		N	25	25

* Correlation is significant at the .05 level (2-tailed).

The result in Table 6.24 shows that the higher the usage of percentage wise wage increase method, the wider wage differentials become. In this study the correlation coefficient is 0.41 at the 0.05 level for a 2 tailed test. The obtained correlation coefficient is greater than the critical value. The hypothesis has been substantiated. "Percentage-wise wage increase method" usage is positively correlated with maintaining wage differentials.

The same Spearman Correlation Analysis is repeated separately for Labour Unions and Employers' Union. Results in Table H.9 at Appendix H show that the higher the usage of percentage-wise wage increase method, the wider the wage differentials become. In this study the correlation coefficient is 0.57 at the 0.05 level for a 2 tailed test, is significant. Using the percentage-wise wage increase method is correlated

with widening wage differentials for employer organizations. However, for labour unions the correlation coefficient is 0.22 for a 2 tailed test so, it is not significant.

The importance of proper wage differentials has been summarized as follows (Ober, 1953: 466): “Occupational differentials in wage rates are generally recognized as vital to the existing system of wages. Not only do they make possible compensation in accordance with skill, and working conditions, but they are necessary to ensure a sufficient supply of skilled and trained workers....”

Plant and company wage structures take different forms, reflecting the use of job evaluation, labour grade job classification and individual job rates. Simple wage structures typically had individually negotiated job rates, a particular wage rate or rate range was negotiated for each job and occupation. Many slightly complex job structures used individual job rates. A minority of complex wage structures were simplified and adjusted by informal classification of jobs into labour grades, such as the one which MESS does, which is called MIDS. There will be a unique wage in each occupation, determined by the forces of supply and demand, for workers of a given quality in employment of a given attractiveness. Under such a system wage rates or rate ranges were established for a predetermined number of labour grades or classes. Finally, a large proportion of the more complex wage structures have been put in place by means of formal plans.

6.3.8 Information Relating to Structure of Wages

6.3.8.1 Analyses of the Effects of Skill Wage Differentials on Business Costs

H_o: Skill wage differentials in the establishment have an effect on business costs.

H_A: Skill wage differentials in the establishment do not have effect on business costs.

The aim is to answer whether or not wage differentials in Turkey affect the business costs. The main questions posed were:

Does the extent of skill wage differentials in the establishment?

Do the effects of wage differentiation on business costs?

Table 6.25 The Cross-Tabs and Chi- Square Results for Skill Wage Differentials and Their Effect on Business Cost

differention cost * skill wage Crosstabulation

			skill wage				Total
			Little	Normal	Much	Too much	
differentio n cost	Little	Count		5	2		7
		% within differention cost		71.40%	28.60%		100.00%
		% within skill wage		55.60%	33.30%		28.00%
	Normal	Count	1	4	1	2	8
		% within differention cost	12.50%	50.00%	12.50%	25.00%	100.00%
		% within skill wage	100.00%	44.40%	16.70%	22.20%	32.00%
	Much	Count			3	3	6
		% within differention cost			50.00%	50.00%	100.00%
		% within skill wage			50.00%	33.30%	24.00%
	Too much	Count				4	4
		% within differention cost				100.00%	100.00%
		% within skill wage				44.40%	16.00%
Total		Count	1	9	6	9	25
		% within differention cost	4%	36%	24%	36%	100%
		% within skill wage	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.42	9	0.022
Likelihood Ratio	24.241	9	0.004
Linear-by-Linear Association	11.145	1	0.001
N of Valid Cases	25		

The cross tabulation count indicates that in terms of skill wage differentials in the establishment, “little skill wage differentiation” is 1, “normal” is 9, “much” is 6 and “too much skill wage differentiation” is 9. In terms of effects on business cost, “little effect on costs” is 7, “normal effect” is 8, “much” is 6 and “too much effect on costs” is 4 at population sample. It may be seen that the Chi-square value of 19.42 with 9 degree of freedom is significant. In other words, the skill wage differentials in the establishment and their effect on business costs are related. Hence hypothesis (H_0) has been substantiated.

Table 6.26 The Spearman Correlation for Skill Wage Differentials and Effect on Business Cost

Correlations

			skill wage	differention cost
Spearman's rho	skill wage	Correlation Coefficient	1	0.69
		Sig. (2-tailed)	,	0
		N	25	25
	differention cost	Correlation Coefficient	0.69	1
		Sig. (2-tailed)	0	,
		N	25	25

** Correlation is significant at the .01 level (2-tailed).

The result in the Table 6.26 shows that the higher the skill wage differentials in the establishment the higher the effects on business costs. They are related. In this study the correlation coefficient is 0.69 at the 0.05 level for a 2 tailed test. The obtained correlation coefficient is greater than the critical value. The hypothesis has been substantiated. The level of skill wage differentials is positively correlated with differentiation of business costs.

6.3.8.2 Analyses of Effects of Type of Differentiation on Business Costs

H_o:: Types of job differentiation in the establishment have effect on business costs.

H_A: Types of job differentiation in the establishment do not have affect business costs.

The aim is to answer whether or not type of job differentials in Turkey affect the business costs. The main questions posed were:

Do the types of jobs affect wage differentiation?

Do the effects of wage differentiation on business costs?

Table 6.27 The Cross-Tabs and Chi- Square Results for Type of Job Differentiation in the Establishment and Effect on Business Cost

differention cost * type of jobs Crosstabulation

			type of jobs				Total
			Little	Normal	Much	Too much	
differentio n cost	Little	Count	2	4		1	7
		% within differention cost	29%	57%		14%	100%
		% within type of jobs	100%	40%		33%	28%
	Normal	Count		2	6		8
		% within differention cost		25%	75%		100%
		% within type of jobs		20%	60%		32%
	Much	Count		3	3		6
		% within differention cost		50%	50%		100%
		% within type of jobs		30%	30%		24%
	Too much	Count		1	1	2	4
		% within differention cost		25%	25%	50%	100%
		% within type of jobs		10%	10%	67%	16%
Total		Count	2	10	10	3	25
		% within differention cost	8%	40%	40%	12%	100%
		% within type of jobs	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.631	9	0.029
Likelihood Ratio	20.463	9	0.015
Linear-by-Linear Association	4.528	1	0.033
N of Valid Cases	25		

The cross tabulation count indicates that of the type of job differentiation among establishments, “little type of job differentiation” is 2, “normal” is 10, “much” is 10 and “too much type of job differentiation” is 3. In terms of effect on business cost, “little effect on cost” is 7, “normal” is 8, “much” is 6 and “too much effect on the business cost” is 4. It may be seen that the Chi-square value of 18.63 with 9 degree of freedom is significant. In other words, the type of job differentiation among establishments and their effect on business costs are related. Hence hypothesis (H_0) has been substantiated.

Table 6.28 The Spearman Correlation for Type of Job Differentiation and Effect on Business Cost

Correlations

		differention cost	type of jobs
Spearman's rho differention cost	Correlation Coefficient	1	0.416
	Sig. (2-tailed)	,	0.039
	N	25	25
type of jobs	Correlation Coefficient	0.416	1
	Sig. (2-tailed)	0.039	,
	N	25	25

* Correlation is significant at the .05 level (2-tailed).

The results in the Table 6.28 show that the higher the type of job differentiation among the establishments the higher the wage effects on business costs; they are related. In this study the correlation coefficient is 0.41 at the 0.05 level for a 2 tailed test. The obtained correlation coefficient is greater than the critical value. The hypothesis has been substantiated. The level of type of job differentiation is positively correlated with differentiation of the business costs.

6.3.9 Analyses of Perceiving the Wage Concept

H_o: The labour union and the employer perceive the wage concept differently.

H_A: The labour union and the employer perceive the wage concept as the same.

Table 6.29 The Cross-Tabs and Chi- Square Results for Perceptual Differences Between the Labour Unions and Employers Concerning the Wage Concept

different * differences Crosstabulation

			differences			Total
			Occasionally	Generally	Always	
different	Occasionally	Count	1	1	1	3
		% within different	33,3%	33,3%	33,3%	100,0%
		% within differences	50,0%	10,0%	7,7%	12,0%
	Generally	Count	1	5	1	7
		% within different	14,3%	71,4%	14,3%	100,0%
		% within differences	50,0%	50,0%	7,7%	28,0%
	Always	Count		4	11	15
		% within different		26,7%	73,3%	100,0%
		% within differences		40,0%	84,6%	60,0%
Total		Count	2	10	13	25
		% within different	8,0%	40,0%	52,0%	100,0%
		% within differences	100,0%	100,0%	100,0%	100,0%

Chi-Square Test

Pearson Chi-Square	df	Asymp. Sig. (2-sided)
9,810	4	0,044

In examining the relationship between differences in perceptions of the wage concept and approaches to labour costs, the cross tabulation count indicates that of the approach to labour costs differently, “occasionally perceive labour costs differently” is 3, “generally” is 7 and “always” is 15. In perceptual differences in wage concepts, “occasionally seen wage concept differences” is 2, “generally” is 10 and “always” is 13. It may be seen that the Chi-square value of 9.81 with 4 degree of freedom, is significant. In other words, the “approaches to labour costs differently” and “perceptual differences in wage concepts” are related. Hence the hypothesis (H_0) has been substantiated.

The important implication, for the current discussion, is that discussions of wage policy must always be placed in the context of the total labour bargain with all the

terms involved. Labour cost includes employers' social security expenditures, severance pay employers' contributions to housing and compulsory savings fund's in addition to earnings. The differences in the share of non-wage labour costs in total labour costs, together with differences in the tax burden on labour, will have to be bourne in mind when interpreting the results on different perceptions of wages.

Questions posed were:

Are the approaches to labour cost used by the employer's and the labour union different?

Are there differences between the employer's and labour union's approach to the wage concept?

Table 6.30 The Spearman Correlation for Approaching Labour Costs Differently and Creation of Differences in Wage Concepts

Correlations

			differences	different
Spearman's rho	differences	Correlation Coefficient	1	,513(**)
		Sig. (2-tailed)		0,009
		N	25	25
	different	Correlation Coefficient	,513(**)	1
		Sig. (2-tailed)	0,009	
		N	25	25

** Correlation is significant at the 0.01 level (2-tailed).

The results in the Table 6.30 show that the approach to labour cost differently creates differences in wage concepts. In this study the correlation coefficient is 0.51 at the .01 level for a 2 tailed test. The obtained correlation coefficient is greater than the critical value therefore the null hypothesis is accepted. Approaching labour cost differently is positively correlated with differences in wage concepts. The hypothesis has been substantiated.

6.3.10 Analysis of the Effects of Reductions in the Payroll Taxes on Wage Negotiations

H_o: Reducing the payroll taxes applied by the government tends to ease wage negotiations.
H_A: Reducing the payroll taxes applied by the government does not make any difference in wage negotiations.

Net wages show the amount of money actually received by employees when they get their wages; i.e., they exclude the taxes on wages and the employees' social security expenditures. Non-wage labour costs, including employers' actual and imputed social contributions, so-called unfunded employee social benefits and any taxes payable by the employer on the wage and salary bill, are a crucial determinant of labour demand decisions by firms.

The ratio of labour costs to total costs particularly conditions the ability of a firm to afford increased wage rates. An employer is in a better position to grant higher wages when the firm's labour costs represent a comparatively small part of the total costs.

Questions posed were:
Do you think that if the government reduces the payroll taxes, labour cost will fall?

Do wage negotiations become easier if payroll taxes on labour costs are reduced?

Table 6.31 The Spearman Correlation between Reducing Payroll Taxes and the Easing of Wage Negotiations

Nonparametric Correlations
Correlations

			ease negotiation	payroll tax
Spearman's rho	ease negotiation	Correlation Coefficient	1	0,452
		Sig. (2-tailed)	,	0,023
		N	25	25
	payroll tax	Correlation Coefficient	0,452	1
		Sig. (2-tailed)	0,023	,
		N	25	25

* Correlation is significant at the .05 level (2-tailed).

The results in Table 6.31 show that the payroll tax reductions ease wage negotiations. In this study the correlation coefficient is 0.45 at the 0.05 level for a 2 tailed test. The obtained correlation coefficient is greater than the critical value, therefore "reducing payroll taxes is positively correlated with easing wage negotiations," so the hypothesis is accepted and has been substantiated.

The same Spearman Correlation Analysis is repeated separately for Labour Unions and Employers' Union about the hypothesis that payroll tax reductions ease wage negotiations. (See the results in Table K.3 at Appendix K.) In this study the correlation coefficient is 0.60 at the 0.05 level for a 2 tailed test. Reducing payroll taxes is positively correlated with easing wage negotiations for labour unions.

6.3.11 Analysis of Perceiving Welfare Share Differently

H_o: The labour union and the employers' union perceive the welfare share differently.

H_A: The labour union and the employers' union perceive the welfare share the same.

The question was:

Do you find the "welfare share" concept rational?

Table 6.32 The Cross-Tabs and Chi- Square Results for Perceiving the Welfare Share Concept as Rational

isc_isv * Rational Crosstabulation

			Rational				Total
			Never	Occasionally	Generally	Always	
isc_isv	isci	Count	3	0	2	8	13
		% within isc_isv	23,1%	0,0%	15,4%	61,5%	100,0%
		% within rational	30,0%	0,0%	100,0%	72,7%	52,0%
		% of Total	12,0%	0,0%	8,0%	32,0%	52,0%
	isveren	Count	7	2	0	3	12
		% within isc_isv	58,3%	16,7%	0,0%	25,0%	100,0%
		% within rational	70,0%	100,0%	0,0%	27,3%	48,0%
		% of Total	28,0%	8,0%	0,0%	12,0%	48,0%
Total		Count	10	2	2	11	25
		% within isc_isv	40,0%	8,0%	8,0%	44,0%	100,0%
		% within rational	100,0%	100,0%	100,0%	100,0%	100,0%
		% of Total	40,0%	8,0%	8,0%	44,0%	100,0%

Chi-Square Tests

Pearson Chi-Square	df	Asymp. Sig. (2-sided)
7,845(a)	3	0,049

The differences between labour unions responding to perceiving the welfare share as rational can be different from the employers' unions responding to the welfare share. The results shown in the cross tabulation count indicate that of the welfare share from labour unions perception, "never finding welfare share rational" is 3, "generally" is 2 and "always" is 8 in labour unions. Welfare share from employers' unions' perception, "never finding welfare share rational" is 7, "occasionally" is 2 and "always" is 3 by employer organizations. It may be seen that the Chi-square value of 7.84 with 3 degree of freedom is significant with $p<.05$. Therefore of hypothesis "viewing welfare share differently" is not sustained. The parties find the welfare share rational.

6.3.12 Analyses of Reflecting Changes in CPI to Compensate for Losses in Real Wages

H_o: Reflecting the current changes in CPI to the wages will compensate for the loss in the real income of workers.

H_A: Reflecting the current changes in CPI to the wages will not compensate for the loss in the real income of workers.

6.3.12.1 Analysis of Reflecting Changes in CPI to Compensate for Losses

The question was:

While determining the wage increase ratio, do you consider the income lost during the previous term? The objective is to disclose the differences between labour unions, employer unions' perceiving the compensation for the loss in the real income of workers.

Table 6.33 The Cross-Tabs and Chi- Square Results for Considering the Income Lost During Previous Terms

ISC_ISV * Incomeloss Crosstabulation

		Incomeloss				Total
		Never	Occasionally	Generally	Always	
ISC_ISVisci	Count	1	2	1	9	13
	% within isc_isv	8%	15%	8%	69%	100%
	% within Incomeloss	25%	100%	100%	50%	52%
isveren	Count	3			9	12
	% within isc_isv	25%			75%	100%
	% within Incomeloss	75%			50%	48%
Total	Count	4	2	1	18	25
	% within isc_isv	16%	8%	4%	72%	100%
	% within Incomeloss	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.966	3	0.265
Likelihood Ratio	5.165	3	0.16
Linear-by-Linear Associatio	0.081	1	0.776
N of Valid Cases	25		

a 6 cells (75,0%) have expected count less than 5. The minimum expected count is ,48.

While determining the wage increase ratio, considering the income lost during the previous term is the issue. The results shown in the cross tabulation count indicate that of the income lost during the previous terms for labour unions; "never try to compensate the previous term loss" is 1, "occasionally" is 2, "generally" is 1 and "always" is 9.

Income lost during the previous terms for employers' unions, "never try to compensate the previous term lost" is 3, and "always" is 9. It may be seen that the Chi-square value of 3.96 with 3 degree of freedom, is insignificant.

6.3.12.2 Analyses of Changes in Inflation Criterion Bringing the Purchasing Power to Desired Level

In examining the differences between labour unions and the employers' unions perceiving the inflation criterion as a wage increase ratio sufficient to bring the purchasing power to desired level, the results are Table 6-34 below.

