STRUGGLING OUT OF RECESSION

The Influence of Crisis on
Economic Performance
and Welfare in Java

Sukamdi

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Performance and Welfare in Java**

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The Influence of Crisis on Economic Performance and Welfare in Java

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Chapter I

Introduction

I.1 Setting: Indonesia before the Crisis

The rapid transition of the Indonesian economy and its implications for the employment structure provide an interesting case for studying the difficult prospects for an (un) balanced development pathway in a society under growth stress. The limited sectoral and sub-regional absorption capacities of surplus labour tend to illustrate the limitations of an exclusively growth-based development strategy and could inform us about the adverse distributional implications.

There are usually three periods distinguished in Indonesian political history after the independence: (a) Orde Lama (Old Order: 1945-1965) (b) Orde Baru (New Order: 1965-1998) and (c) Orde Reformasi (Reform Order: 1998-now). Indonesia under the New Order administration was able to cope with economic and political problems faced by the Old Order. In this period, national economic performance was highly significant and the country surprisingly recovered very fast from a deteriorating phase in 1945-1965. We can refer to Hill's (1999b: 5) observation that "economic growth was strong and all available evidence suggested that the benefits continued to be broad-based". However, the situation changed dramatically at the end of the New Order period when the country's economy plunged into turbulence and uncertainty, starting in the middle of 1998.

In the New Order, Indonesia achieved remarkable success in economic development as shown by several indicators (Dick, 2000). The annual economic growth rate was 6.1 percent in 1980-1990 and went up to 7.6 percent annually in the period of 1990-1995. In 1996, the growth was even higher at 7.8 percent. The economy had also transformed from a predominantly agricultural society into one in which the non-agricultural sector played a more important driving role in the national economy. The share of agriculture in GDP in the mid-1960s was about

50 percent and decreased to 20 percent in the 1990s. At the same time, the share of the manufacturing sector more than doubled from less than 10 percent to about 20 percent and was expected to pass the share of the agricultural sector (Dick, 2000). Analysis by Basri (2003) reveals that the performance of manufacturing sector was outstanding after 1983. As explain by Hill (Basri, 2003: 58) several factors can be attributed to the performance, such as devaluation of rupiah in 1983 and 1986, high savings, high investment rates, and economic liberalization since 1984.

Along with the decrease of its share in GDP, the capacity of the agricultural sector to absorb labour had also decreased. However, we must bear in mind that the percentage of those working in this sector was still very high. In 1980, for instance, the agricultural sector absorbed 56 percent of the labour force and it decreased to 50 percent ten years later. In 1995, the absorption experienced a fall of about 6 percent compared to that in 1990, becoming 44 percent (Sukamdi, 1996). When the crisis started to hit the country in 1998, this sector was still able to absorb almost 37 percent of the labour force (Biro Pusat Statistik, 1999). In addition, it must be noted that the absolute number of people working in the agricultural sector was still increasing. In the period of 1980-1990 the growth was 2.2 percent annually. This is clear evidence of the enduring importance of agriculture in the Indonesian economy, especially in absorbing labour.

An interesting phenomenon of the Indonesian economy is a tendency of employment shift from agriculture to services, not to manufacturing. For example, employment in services increased sharply from 22.8 percent in 1971 (Biro Pusat Statistik, 1974) to 37.6 percent in 1998 (Biro Pusat Statistik, 1999). Meanwhile, the increase in the manufacturing sector in the same period was slower: 8.4 percent in 1971 and 18.4 percent in 1998. Basri's study (2003) concluded that the lower absorption of labour in the agriculture sector was not compensated by manufacturing but by the service sector. Ananta and Fontana (1995) argue that this is a typical pattern of the transformation process in developing countries.

These figures provide a clear picture of the imbalance between the sectoral labour absorption and the sectoral share of GDP. The share of

the agricultural sector in production decreased much more than in its employment absorption. In contrast, the share of the manufacturing sector increased much more in output than in employment. With regard to the fact that the incidence of unemployment and under-employment has remained relatively high, the Indonesian economy failed to transfer from a labour surplus to a condition of full employment.

Indonesia under the New Order was considered as one of the nations that had successfully reduced poverty incidence. In this period, the level of poverty decreased from 60 percent in 1970 (World Bank, 1990) to 13.7 percent in 1993 and further decreased to 11.3 percent in 1996 (Booth, 1999). In addition to this, the level of education was increasing and as a result of a successful family planning program population growth started to decline (Cameron, 2000).¹ From a demographic point of view, there had been a tremendous decrease in the total fertility rate (average number of children per woman over lifetime) from 5.6 in 1967-1970 to 2.8 in 1991-1994. Infant mortality also decreased from 145 per 1000 live births in 1967 to 47 per 1000 live births in 1996. Population growth decreased from 3.3 percent annually in the early 70s to less than 2 percent in the 90s (see: BPS, 2001).

Other indicators of national economic performance are equally relevant: annual economic growth rate consistently achieved high levels (Kompas, 1995); per capita income in 1995 surpassed for the first time US\$ 1,000 (Jawa Pos, 1996); and real wages were growing in every sector (Manning, in Hill, 1999b). Hill (1999b) also argued that several indicators, such as educational enrolment, nutritional intake and health status were improving. All these indicators made policy makers very optimistic about the future of the Indonesian economy.² Indonesia was even included in the list of the newly industrialising countries together with Malaysia and Thailand (see Page, 1996: 205).

However, along with the very positive signs of economic development, several problems remained in existence. First, labour

¹ See also Said and Widyanti (2001); Hal Hill (1999a)

² The optimistic view can be found in Hill (1996) even though later he tried to revise his analysis.

productivity in the agricultural sector remained inferior compared to that in the manufacturing sector. The tendency of a widening gap between the manufacturing and agricultural sectors as an impact of urban bias policies had led to rural-urban migration flows and in turn could create problems in modern urban sector development (see Sukamdi, 1990). Secondly, it seemed that the growth of income per capita did not lead to reduced income inequality, not only among sectors, but also in terms of rural-urban and individual income inequality. Third, as mentioned previously, the capacity of the manufacturing sector to absorb the labour surplus from the agricultural sector was severely limited. Even though there was evidence of an increase of the employment share in the manufacturing sector, still, a huge number of the labour force had been absorbed in the agricultural sector. In addition, a large number of people who were relatively better off, decided to wait until better jobs were available.

The failure of the economy to provide sufficient employment also pushed a very high percentage of people into the informal sector. The role of the informal sector in the Indonesian economy is very significant, because this sector plays a very important function particularly in absorbing the labour force. For example, during the period of 1980-1995, although there was a decline in the absorption of labour in the informal sector in urban areas from 42.7 percent to 40.4 percent, the number of workers in the informal sector experienced an annual increase of 6.4 percent (Sukamdi, 1996). The high level of absorption in the informal sector is again a sign of the failure of the urban (modern) economy to absorb the labour surplus in the rural (traditional) sector. Fourth, official figures show that the unemployment rate tended to increase every year. There was also evidence that the higher the education level, the higher risk to be unemployed (Sukamdi, 1996).

On the other hand, from a political economy point of view, a pessimistic belief regarding the future of the Indonesian economic condition was expressed by Hamilton (1996: 377) arguing that - compared to the Philippines - Indonesia has “poor overall growth prospects, principally because of the economic and political dominance of classes which derive wealth from unproductive activities and the

structural unwillingness of the government to attack these classes". In addition, a number of underlying weaknesses made the country vulnerable to adverse external shocks. Starting in the mid 1997s, when the wind of the monetary crisis began to blow over the Asian economies, Indonesia fell dramatically into a deep economic hole. In this sense, the economic crisis in mid-1998 was not a surprise. When the economic crisis was followed by a political and social crisis, the situation became worse. The success story of Indonesian development had become history.

I.2 The Late 1990s Crisis: the Turning Point of Indonesian History

Compared to other Southeast Asian countries, Indonesia was worst hit by the crisis. In 1998, the country's economy contracted by 13.6 percent, which was double that of Malaysia and Thailand. Indonesia also experienced serious inflation (Hill, 1999b). Estimations have been made to calculate how serious the impact of the economic crisis was on development performance in Indonesia. As the manufacturing sector began to collapse, many workers lost their jobs. In 1998, for instance, open unemployment was as high as 13.7 million people. That was an increase from 5.8 million unemployed people in the previous year, 2.7 million additional new labour force and 5.2 million of those who lost their job because of the crisis (ILO, 1998: 26). The labour force in 1998 was estimated at 92.6 million people, thus the unemployment rate was 14.8 percent, or three times compared to the 4.7 percent rate in 1997 (See also Sussangkarn, et.al. 1999).

Several poverty estimates have been developed that are generally expenditure-based. Poor people are those living under the poverty line as based on comparable real expenditures. In any given time, the poverty line can be adjusted using the price deflator. ILO (1998) reported that the number of poor has increased substantially. In 1998, the number of the poor was 98.8 million people, almost half of the Indonesian population. The figure for 1999 was even worse with about 137.8 million people, or 66.3 percent Indonesian population being poor.³ The

³ A more detailed description on the impact of the economic crisis can be found in Hill (1999b),

assumption is that the average wage rate and household incomes would not change in nominal terms in this period. In addition, according to the Central Bureau of Statistics (CBS) estimates for 1999, the distribution of expenditures was not to change compared with those in 1996, cumulative inflation would achieve 80 percent increase and the prices of basic need was estimated to increase by 25 %.

Estimates made by the Central Bureau of Statistics (CBS) show that the number of poor was less than that of the ILO estimate, but it constituted a very drastic increase compared to the figures before the crisis (see Table 1.1). It is interesting that estimates made by Poppele, et.al (1999), were very much lower than those made by both the ILO and the CBS. Hill (1999b) argues that the ILO and the CBS estimates overstated the incidence of poverty.

