



## **Bachelor Thesis**

First and last name:  
Jan Bohnhorst

Registration number:  
880309089010

### **The role of Multinationals In Indonesia's Labor Market**

Submission date:  
24<sup>th</sup> of August 2011

Supervision: Dr. R. Haagsma

Chair group: Development Economics (DEC)

BSc Thesis Economics of Development  
(YSS – 83312)

International Development Studies

## Table of Contents

<u>1. Introduction</u>	<u>1</u>
<u>2. Labor Market Organization Theories</u>	<u>2</u>
2.1 Labor Participation in a Perfectly Competitive Market	2
2.1.1 Labor Supply	3
2.1.2 Labor Demand	5
2.1.3 Concluding Remarks	5
2.2 Monopsony in Labor Markets	6
2.3 Labor Market Segmentation	7
2.4 Efficiency Wage	9
2.5 Concluding Remarks	11
<u>3. Economy, Labor Market and Wages in Indonesia</u>	<u>12</u>
3.1 General Overview of Indonesia	12
3.2 The Economy of Indonesia	13
3.2.1 Foreign Direct Investment and Multinationals	14
3.3 The Labor Market	16
3.3.1 Employment in Indonesia	16
3.3.2 The Formal and Informal Labor Market	17
3.3.3 Employment in Multinationals	19
3.4 Wages in Indonesia	20
3.5 Concluding Remarks	23

<u>4. Role of Multinationals in the Indonesian Labor Market</u>	<u>24</u>
4.1 The Competitive Labor Market	24
4.2 Monopsony	25
4.3 Segmentation of the Labor Market	27
4.3.1 The Formal and Informal Labor Market	27
4.3.2 The Dual Labor Market	29
4.4 Efficiency Wage	30
4.5 Concluding Remarks	31
<u>5. Conclusion</u>	<u>32</u>
5.1 Summary	32
5.2 Evaluation	33
<u>References</u>	<u>35</u>



## 1. Introduction

The global economy can no longer be imagined without multinational enterprises. The number of multinationals is numerous and their political, economic and cultural impact is profound. Multinationals sometimes have bigger budgets than small countries. Therefore, their power should not be underestimated. They are important actors in the world economy, even more relevant in developing countries. Developing countries try to attract multinationals in hope for better and faster economic growth. Studies analyzing the effect of multinationals and the amount of spillovers, backward and forward linkages, increasing tax returns and employment of host countries are numerous.

In the past multinationals were often confronted with bad press because of their treatment of workers in developing countries (Dunning and Lundan, 2008). It was argued that workers face bad working conditions and low wages. This might be misconception because many studies find that multinationals pay higher wages than their domestic counterparts in the host country (compare Lipsey et al., 2010 and Cieslik, 2008). Indonesia is no exception, Indonesia sees the increasingly importance of foreign direct investment and successfully attracts an increasing number of multinationals. Although in the past mainly resource based multinationals were attracted because of the great abundance of resources existent in Indonesia, nowadays mainly manufacturing multinationals are attracted. This is because of the still relative low wages.

The question therefore arises why multinationals relocate or establish new plants in Indonesia if one main reason is low wages, but they still pay higher wages than their domestic counterparts? In order to understand why multinational firms pay higher wages in Indonesia it is necessary to analyze the organization of the labor market. The organization of the labor market depends on several factors. It has to be discovered how exactly labor supply and demand is determined. Further if any generalizations of workers can be made that receive higher wages. This means if evidence can be found that show why multinational firms might pay higher wages than domestic firms.

The focus of this thesis will be on the wage differences between manufacturing domestic and multinational firms. *The aim is to analyze the existing organization of the labor market in Indonesia in order to discover why multinationals pay higher wages.*

To analyze this question different sources of information are used. The sources of the theories to analyze the organization of the Indonesian labor market are textbook examples that are found in labor market books and development economics textbooks. Apart from these sources of information mainly scientific articles were used to find evidence of the organization of the Indonesian Labor market. Further, sources of information include the Indonesian statistical bureau in order to illustrate the wage differences.

In spite of these different sources of information, there are some significant limitations in this thesis. Because of being a literature study, no self-produced empirical research could be carried out. The thesis only relies on existing information. This implies the restriction to information that was researched by other researchers before. In particular, the information on

multinational employees and their wages was scarce. Nevertheless this thesis contributes to the explanation why multinational firms pay higher wages than their domestic counterparts.

The following chapter, Chapter 2, will concentrate on the theories used to analyze the organization of the labor market. This chapter is divided into four sections of which each discusses one theory. Chapter 3 describes the labor market in Indonesia. It will be concentrated on employment, wages and particularly on the role of multinationals in the labor market in Indonesia. Chapter 4 analyses the structure of the labor market in Indonesia. This will be done by combining the theories explained in Chapter 2 with the information given in Chapter 3. This combination will give suggestions on the organization of the labor market in Indonesia. So what theories are best able to explain the organization of the labor market in Indonesia. At the end, Chapter 5, will summarize the main points and will give an evaluation of the thesis.

## 2. Labor Market Organization Theories

This chapter reviews different theories determining the effect of MNCs on wage differences. More closely, theories will be outlined how wages are determined. This will be done by different labor market theories like the competitive labor market and monopsony. In addition, other hypotheses are being discussed trying to explain influences on wages.

In the first section the perfectly competitive labor market will be outlined. It will concentrate on how the total employment level is determined and how labor supply and demand is influenced. In Section 2.2 an alternative organization of the labor market. This is the monopsonistic labor market. In Section 2.3 labor segmentation will be illustrated, in particular the dual labor market theory, the informal and informal labor market. Section 2.4 explores the theory of efficiency wages. The theory of efficiency wages explains why firms might find it profitable to pay higher wages than the market-clearing wage. These different theories are all useful to analyze the situation of multinationals in Indonesia later in this thesis.

### 2.1 Participation in a Perfectly Competitive Labor Market

The perfectly competitive labor market theory describes a situation where all workers receive the same wage for a given amount of work and consequently firms face the same wage level for a given amount of work. In a perfectly competitive labor market, perfect information is assumed. Of particular importance is the assumption of perfect information by the employer. With perfect information the employer is able to pick out the best suited workers. Free entrance and exit into and out of the labor market is an additional assumption of the perfectly competitive labor market. Firms want to pay workers the lowest possible wage and workers want to receive the highest possible wage. This contradiction balances out into equilibrium

(Cahuc and Zylerberg, 2001). Therefore, the equilibrium allocation determines the level of employment and the level of wages paid. In addition, the equilibrium of a competitive labor market is efficient (Borjas, 2005). Firms maximize their profits and workers maximize their utility by trading with each other.

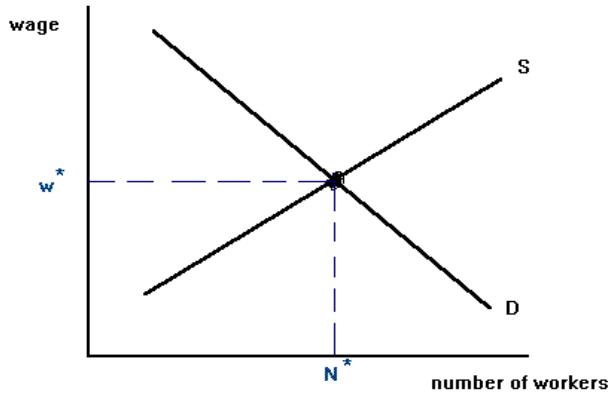


Figure 1: Supply and Demand Model of labor in a competitive labor market

Source: (Perkins et al., 1983)

The equilibrium of the labor market is the intersection of labor supply and demand. In Figure 1 the going wage is  $w^*$  and the amount of workers employed is  $N^*$ . If wages would rise above the equilibrium wage it would lead to a surplus of workers as more workers are willing to work at the given wage than firms would be willing to hire. Therefore, the competition among the workers would drive down the wage. The same counts for the wage being below the equilibrium wage. More firms would want to hire workers as the wage is low, but the competition among the firms would drive up the wage. Subsequently, the intersection of demand and supply represents the market equilibrium. The equilibrium wage is also referred to as the market-clearing wage (Borjas, 2005). In a competitive labor market no unemployment exists as the amount of workers looking for jobs equals the amount firms hire. Workers who are not working, are not working because they do not search for jobs at the given wage level (Borjas, 2005).

### 2.1.1 Labor Supply

Labor supply is defined as the amount of effort offered by a population of a given size (Filer et al, 1996). Several factors influence the amount of labor supplied by a given population. The traditional approach that determines labor supply is the idea that each worker has preferences for income and leisure (Filer et al, 1996).

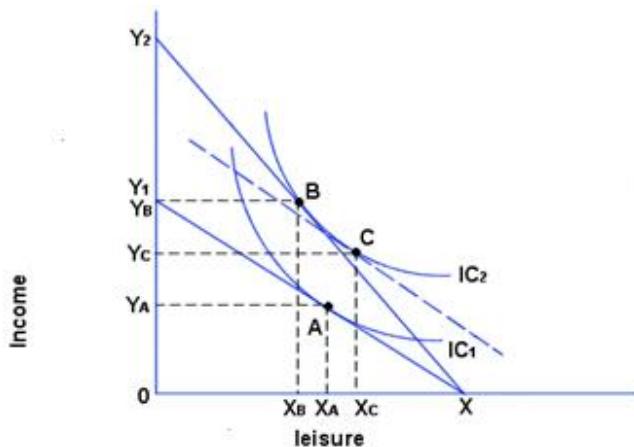


Figure 2: Workers' preferences for income and leisure

Source: (Filer et al, 1996)

The model in Figure 2 describes the trade-off between income and leisure with the help of utility functions. Indifference curves display bundles of leisure hours and income where the worker is indifferent. Indifference curves are convex. In other words, along an indifference curve workers must be paid increasingly large amounts to get them to give up their increasingly scarce leisure time (Filer et al, 1996). The further the indifference curve is away from the origin the higher the utility of the worker. To determine what bundle the worker finally chooses, the budget line is required. The budget line describes the possible opportunities the worker has or, put differently what bundles are available to the worker. The slope of the budget line is nothing else than the wage rate. Preferences and therefore the reservation wage of workers might be different to each worker. These preferences are also affected by other factors. A single in general behaves differently than an individual with responsibilities in a household. Thus, the presence of other family members affects the workers reservation wage (Filer et al, 1996). The reservation wage is defined by the lowest wage rate at which the worker is willing to accept a job. For example, the presence of children can affect the reservation wage because the worker also takes the time for parenting into account. Another factor that influences the workers' behavior is the wage rate. If the wage rate increases it generates an income and substitution effect. On the one hand, a wage increase shifts the budget line outward and the income effect leads to a new optimal bundle (from point A to point C). Point C describes the point where the worker has a higher income and more leisure hours. On the other hand, the substitution effect leads to another new bundle (from point C to B). Through the substitution effect the slope of the budget line changes. In this particular example the substitution and the income effect lead to a higher disposable income and fewer leisure hours. The income and substitution effect is different for every worker depending on his or her preferences (Cahuc and Zylerberg, 2001).