Table 6.34 The Cross-Tabs and Chi- Square Results for "Inflation Criterion" Sufficient to Bring Purchasing Power to the Desired Level

Crosstab

			Desiredlevel				Total
			Never	Occasionally	Generally	Always	
isc_isv	isc	Count	9	2	1	1	13
		% within isc_isv	69,2%	15,4%	7,7%	7,7%	100,0%
		% within Desiredlevel	52,9%	66,7%	33,3%	50,0%	52,0%
		% of Total	36,0%	8,0%	4,0%	4,0%	52,0%
	isv	Count	8	1	2	1	12
		% within isc_isv	66,7%	8,3%	16,7%	8,3%	100,0%
		% within Desiredlevel	47,1%	33,3%	66,7%	50,0%	48,0%
		% of Total	32,0%	4,0%	8,0%	4,0%	48,0%
Total		Count	17	3	3	2	25
		% within isc_isv	68,0%	12,0%	12,0%	8,0%	100,0%
		% within Desiredlevel	100,0%	100,0%	100,0%	100,0%	100,0%
		% of Total	68,0%	12,0%	12,0%	8,0%	100,0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	0.687	9	0.876
Likelihood Ratio	21.3	9	0.011
Linear-by-Linear Associatio	7.04	1	0.008
N of Valid Cases	25		

The question was:

Is the wage increase ratio based on the "inflation criterion" sufficient to bring purchasing power to the desired level? The results shown in the cross tabulation count indicate that of the inflation criterion found sufficient by labour unions because, "never finding inflation criterion sufficient" is 9, "occasionally" is 2, and "always finding inflation criterion sufficient bringing the purchasing power to desired level" is 2.

For employers' unions; "never finding inflation criterion sufficient" is 8, "occasionally" is 1, "generally" is 1 and "always finding inflation criterion sufficient to bring the purchasing power to desired level" is 2. It may be seen that the Chi-square value of 0.68 with 9 degree of freedom is insignificant. Therefore the hypothesis is not substantiated.

Based on all the tests of significance for testing hypothesis, we can conclude that the labour unions' perception that the compensation for the loss in the real income of workers was found not associated with the employers' unions perception on the same issue. Perceiving the compensation for the loss in the real income is thus found to be independent of the parties' views.

Also, labour unions' perception of the inflation criterion as a wage increase ratio sufficient to bring the purchasing power to desired level was found to be not associated with the employers' unions' perception of the inflation criterion as a wage increase ratio sufficient to bring the purchasing power to desired level.

Therefore the H_0 hypothesis that reflecting the current changes in CPI to the wages will compensate for the loss in the real income of worker is rejected.

6.3.13 Analyses of the Use of Actual Inflation Level

H_o: Generally actual inflation level is used in wage determination in order to recover possible loss in the workers' real income.
H_A: Actual inflation level is not used in wage determination in order to recover possible loss in the workers' real income.

In examining the difference in perceived equity between the expected inflation rate and realized (actual) inflation rate considered in wage determination, the Mann Whitney test is used.

Table 6.35 Mann-Whitney Test Results Actual Inflation versus Expected Inflation

Mann-Whitney Test
Ranks

	expec-act	N	Mean Rank	Sum of Ranks
ANSWERS	actual	25	16,8	420
	expected	25	34,2	855
	Total	50		

Test Statistics(a)

	ANSWERS
Mann-Whitney U	95
Wilcoxon W	420
Z	-4,566
Asymp. Sig. (2-tailed)	0

Grouping Variable: expec-act

Means Report
ANSWERS

expec-act	Mean	N	Std. Deviation
actual	1,72	25	113,725
expected	3,52	25	0,96264
Total	2,62	50	138,343

A t-test will indicate if the perceived differences are significantly different for "using actual inflation" from "using expected inflation". As can be seen the difference in the mean rank of 16.8 and 34.2 for the actual inflation and expected inflation on perceived equity is significant. Parties mostly prefer actual inflation. But labour

unions' consideration of actual inflation can be different from the employers' unions consideration of actual inflation

Table 6.36 The Cross-Tabs and Chi- Square Results for Actual Inflation

ISC_ISV * actual inflation Crosstabulation

		actual inflation				Total
		Never	Occasionally	Generally	Always	
ISC_ISV isc	Count	1		2	10	13
	% within ISC_ISV	8%		15%	77%	100%
	% within actual inflation	50%		100%	53%	52%
isv	Count	1	2		9	12
	% within ISC_ISV	8%	17%		75%	100%
	% within actual inflation	50%	100%		47%	48%
Total	Count	2	2	2	19	25
	% within ISC_ISV	8%	8%	8%	76%	100%
	% within actual inflation	100%	100%	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.019	3	0.259
Likelihood Ratio	5.558	3	0.135
Linear-by-Linear Associatio	0.266	1	0.606
N of Valid Cases	25		

a 6 cells (75,0%) have expected count less than 5. The minimum expected count is ,96.

The results shown in the cross tabulation count indicates that of the consideration of actual inflation for labour unions, "never consider actual inflation" is 1, "generally" is 2 and "always consider actual inflation" is 10 in labour unions. Consideration of actual inflation for employers' unions, "never consider actual inflation" is 1, "occasionally" is 2, "always consider actual inflation" is 9. It may be seen that the Chi-square value of 4.01 with 3 degree of freedom, is insignificant with $p>.05$.

Although there is insignificance between consideration of actual inflation by labour unions and by employers unions, both mostly prefer to use actual inflation. Therefore the null hypothesis is accepted that generally actual inflation level is reflected to the wage in order to recover possible loss in the workers real income.

6.3.14 Analyses of the Productivity Criterion

H_o: As a wage determination criterion productivity increase does not impact on the wage outcome.
H_A: As a wage determination criterion productivity increase impacts on the wage outcome.

The question posed was:

Is labour productivity criterion that which must be used in wage determination?

In examining the differences between the usage of productivity as one of the criteria in wage determination by labour unions and by employers' unions, Mann Whitney U test is used.

Table 6.37 Mann-Whitney Test Results on the use of Productivity in Wage Determination

Mann-Whitney Test
Ranks

	ISC_ISV	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
one of the criteria	isveren	12,00	10,62	47,00	0,05
	isci	13,00	15,58	47,00	0,05
	Total	25,00			

A t-test will indicate if the perceived differences are significantly different between labour unions and employers' unions' perceptions. Differences at the mean ranks are shown at the Table 6.37; as 10.62 and 15.58. Mann-Whitney value of 47 (p= 0.05) is significant. Productivity criterion is mostly preferred by the employers' unions.

6.3.14.1 Productivity Reflected onto Wages

Questions posed were:

Is labour productivity a criterion that must be used in wage determination?
Do you think labour productivity is adequately reflected onto wages?

Table 6.38 The Spearman Correlation for Productivity Criterion at Wage Bargaining and Its Reflection onto Wages

Correlations

			reflect	one of the criteria
Spearman's rho	reflect	Correlation Coefficient	1	-,396(*)
		Sig. (2-tailed)	.	0,05
		N	25	25
	one of the criteria	Correlation Coefficient	-,396(*)	1
		Sig. (2-tailed)	0,05	.
		N	25	25

* Correlation is significant at the 0.05 level (2-tailed).

The results in labour productivity is one of the criteria used in wage bargaining but productivity is not reflected onto wages. In this study the correlation coefficient is negative 0.39 at the 0.05 for a 2 tailed test, it is significant. The hypothesis has been substantiated. Labour productivity is one of the criteria but is negatively correlated to being reflected onto wages. Table 6.38 shows that:

The same Spearman Correlation Analysis is repeated separately for Labour Unions and Employers' Union. (The results are shown in Table L.1 at Appendix L.) In terms of the theory that "Labour productivity is one of the criteria that is used", is there a relation between its actual "reflection onto wages" from the perspective of each party. In this study the correlation coefficient is negative 1 at the .01 for a 2 tailed test, it is significant. Labour productivity is one of the criteria that is negatively correlated with "actually being reflected onto wages" for employer associations. Analysis is repeated for labour unions; the correlation coefficient is 0.036 for a 2 tailed test. It is not significant.

6.3.14.2 Final Wage Being Independent from Productivity Criterion

Questions posed were:

Is labour productivity a criterion that must be used in wage determination?
Is the increase in wages realized independent from production and productivity?

Table 6.39 The Spearman Correlation for Productivity Criterion at Wage Bargaining but "Realized Independent of Productivity"

Correlations

			one of the criteria	independent
Spearman's rho	one of the criteria	Correlation Coefficient	1	,401(*)
		Sig. (2-tailed)	.	0,047
		N	25	25
	independent	Correlation Coefficient	,401(*)	1
		Sig. (2-tailed)	0,047	.
		N	25	25

* Correlation is significant at the 0.05 level (2-tailed).

The result in Table 6.39 shows that labour productivity is one of the criteria used in wage bargaining but wage is realized independent from productivity. In this study the correlation coefficient is .401 for a 2 tailed test, it is significant. Labour productivity is one of the criteria but wage realized is independent from productivity.

The same Spearman Correlation Analysis is repeated separately for Labour Unions and Employers' Union. (See the results in Table L.2 at Appendix L.) In line with the theory that, "Labour productivity is one of the criteria" is there a relation "wage realizing independent from productivity" between the perspectives of the parties. In this study the correlation coefficient is 0.042 for a 2 tailed test, it is not significant. Analysis is repeated for employers' unions; the correlation coefficient is negative 0.19 for a 2 tailed test, it is not significant.

Based on all the tests for testing hypothesis, it can be concluded that usage of productivity criterion does have no effect in wage determination. Therefore the null hypothesis is accepted; productivity increases do not impact wage outcome.

6.3.15 Analyses of the Profit Criterion

H_o: Increase in the firm's profit affects the wage outcome.

H_A: Increase in the firm's profit does not affect the wage outcome.

Firm's final profit is an important factor in wage determination. However, would like to learn if the wage increase is realized independent of profits in Turkey. The aim is to answer whether the realized wage outcome is independent from the firm's final profit.

Table 6.40 The Cross-Tabs and Chi- Square Results for Firm's Final Profit and Wage Realized Independent from Profit

independent from profit * ending profit Crosstabulation

			ending profit			Total
			Never	Generally	Always	
independent from profit	Never	Count	0	1	4	5
		% within independent from profit	0,0%	20,0%	80,0%	100,0%
		% within ending profit	0,0%	12,5%	57,1%	20,0%
		% of Total	0,0%	4,0%	16,0%	20,0%
	Occasionally	Count	1	3	2	6
		% within independent from profit	16,7%	50,0%	33,3%	100,0%
		% within ending profit	10,0%	37,5%	28,6%	24,0%
		% of Total	4,0%	12,0%	8,0%	24,0%
	Generally	Count	4	4	1	9
		% within independent from profit	44,4%	44,4%	11,1%	100,0%
		% within ending profit	40,0%	50,0%	14,3%	36,0%
		% of Total	16,0%	16,0%	4,0%	36,0%
	Always	Count	5	0	0	5
		% within independent from profit	100,0%	0,0%	0,0%	100,0%
		% within ending profit	50,0%	0,0%	0,0%	20,0%
		% of Total	20,0%	0,0%	0,0%	20,0%
Total		Count	10	8	7	25
		% within independent from profit	40,0%	32,0%	28,0%	100,0%
		% within ending profit	100,0%	100,0%	100,0%	100,0%
		% of Total	40,0%	32,0%	28,0%	100,0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17,436(a	6	0,008

The cross tabulation count indicates that, “never consider firm’s final profit” is 10, “generally consider” is 8 and “always consider” is 7. In terms of the wage increase being realized independent of profits, “never” is 5, “occasionally” is 6, “generally” is 9 and “always independent from profit” is 5. It may be seen that the Chi-square value of 17.43 with 6 degree of freedom, is insignificant. Increase in the firm’s profit does not affect the wage outcome. Hence, the hypothesis (H_0) has not been substantiated.

Table 6.41 The Spearman Correlation of Results for the Importance of the Firm’s Final Profit in the Wage to be Realized Dependent on Profit

Is the firm’s profit the final important factor in wage determination?
Do you think wage increase is realized independent of profits in Turkey?

Nonparametric Correlations
Correlations

			independent	final profit
Spearman's rho	independent	Correlation Coefficient	1	-,734(**)
		Sig. (2-tailed)	.	0
		N	25	25
	final profit	Correlation Coefficient	-,734(**)	1
		Sig. (2-tailed)	0	.
		N	25	25

** Correlation is significant at the 0.01 level (2-tailed).

The results in the Table 6.41 show us omit in line with the theory that “final profit is important” the question: “is there a relation with wage outcome, or is the “realized wage outcome independent from the firm’s final profit”. In this study the correlation coefficient is negative 0.73 at the 0.01 level for a 2 tailed test. The hypothesis has not been substantiated; the firm’s profit affects wage outcome. The firm’s final profit is negatively correlated with wage outcome.

The same Spearman Correlation Analysis is repeated separately for Labour Unions and Employers’ Union. (See the results in Table M.1 at Appendix M.) In line with the theory that “final profit is important”, the question: “is there a relation with wage outcome”, or “is realized wage outcome is independent from the firm’s final profit” from the perspective of each party. In this study the correlation coefficient is negative 0.66 at the 0.05 level for a 2 tailed test. The firm’s final profit is negatively correlated with wage outcome for labour unions. The analysis is repeated for

employer unions also. The correlation coefficient is negative 0.57 for a 2 tailed test. It is not important for employers' unions.

6.3.16 Analyses of the Comparative Wage Criterion

H_o: As a wage determination criterion "comparative wages" have a forceful impact on the wage outcome.

H_A: As a wage determination criterion comparative wages do not have a forceful impact on the wage outcome.

6.3.16.1 Analysis of Considering Comparative Wages and Rival Firm's Effect on Wage Outcome

Questions posed were:

In determining wages, do you take comparative wages into account?

Do the wage levels of rival firms affect wages at this establishment?

Table 6.42 The Spearman Correlation for Determining Wages; Taking into Account Comparative Wages and Rival Firms Effect on Wages

Nonparametric Correlations

Correlations

			rivalfirms	takeintoaccount
Spearman's rho	rivalfirms	Correlation Coefficient	1	,601(**)
		Sig. (2-tailed)	.	0,001
		N	25	25
	takeintoaccount	Correlation Coefficient	,601(**)	1
		Sig. (2-tailed)	0,001	.
		N	25	25

** Correlation is significant at the 0.01 level (2-tailed).

The results in Table 6.42 seek to see if, in line with the theory that "comparative wages take into account in wage determination," there is a relation between the wage outcome and "rival firms' effect on wages". In this study the correlation coefficient is 0.60 at the 0.01 level for a 2 tailed test. The obtained correlation coefficient is greater than the critical value; therefore the null hypothesis is accepted. In determining wages comparative wages is positively correlated with wage levels of rival firms. The hypothesis has been substantiated.

6.3.16.2 Analysis of Considering Comparative Wage's Effect on Wage Bargaining

Questions posed were:

In determining wages, do you take comparative wages into account?

Does the comparative wage directly affect wage bargaining?

Table 6.43 The Spearman Correlation for Determining if Comparative Wages are Taken into Account and if They Directly Affect Wage Bargaining

Correlations

			takeintoacc	directlyaffect
Spearman's rho	takeintoaccount	Correlation Coefficient	1	0,442
		Sig. (2-tailed)	.	0,027
		N	25	25
	directlyaffect	Correlation Coefficient	0,442	1
		Sig. (2-tailed)	0,027	.
		N	25	25

* Correlation is significant at the 0.05 level (2-tailed).

The analysis in Table 6.43 show if, in line with the theory that "comparative wages have an important role", the rival firms' wages directly affect wage bargaining. In this study the correlation coefficient is 0.44 at the 0.05 level for a 2 tailed test. The obtained correlation coefficient is greater than the critical value therefore the null hypothesis is accepted. In determining wages comparative wages is positively correlated with the wage outcome. The hypothesis has been substantiated.

6.3.16.3 Analysis of Comparative Wages Role and their Effect on Wages at the Establishment

Questions posed were:

Do the wage levels of rival firms affect wages at establishment?

Do comparative wages play an effective role in wage determination?

Table 6.44 The Spearman Correlation for Comparative Wages Effective Role in Wage Determination and Rival Firms Effect on Wages

Correlations

			effectiverole	rivalfirms
Spearman's rho	effectiverole	Correlation Coefficient	1	,434(*)
		Sig. (2-tailed)	.	0,03
		N	25	25
	rivalfirms	Correlation Coefficient	,434(*)	1
		Sig. (2-tailed)	0,03	.
		N	25	25

* Correlation is significant at the 0.05 level (2-tailed).