Other estimations of the poverty trends during the crisis show that the situation was not as bad as the ILO estimated (see Said and Widyanti, 2001, Frankenberg, et. al., 1999). Said and Widyanti (2001: 12), for instance, found that the poverty rate in December 1998 was 26.4 percent and decreased to 18.8 percent in December 1999. The World Bank suggested that the poverty incidence was about 25 percent in 1998, which might have decreased to only 14 percent the following year (Sussangkarn, et.al., 1999). Even though these figures are lower than ILO's estimates, it is clear that in a macro perspective the economic crisis caused a tremendous increase of poverty incidence.

Table 1.1 shows interesting estimates made by Strauss et.al. (2002) based on the Indonesia Family Life Survey (IFLS). This survey concluded that in the period of 1997-2000, the incidence of poverty decreased both in rural and urban areas. In fact, in the period of 1997-1999, poverty incidence increased substantially, however, we can conclude that since then there has been a marked recovery from poverty.

The comparison of rural and urban poverty through time is, however, difficult because the data of different periods appear to be inconsistent. In the 1970s, for instance, the poverty incidence was higher in rural areas

Booth (1999) and Manning (2000).

than in urban areas. In the 1980s and early 1990s, when the economy of the country started to improve, poverty was more an urban, rather than a rural, phenomenon. In contrast, in the late 1990s, when the economy deteriorated, poverty incidence in rural areas was more pronounced than that in urban areas. It might be true to say that better economic performance produces more benefits for urban areas rather than for rural areas.

Table 1.1 Headcount Measure of Poverty According to the CBS Poverty Line, 1976-1996 and Estimates for 1998, 1999, and 2000 (% of Population)

Source	Time reference	Urban	Rural	Total
CBS	1976	38.8	40.4	40.1
	1978	30.8	33.4	33.3
	1980	29.0	28.4	28.6
	1981	28.1	26.5	26.9
	1984	23.1	21.2	21.6
	1987	20.1	16.1	17.4
	1990	16.8	14.3	15.1
	1993	13.4	13.8	13.7
	1996	9.7	12.3	11.3
	1998 (June)	28.8	45.6	39.1
ILO	1998 (Dec)	39.1	53.2	48.2
	1999 (Dec)	56.6	71.7	66.3
Poppele, et.al	1998 (A)	12.0	15.2	13.8
	1998 (B)	15.8	23.0	19.9
SMERU (Pradhan, et.al)	1996 (Feb)	20.54	7.22	15.74
	1999 (Feb)	16.34	34.10	27.13
IFLS (Strauss, et.al)	Late 1997	13.3	20.1	17.4
	Late 2000	11.6	18.7	15.5

Source: Hill, 1999b, pp. 41; Pradhan, et.al. 2000. Booth, 1999, pp. 130, Table 1; Poppele, et.al. 1999; Strauss, et.al. 2002.

A further impact of the crisis can be registered by decreasing purchasing power. Along with skyrocketing prices of basic needs, per capita income dropped from US\$ 1,100 in 1996 to US\$ 400 in 1999. This means that the country moved from a middle-income country to low-income country. This indicator has been commonly used to justify what many scholars called the “doomsday” scenario of the crisis (see: Mubyarto, 2001). In fact, the impact of the crisis did not have a single direction, but varied across regions and is sometimes surprising and contradictory (see for example: Abdullah, 1999; Dwiyanto, 1999; Boomgaard, 1999; Breman, 1999; Hüsken, 1999; de Jonge, 1999; Wolters, 1999; Frankenberg, et.al., 1999).

One other important impact to note is that the role of the agricultural sector in labour absorption increased even during the crisis period. In 1995-1998, the contribution of the agricultural sector increased from 16.1 percent to 17.2 percent. The increase was notable at the end of the period of 1997-1998, because in the beginning period of 1995-1997, the contribution of the agricultural sector had decreased from 16.1 percent to 14.8 percent (BPS, 1999: 98). The growth of the agricultural sector was 0.22 percent in the same period. Meanwhile, the growth of the mining sector was minus 14.6 percent and the manufacturing sector was minus 12.9 percent. One of the reasons for this decrease is that many workers who were displaced from their jobs in these sectors entered the agricultural sector (Manning, 2000). The important role of the agricultural sector in the Indonesian economy has its own history (see: Lindblad, 2000; Hüsken, 1998; Boomgaard, 1991). However, research has shown that this sector has been marginalised in the process of development (see: Cypher and Dietz, 1998: 331).

There are several questions that can be raised regarding these developments. First, in the beginning, the Indonesian economic transformation was very dynamic and in the macro context it seemed to follow the process that was taking place in other countries. In this regard, there was the optimistic view that the Indonesian economy would be included in the group of newly industrialised countries (Jameson and Wilber, 1996: 22). However, no one can argue that the benefits of the

transformation process belonged to the manufacturing sector, or the urban area, or ‘elite’ at the most. Second, the multidimensional crisis changed all macro and micro performances of economic development in Indonesia. The transformation process was unfinished, unbalanced and delayed. Many questions were left unanswered concerning how the process occurred both from the macro and from the micro perspective.

In subsequent phases of Indonesian social and economic development, the island of Java has always been considered as the core area and the outer islands as periphery. The linkage between the two regions operated as in dependency analysis, which stresses the core as cause and periphery as effect (Cypher and Dietz, 1998: 189). Several reasons have been forwarded to justify this interpretation. First, Java is inhabited by about 65 percent of the Indonesian population and functions as the centre of social, political, and economic activities. Second, the dynamics of social and economic activities in Java, directly or indirectly, influence national economic conditions. However, the economic crisis and the changing political situation may have changed the role of Java in the national economy as a decentralisation policy was launched in 1999. Therefore, it is very important to focus the study on Java. In addition, socio-economic conditions vary among districts in Java and therefore their responses to the crisis tend to be different from one district to another in regard to the economic transformation process.

I.3 Research Questions

There is very little research focusing at the district and household level in examining the impact of macro-economic transformation processes. In addition, it is also interesting to examine the socio-economic implications not only in macro terms, but also in micro (household) terms and how these processes are linked to each other. It is considered a useful contribution to research to address these linkages. Structural transformations are likely to have an impact on household welfare; thus, it is worthwhile to investigate what this impact is and how it can be compared with regional stratification at “the core” and “the peripheries”. There is anecdotal evidence that the economic crisis, which

represents the collapse of macroeconomic performance, affected the daily lives of the Indonesian people. However, the question remains: Are people able to cope with the crisis? Actually, considerable research has paid attention to this issue, however this has, for the most part, been carried out in specific areas or as case studies.

We may expect that macroeconomic performance at a national level and at the level of people's daily lives have been influenced by the crisis. However, there is limited research examining in detail the effects of the crisis at the provincial and district levels, as well as establishing the links between macro and micro effects. The central question to be addressed is therefore defined as: *To what extent did the economic crisis in 1997-1998 affect national, provincial, district, and individual household socio-economic performance in Indonesia?*

Based on this general question, the following specific sub-questions will be addressed:

1. Were there any different causes and consequences of the 1930s, 1960s and 1990s crises in Indonesia?
2. Was there any different economic performance at provincial and district levels before and during the 1990s economic crisis?
3. To what extent do economic performance at provincial and district levels explain the changing household economic performance around 1990?
4. Are there any changes in economic performance of the districts during the recovery period and how might decentralisation explains the performance?

The objectives of this study are fourfold. The first objective is to examine the historical perspective of economic crisis in Indonesia. The second objective is to examine the economic performance of the provinces and districts in Java before and during the crisis. The third objective is to elaborate upon the influence of the changing economic performance at the district level on household economic performance. The fourth objective is to explain the changing economic performance during the recovery period and its association with decentralisation,

which was started in the year of 2000. These four objectives together provide a thorough insight in the structure and dynamics of the Indonesian transition process and the implications thereof at different levels of scale.

I.5 Research Methods

The main approach followed in this thesis is based on the analysis of micro-meso-macro interactions during the process of economic development in Indonesia. This approach permits us to generate insights into the dynamic interlinkages between regions, sectors and households and to explain possible patterns of unbalanced growth that are related to structural differences and behavioural patterns that inhibit simple “trickle down”.

This study employs a quantitative approach using mainly secondary data sources. The main quantitative data sources used in this study are panel data of the 1997 and 2000 Indonesia Family Life Survey (IFLS). Using this panel data makes it possible to trace the changing conditions of individuals and households over time. The survey is a large-scale integrated socio-economic and health survey covering a wide range of information on households, their families and the communities in which they live. The sample is representative of about 83% of the Indonesian Population and contains over 30,000 individuals living in 13 of the 27 provinces in the country (Frankenberg, et.al., 1999). It includes 7,637 households in 1997 and 10,441 households in 2000. Within panel households, interviews were done with all members and within split households. In addition, interviews were conducted for the previous IFLS respondents and his/her spouse and children in residence. The survey has also provided a full set of data on communities and facilities. The sample facilities include health and educational facilities. For the purpose of this study, only household data will be used.

Data on employment structure on the district and provincial level will be drawn from the National Social and Economic Survey (SUSENAS). SUSENAS has been done every year covering a larger area and more samples compared to IFLS. Information on important aspects such as

expenditures, education and health has also been collected in this survey. By using IFLS and SUSENAS at the same time, it is expected that the result will be comprehensive enough to figure out the impact of the crisis.

In addition to this, some other data sources will be also employed, especially to develop macro indicators at the district and province levels. This consists primarily of economic and employment data, such as the Gross Domestic Regional Product (GDRP), economic and employment structure.