Another factor that determines the amount of labor supplied is self-employment. Self-employment is the ultimate internal labor market where the individual is both manager and worker (Filer et al, 1996). Self-employment plays an important role in developing countries. Workers that are self-employed are part of the informal labor market and not of the formal labor market. The informal market will be further discussed in Section 2.3. The reason in

developing countries for being self-employed is normally the impossibility to find a job in the formal labor market. This might be due to the lack of information, transportation costs and the lack of available jobs (Cahuc and Zylerberg, 2001). The lack of information makes it hard for the worker to find a job because of high search costs. Transportation costs signify that the worker is unable to travel or relocate to the employer. Relocation to another part of the country or a different country is especially apparent in developing countries. Nevertheless, the most apparent reason is the unavailability of jobs. The worker has no other possibility than to be self-employed.

### *2.1.2 Labor Demand*

Labor market outcomes do not only depend on labor supply but also on labor demand. Labor demand depends on the firms that hire or fire workers. Their decisions are made on the basis of profit maximization. The profit maximization point is determined by the production function of the firm. The production function describes the technology the firm uses to produce goods and services (Borjas, 2005). Each firm employs workers until the value of marginal product of labor equals the competitive wage of the market. Each firm hires a different amount of workers, but the total amount of workers must equal the equilibrium employment level (Borjas, 2005). The equilibrium employment level and thus the equilibrium wage can shift into a new equilibrium. This is possible through an increase in demand for workers by firms. This could be due to additional firms that have entered the market. This would lead to a wage and employment increase. Another reason for the increase in wage can be a boost in productivity. As mentioned, each firm employs workers until the value of marginal product of labor equals the competitive wage. If productivity of workers increases for example due to trainings and education their wage increases as their value of marginal product increases.

As seen in Figure 1 the demand curve of the entire market is downward sloping. The demand curve of an individual firm differs from the demand curve of the market which includes all firms. This is because the demand curve of an individual firm is perfectly elastic (Filer et al, 1996). The individual firm takes the market wage  $w^*$  as given. One firm is unable to change the market wage as it is assumed in a competitive market that the firm is too small to influence the going market wage.

### *2.1.3 Concluding Remarks*

This section has focused on the perfectly competitive labor market. Attention was drawn to the determinants of labor supply and labor demand. Labor supply is mainly determined by workers' preferences and labor demand by profit maximizing firms. Of course many different labor markets may exist. There exists a market for high and low skilled workers and the labor market might differ from industry to industry, for instance the labor market for teachers and for bus drivers. There might also be a segmentation of labor or a high rate of self-employment which might explains wage differences (this will be further discussed in Chapter 2.3.) To put

it in a nutshell, the importance of the theory of a perfectly competitive labor market is that each worker in the same market receives the same wage and each firm in the same market faces the same wage.

## 2.2 Monopsony in Labor Markets

This section will elaborate another theory that explains the organization of the labor market. Monopsony can be seen as the opposite market form of the perfectly competitive labor market because of many direct contradictions. A monopsony is a market form where imperfect competition exists. In the case of the labor market it signifies that one firm is able to prevent other firms to enter the labor market and therefore dominates the labor market (Cahuc and Zylberberg, 2001). Contrary to a competitive labor market, a monopsonist faces an upward-sloping supply curve of labor (Borjas, 2005). This implies that the firm has to increase wages to attract more workers. The example of the “company-town” illustrates that only one company can serve as employer in the town. Therefore, the company has to increase wages to attract more workers. Although this example is rare, a monopsony gives important features that can explain phenomena in the labor market where competition exists (Borjas, 2005).

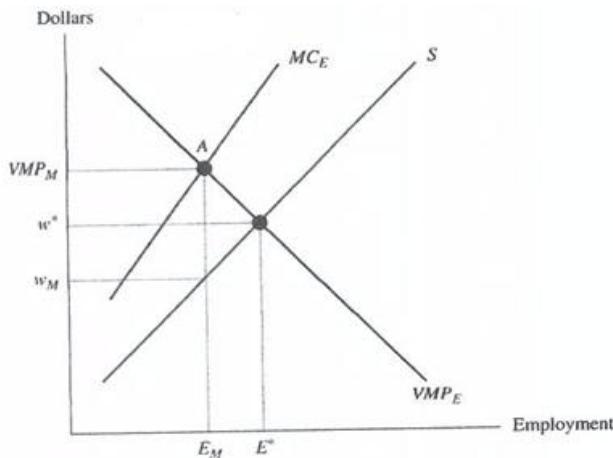


Figure 3: Supply and Demand Model of labor in a monopsony

Source: (Perkins et al., 1983)

The labor supply curve in a monopsony is upward-sloping and no longer gives the marginal cost of hiring as in the competitive labor market (Figure 3). The marginal cost curve (MC) is also upward-sloping and rises even faster than the supply curve. This is because wages increase with each additional worker hired. Thus, the marginal cost not only involves the wage paid to the additional worker but also the increased wage for all other workers (Borjas, 2005). The firm will hire workers until the marginal cost of labor equals the value of marginal product (VMP) (point A). This point is the profit maximizing point because if the firm would hire fewer workers than  $E_m$ , the value of marginal product, which is represented by the demand curve, exceeds marginal cost of labor. If the firm would hire more than  $E_m$ , marginal cost of labor would exceed the value of marginal product and lead to a loss.

As mentioned in Section 2.1 the wage paid in the perfectly competitive labor market equals the value of marginal product of labor. It was illustrated that due to free entry in the perfectly competitive labor market firms would enter the market until no profits can be earned anymore. In a monopsony other firms are hindered to enter the market which discloses that profits can be positive. Also the firm is able to trade off between lowering wages and falling employment (Cahuc and Zylerberg, 2001). For that reason, labor elasticity plays an important role. On the one hand, if labor supply is highly elastic the firm will lose a lot of employees if wages are cut. Hence, the firm has the incentive to offer relatively high wages. On the other hand, if labor supply is highly inelastic the firm has the possibility to offer relatively low wages. In the competitive labor market more workers would have been employed and a higher wage would have been paid by the employer. As a result an underemployment arises which represents an inefficient allocation of resources in a monopsony.

Some preconditions have to be in place for the existence of monopsony. The first assumption of the monopsony model is that workers have limited mobility. Workers who are very mobile can take a job elsewhere when the earnings in the monopsony market are lower. This constrained mobility might be due to transportation costs. Roads and other public transportation might be rare which makes it difficult for the worker to travel somewhere else to work. In addition, in poor areas the worker might not be able to relocate somewhere else because of the costs that would be involved. Another assumption is that a monopsonistic firm uses modern technology and has knowledge that others have no access to. Thus the firm dominates the profession and cannot be used easily in other fields (Cahuc and Zylerberg, 2001).

The most significant assumption is about entry costs. Entry cost must exist that make it difficult or even impossible for other firms to enter the market. Entry costs might even be due to government restrictions and corruption. Also the modern technology and knowledge that firms have make it difficult for others to enter the market as they have no chance to compete. Therefore, the entry cost allows the monopsonistic firm to escape competition. Without entry costs other firms would enter the market because positive profits can be earned (Cahuc and Zylerberg, 2001).

### *2.3 Labor Market Segmentation*

In a monopsony the firm has market power and therefore can determine wages according to their preferences. However, monopsony might not be the only explanation why firms pay other wages than they would in a perfectly competitive labor market. The theory of labor segmentation shows that workers operate in different markets that explain wage differentials. The workers being separated into different labor markets have different working conditions, promotional opportunities and market institutions. These different groups of workers are not competing with each other. This section concentrates on the informal, formal market and the dual labor market theory.

The segmentation between the informal and formal market is mostly notable in developing countries. Almost everyone wants to work in the formal market in developing countries

however, it is obvious that labor demand in the formal sector is insufficient to employ all the workers wishing to work in the formal market (Fields, 2004). The formal market consists of the government and large scale enterprises such as banks, insurance companies, trading houses and factories (Gillis, 1983). The workers are attracted by the relative high wages and steady employment. Wages in the formal sector are not determined directly by labor supply and demand as in the perfectly competitive labor market (Fields, 2004). This is because of the unlimited supply of workers currently working in the informal sector but wishing to work in the formal sector. Lewis (1979) presents two mechanisms that determine wages in the formal market. The first is the setting of wages through trade unions, minimum wage policy and other public sector pay policies (Fields, 2004). The second mechanism that determines wages is through any developments that raises the average productivity in the formal sector (Fields, 2004). Thus the wage is linked directly to the productivity of workers. These two mechanisms are meant to determine wages, however, they contradict each other. This is because the first mechanism points out that the wages are fixed, but the second depends on average productivity. Additionally, Fields points out that the higher wages in the formal sector suggest that wages are not linked to the productivity of the workers (Fields, 2004). This shows the difficulty of the determination of wages in the formal sector as the two mechanisms are not able to completely explain the wages in the formal sector. It is only clear that wages in the formal sector are not determined directly by labor supply and demand (Fields, 2004).

The limited possibility for workers to find a job in the formal market drives workers into the informal market. The informal market sector exists alongside the formal sector. It especially exists in developing countries and accounts for the livelihoods of many (Gillis, 1983). The International Labor Organization defines the informal sector that "comprises informal employment (work without secure contract, worker benefit, or social protection) of two kinds: self employment in informal enterprises and paid employment in informal jobs (Asian Development Bank, 2011). Products and services produced in the informal market sometimes compete with the products of the formal market, but usually they operate in niches that formal-sector firms do not find profitable to operate in (Gillis, 1983). For that reason, informal workers often have different skills and knowledge that is not demanded in the formal sector. The informal sector is not restricted and any worker is able to enter it if he wants to. Normally, only a small amount of capital is required to start for example as a street vendor. If the worker even lacks this capital he has the opportunity to work for others in the informal sector (Gillis, 1983). Workers that enter the informal market usually have no problem to find work. The wages in the informal sector are low compared to the wages in the formal sector. The informal wages are determined by the average sector productivity (Fields, 2004). This implies lowering the wages of all workers when additional workers enter. On the contrary, if workers leave the market to work in the formal market average wages of workers in the informal market rise. The division of the labor market into the formal and informal market in developing countries received a lot of attention in the past, yet recently the structural segmentation of labor markets into the primary and secondary sector became more important.

Doeringer and Piore (1971) developed the dual labor market theory that separates the labor market into the primary and secondary sector. These two sectors are differentiated mainly by stability characteristics (Reich and Gordon, 1973). On the one hand, the primary sector is characterized by high ability workers. These generally receive high wages and have high status. Primary jobs guarantee high security and include the further development of skills (Doeringer and Piore, 1971). Workers in the primary have good working conditions and have the opportunity for promotion and to move up the job ladder in the internal labor market. On the other hand, the secondary sector is characterized by lower paid jobs that have unstable working conditions which lead to a high labor turnover. The opportunity to move up the job ladder is limited and the workers are mostly low skilled (Doeringer and Piore, 1971). That is why workers in the secondary sector are often minority workers such as women and children (Reich and Gordon, 1973).