The analysis in Table 6.44 is to see if, in line with the theory that "comparative wages play an effective role", rival firms' wages affect wages in the establishment. In this study the correlation coefficient is 0.43 at the 0.05 level for a 2 tailed test. The obtained correlation coefficient is greater than the critical value therefore the null hypothesis is accepted. The hypothesis has been substantiated. Comparative wages play an effective role in wage determination and wage outcome is positively correlated with wage levels of rival firms.

6.3.16.4 Analysis Considering Comparative Wages and Their Role in Wage Determination

Questions posed were:

In determining wages, do you take comparative wages into account?

Do comparative wages play an effective role in wage determination?

Table 6.45 The Spearman Correlation for Determining Comparative Wages' Effective Role in Wage Determination

Correlations

			takeintoaccount	effectiverole
Spearman's rho	takeintoaccount	Correlation Coefficient	1	,432(*)
		Sig. (2-tailed)	.	0,031
		N	25	25
	effectiverole	Correlation Coefficient	,432(*)	1
		Sig. (2-tailed)	0,031	.
		N	25	25

* Correlation is significant at the 0.05 level (2-tailed).

The analysis in the Table 6.45 show if, in line with the theory that "comparative wages play an important role in wage determination," there is a relation between "considering them and effective wage outcome in collective bargaining". In this study the correlation coefficient is 0.43 at the 0.05 level for a 2 tailed test. The obtained correlation coefficient is greater than the critical value therefore the null hypothesis is accepted. It takes into account that comparative wages are positively correlated with wage determination under collective bargaining.

Based on all the tests of significance for testing hypothesis, "comparative wages" do seem to have a forceful impact on the wage outcome.

Taking into account comparative wages as a wage determination criterion is found to be associated with the directly affecting wage bargaining, and comparative wages criterion has an effective role on wage determination. Therefore the null hypothesis is accepted that as a wage determination criterion comparative wages has a forceful impact on the wage outcome.

6.4 Exploratory Study

Much of the research on wage equations has been aimed at improving the explanatory variables in aggregative equations. It is obviously important to identify the key independent variables in the wage-determination process. However, there is little in economic theory to guide the wage researcher beyond the general proposition that some measure of inflation and of real business conditions ought to be included.

In an earlier paper Thomas Wilson (1967: 690) reported on a wage equation which was estimated after the data was grouped by industry in accordance with the prevalent spillovers, and over time according to the bunching of long-term contracts. The first regression results of January 1998 for money wages in the Turkish manufacturing sectors were similar to most of the subsequent work, identifying comparative wages, profits, and consumer prices as the major factors. But it became increasingly evident that the impact of economic conditions on wage movements depended on the terms of contracts and the patterns of spillovers.

The boldest of these recent experiments is by (Kuh, 1967: 333). He applies the classic concept of value productivity, and an adjustment process, to obtain statistical results which are superior to the earlier findings that had stressed unemployment, profits and consumer prices. While Kuh distinguishes his hypothesis sharply from earlier work, it is a member of the same empirical family, combining variables which reflect the cyclical variations in both product and factor markets. His equation combines these elements in a somewhat different form. Value productivity replaces profits. These two series are very similar, of course, since cyc1ical variation in labour costs and demand-induced changes in output prices are the underlying factors which account for most of the cyclical variation in both series, but they have quite different theoretical implications.

The other variables in the regressions are the traditional ones of earlier studies such as, unemployment and its change, profits, and consumer prices. To test the hypothesis recently advanced by de Menil (1966: 439), the interaction between consumer prices and unemployment is also introduced.

The basic research question posed in this thesis aims to clarify the relationship between the main wage determination criteria used in the collective bargaining process and the final wage outcome in several sectors of the Turkish economy. The main wage determination criteria used by labour and management in collective bargaining negotiations and generally cited in the literature are company profitability (ability to pay), productivity, comparative wages at the sector, and changes in cost of living as measured by changes in the CPI. The purpose is to analyze the extent to which changes in the final wage outcome can be explained by the relative impact of those criteria.

The collective bargaining process has several unique characteristics that must be accounted for in the discussions of wage determination.

- A criterion used will also affect a firm's adjustment to a wage change i.e.; the relative importance of the firm's productivity; its ease or difficulty in varying the proportion of total working hours used for total production, in developing sound financial statements for the firm or in moving to some area not affected by a wage increase. Changes in productivity will also affect the capacity to pay.
- Included in wage determination is also a desire to eliminate "unfair" competition between employers with differing labour costs. Comparison of wages prevailing among different groups of workers performing at the same industry should be accounted for. Theoretically the general level of wages prevailing in the industry has to be similar among firms. For this purpose regard should primarily be had to the rates of wages being paid for similar work in companies where the workers are adequately organized and have concluded effective collective agreements.
- Changes in the cost of living will affect the adequacy of a given wage for meeting the demands of workers.

Data on these variables is obtained from a sample of companies' data which are regularly issued at the Istanbul Stock Exchange (ISE), 100 National Stocks Index. The source data in this study have been obtained from 50 companies chosen from ISE 100 National Stock Index between the years 1998 and 2005.

The focus of this study is the labour market issues for ISE-100 companies' workers in Turkey over the years from 1998 to 2005. The average number of workers employed in these companies is 185676 and this represented approximately 9% of total employment in the economy in 2004. On the other hand, the share of these ISE-100 companies in the GNP reflects the fluctuations between periods.

The reason behind our choice of ISE-100 companies among others of the economy is not only their size or high shares in GNP, but also availability of data related to the wage determination concept. In other companies it is not possible to obtain data concerning productivity, employment, profits, hours of work, etc., variables. As the data on disaggregated ISE-100 companies is employed, the emphasis is placed on public and private institutions most of which are unionized, namely, food; beverages; textiles and metals machinery or vehicles.

To obtain the optimal wage determination data needed in order to learn the productivity and profitability of the firms and to calculate how many workers their employers would want at each wage rate, individual company reports were consulted. For each company in our sample, the principal sector was identified, and then identified their employment, productivity, profitability, etc. until I found the ultimate wage determination of all our sample companies. It was not possible identify the ultimate wage determination of some companies, this study is limited to those where relevant data could be obtained. In some periods prices may rise faster than unit labour costs and prices are quiet loose. The lack of a simple, short run linkage between prices and labour costs is one of the chief problems in determining compensation between employers and labour in times of inflation.

Another set of questions arises with regard to the company specific issues, their total output, earning, total working hours and employment. Sometimes information was obtained by using primary data in order to learn about the total work hours which are inside information. Mostly help was obtained from the secondary data, which is regularly published in yearbooks of certain governmental institutions such as SIS, Labour Statistics, State Planning Department and ISE Yearbooks.

If, in the absence or weakness of organization among workers in a particular trade or sector, the wages are generally low compared with those of better-organized workers, or with the general level of wages, wages should be regulated with a view to bringing the lowest wages nearer to the general level for similar work. Unions envisage a relative standard for wage fixing.

An increase equal to the increase in SIS's (State Institute of Statistics) Consumer Price Index (General Index) shall be applied to the workers who are employed in the workplace where the wage increase is to be made. However, wages under such agreements cannot reflect changes in economic conditions unless those conditions were forecast correctly at the time of the negotiations or unless there was a contingency clause in the contract. The most common form of contingency clause is the cost of living escalator which gears wage adjustments to movements in prices by some formula. Wages under existing contracts will almost always reflect current inflation rates; they will not reflect other economic circumstances such as the level of real economic activity.

One of the tasks is to set up a sensible theoretical framework for the Turkish inflationary case. Whether and how inflation affects firms profitability has great relevance for public policy. Policy makers might want to respond in ways that mitigate inflation's effects. Most theories focus on firm's use of nominal contracts. Unforeseen inflation actually affects real profits, depending on the characteristics of the existing contracts. Contracts are those that hold wages fixed at the current level for a period of time. Here, contract length plays a key role. As contract duration lengthens the period in which real prices can differ from anticipated levels lengthen as well.

The purpose of wage settlement is to ensure that the workers in the same work group or at the same sector receive similar wage increases in order to establish a just, well balanced and rational wage system and consequently to achieve a wage structure adequate to the needs of economic life as well as to the interests of the employers and workers.

The company's (employer's) ability to pay (profitability) was obtained by scanning company annual reports spanning the years 1998-2005. Data on the productivity variable for the 44 companies was acquired out of 50 companies from the Istanbul Chamber of Industry 500 index manuals but 6 companies are eliminated because they are in service sector. Istanbul Chamber of Industry treats "value added" magnitudes as labour productivity (which is the general practice of employers in other countries as well). Data on comparative wages for the sector was sorted out from the Statistics Institute of Turkey yearly series and from the archives of labour and employers' unions after cross-checking their reliability and consistency. These data are based on time series since each given value is recorded during the regular calendar years. Changes in the price level (cost of living) during the time period under study were taken from the Statistics Institute of Turkey where the year 1994 was treated as the base year. The data in this category is based on 12 months' average percentage changes. In all our calculations nominal figures were omitted and values were converted to real values by taking 1994 as the base year.

Recent year's price inflation brings into sharp focus the importance of real wages as compared with received wages. Workers quickly discover that substantial improvements in their incomes prove to be illusionary as rising prices reduce the purchasing power. As a result, considerable emphasis is given in collective bargaining to changes in prices. In many instances, the cost-of-living criterion becomes the most important factor in collective bargaining, as was evident in many inflationary years. During such times management also recognizes the importance of maintaining real wages if workers are to remain satisfied and to be induced to put forth their best efforts. The economic well-being of the worker is determined largely by how much he can buy for the money wage he receives. Real wages are important. Real wages are calculated by relating changes in monetary wages to changes in the consumer price index.

The profile is based on the monthly earnings information collected from related firm's industrial relations department; some, their firms based on the annual earnings on information collected respectively. To arrive at monthly earnings, the annual figures were divided by months worked during the year. There are some data comparability issues associated with these different cross-sectional estimates.

Important developments in the economy can affect single-year estimates as well. In all surveys, the sample used was for manufacturing workers. To ensure comparability, all earnings data were deflated using the regional CPI with 1994 as the base year. (In adjusting for inflation the study had to rely on two separate series: CPI (1987:100) and CPI (1994:100). The series based on the basket overlaps with the series based on 1994 basket, a feature which allows a test of the continuity.

Table 6.46 Actual Data of the Selected Companies at the Automotive Sector in 1998

1998	Profit	Productivity	Comparative Wages at the Sector	Consumer Price Index (1994=100)	Average Worker Actual Monthly Basic Wage Level
Automotive					
Firm A	6.885.858.000.000	6.153.183.000.000	2.148.324.000	0,846	2.214.156.346
Firm B	1.591.663.000.000	4.173.275.000.000	2.148.324.000	0,846	1.759.020.288
Firm C	34.228.549.000.000	47.318.335.000.000	2.148.324.000	0,846	1.707.438.201
Firm D	-19.960.077.000.000	13.720.941.000.000	2.148.324.000	0,846	2.316.561.959

Table 6.47 Real Data of the Selected Companies at the Automotive Sector in 1998

1998	Profit	Productivity	Comparative Wages at the Sector		Average Worker Actual Monthly Basic Wage Level
Automotive					
A	3.730.150.595.883	3.333.251.895.991	1.163.772.481		1.199.434.640
B	862.222.643.554	2.260.712.351.029	1.163.772.481		952.882.063
C	18.542.009.209.101	25.632.900.866.739	1.163.772.481		924.939.437
D	-10.812.609.425.786	7.432.795.774.648	1.163.772.481		1.254.908.970

Table 6.48 Real Data per Worker Values of the Selected Companies at the Automotive Sector in 1998

1998	Profit per Worker	Per worker Productivity	Comparative Wages at the Sector		Average Worker Actual Monthly Basic Wage Level
Automotive					
Firm A	5.660.319.569	3.979.550.650	1.163.772.481		1.199.434.640
Firm B	1.710.759.213	1.894.404.418	1.163.772.481		952.882.063
Firm C	5.369.826.009	6.269.965.312	1.163.772.481		924.939.437
Firm D	-2.730.456.926	293.237.237	1.163.772.481		1.254.908.970

For this study, information on the basic wage prevailing in the companies under study was needed. The figures represent what may be called labour's occupational price list and reflect the key rates in collective agreements. This data is not available in the overall wage compilations published by private agencies; therefore yearly average wage payments to employees for each company in the sample were obtained through interviews with the labour unions or through requests from the related companies' human resource services. Most sectors in the sample were reached, with the exception of the construction, textile sectors and some of basic metal companies.

Economic theory suggests that the coefficient of consumer price index is expected to be positive because when there is an increase in inflation, home country goods become more expensive, meaning as domestic currency loses its purchasing power parity, depreciation occurs in the home country currency. Since nominal wage becomes meaningless in such cases the data was converted to real values, and in order to find out per worker productivity and profit, the findings were divided by the number of workers at each company. In the model, the dependent variable is the average wage level and independent variables are profit, productivity, consumer price index (CPI), and comparative wages at the sector and public institution's dummies.

So my econometric model is;

Basic wage level=constant+$\alpha_1$profit+$\alpha_2$compwages+$\alpha_3$productivity+α_4CPI

C : constant, α(1), α (2), α (3), α (4): Coefficients

In order to standardize all the variables, an attempt was made to bring them to the same scale by computing percentage change of every numeric real data on the related companies. Because inflation data include percentage changes, other data was also expressed percentage-wise. For this purpose, the formula was applied below for every numeric data of the companies.

[Profit $_{(t)}$ – Profit $_{(t-1)}$] / Profit $_{(t-1)}$

[Productivity $_{(t)}$ – Productivity $_{(t-1)}$] / Productivity $_{(t-1)}$

[Comparative wage $_{(t)}$ – Comparative wage $_{(t-1)}$] / Comparative wage $_{(t-1)}$

[Basic Wage Level $_{(t)}$ – Basic Wage Level $_{(t-1)}$] / Basic Wage Level $_{(t-1)}$

After stating the dependent and independent variables, one problem was to decide on a functional format appropriate for my analysis. We should choose a functional format whose characteristics reflect the economic nature of the relationship. The following models is tried to run by myself and to calculate their properties according to econometric criteria.

6.4.1 Wage Determination Criteria Used in the Automotive Sector

Table 6.49 Wage Determination Criteria in the Automotive Sector

Automotive

Dependent Variable: WAGE
Method: Panel Least Squares
Date: 11/22/07 Time: 15:05
Sample: 1999 2005

Cross-sections included: 4 companies
Total panel (balanced) observations: 28

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.008654	0.053729	0.16106	0.8735
PROFIT	0.004974	0.001647	3.019701	0.0061
PRODUCTIVITY	-0.000236	0.000148	-1.597911	0.1237
COMPARATIVE WAGES	0.634573	0.143042	4.436259	0.0002
INFLATION	0.333264	0.216854	1.536816	0.138

R-squared	0.939564	Mean dependent var	0.438964
Adjusted R-squared	0.929053	S.D. dependent var	0.313371
S.E. of regression	0.083469	Akaike info criterion	-1.968252
Sum squared resid	0.160242	Schwarz criterion	-1.730358
Log likelihood	32.55552	F-statistic	89.39161
Durbin-Watson stat	2.235485	Prob(F-statistic)	0

When I run a model, the "e-views program" gives the following. From the statistical perspective (t-statistics and probability values), model's significant variables are comparative wages, inflation and profit for representative companies at automotive. Their t- statistics are 4.43, 3.02 and 1.54 which are greater than t= $\left|1.96\right|$. When we look at the p values (marginal level of significances), we can see that comparative wages are highly significant because its p value is 0. Also, profit is significant, whose p value is 0,006 which is smaller than 0.05. Productivity and inflation variables are insignificant.

When looking at the economic coefficients those which are closer to 1.00 are significant. Model significant variables are therefore comparative wages and inflation for representative automotive companies. Their coefficients are 0.63 and 0.33 which are closer to 1. The coefficient means that if inflation increases by 10 percent the comparative wage outcome will rise by 6.3 percent. The other explanatory variable is inflation being the result of the calculation. If the inflation variable has increased by 10 percent, inflation will be reflected to the wage outcome by 3.3%. Model insignificant variables are therefore productivity and profit for representative automotive companies. Their coefficients are negative and 0.005. The coefficient means that if inflation increases by 10 percent the productivity-related wage outcome will rise by 0. The coefficient means that if inflation increases by 10 percent, profit related-wage outcome rise by 0.05 percent.

When R^2 is closer to 1 (here 0.939564), the model has highly explanatory value. Also F statistics (89) is high in the calculation, (more than 4).