This study only uses data from the provinces on Java, excluding Jakarta, which is the capital of the nation and has economic conditions incomparable with other areas. Thus, the study will focus on 4 provinces on the island of Java, namely West Java, Central Java, Yogyakarta, and East Java, comprising 70 districts and 143 sub-districts.

The statistical analysis will rely mainly on a multilevel (contextual) model to specify the effect of the social and economic context on individual and household level outcomes. According to Blallock (1984: 354) contextual analysis is “the essential feature of all contextual effects models is to allowance for macro processes that are presumed to have an impact on individual actor over and above the effects of any individual level variables that may be operating”. The idea is that variation in a dependent variable is explained by processes that operate at several levels. In this case variations in income are said to be explained by both individual characteristics, like education, and contextual (higher level) characteristics, like the economic situation in the district where people live.

Multilevel models explain micro level outcomes in two ways (DiPrete and Forristal, 1994: 33): (a) by showing parameters of models specified at the micro level, where the micro level covariates are used to explain micro level outcomes, and (b) by showing parameters specified at the macro-level, where contextual variables are used.

There are two models of analysis that will be used. First, analysis will be simple and focused more on descriptive analysis in order to examine the economic performance at provincial and district levels in the periods

of 1993-1997 (pre crisis), 1997-1998 (crisis), 1998-2000 (recovery period) and 2000-2007 (decentralisation). The analysis will be based on secondary data gathered from the Central Bureau of Statistics (CBS). Two main variables will be employed about sectoral shares on both employment and economic structure over time.

These two variables are: (a) percentage of people working in agriculture, manufacture and services, and (b) percentage of the share of agricultural, manufacturing and services sectors to gross regional domestic product (GRDP). The other variable is economic growth measured by the annual increase of Gross Regional Domestic Product (GRDP). The analysis will be done on an annual basis. Since the data is available, analysis will also be done for all districts in the Java provinces, excluding Jakarta.

The second part is an analysis on (a) the dynamics and differentials, and (b) the determinants of household economic performance (Chapter VI). The performance will be measured using per capita expenditure (pce). In the first step, the dynamics of both household and individual welfare will be crossed with the pattern of the transformation process on the district level. It will be examined whether the pattern of the transformation process explains the dynamics of the welfare.

The second step will be focused on examining the determinants of individual welfare (Chapter VI). First, the analysis will be applied on the same level. The assumption is that the household welfare is a function of household characteristics. In the second step, multi level analysis will be applied. The household welfare is assumed to be a function of not only household characteristics, but also as a function of both the household and area (district) economic performance.

I.6 The structure of the thesis

This thesis is embedded in the discussion about the national condition of Indonesian development. We focus on the topic of economic crisis at the national level and its impact at the provincial, district, and households.

Chapter I: Introduction.

This part explains the reason why it is important to analyse economic crisis in Indonesia especially in lower government level, provincial, district, and household levels in the context of Indonesian economic development in general.

Chapter II: Theoretical Background

This chapter discusses theoretical background of the research as basis for analysis. The discussion includes development theory, character of the industrialisation process, role of the informal sector, industrial agriculture and agrarian dualism, and vulnerability of the economy.

Chapter III: Changing Indonesian Economic Performance in the 20th Century

This section will discuss the economic crises that have occurred in Indonesia in the 1930s, 1960s, and 1990s. This discussion is important in order to understand the causes and consequences of each crisis. This study is needed before discussing the economic crisis in the 1990s in greater depth.

Chapter IV: 1993-1997 - Limits of Economic Growth and Regional Disparities

This section will explain the condition of the national economy in the period before the economic crisis, i.e. 1993-1997. Discussion was also made to understand the development that took place at provincial and district levels. The focus of analysis is an understanding of the structural transformation, consisting of transformation of economic and employment structure at the national, provincial, and district level. This discussion is important as a basis for analysis in the next chapter.

Chapter V: The Crisis at the National and Provincial Level

Analysis in this section will focus on the 1990s economic crisis at the national and provincial level. It is to examine the cause and effect of economic crisis at the national level and the impact of the crisis at the provincial level. It is based on the assumption that the economic crisis

will bring about different effects at the provincial level, which in turn will also cause some difference at the district level.

Chapter VI: 1998-2000: Coping with the Crisis at the District and Household Level.

The focus of analysis in this chapter is to understand the effect of economic performance at the district level on household economic performance. It will be divided into two parts. First is the analysis of economic performance at the district level to understand if there is any variation of the performance. Secondly, multi level analysis is applied to examine the influence of district economic performance on individual household economic performance.

Chapter VII: 2000-2007: Recovery Continued

The chapter discusses the economic performance during the recovery period. The discussion is to answer the question if there is any changing pattern of economic and employment structure after the crisis at the national, provincial, and district level. This is to clarify how the nation, provinces, and districts have coped with the difficult situation and what are the future prospects.

Chapter VIII: Conclusion

The chapter elaborates the main findings of the research and presents the most important policy implications. In addition, this part also explains theoretical contributions of the findings to provide a basis for further research on related issues.

Chapter II

Theoretical Background

II.1 Development Theory

There are several major and often competing development theories that can be used to explain economic development. The first one is a linear stages growth model in which developing countries could learn from the historical growth experience of the now developed countries in order to transform their economies from poor agrarian societies to modern industrial giants. This consists of two schools of thought, Rostow's stage of growth and Harrod-Domar's growth model.

According to Rostow (1960), the transition from underdevelopment to development will follow a series of steps or stages through which all countries must proceed. He proposed a hierarchy of developmental stages: (1) The traditional society, (2) Transitional stage: the pre-conditions to take-off, (3) The take-off, (4) The drive to maturity, and (5) The age of high mass-consumption. Rostow argued that the advanced countries had all passed the stage of take-off into self-sustaining growth, and that the under-developed countries were still in either the traditional society or the pre-conditions stage. One of the principal strategies of development necessary for any take-off was the mobilisation of domestic and foreign saving in order to generate sufficient investment to accelerate economic growth. Rostow believes that countries want to modernise as he describes modernisation, and that the society will ascent to the materialistic norms of economic growth. Critics on this theory lay on the assumption that the growth is linear and the strong bias to western models of modernisation.

The Harrod-Domar Model (Harrod, 1939 and Domar, 1946) describes the mechanism by which more investment leads to more growth. This model suggests that savings provide the funds that are then borrowed for investment purposes. Two important factors are becoming the engine of economic growth, namely level of saving and productivity of investment

or capital. It suggests there is no natural reason for an economy to have balanced growth.

The main criticism against the model refers to the level of assumptions; one being that there is no reason for growth to be enough to maintain full employment. This is based on the belief that the relative price of labour and capital is fixed, and that they are used in equal proportions. The model explains economic booms and busts by the assumption that investors are only influenced by output (known as the accelerator principle). This is now widely believed to be false (Todaro and Smith, 2009).

The second stream of development theories is that of structural change (Lewis's Two -Sector Model and Chenery's Pattern of Development). These models emphasize the transformation of domestic economic structures from traditional subsistence agriculture economies to more modern, urbanised and industrially diverse manufacturing and service economies

Lewis (1954) argued that industrialisation is the means for less-developed countries to escape from poverty and improve their economic and social conditions (Cypher and Dietz, 1998). This idea is further strengthened by Snow (1963) who clearly argued that, "... industrialisation is the only hope for the poor" (cited in: Firebaugh and Beck, 1994: 631). Those who believe that industrialisation is of foremost importance assume that the development process is always associated with a structural transformation of economies.⁴ This transformation refers to the shift in output and employment composition from a condition in which the agricultural sector predominantly influences the economy to one in which the manufacturing sector plays a more important role than the agricultural sector. Moreover, the transformation is expected to bring an increase in people's welfare. However, this is not always the case since the correlation between economic transformation and people's welfare is not a simple one. There is sound evidence, especially in

⁴ Tomich, Kilby and Johnston (in Meier, 1995: 333) argued that "structural transformation at the sectoral level results from movement toward specialization and market participation at the producer level".

developing countries, that structural transformation has lead to economic growth, however, there has yet to be made the case that economic growth affects the welfare of the population equally, even when welfare is exclusively defined in strictly economic terms.

Chenery and Syrquin (1975) and other followers proposing the patterns of development analysis of structural change focuses on the sequential process through which the economic, industrial and institutional structure of an underdeveloped economy is transformed over time to permit new industries to replace traditional agriculture as the engine of economic growth. In addition to the accumulation of capital both physical and human, a set of interrelated changes in the economic structure of a country are required for the transition from a traditional economic system to a modern one. These structural changes involve virtually all economic functions, including the transformation of production and changes in the composition of consumer demand, international trade and resource use as well as changes in socio-economic factors such as urbanisation, and the growth and distribution of a country's population.

Concerning the relationship between economic growth and inequality, Simon Kuznets (1955) suggests that when economic growth occurs, per capita income and inequality will initially increase and then decrease only in the long run, resulting in an inverted U shape relationship between per capita income and income inequality. Based on this hypothesis, rising per capita income will lead to an increase in inequality of income distribution at the initial stage. The trend reverses when the level of aggregate income has reached a certain level. Thus, economic growth can never be equally distributed.

A study by Wimberley and Bello concluded that economic growth provides little benefits for the masses in the Third World (Firebaugh and Beck, 1994). Based on data from 50 developing countries, Adam (2003) found out that on average, an increase of 10 percentage points in economic growth, which is measured by mean income, will produce a 25.9 percent decrease in the proportion of people living in poverty (\$1 per capita per day). However, poverty is only one aspect of economic

life, and is always followed by a more important problem, that is, inequality. Adam (2003) concluded that economic growth has little impact on income inequality. There is growing evidence that in developing countries there is a positive correlation between economic growth and inequality. Similar results have been confirmed by Chan and Kulkarni's study (2006) in China during the period of 1978-2005, showing more serious income inequality when economic growth occurred, thus following the first stage of Kuznets U-shaped hypothesis.