The high wages in the primary sector cannot be strictly explained by the productivity of workers. In the primary sector firms operate on national and international markets. They often have monopsony power and their production is large scale and capital intensive. Workers' output is normally hard to monitor and they have a lot of responsibility that points out the high ability of workers (Borjas, 2005). For that reason firms might want to make sure workers put a lot of effort into their work. If effort of the worker plays an important role and the firm cannot replace the worker easily it gives evidence that efficiency wages are being paid (van de Klundert, 1989). Efficiency wages explain the high wages compared to the secondary sector (further discussed in Section 2.4). In contrast to firms in the primary sector, firms in the secondary sector are less capital intensive and more labor intensive. Additionally, firms operate usually in competitive labor markets. Workers are easy to replace as they are low skilled and not scarce. On that account, firms have no incentive to pay efficiency wages. The level of wages the firm pays to the workers is rather determined by the competitive wage (Reich and Gordon, 1973).

## 2.4 Efficiency Wage

The efficiency hypothesis argues that in some markets wages are not only determined by supply and demand of labor but by the incentive of firms to pay wages above the market clearing wage. This is done by the firms in order to increase efficiency and productivity of the workers (Borjas, 2005). The determination of the efficiency wage level is shown in Figure 4. This curve shows the correlation of the wage and the workers effort. The effort curve depends on the idea that the workers' productivity is based on the real wage levels. It represents the marginal product of the wage. The straight line from the origin represents the average product of wage.

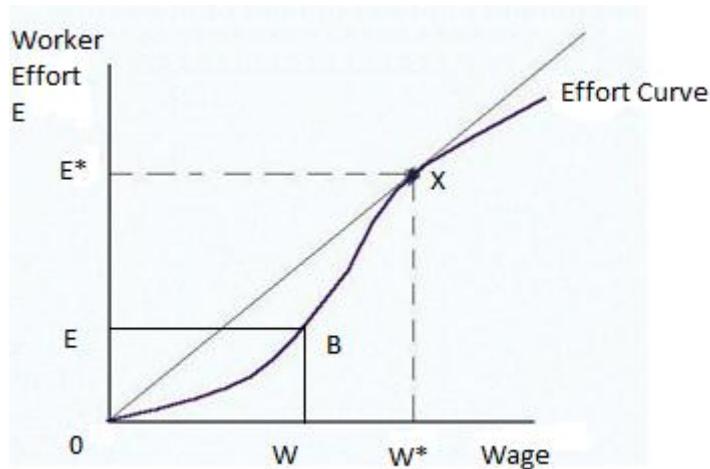


Figure 4: Effort curve

Source: (Filer et al. 1996).

The efficiency wage of the firm is  $w^*$ , if the market wage is only  $w$  it is profitable to increase wages to  $w^*$ . Effort has more than doubled although the wage rate only increased partly. At the point X profit is maximized because the marginal product of wage equals the average product of wage which is not the case in B. If the wage would be higher than  $w^*$  effort would increase less than wages. Therefore it is not profitable to increase wages higher than  $w^*$ .

The theory of efficiency wages was first established for less developed countries. It was argued that a higher wage would lead to better nutrition and health (Akerlof and Yellen, 1986). Better health leads to higher productivity of the workers through for example fewer days of illness. The link between nutrition and productivity is especially visible when real wages are low. This is often the case in developing countries where real wages are too low to afford a healthy life. This gives reasons to firms to raise wages to improve the health of workers.

The nutrition theory is not the only reason for firms to pay efficiency wages. Another reason to pay efficiency wages is the shirking model. The shirking model describes the fact that employees spend time shirking rather than working. Firms thus might pay higher wages than the clearing wage in order to provide the incentive for workers to work rather than shirk (Bowles, 1981). Shirking arises because of incomplete contracts. Contract theory suggests that contracts are always incomplete because of incomplete and asymmetric information which leads to inefficiencies (Cahuc and Zylerberg, 2001). Piece rates can be used to diminish inefficiencies through shirking. Nevertheless, piece rates need to be monitored (Akerlof and Yellen, 1986). Monitoring can be very inaccurate and extremely costly which make piece rates often unpractical. The efficiency wage is another way to diminish shirking. The higher wages increase the cost of the worker to get caught shirking which results in being fired (Akerlof and Yellen, 1986). If so he has to accept a job that offers a lower wage because of the lower clearing wage. That gives the worker an incentive to decrease shirking and to be more productive.

The theory of adverse selection is another motive for firms to pay efficiency wages. Adverse selection refers to the opportunity of firms to select the best workers. Firm that pay efficiency wages have a higher probability to receive high-ability workers (Borjas, 2005). Consider the case of a firm which pays the competitive wage. High-ability workers would not apply to these jobs as they have a higher reservation wage (Borjas, 2005). Hence, only low ability-workers take these jobs. That increases the probability of the efficiency wage paying firm to attract high-ability workers which leads to higher productivity and therefore higher profits.

The efficiency wage hypothesis also considers the labor turnover model. The labor turnover model points out the importance of quit rates of employees (Salop and Salop, 1976). Workers that receive high wages are less likely to quit (Salop and Salop, 1976). This means that firms decrease turnover costs and search costs to find new workers. In addition, the disruptions that occur when well trained workers leave and new workers have to be trained are less. So the efficiency wage reduces the quit rates leading to higher productivity and therefore profits.

The assumptions up till now were theories which reflected the individualistic profit maximization of the worker. The last theory which motivates firms to pay efficiency wages is a sociological theory. The sociological model established by Akerlof and Yellen (1986) is based on values and norms of the group. Akerlof and Yellen (1986) point out that by raising group norms productivity increases. By the increased wages the group as a whole and the individual worker feels obliged to reciprocate. This model is called the partial gift exchange model (Akerlof and Yellen, 1986). This model expands the individualistic profit maximization approaches of efficiency wage theory.

## 2.5 Concluding Remarks

This chapter has dealt with the theoretical framework to analyze the organization of labor markets and the determinants of wages. The labor market forms discussed were the perfectly competitive labor market and monopsony. The perfectly competitive labor market is characterized by a balanced employment and no unemployment rate. Each firm in the market faces the same labor costs. In contrast, a monopsony is characterized by an inefficient employment allocation due to the market power of the firm. In a monopsony fewer workers are employed and a lower wage is paid by the monopsonistic firm than in a perfectly competitive labor market.

Nevertheless, these two labor market forms might not be able to explain the level of wages. This is due to the fact that a segmentation of labor might divide the labor market into different segments. The dual labor market theory has shown that the labor market can be divided into a primary and a secondary sector. The primary sector was characterized by high-ability workers and high wages. The secondary sector was characterized by low wages and a low-skilled labor force. Another segmentation that was discussed is the division of the labor market into the formal and informal market. The informal sector compared to the formal sector was characterized by relatively low wages and unsteady employment.

In the last section a hypothesis was outlined that influences wages within the existing labor market. Efficiency wages explain why firms might pay higher wages than the clearing wage and still operate profit maximizing. The increased wages might result in an increase in productivity that is higher than the increase in wages. These theories and hypothesis will be used in Chapter 4 to evaluate and explain the role of multinationals in the Indonesian labor market.

### **3. Economy, Labor Market and Wages in Indonesia**

This chapter gives an overview about useful information for the analysis of Indonesia. At first a short overview of general facts of Indonesia will be given. The second section will give further information about the structure of the economy with focus on the most important facts for the following analysis. In detail, the relevance of foreign direct investment and multinationals in the Indonesian economy will be discussed. The third section will handle the labor market. It will be discussed how the labor market is structured in Indonesia. This will be done by outlining the employment rates in the informal and formal market and in multinationals in Indonesia. In the last section the wage levels in the different markets will be shown. At the end final remarks will be made which shortly characterize the whole chapter.

#### *3.1 General overview of Indonesia*

The republic of Indonesia is located in Southeast Asia. It contains of approximately 17.000 islands and extends to more than 5000km from west to east (World Bank, 2009). Indonesia is the fourth most populated nation in the world with 237.5 million inhabitants (CIA, 2011). Jakarta is the state capital with about a population of 14 million, it is situated on the island Java that counts to one of the five biggest islands of Indonesia. Indonesia became independent of its formal colonial power the Netherlands in 1945. In 1999 Indonesia had its first democratic elections, after being ruled by a military dictatorship for 25 years (CIA, 2011). The official language is Indonesian (Bahasa), however English, Dutch, Javanese and local dialects are widely spread. Over thirty ethnic groups can be found in Indonesia of which Chinese accounts to the biggest minority (CIA, 2011). Islam is the dominant religion as 88 per cent of the Indonesian are Muslims. Other religions practiced include Christians (8 percent) and Hindus (2 percent) (Auwärtiges Amt, 2011). Indonesia is a member of the United Nations which includes membership in the specialized agencies of the United Nation such as the World Bank, UNICEF, WHO and the IWF. Although Indonesia achieved remarkable economic growth in the last decade it still struggles with a high level of poverty, unemployment, corruption, poor infrastructure and a complex regulatory environment (Auwärtiges Amt, 2011). The economy and the labor market of Indonesia will further be elaborated in the next sections.



Figure 6: Map of Indonesia in southern Asia

Source: (National Geographic, 2011)

### 3.2 The Economy of Indonesia

Indonesia is a state which can look back on remarkable macroeconomic development of the past ten years (Auswärtiges Amt, 2011). Economic analysts believe that this positive growth will continue. The remarkable development of the economy is mainly due to high domestic consumption which accounts for 60 to 70 percent of the GDP (CIA, 2011). This was also the reason why Indonesia came through the global finance crisis reasonably smoothly (Auswärtiges Amt, 2011). GDP per capita was 3.003 USD in 2010 and GDP on average grew 5 percent over the last ten years (Figure 7). This makes Indonesia apart from China and India one of the main growth markets in Asia (World Bank, 2009).