6.4.2 Wage Determination Criteria Used in the Basic Metal Sector

Another sector is basic metal; in our sample group there are 12 companies, but only 7 of them could be reached.

Table 6.50 Wage Determination Criteria in the Basic Metal Sector

Basic Metal

Dependent Variable: WAGE
Method: Panel Least Squares
Date: 11/22/07 Time: 15:08
Sample: 1999 2005
Cross-sections included: 7 companies
Total panel (balanced) observations: 49

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.119416	0.057941	-2.060997	0.0454
PROFIT	0.004059	0.007254	0.55965	0.5786
PRODUCTIVITY	0.001474	0.00246	0.599086	0.5523
COMPARATIVE WAGES	0.794252	0.10724	7.406323	0
INFLATION	0.444891	0.191236	2.326393	0.0248
PUBLIC	-0.031698	0.051902	-0.610727	0.5446

R-squared	0.901734	Mean dependent var	0.501286
Adjusted R-squared	0.890308	S.D. dependent var	0.443776
S.E. of regression	0.146978	Akaike info criterion	-0.882791
Sum squared resid	0.928908	Schwarz criterion	-0.65114
Log likelihood	27.62838	F-statistic	78.91754
Durbin-Watson stat	1.827155	Prob(F-statistic)	0

From the statistical perspective (t-statistics and probability values), the model's significant variables are inflation rate and comparative wages for representative companies at basic metal. Their t- statistics are 2.32 and 7.40 which are greater than t= $\left|1.96\right|$. When look at the p values (marginal level of significances), I can see

that comparative wages are highly significant because its p value is 0. Also, inflation rate is significant, whose p value is 0.024 which is smaller than 0.05. Productivity and profit variables are insignificant.

When looking at the economic coefficients those which are closer to 1.00 are significant. The model significant variables are therefore comparative wages and inflation for representative companies at basic metal. Their coefficients are 0.79 and 0.44 which are closer to 1. The coefficient means that if inflation increases by 10 percent the comparative wage-related outcome will rise by 7.9 percent. The other explanatory variable is inflation according to the result of the calculation. If the inflation variable has increased by 10 percent, inflation will be reflected to the wage outcome by 4.4 percent. Model insignificant variables are therefore productivity and profit for representative basic metal companies. Their coefficients are 0.001 and 0.004. The coefficient means that if inflation increases by 10 percent the productivity-related wage outcome will rise by 0.01 percent. The coefficient means that if inflation increases by 10 percent the profit related wage outcome will rise by 0.04%. Here the constant is negative, meaning increasing the wage is less than the inflation ratio; wage increase here is 11 percent less than inflation here. "Public" means that some of the basic metal companies belong to the public sector and here the coefficient is negative, so wage rise is less in the public sector relative to the private institutions.

When R^2 is closer to 1 (here 0.901734), the model is highly explanatory. Also F statistics (78) is high in the calculation, (more than 4). When I look at the correlation matrix, I do not detect any multicollinearity between the independent variables since their correlation values are close to zero.

6.4.3 Wage Determination Criteria Used in the Food and Beverages Sector

Table 6.51 Wage Determination Criteria in the Food and Beverages Sector

Food and Beverages
Dependent Variable: WAGE
Method: Panel Least Squares
Date: 11/22/07 Time: 15:21
Sample: 1999 2005
Cross-sections included: 3
Total panel (balanced) observations: 21

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.037136	0.057444	0.646468	0.5271
PROFIT	0.00166	0.003067	0.541317	0.5957
PRODUCTIVITY	0.02329	0.028903	0.805808	0.4322
COMPARATIVE WAGES	0.739338	0.182969	4.040779	0.0009
INFLATION	0.082065	0.242309	0.338677	0.7393

R-squared	0.877736	Mean dependent var	0.412619
Adjusted R-squared	0.84717	S.D. dependent var	0.259913
S.E. of regression	0.101609	Akaike info criterion	-1.531114
Sum squared resid	0.16519	Schwarz criterion	-1.282418
Log likelihood	21.0767	F-statistic	28.71614
Durbin-Watson stat	1.605558	Prob(F-statistic)	0

From the statistical perspective (t-statistics and probability values), the model's significant variable is comparative wages for representative companies at food. Its t-statistics is 4.04 which is greater than t= $\left|1.96\right|$. When I look at the p values (marginal level of significances), I see that comparative wages are highly significant because its p value is 0 which is smaller than 0.05. Productivity and profit variables are insignificant.

When look at the economic coefficients, those which are closer to 1.00 are significant. The model significant variable is therefore comparative wages for representative companies in the food sector. Its coefficient is 0.74 which is closer to 1. The coefficient means that if inflation increases by 10 percent the comparative wage-related outcome will rise by 7.4 percent. Model insignificant variables are therefore productivity, profit and then inflation for representative food companies. Their coefficients are 0.023, 0.002 and 0.08. The coefficient means that if inflation increases by 10 percent the productivity-related wage outcome will rise by 0.23 percent. Again, if inflation increases by 10 percent, the profit-related wage outcome will rise by 0.02 percent. If inflation is increased by 10 percent the inflation-related wage outcome will rise 0.8 percent.

When R^2 is closer to 1 (here 0.877736), the model is highly explanatory. Also F statistics (29) is more than 4 in the calculation. When look at the correlation matrix, I do not detect any multicollinearity between the independent variables since their correlation values are close to zero.

6.4.4 Wage Determination Criteria Used in the Rubber and Tire Sector

Table 6.52 Wage Determination Criteria in the Rubber and Tire Sector

Dependent Variable: WAGE
Method: Panel Least Squares
Date: 11/22/07 Time: 15:28
Sample: 1999 2005
Cross-sections included: 2
Total panel (balanced) observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.110044	0.044289	2.484669	0.0347
PROFIT	0.046056	0.01946	2.366644	0.0421
PRODUCTIVITY	0.052755	0.059913	0.880524	0.4015
COMPARATIVE WAGES	0.189673	0.077161	2.458155	0.0363
INFLATION	0.508284	0.087594	5.802688	0.0003

R-squared	0.924566	Mean dependent var	0.454643
Adjusted R-squared	0.89104	S.D. dependent var	0.196056
S.E. of regression	0.064716	Akaike info criterion	-2.365156
Sum squared resid	0.037694	Schwarz criterion	-2.136921
Log likelihood	21.55609	F-statistic	27.57738
Durbin-Watson stat	1.865696	Prob(F-statistic)	0.000046

From the statistical perspective (t-statistics and probability values), the model's significant variables are inflation, comparative wages and profit for representative companies in the rubber and tire sector. Their t- statistics are 5.80, 2.46 and 2.37 which are greater than t= $\left|1.96\right|$. When look at the p values (marginal level of significance), I see that inflation, comparative wages and profit are highly significant because their p values are 0 for inflation, 0.03 for comparative wage and 0.04 for profit which is smaller than 0.05. The productivity variable is insignificant.

When look at the economic coefficients, those which are closer to 1.00 are significant. Model significant variable is therefore comparative wages and inflation for representative companies in the rubber and tire sector. Their coefficients are 0.51 and 0.19 which are closer to 1. The coefficients mean here that if inflation increases by 10 percent the comparative wage-related outcome will rise by 2 percent. And if inflation increases by 10 percent the inflation-related wage outcome will rise by 5.1 percent. Model insignificant variables are therefore productivity and profit for representative companies at rubber and tire. Their coefficients are 0.05 and 0.05. The coefficients mean that if inflation increases by 10 percent the productivity related wage outcome will rise by 0.5 percent; and that if inflation increases by 10 percent the profit-related wage outcome will rise by 0.5 percent.

R^2 is closer to 1 (here 0.924566), the model is highly explanatory. Also F statistics (28) is more than 4 in the calculation. When look at the correlation matrix, I do not detect any multicollinearity between the independent variables since their correlation values are close to zero.

6.4.5 Wage Determination Criteria Used in the Chemical Sector

Table 6.53 Wage Determination Criteria in the Chemical Sector

Dependent Variable: WAGE
Method: Panel Least Squares
Date: 11/22/07 Time: 15:34
Sample: 1999 2005
Cross-sections included: 11
Total panel (balanced) observations: 77

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.019528	0.108525	-0.179937	0.8577
PROFIT	0.000813	0.001635	0.49706	0.6207
PRODUCTIVITY	-2.26E-05	0.000286	-0.079111	0.9372
COMPARATIVE WAGES	0.737881	0.121732	6.061499	0
INFLATION	0.38472	0.281485	1.36675	0.176
PUBLIC	-0.006554	0.110178	-0.059482	0.9527

R-squared	0.636556	Mean dependent var	0.553597
Adjusted R-squared	0.610961	S.D. dependent var	0.593515
S.E. of regression	0.370193	Akaike info criterion	0.925133
Sum squared resid	9.730032	Schwarz criterion	1.107767
Log likelihood	-29.61762	F-statistic	24.87065
Durbin-Watson stat	2.648456	Prob(F-statistic)	0

When look at the correlation matrix, I detect multicollinearity between the independent variables. In the chemical industry inflation and comparative wages give high values, thus depressing the value of productivity and constant at the correlation matrix which leads to multicollinearity, that's why I drive the calculation again by omitting "inflation" below.

Multicollinearity occurs when variables are so highly correlated with each other that it is difficult to come up with reliable estimates of their individual regression coefficients. When two variables are highly correlated, they are basically measuring the same phenomenon or construct. In other words, when two variables are highly correlated, they both convey essentially the same information. If a correlation

coefficient matrix demonstrates correlations of .75 or higher among the variables, there may be multicollinearity.

6.4.5.1 Wage Determination Criteria Used in Chemical Sector

Table 6.54 Wage Determination Criteria in Chemical Sector

Dependent Variable: WAGE
Method: Panel Least Squares
Date: 11/22/07 Time: 15:33
Sample: 1999 2005
Cross-sections included: 11
Total panel (balanced) observations: 77

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.0999	0.064748	1.542908	0.1272
PROFIT	0.000638	0.00164	0.388751	0.6986
PRODUCTIVITY	2.41E-05	0.000285	0.084602	0.9328
COMPARATIVE WAGES	0.862336	0.081275	10.61009	0
PUBLIC	-0.003269	0.110813	-0.029501	0.9765

R-squared	0.626994	Mean dependent var	0.553597
Adjusted R-squared	0.606271	S.D. dependent var	0.593515
S.E. of regression	0.372418	Akaike info criterion	0.925129
Sum squared resid	9.986029	Schwarz criterion	1.077324
Log likelihood	-30.61746	F-statistic	30.25655
Durbin-Watson stat	2.586264	Prob(F-statistic)	0

From the statistical perspective (t-statistics and probability values), the model's significant variable is comparative wages for representative companies at chemical. Its t- statistics is 10.6 which is greater than t= $\left|1.96\right|$. When look at the p values (marginal level of significances), I see that the criterion "comparative wages" is highly significant because its p value is 0. Productivity and profit variables are insignificant.

When look at the economic coefficients, those which are closer to 1.00 are significant. The model significant variable is therefore comparative wages for representative companies in the chemical sector. Its coefficient is 0.86 which is closer to 1. Here, the coefficient means that if inflation increases by 10 percent, the comparative wage-related outcome will rise by 8.6 percent. Model insignificant variables are therefore productivity and profit for representative companies at chemical. Their coefficients are 0.0002 and 0.0006. Here, the coefficient means that if inflation increases by 10 percent the productivity-related wage outcome will rise by 0,002 percent. And if inflation increases by 10 percent the profit-related wage outcome will rise by 0,006 percent. Public means that some of the companies in the chemical sector belong to the public sector and here the coefficient is negative, so wage rise is less in the public sector relative to the private institutions.

R^2 is closer to 1 (here 0.626994), the model high explanatory power. Also F statistics (30) is more than 4 in the calculation.

6.4.6 Wage Determination Criteria Used in the Paper Sector

Table 6.55 Wage Determination Criteria in the Paper Sector

Dependent Variable: WAGE
Method: Panel Least Squares
Date: 11/22/07 Time: 15:36
Sample: 1999 2005
Cross-sections included: 3
Total panel (balanced) observations: 21

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.099612	0.070974	-1.403502	0.1796
PROFIT	0.002639	0.006972	0.378563	0.71
PRODUCTIVITY	0.028743	0.04191	0.685833	0.5026
COMPARATIVE WAGES	1.242181	0.150189	8.270791	0
INFLATION	0.061702	0.200936	0.307071	0.7627

R-squared	0.902357	Mean dependent var	0.488286
Adjusted R-squared	0.877946	S.D. dependent var	0.392618
S.E. of regression	0.137166	Akaike info criterion	-0.930994
Sum squared resid	0.301032	Schwarz criterion	-0.682299
Log likelihood	14.77544	F-statistic	36.96538
Durbin-Watson stat	1.672055	Prob(F-statistic)	0

From the statistical perspective (t-statistics and probability values), the model's significant variables is comparative wages for representative companies in the paper sector. Its t- statistics is 8.27 which is greater than t= $\left|1.96\right|$. When look at the p values (marginal level of significance), I see that "comparative wages" is highly significant because its p value is 0. Also, inflation rate is significant, whose p value is 0 which is smaller than 0.05. Productivity and profit variables are insignificant.

When looking at the economic coefficients, those which are closer to 1.00 are significant. Model significant variables are therefore comparative wages for representative companies in the paper sector. Their coefficient is 1.24 which is closer

to 1. The coefficient means that if inflation increases by 10 percent the comparative wage-related outcome will rise by 12.4 percent. Model insignificant variables are therefore productivity and profit for representative companies in the paper sector. Their coefficients are 0.002 and 0.029. The coefficients mean that if inflation increases by 10 percent the productivity-related wage outcome will rise by 0.02 percent and that if inflation increases by 10 percent the profit-related wage outcome will rise by 0.3.

R^2 is closer to 1 (here 0.902357), the model has high explanatory power. Also F statistics (37) is more than 4 in the calculation. When look at the correlation matrix, I do not detect any multicollinearity between the independent variables since their correlation values are close to zero.

6.4.7 Wage Determination Criteria Used in the Glass Sector

Table 6.56 Wage Determination Criteria in the Glass Sector

Dependent Variable: WAGE

Method: Panel Least Squares
Date: 11/22/07 Time: 15:38
Sample: 1999 2005
Cross-sections included: 2
Total panel (balanced) observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0,050138	0,035397	1,416443	0,1903
PROFIT	0,007433	0,008357	0,889521	0,3969
PRODUCTIVITY	0,000599	0,035461	0,016887	0,9869
COMPARATIVE WAGES	0,648249	0,09031	7,178044	0,0001
INFLATION	0,128657	0,142837	0,900726	0,3912

R-squared	0,971673	Mean dependent var	0,419429
Adjusted R-squared	0,959083	S.D. dependent var	0,253993
S.E. of regression	0,051378	Akaike info criterion	-2,826777
Sum squared resid	0,023757	Schwarz criterion	-2,598542
Log likelihood	24,78744	F-statistic	77,17925
Durbin-Watson stat	3,058573	Prob(F-statistic)	0,000001

From the statistical perspective (t-statistics and probability values), the model's significant variable is comparative wages for representative companies in the glass sector. Its t- statistics is 7.18 which is greater than t= $\left|1.96\right|$. When look at the p values (marginal level of significances), I see that comparative wage is highly significant because its p value is 0. Also, inflation rate is significant, whose p value is 0 which is smaller than 0.05. Productivity and profit variables are insignificant.

When looking at the economic coefficients those which are closer to 1.00 are significant. Model significant variables are therefore comparative wages and inflation for representative companies in the glass sector. Their coefficients are 0.65

and 0.13 which are closer to 1. The coefficient means that if inflation increases by 10 percent the comparative wage-related outcome will rise by 6.5 percent. The other explanatory variable is inflation as a result of the calculation. If the inflation variable has increased 10 percent, it will be reflected to the wage outcome by 1.3 percent. Model insignificant variables are therefore productivity and profit for representative companies in the glass sector. Their coefficients are 0.0006 and 0.007. The coefficients mean that if inflation increases by 10 percent the productivity-related wage outcome will rise by 0; and that if inflation increases by 10 percent the profit-related wage outcome will rise by 0.07.

R^2 is closer to 1 (here 0.971673), the model is highly explanatory power. Also F statistics (77) is more than 4 high in the calculation. When look at the correlation matrix, I do not detect any multicollinearity between the independent variables since their correlation values are close to zero.