Paul Krugman (1979), in his article in *Journal of International Economics*, pointed out that trade is not a result of differences in technology or factor endowments, but is a way of extending the market and allowing exploitation of scale economies. Trade is, then, similar to labour force growth and regional agglomeration. This idea becomes a backbone of what was the so called as New Trade Theory (NTT). Based on this idea, he moves forward to introduce a "new economic geography". Krugman (1991) argues that economic regions with more production will be more profitable, therefore attracting even more production. Production will concentrate in a few regions, which will become densely populated but also have higher levels of income. These will lead to regional specialisation.

Barro et.al. (1991) propose two types of convergences. The first, what he calls as β convergence, relates to poor economies growing faster than rich ones, and the second is σ convergence, involving a decline over time in the cross sectional dispersion of per capita income. Barro and Sala-i-Martin (1995) then explain that the faster growth of poor economies is driven by the technology discovery in developed countries. The faster growth is because copying is cheaper than innovation. When the cost of imitation increases, the growth rate tends to decline.

In the following, we will review the most important aspects of the transition literature, focusing on issues of (a) industrialisation, (b) urbanisation, (c) agrarian dualism and (d) economic vulnerability. These issues are considered of vital importance for the appreciation of the effects of macro-economic change at district and household level.

II.2 The Character of the Industrialisation Process

The most general model of economic development divides economic activity and employment into two broad sectors: the modern sector and traditional sector, which can be translated into dichotomous non-agricultural and agricultural sectors. The agricultural sector is considered to be a pre-capitalist, transitional form of production providing inputs to the modern sector (Cypher and Dietz, 1998), or Lewis's version of traditional, low-productivity sector (see Cypher and Dietz, 1998 and Hunt, 1989) where the villagers of a peasant society live literally in different worlds and have only a few interests in common (Hagen, 1957). On the other hand, the modern non-agricultural sector is a capitalist sector, where production is technology-driven, having higher productivity (Lewis in Cypher and Dietz, 1998: 150) and a place for the elite (Hagen, 1957). This dualism theory is also known as structuralism economic theory. Ruhs (1996) argues that dualism theory is able to capture the reality in the Third World more adequately.

The structuralists discuss the mechanism by which "underdeveloped" economies transform their domestic economies from a traditional agricultural base into a modern economy. The object of development is the structural transformation of underdeveloped economies so as to permit a process of self-sustained economic growth. To do so, economic growth must be fuelled through an expansion of the internal industrial sector (Contreras, 2001). This approach assumes that the mechanism of growth and structural change together comprise the economic development concept. Development theorists are of the opinion that this mechanism applies to Indonesia.

The mechanism and structural change occurs within stages explaining a transition from an "agrarian" to a "dualistic society" and finally to "economic maturity" (Ruhs, 1996). The agrarian stage is an economy in which all productive units engage in the agricultural sector. A dualist economy is a condition in which agriculture dominates all productive activity along with a growing share in the industrial sector. Economic maturity refers to what is now well-known as modern or western economy in which the economy has been industrialised and taken off into

self-sustained growth. Economic development, then, is a process of change from an agrarian society to a dualistic society to maturity. In regards to this division, dualism is the best explanation of how the economic development process in developing countries been guided.

Structural transformation under the dualism stage of the economy, as previously mentioned, consists of three stages. In the early stage, the labour surplus of the agricultural sector is absorbed into the manufacturing sector producing a decline in the share of agriculture and a rise in the share of manufacturing in output and employment. The second stage is a shift of labour from low-productivity to high-productivity occupations in the manufacturing sector. At the same time, the average-productivity of labour in the agricultural sector increases and real wages rise in both the agricultural and manufacturing sectors. In addition, the output and employment share of manufacturing increases, while the share of the agricultural sector decreases. In the third stage of structural transformation, the share of the manufacturing sector in both output and employment declines, while the share of the services sector rises. Many believe that developing countries should go through this path in order to develop their economy.

Adelman and Morris (1997) provide examples on how different countries have gone through different patterns of development. The first pattern is made up of the countries that have successfully transformed from the autonomous export-led industrialisation path followed by the first arrivals of the Industrial Revolution. This includes Great Britain, Belgium, and France, in which industrialisation started from high-productivity agricultural systems, highly developed market institutions, and political institutions that limited the power of agricultural elites. The second pattern is made up of the government-led, inward-oriented industrialisation path followed by the large latecomers to the Industrial Revolution. Germany, Italy, Japan, and Russia are examples of the countries included in the second pattern. The third pattern is made up of the balanced-growth, open-economy, and limited-government-intervention path pursued by a few small European countries, including Denmark, the Netherlands, Switzerland, and Sweden. In these countries,

agricultural productivity growth kept pace with industrialisation and there was rapid growth of skill-intensive, internationally competitive exports. The fourth pattern is made up of the agricultural, primary-export oriented, sharply dualistic path, pursued by both land-abundant (Australia, Argentina, Canada, and New Zealand) and densely populated (Burma, China, Egypt, and India) countries. Viewing industrialisation in China at present, it is difficult to include this country into this pattern group. China could be included in the fifth pattern characterised by a very extensive manufacturing export economy that retains the importance of the agricultural sector. Indonesia can be seen as following yet a different path. Industrialisation in this country is limited and combined with very extensive urban service sector development.

Structural change in Indonesia, which can also be observed in some developing countries, is not following these stages, but seems to be an example of a country that failed in its industrialisation process. Indonesia shows a different pattern of socio-economic change, that is, urbanisation without industrialisation. Accordingly, the effect is a more complicated one, since wages and productivity differences exist not only between sectors, but also within sectors. In addition, the service sector has not developed as it has in industrialised countries, but rather represents the incapability of the manufacturing sector to absorb labour surplus from the agricultural sector. This is the reason that the service sector in the Indonesian economy is always characterised and dominated by the informal sector. Thus, the impact of the transformation process will not be the same as experienced in developed countries.

Lewis argued that typically less-developed countries are dualistic with very limited interrelationship between the two sectors. Three dualistic models can be distinguished (see: Meier, 1995; Copestake, 1999). The simplest one is the closed economy in which there is no trade between the sectors. The process is that the capitalist nucleus expands by attracting migrants from a traditional low-productivity hinterland. It is assumed that the supply of unskilled labour for the capitalist sector is unlimited, comprised of disguised unemployment in the agricultural sector, over-manned occupations, women entering into commercial

employment, and absorbing an additional labour force that is a result of population increase (Meier, 1995). Demand for labour in the capitalist sector will increase because of reinvestment of the profits. However, wages do not rise because the extra demand is met through immigration. Thus, profits remain high and can continue to be reinvested in new capital stock. Within this model, the hinterland acts only as a labour reserve.

The second version is also a closed economy, but inter-sectoral terms of trade acquire particular significance. In some cases in which the trade is in favour of industry, profits and reinvestment in the industrial sector will rise, but rural demand for industrial goods will decrease. In contrast, high agricultural prices will reduce industrial investment, but increase demand. The consequence is that the modern industrial sector might not develop well due to its incapability to increase productivity of the population working in agriculture. Agricultural transformation, then, may become the key constraint to economic development rather than industrial modernisation (Copestake, 1999).

The third version is an open economy in which the capitalist sector trades either with the non-capitalist one and/or with the outside world. This model is even more complicated since the dynamics of those two sectors is not only influenced by internal factors, but also by external ones. In addition, developing countries, such as Indonesia, face a different situation since linkage between the traditional and the modern sectors is merely a representation of how the modern, urban sector has exploited the traditional, rural sector. This has in some cases widened the gap between the sectors.

Objections to Lewis' models have been raised in two forms (Cypher and Dietz, 1998). First, the models ignore institutional factors that influence wage determination in the industrial sector. For the Indonesian case, labour legislation has been introduced, including both minimum wages and regulations of labour unions.⁵ However, it is a fact that industrial wages are still much higher than agricultural wages and the

⁵ We must bear in mind that in the Megawati era, the government lifted restrictions on labour unions that would later influence their bargaining power.

unions do not have the power to negotiate. Second, objections are directed against Lewis' assumption that there will be a continued reinvestment of earnings in new production. In fact, the native capitalist strata tend to cut the growth process through capital flight, which often contributes to an external debt crisis. Obviously, exactly this has occurred in Indonesia.

In most developing countries, the development of a modern sector has not benefited the traditional sector. However, Lewis (Meier, 1995) argued that there is no reason to expect the traditional sector always to benefit from expansion of the modern sector. Lewis mentioned four ways the modern sector might benefit the traditional sector. First is through provision of labour. Those moving from the traditional sector are absorbed by the modern sector. The modern sector provides higher incomes, better opportunities for children and higher social status. The second way is through sharing physical facilities that the traditional sector uses with payment of marginal costs or less. The third one is modernisation of ideas and institutions in the traditional sector, such as introduction of technology, opportunity for girls to attend school, revision of land tenure system, and introduction of co-operative agricultural institutions. The last one is through trade between the two sectors. This paradigm tends to simplify the situation so that the analysis is focused only on positive effects while ignoring the negative effects. Partly, it refers to the fact that employment problems are very much influenced by the dynamics of inter-sectoral linkage between the traditional and modern sectors.