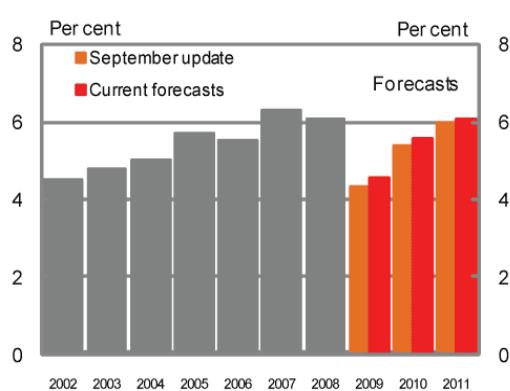


Figure 7: annual average GDP growth, percent)

Source: (World Bank 2009)

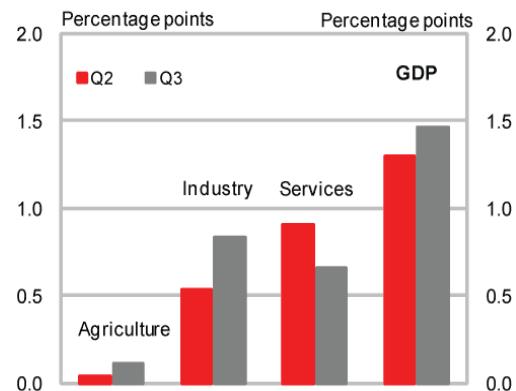


Figure 8: Production sectors contribution to growth

Source: (World Bank 2009) Note: Represents the year 2008

As mentioned, Indonesia was ruled by a dictatorship which affected the economy strongly. The economy was a more central state-directed economy (Auswärtiges Amt, 2011). Presently it is more a free market economy but still with strong governmental influences. The state still

owns companies that have monopolistic power. Nevertheless, the government is reducing governmental actions within the economy (World Bank, 2009). Of particular importance is still the agricultural sector. However, agriculture only accounts for 16.5 percent of GDP, compared to services (37.1 percent) and industry (46.4 percent). The decreasing importance of the agricultural sector is expected to continue in the future (Baird, 2000). Indonesia is rich in natural resources such as mineral oil, coal and natural gas. Although it is rich in mineral oil it has to import oil in order to catch up with demand. Indonesia's main export products are natural gas, coal and agriculture products such as wood, tea, coffee and palm oil. Indonesia is the world's biggest exporter of palm oil. The high growth rates of the past years and expected coming years lay importance on the improvement of infrastructure. The government faces the challenge to improve infrastructure in order to spur economic growth. Investments have to be made to improve infrastructure such as airports, roads, railways and telecommunication. The government plans to spend 150 bn. USD in the coming years on infrastructure with the help of foreign investment and participation (CIA, 2011).

### 3.2.1 Foreign Direct Investment and Multinationals

Foreign direct investment (FDI) and the location of multinationals in Indonesia have played an important role in Indonesia's economy over the last three decades (Baird, 2000). The positive economic development has led to an increase of foreign direct investment of 52 percent in 2010 to 62 bn USD compared to 2009 (Auswärtiges Amt, 2011). Table 1 shows the increasing importance of FDI as a percentage of GDP. In the 80s and 90s, FDI only made up an average of 7 percent of total GDP. In the year 2000 it reached a peak of 15.2 percent and slowly decreased to 13.5 percent in the year 2009. This illustrates the importance of FDI in Indonesia.

Table 1: Stock of Inward FDI as a percentage of GDP

	1980	1985	1990	1995	2000	2005	2009
<b>Indonesia</b>	<b>5.7</b>	<b>6.0</b>	<b>7.0</b>	<b>9.3</b>	<b>15.2</b>	<b>14.4</b>	<b>13.5</b>

Source: (Auswärtiges Amt, 2011)

This increase is assisted by reforms of the Indonesian government and the Indonesian Investment Coordinating Board (Auswärtiges Amt, 2011). Many reforms were undertaken to attract more FDI. The investment law was changed in 2007 which guarantees the same rights to foreign investors compared to domestic investors (Auswärtiges Amt, 2011). Other reforms include the extension of land use rights, simplifying entry regulations of foreigners, the abolishment of disinvestments for foreigners and others (Auswärtiges Amt, 2011). In the "Doing Business Report 2010" by the World Bank Indonesia was able to climb up from the 131 place in 2006 to the 122 place in 2010 (Baird, 2000). This positive trend of FDI is also

caused by the rise of wages in other Asian countries. This boosts the interest of multinationals to relocate their factories to Indonesia where wages are still relatively low. Although, the Indonesian government has undertaken a lot of reforms to attract FDI, foreign investors still complain about a too long approval time and high corruption resulting in additional costs (Auswärtiges Amt, 2011).

Multinational firms are global players that engage in foreign direct investment and own or, in some way, control value added activities in more than one country. They account for 10 percent of global output and over 30 percent of world export. Multinationals develop and control a vast variety of new technologies important to stay competitive on the world market (Baird, 2000). The increase of FDI goes hand in hand with the growth of multinationals in Indonesia. Particularly, the influence of employment and production of the manufacturing multinationals increased in Indonesia lately. Indonesia is rich in natural resources which primarily attracted multinationals that engage in oil, gas and other natural resources. However, presently the manufacturing multinationals became more important in the economy than resource based multinationals (Siegmann, 2006). The share of manufacturing industry in nominal GDP increased from 16% in 1985 to 29% in 2004 (World Bank, 2009). To evaluate the increasing importance it can be looked at the number of foreign-owned plants in the manufacturing industry. Table 2 illustrates the number of plants and the number of employees in the manufacturing industry that are foreign owned and locally owned. At first, it can be seen that the total number of plants increased from about 6400 in 1990 to over 10.000 in the year 2000. Interesting is that while the number of locally owned firms not even doubled from 1990 to 2000, the number of foreign owned firms more than tripled.

Table 2: Number of locally and foreign –owned manufacturing plants in Indonesia

Year	1990	1995	2000
Number of districts	16	22	27
Number of plants	6,401	9,348	10,530
– foreign-owned	406	981	1,472
– locally owned	5,995	8,367	9,058
Number of employees (1,000 persons)	1,152	2,398	2,654
– in foreign-owned	180	611	787
– in locally owned	972	1,787	1,867

Source: BPS – Statistics, Indonesia (BPS, 2011)

Note: The districts are all chosen on the criteria that there are more than ten foreign-owned plants.

Table 2 reflects the growing importance of multinationals in the manufacturing industry in the Indonesian economy. Not only do multinationals add a mentionable portion to GDP and growth, but also to employment. Multinationals add a significant number of work possibilities for the population of Indonesia. The case of the labor market in regard to multinationals will be elaborated in the next section.

### 3.3 The Labor Market

The structure of the labor market is essential for the analysis of wage differentials between foreign owned and domestically owned firms. At first, a general overview of the labor market will be given. This will be done by presenting employment trends and employment participation rates of the labor market. Secondly, the role of multinationals within the labor market in Indonesia will be shown. It will be elaborated how many and who is employed by the multinationals. The third section will disclose the segmentation of the market into the formal and informal market. At the end the informal market and its role in the Indonesian labor market will be discussed.

#### 3.3.1 Employment in Indonesia

Employment in Indonesia was marked by major economic shocks and political transformation. Labor law reforms were high on the political agenda (Auswärtiges Amt). Due to that, many different labor laws were introduced in the past, such as the Social Security Law and the Migrant Worker Law (Auswärtiges Amt, 2011). These added concerns to investors that their costs could increase. These political reforms and the economic shocks added to the decline in the employment rate, although GDP grew on average 6.3 percent between 2003 and 2007. Indonesia is on an upward employment trend since 2006 (Figure 9).

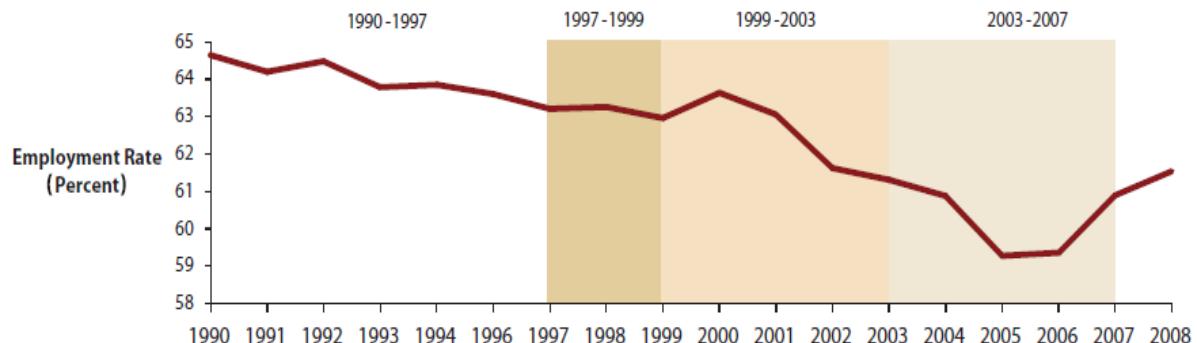


Figure 9: Employment Rate –defined as the percentage of adults working in Indonesia

Source: (World Bank 2009)

Employment gains in the years 2006-2008 are mainly the cause of a rising employment of women (World Bank, 2009). The employment of women increased strongly while the employment of men decreased (World Bank, 2009). The entrance of women is due to the rising job opportunities for women off the farm. Still only 48 percent of women participate in the labor force while 84 percent are men. The labor force in total is estimated to be 116.5 million of which 38.3 percent employed in agricultural sector, 12.8 percent in industry and 48.9 percent in the service sector (World Bank, 2009). In Figure 10 shows that the employment in non-agricultural sector decreased from 1997 until 2003. This was because of

the Asian financial crisis in 1997. In the crisis many workers employed in non-agricultural sectors lost their job and had to return to work in agriculture. From the year 2003 until 2008 the non-agricultural employment rose again. The agricultural sector still employs approximately forty percent of the labor force but this share is expected to decrease with further economic development.

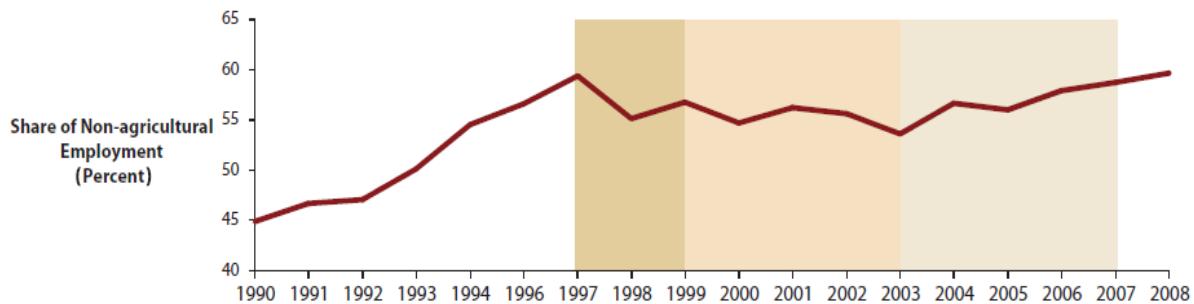
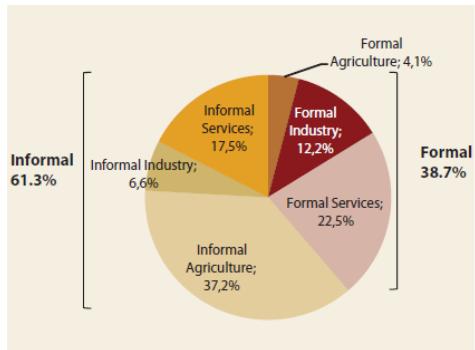


Figure 10: Share of Non-agricultural Employment (Percent)

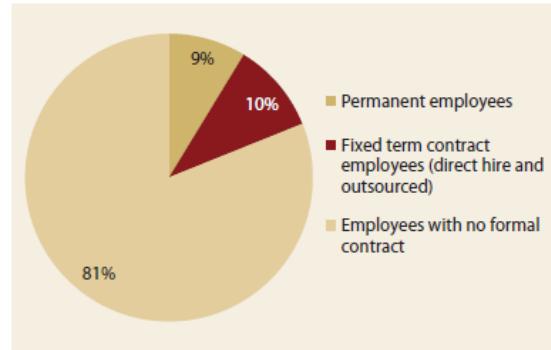
Source: (World Bank, 2009)

### 3.3.2 The Formal and Informal Labor Market

The labor market in Indonesia is divided into a formal and an informal labor market. This division is not in perfectly accordance with the theory of the formal and informal market outlined in Section 2.3. Rather literature of Indonesia shows a division of the informal and formal market due to contracts. Workers having no contract are informal workers and workers having a contract are employed in the formal sector, even though there are exceptions. More than 61 percent work in the informal market while only 38 percent work in the formal labor market (Figure 11). From the 38 percent employed in the formal sector 12.2 percent work in Industry and 22.5 percent in services (Figure 11). Formal workers in Indonesia can have different kinds of contracts. There is being differentiated between three types of contracts in the Indonesian formal labor market. The first is the indefinite-term contract. The worker having this contract is employed on a permanent basis. The second type of contract is the fixed term contract. The worker having this contract is hired for a specific period of time. The last type is no formal contract at all. The worker does not have an official work agreement with the formal employer which informal workers do not have as well.