6.4.8 Wage Determination Criteria Used in the Composite Sectors

Table 6.57 Wage Determination Criteria in the Composite Sectors

Dependent Variable: WAGE

Method: Panel Least Squares
Date: 11/22/07 Time: 15:38
Sample: 1999 2005
Cross-sections included: 38
Total panel (balanced) observations: 231

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.031931	0.038323	-0.833217	0.4056
PROFIT	0.000905	0.000976	0.928106	0.3543
PRODUCTIVITY	-1.70E-05	0.000163	-0.104657	0.9167
COMPARATIVE WAGES	0.74916	0.058208	12.87047	0.0000
INFLATION	0.332631	0.106447	3.124864	0.002

R-squared	0.725878	Mean dependent var	0.4191618
Adjusted R-squared	0.721026	S.D. dependent var	0.44617
S.E. of regression	0.235658	Akaike info criterion	-0.031146
Sum squared resid	12.55085	Schwarz criterion	0.043049
Log likelihood	8.633879	F-statistic	149.6126
Durbin-Watson stat	2.368842	Prob(F-statistic)	0.00000

From the statistical perspective (t-statistics and probability values), the model's significant variables are comparative wages, inflation and profit for representative companies in the composite sectors. Their t- statistics are 12.87, 3.12 and 0.92 which are greater than t= $\left|1.96\right|$. When look at the p values (marginal level of significance), I see that comparative wages, inflation and profit are highly significant because their p values are 0.002 for inflation and 0.00 for comparative wage which are smaller than 0.05. Productivity variable is insignificant.

When look at the economic coefficients, those which are closer to 1.00 are significant. Model significant variable is therefore comparative wages and inflation for representative companies in the composite sectors. Their coefficients are 0.75 and

0.33 which are closer to 1. The coefficients mean here that if inflation increases by 10 percent the comparative wage-related outcome will rise by 7.5 percent. And if inflation increases by 10 percent the inflation-related wage outcome will rise by 3.3 percent. Model insignificant variables are therefore productivity and profit for representative companies in the composite sectors.

R^2 is closer to 1 (here 0.725878), the model is highly explanatory. Also F statistics (149) is more than 4 in the calculation.

All sectors taken together and as expected, productivity variable is a not an important criterion taken into consideration at collective bargaining in Turkey. However "comparative wages" and "inflation" variables are the crucial ones in determining the wage outcome in collective bargaining.

Chapter 7
Conclusions and Implications for Further Research

7.1 Discussion of Results

In the industrial relations literature the theme prevails that the outcomes of collective bargaining including wages are determined normally as a result of the bargaining power of labour union and the employer. The process is not much different from simple haggling which occurs in the market place. While this may be true in the short-run, there are also arguments which claim that in the final analysis and in the long-run, the outcome of collective bargaining is affected by objective criteria.

While emphasizing the point that there can be no formula for wage determinations under a system of free collective bargaining, there is also an argument in the background that in the long-run the outputs of collective bargaining are likely to be shaped by objective economic forces, largely affected by certain economic criteria which the parties have to consider during the negotiations process. This thesis has verified this latter argument. However, the wage criteria provide a framework of reference for wage changes rather than precise determinants of the magnitude of those changes. In other words these criteria are not given the same weights by all industries and by all unions. Moreover, the parties give different weight to specific criteria at different times. The results of the wage determination criteria estimated in the Section 5.3.1 shows that during the periods of price inflation, “the cost of living” criterion emerges as the most important factor while at other times it recedes into the background and is replaced by one of the other criteria. For instance, “wage comparison” criterion seems to have been used most widely in collective bargaining.

However, for the key bargaining areas in a sector the "wage comparisons" lose some of their force when the industry acts as the leader for a new round of adjustments in wages. In such situations, the economic environment and changes in ability to pay of a company would seem to assume importance. These results point in turn to the criterion "profitability" (or ability to pay) which is much vaguer and more qualitative than the criterion of "wage comparisons". These results imply that there is no universally accepted principle which offers a clear guide.

A firm and labour union engages in a long-run bilateral relationship in which both parties have market power and receive some economic returns from their mutual relationships. In fixing wage demands, criteria used in wage determination are not given the same weights by all industries and by all unions. In addition, there seems to be significant differences between criteria in fixing wage demands. The results of the used wage demands criteria estimated in the Section 5.3.2 show that the "cost of living" is employed as a major criterion in fixing wage. Its rationale rests upon the belief that real wages should not be reduced by general price movements in the economy beyond the control of any group of workers. It has the distinct advantage for board of chairmen and for the negotiating parties of being easily converted into wages per hour. Unlike some of the other factors, it is not vague and qualitative but rather precise and quantitative. These results point out that the fixing of wage demands is closer to the "minimum wage", such that it represents an attempt to define in monetary terms the content of a budget providing a commonly accepted standard of living within the cultural environment of the community. However, the minimum wage obviously can not be utilized as a sole criterion. In such situations "productivity" criterion, if used, is so complex and the problems of reliable measurement and isolation of influences so vast that much extensive can be established. Theoretical analysis is needed before satisfactory indices either at the national level or for individual industries can be achieved.

"The price mechanism does not ask if a man deserves, it asks only does he produce for the market?" (Backman, 1951: 401). The Turkish case shows that it is scarcely necessary to recall that the effects of higher wages depend very much on the particular conditions of the country. A country's economy, or any particular industry or firm may be expanding or contracting or depressed; wages may be a small or a

large proportion of total costs; the demand for the product may be more or less elastic; competition may be strong, weak or non-existent, profits may be high or low rising or falling; there may be a surplus or a shortage of labour. The results of the factors affecting the wage determination estimated in the Section 5.3.3 shows that "conditions of the firm" carry most weight in explaining union members' situation. In developing countries there are two factors limiting the results that can be expected from wage determination; first only a relatively small proportion of the economically active population is engaged in wage earning employment, the rest being self-employed in agriculture, services; second, a low general level of wages is for the most part a symptom rather than a cause of poverty; most other incomes besides wages are also low. On the other hand firms with high labour costs would hardly survive in such a competitive market.

Avoiding to see negatively effective factors is likely to have an adverse effect in wage determination and thus does not give the parties any added advantage. Negatively effective factors are likely to have an adverse effect in fixing wage demands on the sides of both labour and employer unions. The results of the analysis estimated in Section 5.3.4 shows that "intense competition" is important because the employment effects of a wage increase are likely to be fairly direct and marked. The firm is selling its products and buying its materials in highly competitive markets, so that not much of the incidence of a wage increase can be shifted to customers or supplier through prices. The existence of "unemployment" and hence, it focused on explaining the absence of wage underbidding even when many employed workers are willing to work for lower wages than existing unionized wages. Overall because of the high informality many workers are not receiving the protection that is the intent of the laws. Thus, they are not members of the Social Security Institutions. "Workers who work at large firms or belong to a trade union are more likely to receive severance payment, but only 30 percent of workers who work in firms with 10 or more employees and at most 12 percent of workers belong to unions" (Ataman-Lastik-iş Sendikası).

In a sense some judgments used in wage policy are involved in determining the effects of alternative wage structures on employment. In Section 5.3.5 the question is asked about the factors of parts wage policy and results are estimated to show that

labour union is prioritizing the wage policy factors, thus "yielding a much higher wage increase" and "protecting the employment level" while employers' associations prioritize the wage policy factor as a "cost-wage balance" factor. Wage demands of the labour unions were found mostly acceptable by the employers' unions for two reasons in Turkey. For Onaran and Yentürk (2000) "First, the increase in public expenditures leads to an increase in domestic demand. Second, the appreciation of the local currency resulted in a decline in non-labour input cost, and wages could be increased without undermining profits". Especially in the domestic oriented, import dependent sectors, where the real exchange rate is the major determining factor of the input costs, the appreciation of the local currency led to an increase in profit margins. In Turkey labour unions find making collective bargaining beneficiary for themselves, by making or increasing the real wages. Because as their members will vote for union leaders to keep them in power, they must keep their members happy by yielding wage increase and protecting the level of employment.

Unionization exerts some influence through increased reliance on the collective voice, reflecting the preferences of average workers, as opposed to non-union reliance on individual voice expressed through entity and exit behavior of marginal workers. A union, it is argued, provides a collective voice that more accurately identifies and communicates worker preferences to the firm and establishes grievance procedures and other formalized governance structures that help to reduce quitting and improve employee morale. The union wage differential has often been used as a measure of union power. The question is raised as to the union's relative wage effects by industry. The results of the analysis estimated in the Section 5.3.6 shows that "union membership". All greater levels of unionization tend to affect wages in the non-union sectors also (Neumark and Wacher (1995). Unionization seems to make a significant impact on relative wages where the trade union had the necessary power to force the firm to give up some of its surplus. Another important bargaining power of the union is based on reliance "comparative wages" at the sector. Despite the record of diversity wage changes, workers in many industries insist upon receiving wage increases parallel to those granted in other industries.

There is a growing body of evidence showing that wage differential is primarily from industrial economies and is affected by technological changes unequally. In

order to reduce the inequality because of severance or skill differentials, proposals of different wage increase methods are made (flat rate wage increase- percentage wise wage increase). The results of each method are compatible with the argument that the wage increase method tends to narrow wage differentials. The results of the analysis estimated in the Section 5.3.7 shows that "percentage wise increase method" is mostly used currently. The former year's "flat rate increase method" that was applied widely in the past seems to blocks the total contract order and causes the fact that the unions lose their force and do harm to their survival. But proposed uniform flat-rate wage increase is sought by labour unions in order to minimize internal dissension or eliminates workers' complaints partially and promote union solidarity. Arguments against uniform wage increases are that they are incompatible with the functioning of a free economy and they ignore the fundamental differences in industry. In the analysis the conclusion is reached that "flat rate increase" method and the "narrowing" of wage differentials are related. So at present most pay negotiations focus on defining a "percentage wise increase" on the basic rate which has the effect of maintaining differentials between grades. Here, job evaluations are used for all employees on each job meaning that they receive different rate ranges. Rate range systems have created wage distinctions among individuals based on ability and seniority. Thus, some variation in payments to individual employees has been created.

The evidence of examining the relationship between effects of skill wage differentiation among establishments shows that business costs are changed as a result. The results of the analyses presented in the Section 5.3.8 indicate that the skill wage differentials and business costs of Turkish firms are related. This means that the number of high skilled, high-quality and high-wage jobs can not be improved simply by the reorganization of the technology without improvements in labour market conditions. The evidence on the relationship between the effects of the type of job differentiation among establishments, show that it is too changing the business costs. The fact that the types of job differentials with respect to business costs are related is presented in the analysis. This means that the new technologies and worker skills are complementary in importance in explaining wage differentials with respect to types of jobs.

Similarly perceptions of the "wage" concept by labour and employers' unions seem to differ. Labour unions consider the net wages which show the amount of money actually received by employees when they get their wages. On the other hand the important implication for current discussion is that discussions of wage policy must always be placed in the context of the total labour bargain related to terms of sale. Labour cost includes employers' social security expenditures, severance pay, employers' contributions and compulsory saving funds in addition to earnings.

The analysis of the differences in the share of non wage labour costs in total labour costs, together with differences in the tax burden on labour, will have to be borne in mind when interpreting the results on differences in wages. The results of the analysis estimated in the Section 5.3.10 shows that an employer is in a better position to grant higher wages when the firm's labour costs (mostly payroll taxes) represent a comparatively small part of the total costs.

The results are parallel to the expectations to find "welfare share" in national income as rational by labour unions and employers' associations. These points to the need to question the basic assumptions of both parties in using welfare share as an adjustment program and finding it rational as a fine tuning instrument.

During inflation periods, the cost of living was the major determinant in wage negotiations, as union leaders raced to keep up with higher prices to protect the real income of their members. Always one of the basic wage determining factors, the cost of living is particularly important in wage reviews during the life of a contract. However, wage review clauses are normally introduced during a period of uncertainty as to the future changes in the cost of living. The fact that these arrangements are frequently used in industry indicates that procedures applied apparently do not meet the needs of employees and unions. The results are parallel to the expectations in changes on the consumer price index as an indication of the individual's purchasing power. It is an indicator which most employees and unions consider for reasonable increases in periods of bargaining. Although the CPI is one of the most crucial factor representatives of changes at the cost of living, the parties, especially labour unions, do not think of it as providing a true reflection of the effect of inflation on a particular group's cost of living. In examining the differences

between labour unions' perception of the previous collective agreement terms in realizing the purchasing power loss of labours can be different from the employers' associations perception of loss in the real income. In addition in examining the differences between labour unions perceiving the CPI criterion as a wage increase ratio sufficient to bring the purchasing power to desired levels were found not associated with the actual realities of bringing the purchasing power to the desired level. Because during the booms and periods of rapid inflation the rigidity of union wages that are not fully protected by a COLA (cost of living adjustment) becomes a disadvantage. Union COLA clauses rarely fully reflect unexpected inflation. This means that employers may raise wages less frequently and union members can not keep up with inflation.

However, employers' unions and labour unions agreed for the most part on using "actual" inflation in Turkey. This is largely because the rate of increase in the past is known, while the future rates are a matter of personal judgment and prediction which may be affected subsequently by a wide range of factors. Generally actual inflation is reflected to the wage in order to recover possible loss in the workers' real income. Although employees are in fact always disadvantaged because the value of their wages is eroded from the moment it is agreed and sometimes will not be restored until the next negotiations. Indeed, most of these agreements provide for some form of indexation (annual, semi-annual or separate times at year) should future inflation or external pay levels exceed the levels expected when the agreements were concluded.

In the fields of industrial relations and within the mechanism of collective bargaining in general, especially wage and productivity relations, are subject to serious attention. In fact, "productivity" is one of the most important factors in the distribution of wages and is one of the most discussed topics in all the countries with due attention attached to its importance. However, as a wage determination in Turkey the "criterion of" productivity increase does not impact on the wage outcome. Study shows that the increase of wages is independent from the increase of productivity discussions; the problem is generally discussed in the application of national wage and income policies. The wage system based on job evaluation or productivity linked-wage system based on scientific data, without leaving apart the

criteria of workplace and without departing from general policies and country realities and needs are given by general but vague attention. It has been always discussed that the amount of the sum received by the paid workers in income distribution rate and productivity gains should be considered and due to their absence there has been an increase in principal economic problems such as inflation, unemployment or low investment rates. Overall, labour leaders request that their members get their fair share of the increased profits. Management requests that the value-added concept be applied. Thus, determining the "fair share" becomes a problem. Management asks for its employees to perform assigned work at the stated times and accepted levels of performance. The union counters that employees seek to improve quantity and quality of output, reduce costs and minimize the waste in output.

In view of the grave difficulties inherent in the use of the ability to pay criterion and in wages disputes in industry, it must be rejected as a sole determining factor. In the first place it is extremely difficult to define it. Furthermore, economists are certainly not agreed upon the relationship between wage changes and final sales so that even in circumstances where the problem of definition has been overcome, ability to pay offers no clear policy guide, because union leaders emphasize that labour is one of the primary inputs of a company's productivity and therefore also profitability. Labour negotiators conclude that if the company is experiencing high profits it can better pay its employees who have contributed to the good financial condition of the employer. On the other hand, even though the organization's profitability has not improved, unions may still seek to justify a wage increase. If the organizations overall productivity has improved, this means the labour must have made contributions and therefore should be rewarded. The combinations that result in a fine agreement under one set of circumstances may yield in an unfavourable agreement in another, and strikes may occur where there is disagreement. In fact the ability to pay does seem to have little significance in the settling wage disputes.

In practice, therefore, the "wage comparisons" criterion seems to have been used most widely in collective bargaining. As a wage determination criterion comparative wages have a forceful impact the wage outcome. However, in some the key bargaining areas such sector wage comparisons lose some of their force when the

industry acts as the leader for a new round of adjustments in wages. Despite the record of diverse wage changes in the past, workers in many industries insist upon receiving wage increases at least as large as those granted in other industries. In collective bargaining sessions, the record in other industries is emphasized, particularly after a wage movement is well under way. No two companies producing the same product have identical costs of production. In such situations, the economic environment and changes in productivity would seem to assume importance. After the key wage bargains are set, the comparative wage criterion comes into play for other companies. There is no one type of comparison which is universally acceptable; there is a great deal of controversy over definition. These costs are influenced by such factors as location, skill of management, labour efficiency, competition within the local labour market, and the volume and structure of capital invested.

The ability to apply precisely each of these wage criteria varies. Thus for example, it is possible under some circumstances to determine exactly what increase in wages is required to compensate for changes in the cost of living or changes in productivity or changes in comparative wages. As a prerequisite for such determination however, it is necessary to secure agreement between the parties as to the dates to be used and the data selected. Employers do not think about weak unions and confederations. For that reason, the aim of the system is to establish the cooperation between the industrial relation systems and the economic structure. Government, employees and employers have to be working closely to solve their daily economic and social problems.