In spite of all of the possible situations explained above, the conditions in developing countries, especially in Indonesia, are not that straightforward. First of all, in most developing countries, including Indonesia, the modern sector has not expanded sufficiently so that it cannot provide enough jobs for people moving out the agriculture sector. If the modern sector is “pushed” to accommodate the rural labour surplus, then it is possible that the wages in the modern sector may not be significantly higher compared to those in traditional one. If it is the case, the first positive effect, i.e., through provision of labour, might not

occur. Second, in most cases the modern sector is not able to absorb the rural labour surplus so labourers move to the so-called informal sector. Third, if expansion of the modern sector occurs, the intermediate effect is an increase in the gap between rural and urban wages. The rural economy is marginalised because of the absence of money transfer from urban and rural sector. Finally, the division between the modern and traditional sectors is not merely defined in economic terms, but also in social and cultural terms.

II.3 The Urban Economy: The Role of the Informal Sector

Along with theoretical debates on development, there has been a growing concern in academic institutions and international organisations to redefine the meaning of development. Seers (Hunt, 1989) argued that development should be reinterpreted to take into account the trends not only in growth, but also in poverty, income distribution and employment. In this sense, discussion of the informal sector becomes important as the ILO report based on work in Kenya found out that the informal sector plays an important role as a source of output growth, employment, and increasing productivity of the poor.

Discussions on the informal sector are always controversial, partly due to the contradictory nature of the sector and also the difficulty of determining a precise definition of it. According to Sethuraman (1997), the meaning of the term "informal sector" has been somewhat elusive and the subject of controversy, despite the fact that the issue has been widely discussed in development policy debates. The informal sector has also been viewed as part of an "assembly of traditional, backward and unproductive activities operating at the margins of society" (<http://www.kimito.free-online.co.uk/twnweb/reports/oata.htm>). For practical use, the definition may vary for many reasons (see Breman, 2001).

Growth in the informal sector has become a general phenomenon in developing countries. Growth in this sector can be viewed from various perspectives or using various approaches (Berger and Buvinic, 1989). First is the viewpoint based on the theory of excess labour supply. This

holds that the informal sector grows because of market imperfection, which limits employment opportunities in the formal sector. Secondly, this aspect can also be explained with the use of a neo-Marxist approach pointing out that growth in the informal sector is a consequence of the development of capitalism in developed countries (core regions). The growth, then, extracts economic benefit from the less developed countries (peripheral regions) through sustained support for the exploitation of the informal sector by the formal sector. Thirdly, the growth of this sector can also be explained by the underground approach. This blames international competition as the main cause of growth in informal activities because this kind of competition has forced several industries (formal activities) to involve themselves in various informal or illegal activities, in other words, to go “underground”. The fourth explanation is the neo-liberal approach, which views the informal sectors as growing because of several conditions and regulations that must be fulfilled by the formal sector (See also De Soto, 1989). De Soto (1989) also argues that the growth and productivity of the informal economy is restricted in the sense that it will create intervention by the regulator, which in turn affects the profitability of the ventures. Some of these conditions and regulations often complicate the formal sector; hence this sector is subsequently forced to resort to informal procedures in order to maintain its profit margin and its very existence. The tendency of an economic system to shift towards "an integrated economy", which increases the possibility of external influence, is becoming increasingly evident in the Indonesian economy. This is a very important aspect, which must be considered while discussing the informal market. The mechanism, which permits the free flow of goods, capital, and services from abroad into Indonesia, will, to a small or large extent, influence the existence of the informal sector both directly and indirectly (see Sukamdi and Dwiyanto, 1998).

Based on several studies, motives for participation in this sector vary (Sethuraman, 1997), such as: (a) labour market flexibility, (b) existence of profitable opportunities, and (c) non-compliance with regulations. Findings from a survey of urban street vendors in the city of Yogyakarta observed that those who lost their jobs because of the economic crisis

entered the informal sector. It was not a surprise to find out that some of the vendors were highly educated (Sukamdi, 2000). Thus, the function of the informal sector here was two-fold. First, during the non-crisis period, the informal sector provided job opportunities for those who failed to enter the formal sector. Second, it acted as a “bumper” that absorbed the “labour surplus” in the formal sector when economic crisis hit the country.

In addition, there are two important aspects of the informal sector that must be noted. First, the informal sector might economically not be that bad, since it can provide a better profit for some of the workers than the formal sector can, so it can sustain their household economy. Second, as it has been observed in several studies, the relationship between the formal and the informal sectors is exploitative in character. The formal sector exploits the informal sector. If this is indeed the case then we can expect to see that the informal sector is inferior to the formal sector. However, the informal sector plays an important role as it has the ability to absorb an unlimited workforce, especially for people who lost their jobs in the formal sector, because this sector is easy to enter. If this is the case, we can expect that in a time of crisis, the number of people involved in the informal sector will increase considerably. It is also expected that due to its flexibility to adapt, this sector may also escape from the effects of the crisis.

II.4 The Rural Economy: Industrial Agriculture and Agrarian Dualism

From a population dynamic point of view, labour migration from rural to urban areas has occurred in Indonesia since the 1970s. Along with the “transportation revolution” in Indonesia, the volume of migration has increased substantially. There is no doubt that rural-urban migration is also a reflection of the sectoral shift. When the agricultural sector in rural areas can no longer absorb the bulk of the labour force, rural people are forced to move to urban areas, which represent the manufacturing and service sectors. Push factors in rural areas as a result of agricultural inferiority combined with pull factors in urban areas as a

result of urban bias policy is the explanation behind the rural-urban migration process. According to Harris and Todaro (1970), a massive labour migration from rural agriculture to urban or industrial centres is a consequence of a too-high wage differential between urban and rural areas. Rural out-migration tends to economically weaken a region and is referred to as the “backwash effect”. Cypher and Dietz (1998) blame past institutional arrangements for the existing backwash effect in developing countries as a result of colonialism and neo-colonialism, rather than the working of the laws of comparative advantage.

One important cause of rural-urban migration is that agriculture is in a relatively sub-ordinate position in the development process. Government policy for agriculture was enough but not sufficient. It is very difficult to expect the agricultural sector to compete with the industrial sector in terms of wage levels, labour productivity or in other aspects. This can improve if linkages between the agricultural and industrial sectors can be developed. The linkages will improve added value the agricultural sector and in turn reduce the gap with the industrial sector.

In the face of globalisation, the conditions in the agricultural sector tend to worsen due to the incapability to compete with the international market (see Killick, 2001). It also must be noted that the incapability to compete with the external market also occurs in other sectors. In order to respond to both internal and international markets, the rural economy tries to adapt in several ways. First is the development of off-farm and non-farm activities (Bateman and Ray in Ilbery, 1998) to absorb the labour surplus in the agricultural sector. Secondly, there is a tendency to change the character of the “agro food” system from local to national or even regional markets (Marsden in Ilbery, 1998). Accordingly, the rural market is expected to be part of the important global market. However, the rural economy experiences difficulty in competing with the external market and it is regrettable to say, the government, especially in developing countries, does not pay enough attention to this issue. In Indonesia, the first mechanism is more likely to happen. Off-farm and non-farm activities have grown very fast in the last three decades, but it

is not because of increasing demand but, again, merely because of the incapability of the agricultural sector to accommodate the growing labour force.

The rise of industrial agriculture is more likely the appropriate explanation of what has happened in the rural economy in Indonesia, primarily in Java. The process can be divided into three stages (Bowler, 1992). First is the replacement of the use of animal power by machinery in the production process. Second, modification or change in biological processes through introduction of agricultural inputs such as high yield varieties. Third, the development of industry substitution takes place in further effort to fulfil increasing demand of manufacturing products.

Starting in the 1970s, the agricultural economy (specifically rice production) entered an intensification program known as Bimas and Inmas (Mass Guidance and Mass Intensification), Indonesia's version of the "green revolution". There is considerable evidence that this program successfully increased aggregate land productivity, with Indonesia moving from being the world's biggest rice importer to achieving rice self-sufficiency in the early 1980s (see Hüsken, 1998). However, heavy criticism has been addressed to this program based on the negative effects rising from the reality that the program's subsidised inputs benefitted primarily middle-sized farmers and larger landholders (Cypher and Dietz, 1998; Hüsken, 1998). Disparity between small landholders and relatively large landholding farmers is becoming eminent as an expression of agrarian dualism.⁶ This is also an example of existing social inequality in rural areas. Thus, it is becoming clear that small landholding farmers have benefitted less in Indonesia's rural transformation.

When the crisis hit Indonesia, the imbalance between the rural and urban sectors may be reduced due to the weakening of the modern sector in urban areas and at the same time some rural economy, mainly cash-crops, gain advantage from rising prices. The situation is, then, the other way around compared to pre-crisis conditions. People who lost their jobs

⁶ Examples of agrarian dualism in developing countries is described in Cypher and Dietz (1998: 336-338)

migrate to rural areas to find jobs in the agricultural sector. The agricultural sector then becomes an alternative for those who lost their jobs. It is unquestionable that the employment rate in the agricultural sector increases. It is expected that when economic recovery begins and the manufacturing sector starts to develop, people again start to leave the agricultural sector.

II.5 Vulnerability of Economy

The impact of the crisis on population welfare might operate in two ways. *First*, the economic crisis affects macro-economic performance, such as declining economic growth, per capita Gross Domestic Product (GDP), increasing inflation, the balance of payment due to the collapse of imports (see Hill, 1999a and Hill 1999b). In ASEAN countries, the effects might vary from one country to another, but there is general pattern that can be seen in all of the countries. However, the effect for the regional economy may vary based on the economic base developed in each region. In those parts of the country, which were based on “cash-crop cultivation and artisanal manufacture for export”, people benefited from the crisis through rising employment and profits (Bremner, 2000: 3).