Figure 11: Distribution of workers by sector

Source: (World Bank, 2009)

Figure 12: Distribution of workers by contract status

Source: (World Bank, 2009)

Figure 12 outlines that 81 percent of the total workers in the formal market have no formal contract. This means 19 percent of the formal workers have an indefinite-term contract or a fixed term contract. The average employee with a permanent or fixed-term contract is reported to be well educated as 80 percent at least completed secondary school compared to only 52 percent of employees with no formal contract (World Bank, 2010). Employees who have no formal contract but are still employed in the formal market lack income security because they have no official arrangements with the employer. The workers do not receive any non-wage benefits such as health insurance while these workers would especially benefit from non-wage benefits. This is because workers with no formal contract often work in jobs that are physically exhausting. Additionally, they are least likely to be able to improve skills. This is because employers have no incentive to train workers that have no formal contract. Although the employment rates increased since 2006 (Figure 9), the rates of formal employment in Indonesia only increased little by little (World Bank, 2010). The new employments are only rarely being created in the formal sector. Mostly they are created in the informal sector. The informal sector not only accounts for more than 60 percent of employment but growth rates are also higher than of the formal sector (World Bank, 2010). This highlights the importance of the informal market in Indonesia.

The informal market is particularly big in Indonesia compared to other countries of Asia. 61 percent of the total employment is situated in the informal sector. Studies such as from Marguerite S. Robinson show that the informal market provides thousands of jobs for workers in Indonesia which the formal sector cannot provide (Gillis, 1983). Informal workers in Indonesia produce low-priced products that do not need a lot of input like capital or labor. The informal market is mainly situated in remote areas where firms are rarely situated. Informal workers live in rural areas and are self-employed. The majority of informal workers work in farming, fishing and raising livestock (World Bank, 2010). Seventy-three percent of informal workers in 2008 finished elementary school or less (World Bank, 2010). Workers in the informal market have lower job security and their income is less stable than in the formal market. Additionally, they do not receive non-wage benefits that formal workers benefit from such as health insurance or pensions.

### 3.3.3 Employment in Multinationals

Multinationals can help to increase formal employment rates in Indonesia. Figure 13 shows the employment in manufacturing separated by ownership. It can be seen that nearly one million are employed in foreign manufacturing firms while almost three million are employed in private/domestic manufacturing firms. This is interesting because domestic manufacturing firms outnumber foreign owned firms more than the number of employees would expect (compare Table 2 and Figure 13).

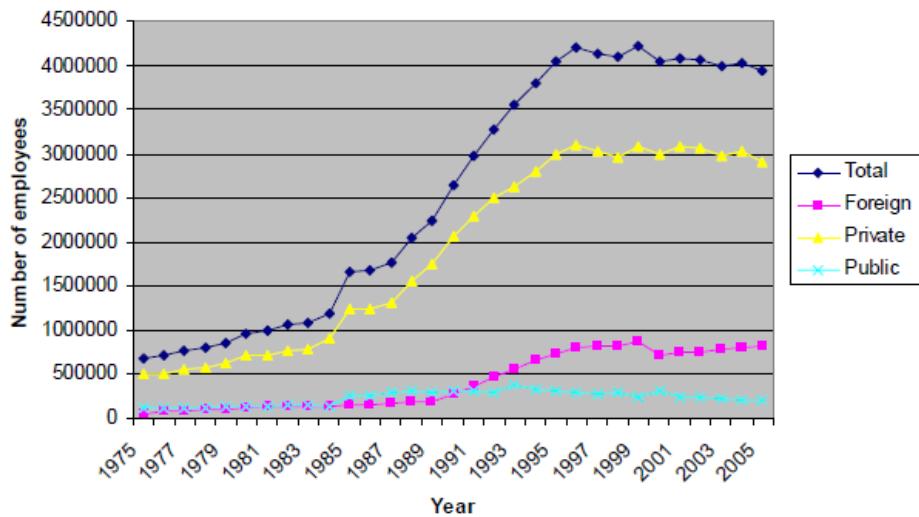


Figure 13: Employment in Manufacturing Ownership

Source: (Lipsey et al., 2010)

Multinationals in Indonesia are usually large and highly productive which means they add higher economic value than domestic firms (Lipsey et al., 2010). The average number of employees in 2005 of foreign owned manufacturing plants was 563 employees compared to only an average of 157 of domestic owned plants (Lipsey et al., 2010). Many studies show the better education of workers employed in multinational firms (compare Takii, 2009 and Lipsey et al., 2010). Multinationals in Indonesia not only hire more educated workers than domestic firms, but they also use more capital intensive technology (Lipsey and Sjöholm, 2011). Therefore, the higher average productivity of foreign firms in Indonesia is no surprise. In Table 3 the distribution of plants, employees and value added in the years 1990, 1995, and 2000 is illustrated.

*Table 3: Distribution of Plants, employees and value Added in 19900, 1995, and 2000*

Year	1990	1995	2000
Value added per employee <sup>b</sup>	5.627	6.179	7.068
– in foreign-owned	14.132	11.809	11.857
– in locally owned	5.056	5.764	6.625
Remuneration per employee <sup>c</sup>	1.419	1.481	1.709
– in foreign-owned	2.576	3.161	2.953
– in locally owned	1.341	1.357	1.594

Source: BPS – Statistics, Indonesia (BPS, 2011)

It is seen that value added per employee and remuneration in foreign-owned plants is higher than in locally-owned firms. For example the value added per employee in foreign-owned firms in 1995 was 11.809 Rupiah compared to only 5.764 Rupiah in locally-owned. The same counts for remuneration per employee as it was 3.161 Rupiah in foreign-owned firms compared to 1.357 Rupiah in locally-owned firms. Thus in the year 2000 the value added per employee in a foreign-owned firm was on average 2 times higher than in locally owned while the remuneration per employee in foreign owned was 2.3 times higher than in locally owned firms. This discloses the higher productivity and the higher wages of workers employed by foreign-firms, although the remuneration per employee is higher than the productivity.

The workforce of manufacturing firms in Indonesia can be divided into white collar workers and blue collar workers (Sjöholm and Lipsey, 2006). The term of blue collar worker refers to a worker engaged in unskilled manual labor compared to a white collar worker who is a salaried professional who performs professional office tasks. On the one hand, multinationals in Indonesia employ more white collar workers than domestic firms do. On the other hand they hire relatively less blue collar workers. Spillovers between manufacturing foreign and domestic firms in Indonesia are low (Görg and Greenaway, 2004). This is also due to the low labor turnover in Indonesia. Few workers employed in foreign owned firms leave their job to work for a domestic firm. If labor turnover is low less knowledge is transferred to domestic firms.

### 3.4 Wages in Indonesia

This section will shortly disclose the level of wages in Indonesia. This will be done by illustrating the differences of wage levels by educational level and in the difference of wages in the formal and informal market.

It should come as no surprise that average wage levels increase as the educational level of the worker increases. It is clearly seen that the better educated the worker, the better his average salary (Table 4). For example, a worker that only graduated from elementary school earns an

average of 327,762 RP and a worker that graduated from University can expect an average salary of 1,482,387 RP which is almost five times as much.

Table 4: Average Salary compared to educational level

Education	Salary
Never been to school	256,204
Ungraduated elementary school	327,762
Elementary school	428,981
General Senior High School	844,411
Diploma I/II	1,119,458
Academic/Diploma III	1,268,448
University	1,482,387
Average	684,915

Source: BPS – Statistics, Indonesia (BPS, 2011)

The differences in wages between the formal and the informal sector are illustrated in Figure 14. It is seen that a wide gap exists between the earnings of formal and informal workers. In 2001 the average earnings per hour of formal workers was 14 percent higher than of informal workers. The gap is even larger between formal workers and informal agricultural workers. In 2003 the gap between formal and informal workers reached a peak but slowly decreased again to the levels of 2001.

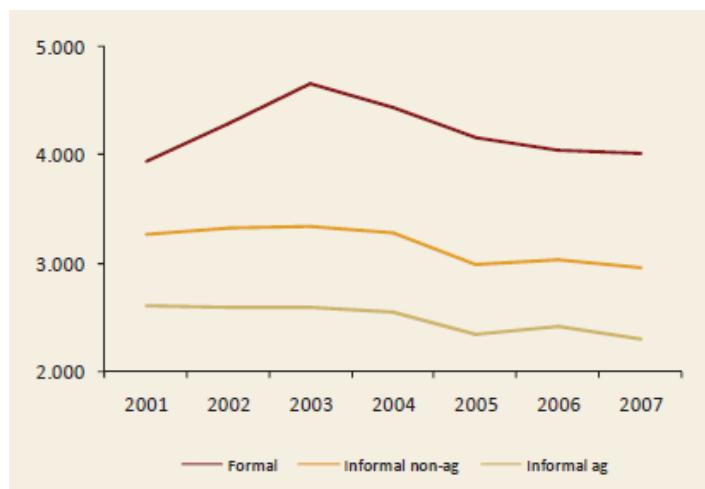


Figure 14: Earning rates by worker type (RP/hour)

Source: (World Bank, 2010)

As mentioned, workers in the formal market in Indonesia can have different types of contracts. Figure 15 highlights the monthly wage by these employment status compared to the

monthly wages of non-formal workers. The workers having a permanent, fixed-term and no contract receive higher wages than the workers employed in the informal agricultural or non-agricultural sector.