In the econometric model constructed by the writer of this thesis, “comparative wages” and “inflation”- and in this order- were found to be significant in the determination of the wage outcome in the collective bargains within the chosen sectors. However, in so far as the survey was concerned, the parties seemed to give greater weight to “inflation,” to be followed by “comparative wages” the latter of which reflected their avowed goals rather than the actual impact of the variables concerned.

7.2 Limitations of the Study

It may be well to recall certain limitations on the effectiveness of wage determination as an instrument for any of the purposes distinguished. First, it should be noted that this study focuses on Turkey's largest firms.

In order to make sure that a rise in the cost of living is reflected to wages, wages should not be allowed to lag behind rises in the cost of living for long periods. It seems reasonable to suggest that wages should not be allowed to lag behind rises in the cost of living for longer than whatever rather short period may be considered necessary in order to make sure that a rise in the cost of living is reflected to wages. On the other hand, it is difficult to deal with the productivity criterion in Turkey since a new measure might be necessary to bring the situation under control. It is hard to receive the exact data from the Turkish firms especially, for instance, in so far as total working hours including overtime work is concerned.

For Turkish companies, the wage data are not publicly available. Occasionally such data can be obtained on a confidential basis and may be used without designating the companies involved. When using such data, there are usually objections from the other party on the grounds that these data are not verifiable; there are various wage figures in existence with different magnitudes. This suggests, at first glance, the idea that there is total confusion and disorder in wages in Turkey. But this is only seemingly so. That is, it is quite possible to reach consistent series on wages by taking into account the different concepts used and by making the same necessary minor adjustments.

Arguably the biggest data shortcoming is the of effect time-series data on wages. The available series come either from establishment surveys (directed by firms that employ 10 workers or more in manufacturing). These are available in the form of crude averages. Special surveys offer more detailed information (such as by sex, age, education, tenure) but coverage is not broad.

Many other problems arise which must be considered in making inter industry comparisons. In some industries, such as construction, food, coal and apparel, high

hourly or weekly wages do not reflect the relative economic well being of the workers involved because of the large seasonal unemployment in those industries. The foregoing details indicate some of the problems which make it necessary to use care in regard to wage comparisons.

According to this assessment, in order to restore equity we have to reflect productivity changes. All we need is the total unit of output that the company has already produced and total hours work (normal working hour plus the overtime). However, it is hard to receive the exact working hours from the Turkish firms. The aim in this research was, however, to provide a minimum possible value for controlling the productivity, rather than an absolute one.

7.3 Implications for Further Research

Except through bargaining, employees are unable to appropriate any of the returns to an improvement in their welfare and their firm's prosperity. Study aims to open a sight on answering the questions of what the driving forces behind wage determination are as well as the reaction of unions to these forces. As a result of this descriptive study it is hoped that research into the above stated hypotheses will pave the way for new hypotheses development in further research.

Evaluation criteria of small and medium sized enterprises may differ in nature and in order of importance, which future research may help reveal.

The mechanism of collective bargaining was generally based on a concept of direct and stable employment, which may be changing. New ways may need to be found to supplement this existing mechanism so that all workers can take part in the determination of their conditions of work. Future research could perhaps develop new ways to enable all workers to take part in the determination of their conditions of work.

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IMKB Şirketler Yıllığı 2005
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Appendix A Results of Reliability Analysis of Scale Items

Table A.1 Reliability and Item-Total Statistics of Whole Sample for Structure of Wages

Reliability Coefficients

Alpha	N of Items
,7541	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Skill Wage	9,760	62,733	,6020	,6727
Business Cost	10,400	54,167	,7118	,6018
Type of Jobs	10,120	76,100	,3924	,7714
Branch of Activity	10,760	51,900	,5468	,7168

Table A.2 Reliability and Item-Total Statistics of Whole Sample for Information Relating to Wage Increase

Reliability Coefficients

Alpha	N of Items
,7179	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Flat Rate	11,649	16,733	,5020	,6567
Percentage Wise	11,303	15,167	,5238	,6668
Narrow	9,625	15,100	,4674	,6642
Widen	9,408	15,900	,5038	,6544

Table A.3 Reliability and Item-Total Statistics of Whole Sample for Comparative Wages Criterion at Wage Determination

Reliability Coefficients

Alpha	N of Items
,7329	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Take into Account	12,444	26,733	,4530	,6567
Effective Role	13,411	23,167	,5028	,6668
Rival Firms	13,664	21,258	,6124	,6642
Directly Affect	12,992	21,290	,5468	,6544

Table A.4 Reliability and Item-Total Statistics of Whole Sample for Productivity Criterion at Wage Determination

Reliability Coefficients

Alpha	N of Items
,7513	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Productivity Calculations	18,073	22,741	,5800	,7022
Effective Role at Wage	17,708	23,558	,2490	,7791
Rival Firms Influence	18,464	17,124	,7890	,6282
Affect Negotiation	18,329	19,277	,7310	,6554

Table A.5 Reliability and Item-Total Statistics of Whole Sample for Employers/ Unions Approach to Labour Costs

Reliability Coefficients

Alpha	N of Items
,7236	2

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Wage Concept	13,674	18,733	,7600	,7243
Labour Cost	12,671	21,167	,7674	,7224

Table A.6 Reliability and Item-Total Statistics of Whole Sample for Employers/ Unions Approach to Payroll Taxes

Reliability Coefficients

Alpha	N of Items
,7453	2

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Payroll taxes	13,393	22,390	,7350	,7332
Negotiation Easier	13,464	25,167	,6900	,7572

Table A.7 Reliability and Item-Total Statistics of Whole Sample for Employers/ Unions Approach to Welfare Share

Reliability Coefficients

Alpha	N of Items
,7863	2

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Welfare Share	8,580	8,131	,7390	,7242
Welfare Share Rational	8,632	8,561	,7500	,7291

Appendix B Results of Mann Whitney Analysis of Wage Criteria

Table B.1 Mann Whitney Test of Wage Determination Criteria in Wage Bargaining

MANN WHITNEY TEST

	ISC_ISV	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
comprative wages	isci	13	11,58	59,500	0,304
	isveren	12	14,54	59,500	0,304
	Total	25			
profit	isveren	12	12,17	68,000	0,541
	isci	13	13,77	68,000	0,541
	Total	25			
inflation	isveren	12	11,00	54,000	0,129
	isci	13	14,85	54,000	0,129
	Total	25			
national income	isci	13	9,96	38,500	0,021
	isveren	12	16,29	38,500	0,021
	Total	25			
productivity	isveren	12	9,50	36,000	0,014
	isci	13	16,23	36,000	0,014
	Total	25			

Appendix C Results of Mann Whitney Analysis of Wage Fixing

Table C.1 Mann Whitney Test for Criteria In Fixing Wage Demands

Mann-Whitney

	isc_isv	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
comprative wages	isci	13	11,54	59,000	,320(a)
	isveren	12	14,58	60,000	,320(a)
	Total	25			
profit	isveren	12	12,17	69,000	,843(a)
	isci	12	12,83	68,000	,843(a)
	Total	24			
inflation	isveren	12	10,50	49,000	,110(a)
	isci	13	15,31	48,000	,110(a)
	Total	25			
national income	isci	12	8,46	23,500	,506(a)
	isveren	5	10,30	24,500	,506(a)
	Total	17			
productivity	isveren	12	9,96	42,500	,078(a)
	isci	12	15,04	41,500	,078(a)
	Total	24			
minimum wage	isci	3	2,50	1,500	,048(a)
	isveren	6	6,25	2,500	,048(a)
	Total	9			

Appendix D Results of Mann Whitney Analysis of Intervening Variables

Table D.1 Mann Whitney Test for Testing Effects of Intervening Variables Impact on Wage Setting

MANN WHITNEY TEST

	ISC_ISV	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
market conditions	isveren	12	9,17	32,000	0,007
	isci	13	16,54	32,000	0,007
	Total	25			
conditions of the firm	isci	13	12,73	74,500	0,829
	isveren	12	13,29	74,500	0,829
	Total	25			
power positions	isci	13	7,69	9,000	0,000
	isveren	12	18,75	9,000	0,000
	Total	25			
government policy	isveren	12	7,92	17,000	0,000
	isci	13	17,69	17,000	0,000
	Total	25			

Appendix E Results of Mann Whitney Analysis of Negative Factors

Table E.1 Mann Whitney Test for Testing Negative Factors' Impact on Wage Bargaining

MANN WHITNEY TEST

	ISC_ISV	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
unemployment	isci	13	7,42	5,500	0,000
	isveren	12	19,04	5,500	0,000
	Total	25			
intense competition	isveren	12	10,21	44,500	0,052
	isci	13	15,58	44,500	0,052
	Total	25			
illegal employment	isci	13	10,77	49,000	0,102
	isveren	12	15,42	49,000	0,102
	Total	25			
economic program	isveren	12	7,67	14,000	0,000
	isci	13	17,92	14,000	0,000
	Total	25			
other unions	isveren	12	12,21	68,500	0,513
	isci	13	13,73	68,500	0,513
	Total	25			

Grouping Variable: ISC_ISV

Appendix F Results of Mann Whitney Analysis of Advantage of Wage Policy

Table F.1 Mann Whitney Test for Advantage Wage Policy

MANN WHITNEY TEST

	isc_isv	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
wage increase	isci	13	7,23	3,000	0,000
	isveren	9	17,67	3,000	0,000
	Total	22			
cost wage balance	isveren	12	8,42	23,000	0,006
	isci	11	15,91	23,000	0,006
	Total	23			
encourage	isveren	12	11,08	55,000	0,188
	isci	13	14,77	55,000	0,188
	Total	25			
simple	isveren	11	7,77	19,500	0,324
	isci	5	10,10	19,500	0,324
	Total	16			
employment level	isci	13	10,00	39,000	0,026
	isveren	12	16,25	39,000	0,026
	Total	25			
other	isveren	4	5,88	13,500	0,320
	isci	10	8,15	13,500	0,320
	Total	14			

Appendix G Results of Mann Whitney Analysis of Bargaining Power

Table G.1 Mann Whitney Test for Comparison Bargaining Power of Unions

Mann-Whitney U

	power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)		power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
order	right to strike	11	7,05	11,500	0,402		rivalry	13	12,27	68,500	0,855
	strike propensity	3	9,17	11,500	0,402	order	experience	11	12,77	68,500	0,855
	Total	14					Total	24			
	power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)		power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
order	strike propensity	3	7,33	16,000	0,936	order	experience	11	9,27	36,000	0,814
	experience	11	7,55	16,000	0,936		monopoly power	7	9,86	36,000	0,814
	Total	14					Total	18			
	power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)		power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
order	strike propensity	3	8,00	18,000	0,831	order	membership	13	9,08	27,000	0,007
	rivalry	13	8,62	18,000	0,831		experience	11	16,55	27,000	0,007
	Total	16					Total	24			
	power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)		power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
order	strike propensity	3	5,50	10,500	1,000	order	other	7	7,07	21,500	0,114
	monopoly power	7	5,50	10,500	1,000		experience	11	11,05	21,500	0,114
	Total	10					Total	18			
	power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)		power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
order	membership	13	7,19	2,500	0,014	order	rivalry	13	10,27	42,500	0,803
	Strike propensity	3	14,17	2,500	0,014		monopoly power	7	10,93	42,500	0,803
	Total	16					Total	20			
	power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)		power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
order	Other	7	4,64	4,500	0,151		membership	13	8,23	16,000	0,000
	Strike propensity	3	7,50	4,500	0,151	order	rivalry	13	18,77	16,000	0,000
	Total	10					Total	26			
	power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)		power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
order	right to strike	11	10,09	45,000	0,297	order	other	7	6,71	19,000	0,030
	experience	11	12,91	45,000	0,297		rivalry	13	12,54	19,000	0,030
	Total	22					Total	20			

	power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
order	right to strike	11	10,09	45,000	0,108
	rivalry	13	14,54	45,000	0,108
	Total	24			

	power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
order	membership	13	7,73	9,500	0,003
	monopoly power	7	15,64	9,500	0,003
	Total	20			

	power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
order	right to strike	11	8,55	28,000	0,324
	monopoly power	7	11,00	28,000	0,324
	Total	18			

	power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
order	other	7	5,64	11,500	0,089
	monopoly power	7	9,36	11,500	0,089
	Total	14			

	power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
order	membership	13	8,27	16,500	0,001
	right to strike	11	17,50	16,500	0,001
	Total	24			

	power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
order	membership	13	9,50	32,500	0,255
	other	7	12,36	32,500	0,255
	Total	20			

	power	N	Mean Rank	Mann-Whitney U	Asymp. Sig. (2-tailed)
order	other	7	7,29	23,000	0,145
	right to strike	11	10,91	23,000	0,145
	Total	18			

Appendix H Information Relating to Wage Increase

Table H.1 The Cross-Tabs and Chi- Square Results for Flat Rate Wage Increase Method and Widen Wage Differentials

FLAT * WIDEN Crosstabulation

			WIDEN		Total
			Occasionally	Generally and Always	
FLAT	Occasionally	Count		11	11
		% within FLAT		100%	100%
		% within WIDEN		73%	73%
	Generally and Always	Count	1	3	4
		% within FLAT	25%	75%	100%
		% within WIDEN	100%	20%	27%
Total		Count	1	14	15
		% within FLAT	7%	93%	100%
		% within WIDEN	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.2	1	0.074		
Continuity Correction	0.356	1	0.551		
Likelihood Ratio	2.983	1	0.084		
Fisher's Exact Test				0.25	0.25
Linear-by-Linear Association	3	1	0.083		
N of Valid Cases	16				

a Computed only for a 2x2 table

b 3 cells (75,0%) have expected count less than 5. The minimum expected count is ,25.

The cross tabulation count indicates that of the flat rate increase method, “occasionally usage” is 11, “generally usage” is 4. The remaining of the sample is not used flat rate wage increase method. Widen differentials “occasionally” is 1, “generally” is 3. It may be seen that the Chi-square value of 3.2 with 1 degree of freedom, is not significant. In other words, the flat rate wage increase method and widen wage differentials are not related.

Table H.2 The Cross-Tabs and Chi- Square Results for Percentage Wise Wage Increase Method and Narrowing Wage Differentials

NARROW * PERCENTAGE

			PERCENTAGE		Total
			Occasionally	Generally	
NARROW	Never	Count		5	5
		% within NARROW		100%	100%
		% within PERCENTAGE		22%	20%
	Occasionally	Count	1	8	9
		% within NARROW	11%	89%	100%
		% within PERCENTAGE	50%	35%	36%
	Generally and Always	Count	1	10	11
		% within NARROW	9%	91%	100%
		% within PERCENTAGE	50%	44%	44%
Total		Count	2	23	25
		% within NARROW	8%	92%	100%
		% within PERCENTAGE	100%	100%	100%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	0.571	2	0.752
Likelihood Ratio	0.957	2	0.62
Linear-by-Linear Association	0.242	1	0.623
N of Valid Cases	25		

a 4 cells (66,7%) have expected count less than 5. The minimum expected count is ,40.

The cross tabulation count indicates that of the percentage wise wage increase method, “occasionally usage” is 2, “generally usage” is 23. Narrowing differentials, “never” is 5, “occasionally” is 9 and “generally” is 11. It may be seen that the Chi-square value of 0.5 with 1 degree of freedom, is not significant. In other words, the percentage wise wage increase method and narrowing wage differentials are not related.