In the development process, some areas have experienced a faster economic growth fostered by the shift from the economic role of agriculture to manufacturing. The crisis has affected the collapse of the manufacturing sector and mainly the large-scale industries in it (see Hill, 1999a and 1999b). This may cause a decrease of the role of manufacturing sector so that economic growth will drop significantly and the drop might be sharper in more industrialised areas than in less industrialised areas.

Concerning the urban economy, since the modern sector was hit by the crisis, many people lost their jobs. There is evidence that some of them were absorbed into the informal sector (see Sukamdi and Dwiyoanto, 1998; Sussangkarn, et.al 1999)⁷ and the agricultural sector (Manning, 2000). In the period of 1997-1998, for instance, the percentage working

⁷ See also ILO report (<http://www.twinside.org/title/fairly-cn.htm>)

in the urban informal sector increased from 43 to 46 percent, while in the urban formal sector it decreased from 57 percent to 55 percent. At the same time, the percentage of the work force involved in the agricultural sector increased by 5 percent. The informal and agricultural sector, then, acted as safety belts for the modern or formal economy. Breman (2000: 6) articulates this phenomenon in different words:

The informal economy would merely swallow up the labour surplus pushed out of higher-paid, regular and protected employment, enabling the displaced workforce, through income-sharing arrangements, to stick it out in all kinds of odd jobs, until the economic tide would turn again in their favour, when they would be reinstalled in their former occupation.

Absorbing people in lower paid occupations is a must since they could not remain unemployed in regard to the absences of government financial support for unemployed persons. In addition, this also implies that working in the informal sector is only temporary while waiting for better economic conditions of the formal sector's recovery.

Secondly, the crisis also affected individual welfare directly as the crisis caused a dramatic increase in prices, mainly food, resulting from the exchange rate volatility. Strauss, et.al. (2002) argued that from January through March 1998, nominal food prices increased threefold. Relative food prices also experienced a sharp increase in early 1999, and resulted in a fall of real incomes for net food purchasers. Sussangkarn, et.al. (1999) estimated that because of a very high rate of inflation, real wages were reduced by 30-50 percent in 1998. In 1994, female farm labourers earned 800-1000 rupiahs per day, which was equivalent to 1.25 kilograms of rice. During the crisis (1998), their wages increased to 2,500-3,500 rupiahs per day, which was equivalent then to 1.16 kilograms of rice. In 1994, male farm labourers earned about 2,500 rupiahs or 3.13 kilograms of rice, while in 1998; they earned 5,000-7,000 rupiahs or 2.33 kilograms of rice. This is also evidence that real wages were declining. More evidence can be found in Table 2.1, which clearly shows that at the national level there was a strong decrease of real wages in the first year of the crisis, both in rural and urban areas.

With decreasing real wages, in general we can conclude that the crisis has caused an increase in the number of poor people.⁸ In many cases, the discussion on the impact of the crisis has been focused on this issue. However, there is also evidence that some people have benefited from the crisis, especially those who rely on export commodities (Hill, 199b).

Table 2.1 Average Nominal and Real Wages of Employees, 1997-1998 (in Thousands)

Area and Sex	Nominal Wages		Real Wage 1998*	Change (%)
	1997	1998		
Urban				
Male	594	745	461	-22.4
Female	410	470	291	-29.0
Rural				
Male	404	456	282	-30.2
Female	284	365	226	-20.4

Source: calculated based on 1997 and 1998 National Labour Force Survey

* deflated by 61.54 % (inflation rate between August 1997-1998)

Boomgaard and Brown (2000, 15) also stated how the crisis affected the individual economy, "...large numbers of people lost their livelihoods, permanent and circular migrants into the town and cities were sent home, and home- villages were deprived of the remittances of family members". However, as Hill (1999a) argued that while rural incomes were holding well, the urban poor were hit hard by the crisis. Koning (2001: 5) added that "...those who had become dependent on this urban labour market would be the victims, being sent home because there was no more work to be done". Again, this explains that for those living in urban areas the crisis was more severe than for those in rural areas.

The ILO has reported that the impact of the financial crisis has been more severe on women than on men. The rate of unemployment in

⁸ See also arguments developed by Islam (1998)

Indonesia increased less for women (14 percent) than for men (27 percent), but women's incomes fell further than men's. As can be seen in Table 2.1, the decrease of real wages for women was sharper than that for men.

Analysis of the Indonesian Family Life Survey (IFLS) shows interesting results (Strauss, et.al. 2002). As is mentioned above, Indonesian welfare in the period 1997-2000 was not as low as previously estimated. This can be observed from several indicators. First, the number of poor decreased slightly during this period. Considering that there was a dramatic increase of poverty incidence in the period of 1997-1998, this result implies that recovery was in progress. The median real incomes (measured by per capita expenditures) increased both in rural and urban areas, with a higher increase in the rural rather than the urban areas. Interesting to note is that those with higher per capita expenditures were more likely to suffer a fall in 2000, compared to those with low income in 1997, experiencing an increase of per capita expenditure in 2000. This means that the lower the income in 1997, the relatively better they were able to cope in 2000.

Other findings have also shown that education significantly correlates with per capita expenditure and being out of poverty. It seems that education is the best way to explain coping with the crisis. Why education? According to human capital theory, education provides people with a better chance to diversify their jobs and gather capital.

Chapter III

Changing Indonesian

Economic Performance in the 20th Century

Abstract

The focus of this chapter is to examine the economic performance of Indonesia from the early 1900's till the period before the 1990's crisis. This is in order to understand the dynamics of the country's economy, especially in reference to the several crises that have hit the country since 1930. The data was collected from various secondary sources and previous writings on relevant issues. The findings show that Indonesia experienced very dynamic economic development. Three major stages can be identified. The first was the Great Depression in the 1930s because of a sharp contraction in economic activity in North America and Western Europe. The second crisis was in the 1960s, which different from the previous crisis, was affected by internal factors. The third stage was in the New Order Era when Indonesia was enjoying good macro-economic performances. In spite of having several problems, especially in the transformation process, in this period Indonesia was labelled an "Asian Tiger".

III.1 Introduction

The history of the Indonesian economy provides an example on how the country has gone through a very dynamic situation and the way the country has escaped from a series of crises, which in turn have had their own influence on the country's recent economic performance. It is also a fact that the crisis as understood at a macro level has a different impact on lower levels of administration units and even on the individual level. Thus, it is important to understand the nature and impact of the crisis at all levels.

Indonesia after 1997 seemed to be a focus of interest to a great number of people due the “unexpected” crisis.⁹ Many arguments have been proposed to explain the factors behind the crisis that are, to some extent, inconsistent, contradictory and controversial. Some of these studies have analysed the 1990s crisis not only as a single crisis in the country, but they attempt to understand the crisis in a historical perspective. Some comparisons, for instance, have been made between the 1930s and the 1990s crises. There are some similarities and differences between the 1930s and the 1990s crises that might serve as lessons learned for the future of the country.

The analysis will be based on the stages of economic development in Indonesia as introduced by several authors. One of them is Touwen (2003), who proposed several stages for studying Indonesian economic history: (1) the pre-colonial economy, (2) sixteenth and seventeenth century, (3) the nineteenth century, (4) the heyday of the colonial export economy (1900-1942), (5) the post-1945 period, and (6) from 1998 until present. In this chapter we will not strictly follow these stages, but instead elaborate upon and compare the crises in Indonesia. The discussion will begin with the situation in the 1930s, focusing on the causes and consequences of the 1930s crisis. As it has been well understood, in the 1930s the world experienced a depression, which in turn affected the economies of Southeast Asian countries, including Indonesia. Understanding the nature of this crisis will be worthwhile for examining the 1990s crisis. The following stage to be examined is the period of 1945-1965, when the Old Order in power experienced economic stress because of existing serious economic and political turbulence. The next period is the New Order period, which was characterised primarily by better economic performance. The country achieved its golden period when Indonesia was included in the group of Newly Industrialised Countries. The last period is the post New Order, or reformation period, which began with the fall of the Suharto regime and the wide spread economic crisis followed by the multidimensional crisis in 1998.

⁹ This will be elaborated further in the discussion on the 1990s crisis.

III.2 The 1930s: The Great Depression

Van der Eng (2002a and 2002b) has reconstructed the economic performance in Indonesia during the period of 1880-2002, which is fruitful in understanding Indonesian economic history (for the later periods, see also: Booth, 2002a). There are several conclusions we can draw from this reconstruction. First, in the period of 1900-1930, the economy was consistently growing at a rate higher than population growth. In this period, the growth of the GDP was 2.7 percent annually compared to population growth of 1.2 percent growth per annum (Booth, 2002a). As a result, the per capita GDP was consistently growing. Van der Eng (2002a) argued that the average GDP per capita was growing even higher at 1.7 percent per annum in this period. Second, agriculture was the most important sector in the economy, even though it decreased slightly in this period. The role of industry only increased in the late 1930s. There were some fluctuations in the standard of living. However, in the late 1930s, it was apparent that a food shortage existed, especially on Java. The level of education increased slightly from less than 0.1 year of education per person to 0.5 years in 1930, but it was also very clear that the level of education was still very low.

There is also evidence that the Infant Mortality Rate (IMR) was very high, almost one in four children died before reaching one year of age. As a result, the expectancy of life was very low at 30 years. The situation was similar to the first stage of the demographic transition. High infant mortality rate is associated with the high incidence of infectious diseases, uncertain food supplies and poor diet, poor hygiene, limited clean water, and other problems of public utilities.

In the 1930s, when the world was hit by serious economic problems, Southeast Asian countries experienced an economic crisis in which Indonesia was badly affected (see Booth 2002a). This is the first economic crisis that can be identified in the history of Indonesia.