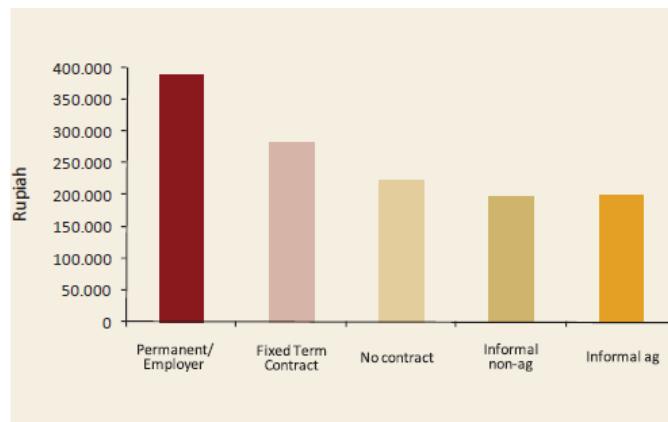


Figure 15: Comparative monthly wages by employment status

Source: (World Bank, 2010)

The interesting point here is that a worker in the formal market worker without contract only receives a little higher monthly wages than the workers in the informal market. By comparing Figure 14 and 15 it can be seen that although informal agricultural workers receive lower earnings by hour their average monthly wage is the same as of informal non-agricultural workers. This is due to the fact that informal agricultural workers work on average much more hours than non-agricultural workers do (Gillis, 1983).

Table 5: The ratios of Average Wages in Foreign-owned to those in Private Domestically owned plants at a Two-Digit level of ISIC

Sector	1975		1985		1990		1999	
	Blue-collar	White-collar	Blue-collar	White-Collar	Blue-collar	White-collar	Blue-collar	White-collar
Total	2.80	3.11	2.27	1.81	1.67	1.70	1.44	1.68
31	4.10	4.64	3.55	1.98	1.94	1.70	1.70	2.11
32	2.21	3.15	1.46	1.55	1.13	1.28	1.31	1.69
33	1.24	1.24	1.18	1.27	1.23	1.53	1.12	1.49
34	2.56	4.44	1.74	2.42	1.80	1.18	1.79	1.22
35	3.98	2.81	2.98	1.96	1.97	2.24	1.79	1.41
36	4.69	4.75	2.66	2.02	2.63	2.06	2.19	1.71
37	0.86	1.30	1.45	0.69	1.31	1.28	1.04	0.80
38	1.58	1.48	1.85	1.73	1.49	1.54	1.29	1.96
39	0.76	1.00	1.61	2.28	1.45	2.16	1.16	2.08

Source: (Sjöholm and Lipsey, 2006)

**NOTE:** Average wages for private domestically owned and foreign-owned plants have been calculated at a three-digit level of ISIC and aggregated up to a two-digit level of ISIC using shares of total blue-collar and white-collar employees as weights. Sector Names: 31 = Food Products; 32 = Textiles; 33 = Wood; 34 = Paper; 35 = Chemicals; 36 = Nonmetallic Minerals; 37 = Basic Metal Industries; 38 = Fabricated Metals; 39 = Other Manufacturing

Table five shows the ratios of average wages in foreign-owned firms compared to domestic-owned firms divided by blue and white-collar workers. Wages in 1975 in foreign-owned plants were about three times higher than in domestic firms. These differences decreased over the years to about 1.5 times in 1999. The wage differences vary between sectors. The sector most sticking up is the basic metal industry sector (37). Here white-collar workers earn less in foreign firms than in domestic firms. The difference in blue-collar workers is especially high in food products (31), chemicals (35), nonmetallic minerals (36) and paper (34). For white-collar workers in food products (31), nonmetallic minerals (36), fabricated metal (38) industries and others (39). Although differences vary between sectors it is clearly seen that workers in foreign firms earn more.

### *3.5 Concluding Remarks*

This chapter has given an insight of the Indonesians labor market. At first, a general overview was given which describes the general situation in Indonesia. The second section of this chapter concentrated on the economy of Indonesia. In particular, the relevance of FDI and multinationals in Indonesia was expressed. Presently multinationals mainly operate in the manufacturing industry compared to the past where they focused on the depletion of natural resources in Indonesia. It was shown that the number of domestic firms not even doubled from 1990 to 2000 while the number of foreign more than tripled. That points out the increasing importance of multinationals for the economy and especially for employment. This is because multinational on average employ more than three times the number of workers than domestic firms. Employment in Indonesia is highly complex. It was highlighted that the labor market is divided into the informal and formal market. Formal jobs are on average better paid and more secure than informal jobs. In addition, it is likely that better educated workers are employed in the formal market rather than in the informal market. This is because it is preferable to work in the formal market. The importance of contracts within in the formal market was also outlined. Only workers than have an indefinite-term contract and a fixed-term contract receive higher wages than workers in the informal market. It was shown that multinationals employ on average a better educated labor force that is more productive and that they are unlikely to change their job as labor turnover is low. The workforce of multinationals can be divided into blue and white collar workers. Multinationals employ more white-collar workers than blue-collar workers compared to domestic firms.

Finally, wage levels in Indonesia were discussed. Wages in Indonesia depend on the working situation of the worker. Wages in the formal sector are considerably higher than in the informal sector. However, wages in the formal sector differ strongly depending on the employment status the worker has. A worker having a permanent contract is best off because of the highest salary and non-wage benefits. It was also highlighted that workers employed in foreign firms earn considerably more than workers in domestic firms. However, it cannot be said that the average white-collar worker earns more than the blue-collar worker compared to blue and white-collar workers in domestic firms.

## 4. Role of Multinationals in the Indonesian Labor Market

This chapter will concentrate on the analysis. It will be analyzed whether the theories outlined in Chapter 2 are able to explain the wage differentials between domestic and foreign owned firms in Indonesia. This will be done by applying the theories on the case of Indonesia. At the beginning of each section the main characteristics of the theory will be repeated in order to follow the argumentation better. The first three sections will elaborate the evidence of the perfectly competitive labor market, monopsony and labor market segmentation. The Section on labor market segmentation is divided into the formal and informal sector and the dual labor market theory. The fourth section will discuss the evidence of efficiency wages paid by multinationals in the labor market of Indonesia. At the end concluding remarks will be made that summarize the findings of this chapter.

### 4.1 The Perfectly Competitive Labor Market

The main characteristics of the perfectly competitive labor market:

- Each worker receives the same wage for a given amount of work
- No unemployment
- Perfect information of the worker and employer
- No entry costs

The perfectly competitive labor market depends on labor supply and demand. Labor supply mainly depends on the preferences of the worker between leisure and income. Labor Demand is determined by the production function of profit maximizing firms. Each firm employs workers until the value of marginal product of labor equals the competitive wage level.

The existing wage differentials between foreign owned firms and domestic firms in Chapter 3 shows that manufacturing multinationals and domestic firms do not both operate in a perfectly competitive labor market. Nevertheless, certain aspects of this theory still apply and will be helpful for analyzing wage differentials of multinationals and domestic firms. The situation of a perfectly competitive labor market depends on labor demand and supply. These are the first indications on whether the labor market is perfectly competitive or not. A reason why multinationals might pay higher wages is because they have to attract workers. It could be that workers prefer to work in domestic firms. This leads to a higher reservation wage of workers willing to work for a foreign firm, but there is no evidence of that. Rather, there is evidence that workers prefer to work in foreign firms because of the higher wages paid (World Bank, 2010). In the perfectly competitive labor market the supply and demand side balances into equilibrium. In Indonesia almost 12 million people are counted as actively looking for a job but not being able to find one (Hasoloan, 2006). This illustrates the surplus of supply of workers in Indonesia. The theory indicates that the competition between workers drives down the wage until all workers have a job, because firms hire more workers and/or less people are willing to work because of their higher reservation wage. For that reason the criterion of non-unemployment within a competitive labor market cannot be applied.

The case of perfect information is more complicated. The theory indicates that employers have perfect information of workers in the labor market which indicates perfect information of the abilities a worker has. This is rarely the case because of incorrect/incomplete information. However, there is evidence that foreign firms have less information of the workers than domestic firms (Sjöholm and Lipsey, 2006). This is because foreign firms are newer to the market and might have less access to the labor market than domestic firms do (Sjöholm and Lipsey, 2006).

The case of free entry is the last main feature of the theory. Evidence suggests that firms have higher costs to enter the market. A multinational firm in Indonesia has to overcome several obstacles to enter the market. Although the government of Indonesia tries to keep regulations to a minimum for foreign firms there are still plenty in place (Auswärtiges Amt, 2011). Another reason for entry costs is connected with the lower information of multinationals of the domestic labor market. This increases the cost of searching workers which might be a barrier for multinationals to enter the market (Lipsey and Sjöholm, 2004). The mobility of workers has to be taken into account of firms when they want to enter a market, because if mobility is high workers might leave or enter the market which can change for example the search costs of the firm. Lipsey and Sjöholm (2011) point out that workers are highly mobile as they move freely from one part of the country to another. Besides they can freely move from one industry to another (Lipsey and Sjöholm, 2011). However, there can emerge costs by relocating to another part of the country. This might put restrictions on workers that have less income available. This section has shown that multinationals and domestic firms do not operate both in a perfectly competitive labor market. Notwithstanding, it might be that they operate in different labor markets of which one or both are perfectly competitive.

#### 4.2 Monopsony

##### The main characteristics of monopsony:

- Lower wages than in the competitive labor market
- A monopsonist has market power
- High entry costs
- A monopsonist has upward sloping supply curve which means the firm has to increase wages to attract additional workers
- Labor elasticity plays an important role in the determination of wage

In Chapter 3 it was illustrated that manufacturing multinationals pay higher wages than domestic firms. The theory of monopsony indicates that lower wages are paid than in the perfectly competitive labor market. This means if the multinational firm has monopsonistic power it can pay lower wages but the wages of multinational firms are higher. Nevertheless, there is evidence that multinationals in Indonesia have monopsonistic power (Brummund, 2010). A competitive firm pays the workers a wage according to his marginal product. By analyzing if multinationals pay workers a wage according to their marginal revenue product it can be illustrated if they are being paid a competitive wage or not. Peter Brummund (2010)

analyzed and found that manufacturing multinationals firms in Indonesia pay on average higher wages and workers are more productive than their domestic counterparts. The higher productivity of workers only explains partly the higher wages. This is because wages are higher than productivity would expect. It was shown that productivity is 2 times high in foreign-owned firms while remuneration is 2.3 times higher (compare Table 3).

Another important indication whether the firm is monopsonistic is the evidence of market power. Market power is extremely relevant, because market power is necessary to hinder other firms to enter the labor market. According to Brummund (2010) manufacturing multinationals have more market power than domestic firms. The interesting point here is different than the theory would suggest that there is no evidence that firm size is connected with market power. Brummund (2010) explains this with the fact that bigger sized firms comply more with international and national standards to avoid conflicts. Multinational firms possess firm-specific technology that is inaccessible for domestic firms (Takii and Ramstetter, 2005).

This point leads to the next feature of the theory. A monopsonist must be able to prevent others to enter the labor market. Only high entry costs hinder other firms to enter the market. There is no evidence that any governmental restrictions are in place that could hinder domestic firms to enter the market (Takii and Ramstetter, 2005). Therefore, multinationals dominate the profession through their unique knowledge and modern technology (Takii and Ramstetter, 2005). This indicates that there are entry costs involved. Domestic firms are unable to compete with multinationals as they have different knowledge, less modern technology and less experience (Takii and Ramstetter, 2005). This enables foreign firms to avoid competition.