Table H.3 The Spearman Correlation for Percentage Wise Wage Increase Method and Widen Wage Differentials for Labor and Employers' Unions

Nonparametric Correlations
ISC_ISV = isci
Correlations

			WIDEN	PERCENTAGE
Spearman's rho	WIDEN	Correlation Coefficient	1	0.224
		Sig. (2-tailed)	,	0.462
		N	13	13
	PERCENTAGE	Correlation Coefficient	0.224	1
		Sig. (2-tailed)	0.462	,
		N	13	13

a ISC_ISV = isci

ISC_ISV = isveren
Correlations

			WIDEN	PERCENTAGE
Spearman's rho	WIDEN	Correlation Coefficient	1	0.577
		Sig. (2-tailed)	,	0.049
		N	12	12
	PERCENTAGE	Correlation Coefficient	0.577	1
		Sig. (2-tailed)	0.049	,
		N	12	12

* Correlation is significant at the .05 level (2-tailed).
a ISC_ISV = isveren

Table H.4 The Spearman Correlation for Flat Rate Wage Increase Method and Narrowing Wage Differentials for Labor and Employers' Unions

Correlations

			FLAT	NARROW
Spearman's	FLAT	Correlation Coefficient	1	0.5
		Sig. (2-tailed)	,	0.049
		N	12	12
	NARROW	Correlation Coefficient	0.5	1
		Sig. (2-tailed)	0.049	,
		N	12	12

* Correlation is significant at the .05 level (2-tailed).

a ISC_ISV = isci

ISC_ISV = isveren

Correlations

			FLAT	NARROW
Spearman's	FLAT	Correlation Coefficient	1	1
		Sig. (2-tailed)	,	,
		N	3	3
	NARROW	Correlation Coefficient	1	1
		Sig. (2-tailed)	,	,
		N	3	3

** Correlation is significant at the .01 level (2-tailed).

a ISC_ISV = isveren

Table I.1 The Spearman Correlation for Skill Wage Differentials and Effect on Business Cost for Labor and Employers Unions

Nonparametric Correlations
ISC_ISV = isci
Correlations

			skill wage	differention cost
Spearman's rho	skill wage	Correlation Coefficient	1	0.688
		Sig. (2-tailed)	,	0.009
		N	13	13
	differention cost	Correlation Coefficient	0.688	1
		Sig. (2-tailed)	0.009	,
		N	13	13

** Correlation is significant at the .01 level (2-tailed).
a ISC_ISV = isci

ISC_ISV = isveren
Correlations

			skill wage	differention cost
Spearman's rho	skill wage	Correlation Coefficient	1	0.692
		Sig. (2-tailed)	,	0.013
		N	12	12
	differention cost	Correlation Coefficient	0.692	1
		Sig. (2-tailed)	0.013	,
		N	12	12

* Correlation is significant at the .05 level (2-tailed).
a ISC_ISV = isveren

From the results in Table I.1 see that the higher the skill wage differentials in the establishment and affect on business costs are related. In this study the correlation coefficient is 0.68 at the .01 level for a 2 tailed test. The level of skill wage differentials is positively correlated differentiation of the business costs for labour unions.

From the results in Table I.1 see that the higher the skill wage differentials in the establishment and affect on business costs are related. In this study the correlation coefficient is 0.69 at the .05 level for a 2 tailed test. The level of skill wage differentials is positively correlated differentiation of the business costs for employer organizations.

Table I.2 The Spearman Correlation for Type of Job Differentiation and Effect on Business Cost for Labor and Employers Unions

Nonparametric Correlations
ISC_ISV = isci
Correlations

			differention	type of job
Spearman's rho	differention cost	Correlation Coefficient	1	0.513
		Sig. (2-tailed)	,	0.009
		N	13	13
	type of job	Correlation Coefficient	0.513	1
		Sig. (2-tailed)	0.009	,
		N	13	13

** Correlation is significant at the .01 level (2-tailed).
a ISC_ISV = isci

ISC_ISV = isveren
Correlations

			differention	type of job
Spearman's rho	differention cost	Correlation Coefficient	1	0.537
		Sig. (2-tailed)	,	0.058
		N	12	12
	type of job	Correlation Coefficient	0.537	1
		Sig. (2-tailed)	0.058	,
		N	12	12

a ISC_ISV = isveren

From the results in Table I.2 see that the higher the type of job differentiation among the establishment and affect on business costs are related. In this study the correlation coefficient is 0.51 at the .05 level for a 2 tailed test. The type of job differentiation is positively correlated differentiation of the business costs for labour unions.

From the results the higher the type of job differentiation among the establishment and affect on business costs are not related. In this study the correlation coefficient is 0.53 for a 2 tailed test. The type of job differentiation is not correlated differentiation of the business costs for employer associations.

Appendix J Employers/ Unions Approach to Payroll Taxes

Table J.1 The Spearman Correlation for Reduce Payroll Taxes and Ease Wage Negotiations for Labour and Employers' Unions

Nonparametric Correlations
ISC_ISV = isci
Correlations(a)

			ease negotia	payroll tax
Spearman's rho	ease negotiation	Correlation Coefficient	1	0,608
		Sig. (2-tailed)	,	0,028
		N	13	13
	payroll tax	Correlation Coefficient	0,608	1
		Sig. (2-tailed)	0,028	,
		N	13	13

* Correlation is significant at the .05 level (2-tailed).
a ISC_ISV = isci

ISC_ISV = isveren
Correlations(a)

			ease negotia	payroll tax
Spearman's rho	ease negotiation	Correlation Coefficient	1	,
		Sig. (2-tailed)	,	,
		N	12	12
	payroll tax	Correlation Coefficient	,	,
		Sig. (2-tailed)	,	,
		N	12	12

a ISC_ISV = isveren

Appendix K Employers/ Unions Approach to Single Wage

Table K.1 Chi-Square Homogeneity Test Wage Determined as a Single Magnitude

From the results in Table K.1 the wage must be determined as a single magnitude, fridge benefits and wage supplements included. Employer organizations are indifferent but labour unions are fully rejecting the proposal.

Chi-Square Test

Frequencies

single wage			
	Observed N	Expected N	Residual
Never	18	12.5	5.5
Always	7	12.5	-5.5
Total	25		

Test Statistics

	single wage
Chi-Square	4.84
df	1
Asymp. Sig	0.028

Chi-Square Test

Frequencies

single wage			
	Observed N	Expected N	Residual
Never	12	6.5	5.5
Always	1	6.5	-5.5
Total	13		

a ISC_ISV = isci

Test Statistics

	single wage
Chi-Square	9.308
df	1
Asymp. Sig	0.002

a 3 cells (100,0%) have expected frequenc

b ISC_ISV = isci

Chi-Square Test

Frequencies

single wage			
	Observed N	Expected N	Residual
Never	6	6	0
Always	6	6	0
Total	12		

a ISC_ISV = isveren

Test Statistics

	single wage
Chi-Square	0
df	1
Asymp. Sig	1

b ISC_ISV = isveren

Appendix L Criterion of Productivity in Wage Determination

Table L.1 The Spearman Correlation for Productivity Criterion at Wage Bargaining and Reflection onto Wages for Labor and Employers Unions

Correlations(a)

			reflect	one of the criteria
Spearman's rho	reflect	Correlation Coefficient	1	0,036
		Sig. (2-tailed)	.	0,908
		N	13	13
	one of the criteria	Correlation Coefficient	0,036	1
		Sig. (2-tailed)	0,908	.
		N	13	13

a isc_isv = isci

Correlations(a)

			reflect	one of the criteria
Spearman's rho	reflect	Correlation Coefficient	1	-1,000(**)
		Sig. (2-tailed)	.	0
		N	12	12
	one of the criteria	Correlation Coefficient	-1,000(**)	1
		Sig. (2-tailed)	0	.
		N	12	12

** Correlation is significant at the 0.01 level (2-tailed).

a isc_isv = isveren

Table L.2 The Spearman Correlation for Productivity Criterion at Wage Bargaining but Wage Independent from Productivity for Labor and Employers' Unions

Correlations(a)

			one of the criteria	independent
Spearman's rho	one of the criteria	Correlation Coefficient	1	0,429
		Sig. (2-tailed)	.	0,144
		N	13	13
	independent	Correlation Coefficient	0,429	1
		Sig. (2-tailed)	0,144	.
		N	13	13

a isc_isv = isci

Correlations(a)

			one of the criteria	independent
Spearman's rho	one of the criteria	Correlation Coefficient	1	-0,198
		Sig. (2-tailed)	.	0,537
		N	12	12
	independent	Correlation Coefficient	-0,198	1
		Sig. (2-tailed)	0,537	.
		N	12	12

a isc_isv = isveren

Appendix M Profitability Criterion in Wage Determination

Table M.1 The Spearman Correlation for Results for Firm's Final Profit Important and Wage Realized Dependent to Profit for Labor and Employers Unions

Correlations(a)

			independent	final profit
Spearman's rho	independent	Correlation Coefficient	1	-,661(*)
		Sig. (2-tailed)	.	0,014
		N	13	13
	final profit	Correlation Coefficient	-,661(*)	1
		Sig. (2-tailed)	0,014	.
		N	13	13

* Correlation is significant at the 0.05 level (2-tailed).

a isc_isv = isci

Correlations(a)

			independent	final profit
Spearman's rho	independent	Correlation Coefficient	1	-0,573
		Sig. (2-tailed)	.	0,052
		N	12	12
	final profit	Correlation Coefficient	-0,573	1
		Sig. (2-tailed)	0,052	.
		N	12	12

a isc_isv = isveren

Appendix N Comparative Wages Criterion in Wage Determination

rivalfirms * takeintoaccount * **isc_isv Crosstabulation**

isc_isv				takeintoaccount		Total
				Occasionaly	Generally Always	
isci	rivalfirms	Normal	Count	4	0	4
			% within rivalfirms	100,0%	0,0%	100,0%
			% within takeintoaccount	80,0%	0,0%	30,8%
			% of Total	30,8%	0,0%	30,8%
		Much	Count	0	3	3
			% within rivalfirms	0,0%	100,0%	100,0%
			% within takeintoaccount	0,0%	37,5%	23,1%
			% of Total	0,0%	23,1%	23,1%
		Too much	Count	1	5	6
			% within rivalfirms	16,7%	83,3%	100,0%
			% within takeintoaccount	20,0%	62,5%	46,2%
			% of Total	7,7%	38,5%	46,2%
	Total		Count	5	8	13
			% within rivalfirms	38,5%	61,5%	100,0%
			% within takeintoaccount	100,0%	100,0%	100,0%
			% of Total	38,5%	61,5%	100,0%
isveren	rivalfirms	normal	Count	4	2	1	7
			% within rivalfirms	57,1%	28,6%	14,3%	100,0%
			% within dikkatealma	100,0%	50,0%	25,0%	58,3%
			% of Total	33,3%	16,7%	8,3%	58,3%
		Much	Count	0	0	2	2
			% within rivalfirms	0,0%	0,0%	100,0%	100,0%
			% within takeintoaccount	0,0%	0,0%	50,0%	16,7%
			% of Total	0,0%	0,0%	16,7%	16,7%
		Too much	Count	0	2	1	3
			% within rivalfirms	0,0%	66,7%	33,3%	100,0%
			% within takeintoaccount	0,0%	50,0%	25,0%	25,0%
			% of Total	0,0%	16,7%	8,3%	25,0%
	Total		Count	4	4	4	12
			% within rivalfirms	33,3%	33,3%	33,3%	100,0%
			% within takeintoaccount	100,0%	100,0%	100,0%	100,0%
			% of Total	33,3%	33,3%	33,3%	100,0%

Chi-Square Tests

isc_isv		Value	Df	Asymp. Sig. (2-sided)
isci	Pearson Chi-Square	94,791,667	2	0,009
isveren	Pearson Chi-Square	8	4	0,092

rivalfirms * directlyaffect * **isc_isv Crosstabulation**

isc_isv				directlyaffect				Total
				Never	Occasionally	Generally	Always	
isci	rivalfirms	normal	Count	1	2	1	0	4
			% within rivalfirms	25,0%	50,0%	25,0%	0,0%	100,0%
			% within directlyaffect	100,0%	33,3%	33,3%	0,0%	30,8%
			% of Total	7,7%	15,4%	7,7%	0,0%	30,8%
		Much	Count	0	1	1	1	3
			% within rivalfirms	0,0%	33,3%	33,3%	33,3%	100,0%
			% within directlyaffect	0,0%	16,7%	33,3%	33,3%	23,1%
			% of Total	0,0%	7,7%	7,7%	7,7%	23,1%
		Too much	Count	0	3	1	2	6
			% within rivalfirms	0,0%	50,0%	16,7%	33,3%	100,0%
			% within directlyaffect	0,0%	50,0%	33,3%	66,7%	46,2%
			% of Total	0,0%	23,1%	7,7%	15,4%	46,2%
	Total		Count	1	6	3	3	13
			% within rivalfirms	7,7%	46,2%	23,1%	23,1%	100,0%
			% within directlyaffect	100,0%	100,0%	100,0%	100,0%	100,0%
			% of Total	7,7%	46,2%	23,1%	23,1%	100,0%
isveren	rivalfirms	normal	Count	2	5		0	7
			% within rivalfirms	28,6%	71,4%		0,0%	100,0%
			% within directlyaffect	100,0%	62,5%		0,0%	58,3%
			% of Total	16,7%	41,7%		0,0%	58,3%
		Much	Count	0	2		0	2
			% within rivalfirms	0,0%	100,0%		0,0%	100,0%
			% within directlyaffect	0,0%	25,0%		0,0%	16,7%
			% of Total	0,0%	16,7%		0,0%	16,7%
		Too much	Count	0	1		2	3
			% within rivalfirms	0,0%	33,3%		66,7%	100,0%
			% within directlyaffect	0,0%	12,5%		100,0%	25,0%
			% of Total	0,0%	8,3%		16,7%	25,0%
	Total		Count	2	8		2	12
			% within rivalfirms	16,7%	66,7%		16,7%	100,0%
			% within directlyaffect	100,0%	100,0%		100,0%	100,0%
			% of Total	16,7%	66,7%		16,7%	100,0%

Chi-Square Tests

isc_isv		Value	df	Asymp. Sig. (2-sided)
isci	Pearson Chi-Square	3,972	6,000	0,680
isveren	Pearson Chi-Square	8,286	4,000	0,082

effectiverole * directlyaffect * **isc_isv Crosstabul**

isc_isv				directlyaffect				Total
				Never	Occasionally	Generally	Always	
isci	effectiverole	Occasionally	Count	1	1	0	0	2
			% within effectiverole	50,00%	50,00%	0,00%	0,00%	100,00%
			% within directlyaffect	100,00%	16,70%	0,00%	0,00%	15,40%
			% of Total	7,70%	7,70%	0,00%	0,00%	15,40%
		Generally	Count	0	4	1	1	6
			% within effectiverole	0,00%	66,70%	16,70%	16,70%	100,00%
			% within directlyaffect	0,00%	66,70%	33,30%	33,30%	46,20%
			% of Total	0,00%	30,80%	7,70%	7,70%	46,20%
		Always	Count	0	1	2	2	5
			% within effectiverole	0,00%	20,00%	40,00%	40,00%	100,00%
			% within directlyaffect	0,00%	16,70%	66,70%	66,70%	38,50%
			% of Total	0,00%	7,70%	15,40%	15,40%	38,50%
	Total		Count	1	6	3	3	13
			% within effectiverole	7,70%	46,20%	23,10%	23,10%	100,00%
			% within directlyaffect	100,00%	100,00%	100,00%	100,00%	100,00%
			% of Total	7,70%	46,20%	23,10%	23,10%	100,00%
isveren	effectiverole	Occasionally	Count	2	3		0	5
			% within effectiverole	40,00%	60,00%		0,00%	100,00%
			% within directlyaffect	100,00%	37,50%		0,00%	41,70%
			% of Total	16,70%	25,00%		0,00%	41,70%
		Generally	Count	0	5		1	6
			% within effectiverole	0,00%	83,30%		16,70%	100,00%
			% within directlyaffect	0,00%	62,50%		50,00%	50,00%
			% of Total	0,00%	41,70%		8,30%	50,00%
		Always	Count	0	0		1	1
			% within effectiverole	0,00%	0,00%		100,00%	100,00%
			% within directlyaffect	0,00%	0,00%		50,00%	8,30%
			% of Total	0,00%	0,00%		8,30%	8,30%
	Total		Count	2	8		2	12
			% within effectiverole	16,70%	66,70%		16,70%	100,00%
			% within directlyaffect	100,00%	100,00%		100,00%	100,00%
			% of Total	16,70%	66,70%		16,70%	100,00%

Chi-Square Tests

isc_isv		Value	df	Asymp. Sig. (2-sided)
isci	Pearson Chi-Square	9,172(a)	6	0,164
isveren	Pearson Chi-Square	8,750(b)	4	0,068

Appendix O Survey Form Applied to Labour Unions

IŞIK UNIVERSITY SOCIAL SCIENCE INSTITUTE

Wage problem is an essential subject. Wage not only concern of the workers but also concern whole of the economy and also employers interested in this subject. Consequently wage determination is a delicate field on the part of the industrial relations and it is important to get over the using criteria's of wage bargaining.