As most scholars (see Boomgaard and Brown, 2000) explained, the 1930s crisis was generated outside Southeast Asian countries due to sharp contraction in economic activity in North America and Western Europe. The depression was transmitted in two ways. First, the sharp

contraction in demand of major primary commodity exports had influenced rubber produced on plantations and in the smallholding sector in the Malay States, Sumatra, and Cochin China. Internationally, both agriculture and industry had increased production so much during the 1920s that over-production was the result. Secondly, the collapse of banks across the United States and Western Europe caused the tightening of credit, not only in these regions, but also in Southeast Asian countries. However, the crisis also had internal causes in Southeast Asian countries. First, there was a serious oversupply of major primary commodity exports, such as rubber and sugar. Second, in the agricultural area, land was becoming a scarce factor of production as the open land frontier was closing, and tenant profits and labour wages fell.

Figure 3.1 Per Capita GDP in Indonesia, 1880-1960 (x100 1983 Rp)

Source: Based on data provided by Van der Eng (2002b).

Indonesian data on exports and imports reveal that in the 1930s, Indonesia experienced a surplus in the balance of trade. However, the balance of trade fluctuated as can be seen from Figure 3.2. The surplus decreased in the period of 1925-1933 from 954 million guilders to 148 million guilders and then increased to 456 million guilders in 1937 and decreased to 169 million guilders in 1938. Van der Eng (2002a) estimates that the surplus was relatively high and reached 36 percent in the period of 1900-1930. Surprisingly, it was higher than the surplus in the period of

1967-1997, which was only 15 percent. How was the surplus utilised? Van der Eng (2002a) pointed out that the net export earnings were used to finance overseas remittances. However, there is no evidence that such payments had decreased available funds for productive activities.

The crisis in Indonesia actually had been felt in 1925, when the value of exports started to decline. A sharp decline occurred in 1930 and the following years to reach the lowest point in 1933. At the same time, the volume of imports also decreased for the first time (Figure 3.2). It was in 1929 when both exports and imports had fallen sharply and dropped to the lowest level in 1933. The figure will support the argument that the crisis began in 1930. However, Boomgaard (2000) argues that when we use the real value of exports based on constant prices, it is clear that the crisis started in 1931 when the slump of exports was significant (Figure 3.2). In addition, the lowest export did not appear in 1933, but in 1934.

Figure 3.2 Export, Real Export, Import and Trade Balance, 1925-1938

Note: this figure was drawn based on data provided by Korthals, as cited in Boomgaard (2000), Table 3.1 and 2.2 p: 23-24. The value of export, import and trade balance are in million guilders at current prices, while real export is based on constant prices as correction of export value using an index of export prices.

Based on calculations done by Van der Eng (2002a and 2002b) using 1980 prices as reference, we can compare per capita GDP during the 1930s. There is evidence that during the crisis per capita GDP was decreasing (See Figure 3.1). Indonesia achieved the highest per capita

GDP in 1929, which was 200.9 thousand rupiahs and declined to 200.5 thousand in 1934 (Van der Eng, 2002b). Using the year of 1929 as base line, Boomgaard (2000) has also shown that the per capita GDP in Indonesia decreased to the lowest level in 1934 that was 93 compared to 100 in 1929. Booth (2002a), using 1928 as a base line, also found a similar pattern that the lowest real income per capita was in 1934. It is clear that even before the crisis the people had experienced a decrease in per capita income and it was worsened by the crisis that occurred in 1931. However, Boomgaard (2000) argued that in fact the people of the outer islands were hit harder than their counterparts in Java. It was estimated that the population of Java lost on average 1 guilder per capita in 1930 compared to 5 guilders for people of the outer islands.

Figure 3.3 Index of Real Income in Java and Income Per Capitain Java and Indonesia 1927-1939

Note:

RI Java: real income Java; RIP Java: real income per capita Java; RIP Indo: real income per capita Indonesia is based on Boomgaard (2000), Table 3.4 using 1929 as a base line.

RIGDP: real income per capita Indonesia, based on Booth (2002a) Table 1 using 1928 as a base line

PCGDP: real income per capita Indonesia, based on Van der Eng (2002b) using 1929 as a base line

The trend of real income per capita in the 1930s derived from three different sources (Booth, 2002a; Boomgaard, 2000; and Van der Eng, 2002b) show similar patterns. After it plunged to the lowest level in

1934, the real income per capita increased consistently till 1939 (Figure 3.3). Data provided by Van der Eng (2002b) shows that in 1941, it reached the 1929 level (see also Booth, 2002a). It appears that the economy was recovering five years after the crisis. During the period of 1941-1945, Indonesia experienced difficulties due to social, economic and political turbulence, especially related to Japanese occupation and the war for independence. It is estimated that in 1944-1945 alone, 2.4 million Javanese died due to widespread poverty and hunger (Van der Eng, 2002a).

White (2011) argues that the 1930s was a deflationary crisis with massive deflation reaching around 50 percent. Citing Bijleveld, White (2011) explains that in the time of crisis, food was plentiful but money had almost completely disappeared. Referring to his study in Yogyakarta, White (2011: 69) found people who recalled the 1930 crisis as one in which money became scarce and products became very cheap. As a consequence this early crisis affected people differently. Those having jobs with regular (constant), wages, like in government service, benefited from the crisis while those who relied on producing goods and services to obtain a loan, suffered severely.

III.3 Stagnation and Decline of the Economy under the Old Order

During the 1945-1970 periods, the problems in Indonesia were not only economic in nature; they were also political. The national leadership (President Soekarno) had to cope with centrifugal tendencies in the unitary state. Military commanders in the export areas in the outer islands attempted to grab and control local taxes and income sources, depriving the central government in Jakarta of these funds.

In 1957-1958, military and civilian forces in West Sumatra rebelled against the central government in Jakarta. Throughout these years President Soekarno was preoccupied with the problems of how to keep the country together. With all these political problems, it is understandable that the Indonesian government placed more attention on politics, rather than on the economy. Some believe the root of the

deteriorating economy in this period laid in the way the government over-emphasized politics and neglected economic considerations in major development policies (Mangkusuwondo, 1973).

Any of the articles discussing the performance of Indonesia's economy under the Soekarno administration (1945-1965) come to a similar conclusion that there were very unfavourable conditions. Not only in terms of a macro economy perspective, but also in terms of food shortages, very poor infrastructure and communication facilities, as well as a bulk number of poor. Indonesia faced a difficult time after independence due to the hardships of the Japanese occupation and the war for independence. Problems encountered (Touwen, 2003) included very little economic growth especially from 1950-1957, and the absence of foreign capital and problems with the exchange rate, which were detrimental to economic development. In the mid 1960s, experts, such as Higgins (1968); Myrdal (1969); Keyfits (1965); and Panglaykim and Arndt (1966), expressed pessimistic views concerning Indonesian economic prospects (see: Hill, 2000).

As can be seen from Table 3.1, the inflation rate was 20 percent in 1960 and then increased to 594 percent in 1965. This high inflation rate is easily understood since the money supply (M1) increased very rapidly from 37 percent in 1960 to 302 percent in 1965. This increase was directly influenced by the increase of the budget deficit, which was solved only by an increase of the money supply. During the period of 1960-1963, the budget deficit increased significantly from 19 percent to 115 percent. Two years later, it improved slightly to reach 90 percent in 1965, but the situation was still worse than that in 1960.

The condition was worsened by the fact that prices were skyrocketing (Dumairy, 1997) and economic growth was only 1.9 percent annually from 1960 through 1965. Per capita income during the period of 1960-1965 fluctuated to reach minus four percent in the year of 1963. Better conditions occurred in 1963-1965 when per capita income increased. However, in the 1960s, Indonesian per capita income was one of the lowest in the world. In 1967, for instance, per capita GNP was only \$US 50, which was half of that in India, Bangladesh, and Nigeria (Cheetam

and Peters, 1997). The formal financial system, especially in the period of 1957-1965, was under pressure and nearly destroyed (Cole and Slade, 1996). Dick (2001) considers this period as a period of "stagnation and decline under guided democracy".¹⁰ These deteriorating economic conditions led to political confrontation, which resulted in the deaths of hundreds of thousands of people (see Hüsken, Rutten and Dirkse, 1997).

Considering how bad the economic performance was, we could say that Indonesia experienced a second economic crisis in the 1960s. Compared to the 1930s crisis, the 1960s crisis was worse concerning its impact on the whole economy. First, the very high inflation rate affected the economy at all levels, reaching the lowest point in the history of the country. Second, this situation was worsened by social and political unrest, which in turn generated difficulties for recovery. Many were sceptical about Indonesian economic development unless a significant shift of government policies was made.

Table 3.1 Economic Development Indicators, 1960-1965

Indicators	1960	1961	1962	1963	1964	1965
NDP (billion Rp) based on 1960 constant price	391	407	403	396	407	430
Per capita income change (%)	-1.6	1.7	-3.0	-4.0	0.3	3.2
Money Supply (M1) growth (%)	37	41	101	94	156	302
Budget Deficit (%)	19	134	97	115	104	90
Inflation (CPI) in %)	20	95	156	129	135	594

Source: quoted from Hill (2000, 4).

There is an interesting question to be asked with regard to cause and effect. As it is well understood, the Old Order collapsed after the 1965

¹⁰ Dick (2001) constructed a periodisation of the Indonesian economy for the period of 1884-1999 as follows: (a) 1884-1902: stagnation; (b) 1902-1929: upswing; (c) 1930-1934: downswing; (d) 1934-1941: upswing; (e) 1942-1945: catastrophic decline; (f) 1945-1957: upswing; (g) 1957-1967: downswing; (h) 1967-1997: upswing; and (i) 1997-1999: downswing.

coup. However, the September 30 Movement (G 30 S PKI) was the result of a culmination of long present political tension. So, did the economic crisis cause the political crisis or vice versa? Or did the political crisis cause the economic crisis? In my opinion, the nature of the relationship between the two crises was reciprocal. It is also wise to remember that the poor economic and political conditions were rooted in the political and economic developments after independence. It is understandable that the government prioritised the political sector. Whoever held power at that time faced a difficult situation.