The theory indicates that a monopsonist faces an upward sloping supply curve which means that the firm has to increase wages to attract additional workers. There is evidence that multinational firms are not confronted with a perfectly elastic supply curve as the perfectly competitive labor market theory suggests. It was shown that multinationals employ more educated workers than do domestic firms. Well educated workers in Indonesia are scarce (World Bank, 2010). Therefore, multinationals might be forced to increase wages to attract well educated workers available.

The last important feature in the theory of monopsony is labor elasticity. The firm has to trade-off between lowering the wages and falling employment which depends on labor elasticity (Chapter 2). If the mobility of workers is high the labor elasticity consequently is higher as well. To determine the labor elasticity the division of the workforce in multinationals into blue and white-collar workers is useful. It is found that blue collar workers are more mobile than white collar workers (Lipsey and Sjöholm, 2004). This is because blue-collar workers can easier find another job as their profession is not as specific as for white collar workers (Lipsey and Sjöholm, 2004). White-collar workers might have more firm-specific human capital that cannot be applied easily in other firms. Therefore, labor elasticity for blue-collar workers is higher than for white-collar workers. This overlaps with the findings that blue-collar workers in foreign firms earn relatively more compared to their

marginal revenue of product compared to white-collar workers (Lipsey and Sjöholm, 2004). Concluding it can be argued that multinational firms in Indonesia have monopsonistic power.

#### *4.3 Segmentation of the Labor market*

This section will discuss the two segmentation theories related to the Indonesian labor market. These are the dual labor market theory and the formal and informal labor market. At first the focus is on the evidences and effects of the informal and formal market. Within the formal market segmentation takes place that also will be discussed. The second section will concentrate on the evidence of the dual labor market theory.

##### *4.3.1 The Formal and Informal Labor Market*

###### The main characteristics of the formal and informal market:

Formal:

- High wages, steady employment and large scale companies
- Wages are not directly linked to labor supply
- Stable employment

Informal:

- Low wages
- No entry costs
- Wages are determined by the average productivity of the sector

It was shown that manufacturing multinationals pay high wages (Cieslik, 2008). Additionally, these firms are large scale as they employ on average twice as many workers as domestic firms (compare table 2). Also it was shown that labor turnover in multinationals is low (see Chapter 3.3). These characteristics give evidence that manufacturing multinationals operate in the formal market. According to the theory of the formal market wages are not directly linked to labor supply. This is because of unlimited labor supply (Asian Development Bank, 2011). It is assumed that there is an unlimited availability of workers willing to leave the informal market to work in the formal market. However, in the previous section it was shown that multinationals have no perfectly elastic supply curve, rather they have a upward sloping supply curve. This is because of the limited well educated workforce (World Bank, 2010). On the other hand, the informal market was characterized by low wages and no entry costs. Domestic firms pay lower wages than foreign firms. Multinationals have more market power than domestic firms which implies that entry costs are low in the market where domestic firms operate. Although these features indicate that domestic firms might operate in the informal market, there is greater evidence that domestic manufacturing firms operate in the formal

market rather than in the informal. The first indication is that informal workers are mostly situated in rural areas (Asian Development Bank, 2011). There cannot be made a differentiation between them because manufacturing multinationals and domestic firms are mostly placed together in the same area (Takii, 2009). The second indication is that wages of domestic firms are still higher than average informal workers receive (World Bank, 2010). Another indication that domestic firms are part of the formal market is their size. The size of domestic manufacturing firms is smaller but is still relatively big, which is untypical for informal employers. The last and most significant indication is the case that some workers of domestic manufacturing firms have a contract (World Bank, 2010). Workers that have a formal contract are no informal workers. For this reason, there is greater evidence that domestic firms as well as multinational firms are part of the formal sector.

The formal market can help to understand wage differentials. In Section 3.3.2 it was emphasized that segmentation within the formal market might exist. It was differentiated between three major employment contracts a worker can have in the formal sector. These are helpful to understand the wage differentials between foreign owned firms and domestic ones. The three contracts discussed were the indefinite-term contract, the fixed-term contract and no formal contract at all. By elaborating what types of workers have which contracts a division between domestic firm workers and multinational firm workers is possible. It was revealed that workers in multinational firms are better educated and receive higher wages than domestic firm employees. The higher education of workers and higher wages give an indication that manufacturing workers have mostly indefinite-term contracts and fixed-term contracts. There is even greater evidence that white-collar workers have indefinite-term contracts and blue-collar workers have fixed-term contracts (World Bank, 2010). This is because of the higher wages received by white-collar workers. This also implies that workers of multinationals receive non-wage benefits because of their contract status. Another assumption that might explain the higher degree of indefinite and fixed-term contracts within multinational firms is the case that they feel obliged to hand out contracts. Multinationals fear the media and therefore might correlate more with "western" and international standards to avoid conflicts (Brummund, 2010). Domestic firms fear the media less because they do not operate or to a lower extent in the international market. Domestic firms employ a lower skilled workforce which implies the needlessness to hand out contracts. This also explains the fact of only 19 percent of workers in Indonesia having a fixed or indefinite- term contract.

#### 4.3.2 The Dual Labor Market

##### The main characteristics of the dual labor market theory:

The dual labor market theory divides the market into the primary and secondary sector.

Primary:

- High wages
- High skilled workers
- Capital intensive and large scale companies
- Workers are often trained on the job
- Low labor turnover
- Monopsonistic firm

Secondary:

- Low wages
- Low skilled workers
- Labor intensive
- High labor turnover
- Competitive market
- Only national markets

In this section it is shown that these features imply that manufacturing multinationals operate in the primary sector and domestic firms operate in the secondary sector. Manufacturing multinationals pay high wages and their workers are highly educated. It was presented that multinationals use modern technology which signifies that they are relatively capital intensive and to a certain degree large scale companies (Brummund, 2010). In addition, workers in multinational firms are not only higher skilled but they are often trained on the job as well (Takii, 2009). The higher education and trainings increase the labor productivity. Because of their trainings and their higher education there is evidence that multinational firms want to reduce labor turnover. This coincides with the findings in Chapter 3.3 where it was illustrated that labor turnover in multinationals is low. The meaning of multinational firm already implies that they especially engage in the international market. The dual labor market theory also describes that the primary sector is often characterized by monopsony. Therefore, evidence should be found which implies that monopsony is visible. In chapter 4.2 it was presented that multinationals have more market power. This reinforces the suggestion that the theory of the dual labor market theory is applicable.

The secondary sector is characterized by low wages and lower skilled workers. Domestic firms in Indonesia pay lower wages and it was shown that their workers are less educated. Evidence also suggests that domestic firms are labor intensive. This is due to the fact that they use less modern technology and employ lower educated workers (Lipsey et al., 2010). In addition, it was emphasized that domestic firms have less market power which gives evidence that they operate in a competitive labor market rather than in a monopsony. The dual labor

market theory further suggests that labor turnover in the secondary sector is higher than in the primary sector. This applies as workers in domestic firms are low skilled which suggests that labor turnover is higher (Lipsey et al., 2010). This is because less training on the job occurs and there is no scarcity of unskilled labor. This makes it needless for domestic firms to keep workers for a long time. Additionally, it was shown that workers at domestic firms have a lower probability to have a contract. This also presents the probability of high labor turnover. This argumentation has shown that there is evidence that the labor market in Indonesia is divided into a primary sector where manufacturing multinationals operate, and a secondary sector where manufacturing domestic firms operate.

#### 4.4 Efficiency Wage

##### The main characteristics of Efficiency Wage theory:

- Higher wages lead to higher effort of workers
- Shirk model
- Asymmetric information
- Adverse selection
- Labor turnover

The preceding section has shown that multinational firms have monopsonistic power. They pay high wages although theory would suggest they would pay lower wages. Efficiency wage theory might explain why multinationals firms pay high wages although they have market power. The theory of efficiency wage describes why firms pay wages above the market clearing wage. The higher wage is to increase efficiency and productivity. One part of theory explains higher paid wages through the better health of the workers. This nutrition theory suggested that higher real wages mean higher productivity of workers through for example better concentration and fewer illness days. Evidence for this theory in multinationals is hard to find. Thus causality is difficult to show. Even though there is no record of better health of employees in multinationals in Indonesia it is seen that they receive higher real wages and non-wage benefits (compare Table 3 and Hutchings, 2007).

The next characteristic that explains the case of efficiency wages is the shirking model. The shirking model is due to incomplete contracts. As mentioned in the preceding section multinationals have a higher educated and skilled labor force than domestic firms. This gives reasons for multinational firms to apply efficiency wages because more educated workers are scarce on the labor market (World Bank, 2010). Also better educated workers fulfill more complex tasks. These are especially expensive and hard to monitor, which gives evidence of efficiency wages being paid in order to reduce shirking. Domestic firms have less necessity to pay efficiency wages as their labor force is less educated and therefore easier to replace. Also Sjöholm and Lipsey (2006) found that foreign firms pay higher premiums for higher levels of education than domestic firms.

Adverse Selection refers to the opportunity of firms to select the best workers. The case of adverse selection is of great importance for multinationals in Indonesia. The workforce of

Indonesia is low educated (Bank). Multinationals however demand well educated workers. Multinationals have to filter out the well educated workers, which is a difficult task. This is because multinationals in Indonesia have more difficulty to orientate themselves in the labor market in Indonesia as domestic firms. This also increases search costs of multinational firms. Therefore, the appliance of efficiency wages is useful to attract more high ability workers.

The last reason for firms to pay efficiency wages is the model of labor turnover. Labor turn over distorts the process of the firm. When workers quit a new worker has to be found to replace him. The new worker has to be trained. Hence firms try to minimize labor turnover. Especially multinationals in Indonesia try to keep labor turnover low because well educated people are hard to find and many of the employees are especially trained on the job. This makes the worker hard to replace. Additionally, search costs can be kept down if quit rates are low. It can be argued that multinational firms pay higher wages to decrease labor turnover. Evidence suggests that labor turnover is low anyway. This is due to the fact that well educated workers in Indonesia cannot easily find a job somewhere else as job opportunities are rare in the still relatively low developed economy.

This argumentation has shown that there is great evidence that manufacturing firms pay efficiency wages. This is supported by many studies that conclude that wages are higher even when the educational level of the workers is taken into account (compare Lipsey et al., 2010; Cieslik, 2008 and Takii and Ramstetter, 2005)

#### *4.5 Concluding Remarks*

The analysis has shown that all theories play a role in the explanation of wage differences between foreign and domestic firms. The wage differences between foreign and domestic firms illustrated that manufacturing multinationals and domestic firms cannot both operate in the competitive labor market even when the educational level is considered. It was shown that there is evidence that multinationals operate in the primary sector while domestic firms operate in the secondary sector. Indications were given that multinationals have market power while domestic firms have none or less than multinational firms. Therefore, implications can be made that multinational firms behave monopsonistic while domestic firm behave competitively. Nevertheless, multinationals pay higher wages which can be explained by the payment of efficiency wages. Although, the theory of informal and formal labor market does not seem to explain the wage differentials, the different types of contracts within the formal market add to the explanation. It was indicated that the degree of workers employed by manufacturing multinationals having a fixed and indefinite-term contract is higher. This means they also receive non-wage benefits.