Part 1: This section is set up in order to acquire the basic information

Name of the union; Labour Union ( )

Branch of Activity (industrial sector)
Branch of activity no:

1) Sector where the union is active
( ) Service ( ) Manufacturing

2) With which the union is affiliated Confederation
( ) Turk-iş ( ) DISK ( ) Hak-iş ( ) Independent ( ) Other

3) Number of affiliated employers(employers' union)

4) Number of members (labour union)
   (1) Membership ratio in the branch of activity

5) Number of employees and members in the establishment where the union is authorized?
   Number of employee ( ) Number of member ( )

6) Percentage of membership at the establishment?
( ) %5 -60 ( ) %60-80 ( ) %80- over

7) Is the employer affiliated to the employers' union?
( ) Yes ( ) No

8) If the answer to question is "yes", which one?
( ) MESS ( ) KIPLAS ( ) Cement Employers' Union
( ) Textile Employers' Union ( ) Other

9) Nature of the sector
( ) Public ( ) Private ( ) Mostly (Public/private) ( ) Other

10) Position of the person filling out the questionnaire.
( ) Member of the Union Management Board ( ) Research specialist
( ) Collective Agreement specialist ( ) Other

Part 2: Information Relating to Wage Determination

Structure of Wages	**Too Much**	**Much**	**Normal**	**Little**	**V. Little**
The extent of skill wage differentials in the establishment.	( )	( )	( )	( )	( )
The effects of wage differentiation on business costs.	( )	( )	( )	( )	( )
Do the types of jobs affect wage differentiation?	( )	( )	( )	( )	( )
Does the structure of branch of activity affect wage differences among establishment?	( )	( )	( )	( )	( )
Do the wage levels of rival firms affect wages at establishment?	( )	( )	( )	( )	( )

Information Relating to Wage Increase	**Always**	**Generally**	**Occasionally**	**Never**
We prefer flat-rate wage increases	( )	( )	( )	( )
We prefer percentage- based wage increases	( )	( )	( )	( )
Does the wage increase method that you use narrow the wage differentials?	( )	( )	( )	( )
Does the wage increase method that you use widen the wage differentials?	( )	( )	( )	( )

Part 3: Employer's/ Union's Approach to Labour Costs

	Always	**Generally**	**Occasionally**	**Never**
Do you calculate labour costs?	( )	( )	( )	( )
Are the approaches used by the employer and the labour union different?	( )	( )	( )	( )
Do you use the welfare share criterion?	( )	( )	( )	( )
Do you find the "welfare share" concept rational?	( )	( )	( )	( )
Do you think that if government reduces the payroll taxes, labour cost will fall?	( )	( )	( )	( )
Do you think that wage must be determined as a single magnitude, fridge benefits and wage supplements included?	( )	( )	( )	( )
Do wage negotiations become easier if payroll taxes on labour costs are reduced?	( )	( )	( )	( )
Are there differences between the employer's and labour union's approach to the wage concept?	( )	( )	( )	( )

Part 4:The Criterion of Inflation in Wage Determination

	Always	**Generally**	**Occasionally**	**Never**
While determining the wage increase ratio, do you consider the income lost during the previous term?	( )	( )	( )	( )
Is using only the price changes as the basis for wage determination a sufficient criterion?	( )	( )	( )	( )
Is the wage increase ratio based on "inflation criterion" sufficient to bring purchasing power to the desired level?	( )	( )	( )	( )

Is the loss in purchasing power realized during the previous collective agreement term taken into account? ( ) ( ) ( ) ( )
In general, the expected inflation rate must be considered in wage determination.
( ) ( ) ( ) ( )
In general, realized (past) inflation rate must be considered in wage determination.
( ) ( ) ( ) ( )
In the collective agreement, do you foresee making additional wage increase if actual (realized) inflation exceeds the expected inflation? ( ) ( ) ( ) ( )

Part 5: Productivity Criterion at Wage Determination

	Always	**Generally**	**Occasionally**	**Never**
Do you calculate labour productivity at the establishment?	( )	( )	( )	( )
Is labour productivity a criterion that must be used in wage determination?	( )	( )	( )	( )
Do you think labour productivity is adequately reflected onto wages?	( )	( )	( )	( )
Increase in wages is realized independent from production and productivity.	( )	( )	( )	( )
Productivity is a criterion which is hard to determine (or compute)	( )	( )	( )	( )
Productivity calculations always reflect reality.	( )	( )	( )	( )

Part 6: Profitability Criterion in Wage Determination

	Always	**Generally**	**Occasionally**	**Never**
Wage increase is realized independent of profits in Turkey.	( )	( )	( )	( )
Firm's profit is the final important factor in wage determination.	( )	( )	( )	( )

Part 7: Comparative Wage Criteria in Wage Determination

	Always	**Generally**	**Occasionally**	**Never**
In determining wages, do you take comparative wages into account?	( )	( )	( )	( )
Do comparative wages play an effective role in wage determination?	( )	( )	( )	( )
Does the comparative wage directly affect wage bargaining?	( )	( )	( )	( )
We consider comparative wages on the area basis.	( )	( )	( )	( )
We consider comparative wages on the basis of branch of activity.	( )	( )	( )	( )
Do you think a different wage rate must be determined for each firm?	( )	( )	( )	( )

Part 8: How Does Wage Determination Proceed According to the Criteria Below?

	Always	Generally	Occasionally	Never
Is the union's membership density a determining factor in wage setting?	( )	( )	( )	( )
Is there the legal right to strike in the establishments where you are authorized to bargain collectively?	( )	( )	( )	( )
Do the decisions of the Supreme Arbitration Board meet your expectations?	( )	( )	( )	( )
Was there a high propensity to strike in the past in establishments where you are authorized to bargain collectively?	( )	( )	( )	( )

Part 9: Factors which Affect Wage Determination

	Always	Generally	Occasionally	Never
The country's economic conditions have a stronger effect on wage determination.	( )	( )	( )	( )
We confer (consult) with the confederation with which we are affiliated.	( )	( )	( )	( )
Forecasts about the firm's future are a determining factor in wage rates.	( )	( )	( )	( )
Are economic policy decisions and measures determining factor in wage rates?	( )	( )	( )	( )
Are adjustments made at the wage level according to fluctuations in economic conditions during the validity of the collective agreement?	( )	( )	( )	( )

Competition

Competition at the sector affects wage determination at the establishment.	( )	( )	( )	( )
The outcome of wage bargaining will be favors workers if imperfect competition prevails.	( )	( )	( )	( )
Wage bargaining results in favor of workers in monopolistic markets.	( )	( )	( )	( )
Wage determination is adversely affected if demand for labour is elastic.	( )	( )	( )	( )

Part 10: How Does The Wage Determination Process Take Shape?

In wage determination, what are important factors that affect you negatively?
(State 5 factors and prioritizes them as 1,2,3,4 and, 1 being the most important.)

( ) Unemployment level
( ) Intense Competition
( ) The level of non -unionized labour
( ) The Current economic program
( ) Wage levels obtained by other unions
( ) Other

What are the important factors in determining wages?
(State 5 factors and prioritizes them as 1,2,3,4 and, 1 being the most important.)
( ) Market conditions
( ) Conditions of the firm
( ) Power positions of the parties
( ) Government policies
( ) Other

In wage determination process, which one is the real (final) effective party?
( ) Labour
( ) Employer
( ) Government
( ) other

How does the labour union fix its bargaining demands?
( ) via questionnaires
( ) through union shop stewards
( ) union department in charge of determining the demands
( ) other

What is the sequence in fixing the demands?
( ) first the draft, then workers' opinions
( ) first the survey, then the draft
( ) directly union official in charge of the collective agreement
( ) other

How do the demands take their final form at the negotiations stage?
( ) member of the management board in charge makes the final determination.
( ) other

At what level is the collective agreement concluded?
( ) Workplace
( ) Business
( ) Multiple employer (group)

What is the most important advantage of your wage policy?
(State 5 factors and prioritize them as 1,2,3 and, 1 being the most important.)
( ) It yields a much higher wage increase
( ) It provides cost-wage balance
( ) It encourages performance
( ) It is simple
( ) It does not affect the employment level adversely.
( ) Other

State the union's priorities followed in designing the collective bargaining demands.
(State 5 factors and prioritize them as 1,2,3 and, 1 being the most important.)
( ) Comparative wages
( ) Profitability of the firm
( ) Annual inflation rate
( ) Rate of the national income increase
( ) Workplace Productivity
( ) Other

State the union's priorities during the wage determination.
(State 5 factors and prioritize them as 1,2,3,4 ,5 and, 1 being the most important.)
( ) Comparative wages
( ) Profitability of the firm
( ) Annual inflation rate
( ) Rate of the national income increase
( ) Workplace Productivity
( ) Minimum wage

What are the important factors which affect the union's bargaining power?
(Denote most important 3 factors and list in order of 1.2.3)
( ) Right to strike
( ) Strike Propensity
( ) Past experiences with the employer
( ) Union's membership density
( ) Monopoly power of the employer
( ) Competition at the sector
( ) other

Appendix P Survey Form Applied to Employers' Unions

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Wage problem is an essential subject. Wage not only concern of the workers but also concern whole of the economy and also employers interested in this subject. Consequently wage determination is a delicate field on the part of the industrial relations and it is important to get over the using criteria's of wage bargaining.

Part 1: This section is set up in order to acquire the basic information

Name of the union; Labour Union ( )

Branch of Activity (industrial sector)
Branch of activity no:

11) Sector where the union is active
( ) Service ( ) Manufacturing

12) With which the union is affiliated Confederation
( ) Turk-iş ( ) DISK ( ) Hak-iş ( ) Independent ( ) Other

13) Number of affiliated employers(employers' union)

14) Number of employees and members in the establishment where the union is authorized?
Number of employee ( ) Number of member ( )

15) Nature of the sector
( ) Public ( ) Private ( ) Mostly (Public/private) ( ) Other

16) Position of the person filling out the questionnaire.
( ) Member of the Union Management Board ( ) Research specialist
( ) Collective Agreement specialist ( ) Other

Part 2: Information Relating to Wage Determination

Structure of Wages	**Too Much**	**Much**	**Normal**	**Little**	**V. Little**
The extent of skill wage differentials in the establishment.	( )	( )	( )	( )	( )
The effects of wage differentiation on business costs.	( )	( )	( )	( )	( )
Do the types of jobs affect wage differentiation?	( )	( )	( )	( )	( )
Does the structure of branch of activity affect wage differences among establishment?	( )	( )	( )	( )	( )
Do the wage levels of rival firms affect wages at establishment?	( )	( )	( )	( )	( )

Information Relating to Wage Increase

	Always	Generally	Occasionally	Never
We prefer flat-rate wage increases	( )	( )	( )	( )
We prefer percentage- based wage increases	( )	( )	( )	( )
Does the wage increase method that you use narrow the wage differentials?	( )	( )	( )	( )
Does the wage increase method that you use widen the wage differentials?	( )	( )	( )	( )

Part 3: Employer's/ Union's Approach to Labour Costs

	Always	Generally	Occasionally	Never
Do you calculate labour costs?	( )	( )	( )	( )
Are the approaches used by the employer and the labour union different?	( )	( )	( )	( )
Do you use the welfare share criterion?	( )	( )	( )	( )
Do you find the "welfare share" concept rational?	( )	( )	( )	( )
Do you think that if government reduces the payroll taxes, labour cost will fall?	( )	( )	( )	( )
Do you think that wage must be determined as a single magnitude, fridge benefits and wage supplements included?	( )	( )	( )	( )
Do wage negotiations become easier if payroll taxes on labour costs are reduced?	( )	( )	( )	( )
Are there differences between the employer's and labour union's approach to the wage concept?	( )	( )	( )	( )

Part 4: The Criterion of Inflation in Wage Determination

	Always	Generally	Occasionally	Never
While determining the wage increase ratio, do you consider the income lost during the previous term?	( )	( )	( )	( )
Is using only the price changes as the basis for wage determination a sufficient criterion?	( )	( )	( )	( )
Is the wage increase ratio based on "inflation criterion" sufficient to bring purchasing power to the desired level?	( )	( )	( )	( )
Is the loss in purchasing power realized during the previous collective agreement term taken into account?	( )	( )	( )	( )
In general, the expected inflation rate must be considered in wage determination.	( )	( )	( )	( )
In general, realized (past) inflation rate must be considered in wage determination.	( )	( )	( )	( )
In the collective agreement, do you foresee making additional wage increase if actual (realized) inflation exceeds the expected inflation?	( )	( )	( )	( )

Part 5: Productivity Criterion at Wage Determination

	Always	Generally	Occasionally	Never
Do you calculate labour productivity at the establishment?	( )	( )	( )	( )

Is labour productivity a criterion that must be used in wage determination?
( ) ( ) ( ) ( )

Do you think labour productivity is adequately reflected onto wages?
( ) ( ) ( ) ( )

Increase in wages is realized independent from production and productivity.
( ) ( ) ( ) ( )

Productivity is a criterion which is hard to determine (or compute)
( ) ( ) ( ) ( )

Productivity calculations always reflect reality.
( ) ( ) ( ) ( )

Part 6: Profitability Criterion in Wage Determination

	Always	**Generally**	**Occasionally**	**Never**
Wage increase is realized independent of profits in Turkey.	( )	( )	( )	( )
Firm's profit is the final important factor in wage determination.	( )	( )	( )	( )

Part 7: Comparative Wage Criteria in Wage Determination

	Always	**Generally**	**Occasionally**	**Never**
In determining wages, do you take comparative wages into account?	( )	( )	( )	( )
Do comparative wages play an effective role in wage determination?	( )	( )	( )	( )
Does the comparative wage directly affect wage bargaining?	( )	( )	( )	( )
We consider comparative wages on the area basis.	( )	( )	( )	( )
We consider comparative wages on the basis of branch of activity.	( )	( )	( )	( )
Do you think a different wage rate must be determined for each firm?	( )	( )	( )	( )

Part 8: How Does Wage Determination Proceed According to the Criteria Below?

	Always	**Generally**	**Occasionally**	**Never**
Is the union's membership density a determining factor in wage setting?	( )	( )	( )	( )
Is there the legal right to strike in the establishments where you are authorized to bargain collectively?	( )	( )	( )	( )
Do the decisions of the Supreme Arbitration Board meet your expectations?	( )	( )	( )	( )
Was there a high propensity to strike in the past in establishments where you are authorized to bargain collectively?	( )	( )	( )	( )

Part 9: Factors which Affect Wage Determination

	Always	Generally	Occasionally	Never
The country's economic conditions have a stronger effect on wage determination.	( )	( )	( )	( )
We confer (consult) with the confederation with which we are affiliated.	( )	( )	( )	( )
Forecasts about the firm's future are a determining factor in wage rates.	( )	( )	( )	( )
Are economic policy decisions and measures determining factor in wage rates?	( )	( )	( )	( )
Are adjustments made at the wage level according to fluctuations in economic conditions during the validity of the collective agreement?	( )	( )	( )	( )

Competition

Competition at the sector affects wage determination at the establishment.	( )	( )	( )	( )
The outcome of wage bargaining will be favors workers if imperfect competition prevails.	( )	( )	( )	( )
Wage bargaining results in favor of workers in monopolistic markets.	( )	( )	( )	( )
Wage determination is adversely affected if demand for labour is elastic.	( )	( )	( )	( )

Part 10: How Does The Wage Determination Process Take Shape?

In wage determination, what are important factors that affect you negatively?
(State 5 factors and prioritizes them as 1,2,3,4 and, 1 being the most important.)

( ) Unemployment level
( ) Intense Competition
( ) The level of non -unionized labour
( ) The Current economic program
( ) Wage levels obtained by other unions
( ) Other

What are the important factors in determining wages?
(State 5 factors and prioritizes them as 1,2,3,4 and, 1 being the most important.)

( ) Market conditions
( ) Conditions of the firm
( ) Power positions of the parties
( ) Government policies
( ) Other

What is the most important advantage of your wage policy?
(State 5 factors and prioritize them as 1, 2, 3 and, 1 being the most important.)
( ) It yields a much higher wage increase
( ) It provides cost-wage balance
( ) It encourages performance
( ) It is simple
( ) It does not affect the employment level adversely.
( ) Other

State the union's priorities followed in designing the collective bargaining demands.
(State 5 factors and prioritize them as 1, 2, , 3 and, 1 being the most important.)
( ) Comparative wages
( ) Profitability of the firm
( ) Annual inflation rate
( ) Rate of the national income increase
( ) Workplace Productivity
( ) Other

State the union's priorities during the wage determination.
(State 5 factors and prioritize them as 1,2,3,4, 5 and, 1 being the most important.)
( ) Comparative wages
( ) Profitability of the firm
( ) Annual inflation rate
( ) Rate of the national income increase
( ) Workplace Productivity
( ) Minimum wage

Vita

Pınar Y. Soykut was born and raised in Istanbul, Turkey. She graduated from Kalamış College and began her university studies at the Business Administration Department of Işık University; she continued her university education with a full scholarship. She graduated from undergraduate of Işık University with awards for superior academic achievement. Upon completion of her B.A., she received the scholarship for Graduate Study from Işık University. Subsequently, she won a Fellowship and Research Assistantship, which she attended Işık University. Upon completion of her M.B.A at Işık University in the year 2002, she entered lectures of the Işık University. In 2002 she began her PH.D. studies in Contemporary Management at Graduate School of Social Sciences of Işık University (Istanbul, Turkey).