## 5. Conclusion

Multinational firms in Indonesia pay higher wages than domestic firms. This seems to be a common fact that was proven by several studies (compare Lipsey et al., 2010; Cieslik, 2008 and Takii and Ramstetter, 2005). Most studies suggest that this is because of the higher education and productivity of workers employed in foreign-owned firms in Indonesia. Multinationals in Indonesia use a mix of blue and white-collar workers who on average are better educated. Although, there is some truth to the fact that wages are higher because of educational levels and productivity there is evidence that wages are higher even when the educational level is considered. For this reason this thesis analysis wage differentials of foreign owned firms and domestic firms that include the analysis of the labor market. The organization of the labor market in Indonesia was analyzed to find evidence whether the organization is able to explain the higher wages of workers in manufacturing multinationals. At first the main findings of this thesis explaining the wage levels of multinationals and wage differences will be illustrated. Afterwards an evaluation will be given which completes this thesis.

### 5.1 Summary

This thesis outlined different theories that are used to analyses the organization of the labor market in Indonesia. At first evidence of the perfectly competitive labor market was shown. It was shown that multinational firms and domestic firms cannot operate both in a perfectly competitive labor market. The main argumentation was that multinationals and domestic firms do not pay the same wages. In addition, it was pointed out that asymmetric information exists between manufacturing foreign-owned firms and manufacturing domestic firms. At the same time entry costs exist, which distort the market.

Monopsony was the second theory used to analyze the organization of the labor market. It was shown that there is great evidence of monopsony. One reason that gave evidence was the existence of entry costs. The existence of entry costs were difficult to show. Multinationals use more modern technology and have more experience and knowledge than domestic firms. This hinders domestic firms to enter the market as they are unable to compete with foreign-owned firms, which gives evidence of entry costs. Another reason is the existence of market power. Indications were given that a multinational firm has market power, which is essential for the existence of monopsony.

The third theory used to analyze the organization of the labor market in Indonesia was the labor market segmentation. On the one hand, the theory of formal and informal sector is not able to explain wage differentials of foreign-owned and domestic firms. However, the formal sector gives additional explanation through the types of contracts used. It was elaborated that workers employed by multinationals have a higher probability to have a contract than workers employed by domestic firms. These contracts ensure a more stable employment and non-wage benefits, which to some degree explain higher wages received by workers employed by foreign-owned firms.

On the other hand, there is evidence that the labor market in Indonesia is best described by the dual labor market theory. Indications were found that multinationals operate in the primary sector while domestic firms operate in the secondary sector. This segmentation is demonstrated by the high wages paid, the capital intensity and the highly skilled workers of multinationals. Furthermore, multinationals are highly integrated in the global economy contrary to domestic firms. Supporting evidence of the theory was also given by the low labor turnover by workers of multinationals. The findings suggest that manufacturing domestic firms operate within the secondary sector. This is due to the lower skilled workers, higher labor turnover and the labor intensity of domestic firms.

According to the dual labor market theory monopsony exists within the primary sector. The findings support the evidence of multinationals having monopsonistic power. It was shown that foreign manufacturing firms have more market power and that they have a limited supply of workers. The secondary sector where domestic firms operate is characterized by a competitive labor market. Findings have shown that domestic firms pay lower wages and their workers educational level is low. Even though it was found that they have less market power than multinationals it is difficult to conclude that they operate in a perfectly competitive labor market. Nevertheless, the facts suggest domestic firms behave more competitively in the labor market than multinationals.

The findings of scholars showing that multinationals pay efficiency wages in Indonesia are supported by this thesis. Evidence was found that manufacturing multinationals mainly pay efficiency wages because of adverse selection and shirking. The low availability of well educated workers in the Indonesian labor market makes the implementation of efficiency wages useful. In conclusion, findings emphasized that wage differentials between domestic and foreign owned firms are not only explained by the higher educational and productivity level but also by the segmentation of the labor market according to the dual labor market theory and the payments of efficiency wages.

## 5.2 Evaluation

This thesis explains the wage differentials of manufacturing multinational firms and manufacturing domestic firms in Indonesia. Previous studies mainly concentrated on the educational level and productivity of workers employed by multinationals to explain wage differentials. However, evidence suggested that wage differentials can only be partly described by these. Therefore, a different approach was needed to explain these wage differences. The approach was based on four different theories. The theory of a perfectly competitive labor market, monopsony and labor market segmentation were used to gain insight to the organization of the labor market in Indonesia. The efficiency wage theory completed these, because only the combination of all four theories are able to explain the wage differences of multinationals and domestic firms in Indonesia.

The main difficulty of this thesis was the limited information available. There was a scarcity of information of wage levels of multinationals in Indonesia, which made it difficult to gain deepening understandings. However, in order to close this gap the information found was

used extensively. Further research is thus necessary in this area. Collecting data with the help of a field study would give useful insights. This shows the additional limitation, which was the lack of time. Because of time restriction the appliance of other theories was difficult. For that reason it was concentrated on the most significant theories. However, future research should include other theories such as wage discrimination.

Nevertheless, the results of this thesis add to the explanation of wage differentials of foreign owned firms and domestic firms. The better understanding on wage differentials are useful to govern the effects of multinationals in foreign countries. Further research that analyzes the effects of multinationals in foreign countries should include the study of the local labor market. The organization of the labor market was shown to be essential for the explanation of wage differentials.

## References:

- Asian Development Bank (2011). *The Informal Sector and Informal Employment in Indonesia - Country Report 2010*. Philippines, Asian Development Bank.
- Akerlof, G. A. and Yellen, J. L. (1986). *Efficiency Wage Models of the Labor Market*. New York.
- Auswärtiges Amt, (2011). *Wirtschaftspolitik*. from <http://www.auswaertiges-amt.de/DE/Aussenpolitik/Laender/Laenderinfos/Indonesien/Wirtschaft.html> (01-08-2011)
- Baird, M. (2000). *Economic Situation In East Asia: A World Bank Perspective from Jakarta*. Norwegian Ambassador Regional Meeting, Jakarta. <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/INDONESIAEXTN/0,,contentMDK:20060330~menuPK:287094~pagePK:2865066~piPK:2865079~theSitePK:226309,00.html> (12-08-2011)
- Becker, G. S. (1993). Nobel Lecture: the Economic Way of Looking at Behavior. *Journal of Political Economy* 101 (3): 385-409.
- Borjas, G. J. (2005). *Labor Economics*. Harvard University, McGraw Hill.
- Bowles, S. M. (1981). *Competitive Wage Determination and Involuntary unemployment: A Conflict Model*. University of Massachusetts.
- Brummund, P. (2010). *Evidence of Monopsony in the Labor Market of a Developing Country*. Cornell University.
- BPS (Badan Pusat Statistik) (2011). <http://dds.bps.go.id/eng/> (02-08-2011)
- Cahuc, P. and Zylerberg, A. (2001). *Labor Economics*. Brussels, Massachusetts Institute of Technology.
- CIA (2011). *The World Factbook* from <https://www.cia.gov/library/publications/the-world-factbook/geos/id.html> (15-08-2011)
- Cieslik, A. (2008) Multinational Firms, International Knowledge Flows, and Dual Labor Markets in Developing Economies. *Review of Development Economics* 12 (1): 160-179.
- Doeringer, P. B. and Piore, M. J. (1971). *Internal Labor Markets and Manpower Analysis*. New York, M. E. Sharpe Publishers, D.C. Heath and Company.
- Dunning, J. H. and Lundan, S. M. (2008). *Multinational Enterprises and the Global Economy*. Northhampton, Edward Elgar Publishing Limited.
- Fields G. S. (2004). Dualism in the Labor Market: A Perspective on the Lewis Model After Half a Century. Cornell University.
- Filer, K. R. et al. (1996). *The Economics of Work and Pay*. Harper Collins College Publishers.
- Gillis, M. et al. (1983). *Economics of Development*. New York London, W. W. Norton and Company.
- Görg, H. and Greenaway (2004) Much Ado about Nothing? Do Domestiv Firms Really Benefit from Foreign Direct Investment? *The World Bank Observer* 19 (2): 171-197.
- Hasoloan, M. A. (2006) Country Report: Indonesian Labor Market.

- Hutchings, K. (2007) Workplace Practices of Japanese and Australian Multinational Corporations Operating in Singapore, Malaysia and Indonesia. *Human Resource Management Journal* 6 (2): 58-71.
- Van de Klundert, T., (1989) Wage Differentials and Employment in a Two-Sector Model with a Dual Labour Market. Tilburg.
- Lewis, W. A. (1979). The Dual Economy Revisited'. *The Manchester School*, Vol. 47, pp. 211-229.
- Lipsey, R. E. and Sjöholm, F. (2004). Foreign Direct Investment, Education and Wages in Indonesian Manufacturing. *Journal of Development Economics* 73: 415-422.
- Lipsey, R. E. and Sjöholm, F. (2011) Foreign Direct Investment and Growth in East Asia: Lessons for Indonesia. *Bulletin of Indonesian Economic Studies* 47 (1): 35-63.
- Lipsey, R. E. et al. (2010). *Foreign Ownership and Employment Growth in Indonesian Manufacturing*. Working Paper No. w15936, National Bureau of Economic Research.
- National Geographic (2011). Map of Indonesia. from <http://www.nationalgeographic.de/> (08-08-2011)
- Perkins, D. H. et al. (1983). *Economics of Development*. New York and London, W. W. Norton and Company.
- Reich, M. and Gorden, D. M. (1973). Dual Labor Markets: A Theory of Labor Market Segmentation. Economics Department Facultz Publications.
- Salop, J. and. Salop, S. (1976). Self-Selection and Turnover in the Labor market. *The Quarterly Journal of Economics* 90: 619-627.
- Siegmann, K. A. (2006). Globalisation, Gender, and Equity - Effects of Foreign Direct investment on Labour Markets in Rural Indonesia. *Journal of Economics* 3: 113-130.
- Sjöholm, F. and Lipsey, R. E. (2006). Foreign Firms and Indonesian Manufacturing Wages: An Analysis with Panel Data. *Economic Development and Cultural Change* 55(1): 201-221.
- Takii, S. and Ramstetter, E. D. (2005). Multinational Presence and Labour Productivity Differentials in Indonesian Manufacturing, 1975-2001. *Bulletin of Indonesian Economic Studies* 41(2): 221-242.
- Takii, S. (2009). Multinationals, Technology Upgrading, and Wages in Urban and Rural Indonesia. *Review of Development Economics* 13(1): 151-163.
- World Bank (2009). Indonesia Economic Quarterly, Back on track? World Bank and Bank Dunia.
- World Bank (2010). Indonesia Jobs Report, Towards Better Jobs and Security for All. Jakarta, World Bank and Bank Dunia.