III.4 The National Economy Under the New Order

In 1966, when the New Order regime took over power, they inherited a condition that Dumairy (1997: 3) characterised as “*keadaan perekonomian yang porak poranda* (a badly damaged economy)” (see also: Firdhanustyawan, Aswicahyono and Anas, 2004). The situation was bad in many ways: (a) inability to pay of more than US\$ 2 billion debt; (b) a very low volume of exports, which totalled only half of the imports; (c) inability of the government to control the budget and increase taxes; (d) high inflation rate; and (e) poor economic infrastructure and decrease of production capacity of the manufacturing sector. However, the New Order developed policies that were able to shift the sceptical views of the experts. The year 1966 was the turning point in the history of the Indonesian economy in that government introduced a very clear economic policy goal and direction. Expectations that the government would shift the policy toward a stronger economic focus were realised. This could be justified from the following focus of development stages.

The first five-year period of the New Order, 1966-1970, was the stabilisation and rehabilitation period (Perdana, 2001; Firdhanustyawan, Aswicahyono and Anas, 2004; Touwen, 2003; Hill, 2000)¹¹ in which the

¹¹ Scholars discerning development phases in the Indonesian Economy have produced similar schemes of periodisation. Touwen (2003) follows Thee Kian Wie's periodisation of Indonesian Development in the New Order period in three phases: (1) 1966-1973: stabilisation, rehabilitation, partial liberalisation, and economic recovery. (2) 1974-1982: oil boom, rapid economic growth, and increasing government intervention. (3) 1983-1996 post-oil boom, deregulation, renewed liberalisation, and rapid export led growth. Almost similar to this, Firdhanustyawan, Aswicahyono and Anas (2004) divided Indonesian development during the New Order into four phases: (1) 1966-1970: stabilisation period; (2) 1971-1981: oil

government directed the policy into a more market - oriented economy. In 1967, the Inter-Government Group on Indonesia (IGGI) was established as the main foreign donor for Indonesia and foreign exchange, as well as trade policies, were liberalised, and the state bank was rehabilitated. The effect was that inflation dropped to less than 20 percent in 1969 compared to almost 600 percent in 1966, and economic growth, for the first time, reached two digits in 1968. In addition, population welfare and income distribution improved, which can be observed from the increase in purchasing power. Scarcity of goods and services became manageable, and the Gini coefficient was decreasing (Perdana, 2001). Hill (2000) stated that the Indonesian economy recovered surprisingly fast, beyond the most optimistic expectations (see also Aswicahyono and Firdhanusetyawan, 2004). Indonesia was also considered the most effective government and served as an example in Asia on how to control inflation. The government continued to introduce major monetary and fiscal policies, such as devaluation, unification of a multiple exchange rate system, simplification of exports and import procedures, and the elimination of international capital control (Firdhanusetyawan, Aswicahyono and Anas, 2004: 1-2).

In the early 1970s, many serious problems remained unsolved and in a need of being addressed. One of them was the incidence of poverty, which, in 1970, was almost 60 percent or 70 million of the total population at that time below the absolute poverty line. Purchasing power, even though it was better in comparison to that in the 1960s, was still low and the political situation was still vulnerable.

Under Suharto, the government designed a long-term planning system that constituted a series of five-year plans (*Rencana Pembangunan Lima Tahun, Repelita*). The first plan (1969-1973) focused on increasing production of staple foods and infrastructure development; the second

boom and increasing government intervention; 1982-1986: adjustment of oil prices; 1986-1997: deregulation phase. Later, Aswicahyono and Ferdhanusetyawan (2004) divided this period into two, i.e., swift and effective liberalisation period (1986-1991) and deregulation fatigue (1992-1997). Hill (2000) introduced another periodisation: (1) 1966-1970: rehabilitation and recovery; (2) 1971-1981: fast growth; (3) 1982-1986: adjustment of oil prices; 1987-before the crisis: liberalisation and recovery. Perdana (2001) also has similar stages: (1) 1967-1972: stabilisation and rehabilitation; (2) 1973-1981: oil boom; (3) 1982-1985: post oil boom; 1986-1997: liberalisation.

plan (1974-1978) stressed agriculture, employment, and regionally equitable development; the third plan (1979-1983) emphasised development of agriculture-related and other industries; the fourth plan (1984-1988) put priority on basic industries; and the fifth plan (1989-1993) concentrated on transportation and communication.

Benefiting from the oil boom, macro-economic performance four years after the New Order assumed power showed a significant change compared to performance in the 1960s. In the First Five Year Plan (Repelita I), 1969-1973, and the Second Five Years Plan (Repelita II), 1974-1979, economic growth was 7 percent annually, investment increased significantly, and the budget contribution of government savings compared to loans increased significantly. In the following Third Repelita, 1979-1984, the economy suffered with economic growth only 2.24 percent in 1982 compared to 7-8 percent in the previous decade. Indonesia experienced budget deficits and per capita income was stagnant. In this period, the rupiah was devaluated 28 percent. In response to this situation, the Indonesian government proposed a very strict macroeconomic policy, such as tight money policy, increasing loans, increasing non-oil exports, limiting imports, and strict regulation on travelling abroad (see Dumairy, 1997).

A very important issue in understanding the Indonesian economy is the issue of government intervention. This is one of the factors that can be used to explain the economic conditions both before and during the crisis. Government intervention started in the late 1970s. At least two factors can be identified as an explanation for this (Firdhanustyawan, Aswicahyono and Anas, 2004). First, resentment arose in nationalist circles in response to increasing foreign investment. It came to a peak on 15 January 1974, popularly called the Malari¹² Affair, when the Japanese Prime Minister, Tanaka, visited Indonesia. Restrictions were placed on foreign investment with the proposition of a new regulation that all new foreign investments should be in the form of joint ventures and Indonesia should be the majority shareholder. Second, government became engaged directly in production because of windfall oil revenues. In this period,

¹² Malari is an Indonesian acronym for *Malapetaka Januari* (Great January Disaster).

government also introduced a complex regulation to promote various industry policy objectives. These can be translated into four channels by which government intervened in the economy (Aswicahyono and Firdhanusetyawan, 2004): (a) domination of the state bank; (b) direct involvement in production; (c) rising barriers to imports; and (d) establishing a set of complex regulations.

The results of these policies were real. In the years after 1975, for instance, industry output increased strongly (see McCawley, 1984). McCawley also observes that growth faltered in the middle of 1978 and continued to decrease in 1979, but later growth recovered through 1981 (pp. 160). In the period of 1975-1982, the growth rate of employment was significant, reaching 5 percent annually, while productivity increased at 9 percent per annum and output grew at 14 percent per annum (Table 3.2). McCawley argued that this achievement helped the country to raise productivity through improvement of availability of manufactured goods, introduction of new technology and improvement of the technical skill of Indonesian workers.

The phenomenon of government intervention can be interpreted in two ways. First, there is enough evidence to show that government intervention was able to stabilise the macro economy and improve the country's conditions. Secondly, many were anxious that the government was getting stronger and did not want to reduce its involvement, which to some extent would reduce the working of the free market. It is not impossible that the macro economy would worsen.

Table 3.2 Growth Rates in Manufacturing, 1975-1982 (Average Increase per Annum)

Sector	Employment	Productivity	Output
Traditional	1.8	7.6	9.5
Intermediate/Capital goods	10.9	7.7	19.3
Total	5.1	8.8	14.3

Source: McCawley 1984, 166.

In the Fourth Five Year Plan (Repelita IV), 1984-1989, deregulation and de-bureaucratisation continued to be introduced with a focus on increasing the role of the private sector in attracting foreign investment. After having enjoyed the increase of oil prices in the 1970s, Indonesia suffered when oil prices began to decline sharply in 1985-1986. As can be observed from Table 3.3, in this period, Indonesia was in a recession. Compared to the growth in the period 1973-1981 (7.5 percent per annum at 1973 prices), economic growth in 1981-1986 was much lower at 2.9 percent per annum at 1983 prices (Sundrum, 1988).¹³ However, one should bear in mind that during this period, growth fluctuated and even in 1984, economic growth was remarkably high at 6.45 percent.

Table 3.3 Sectoral Shares in GDP Growth, 1967-1992 (%)

Sector	Period			
	Recovery 1967-1973	Oil Boom 1971-1981	Recession 1982-1986	Export Growth 1987-1992
Agriculture	28.2	16.4	23.2	10.4
Mining	12.8	4.9	-5.0	7.4
Manufacture	10.0	22.9	28.9	29.2
Public Facilities	0.6	1.1	2.5	1.2
Construction	7.3	8.8	2.0	9.3
Industry	30.7	37.7	28.4	47.1
Trade	25.4	17.2	12.5	18.3
Transportation	4.2	8.0	10.5	7.3
Finance	4.3	2.6	4.7	7.1
Housing	1.6	4.3	3.2	1.6
Public Adm.	3.8	12.6	15.5	5.4
Other services	1.6	1.1	2.2	2.8
Services	40.9	45.8	48.6	42.5
Average Growth of GDP	7.9	7.51	4.01	6.73

Source: Hill 2000, 31

¹³ This may be incomparable due to different price standards, but using similar constant price, Sundrum (1988) still found a 47-57 percent decline of growth.

In response to the slow-down of growth, the government then devaluated the rupiah twice in 1983 and 1986. The aim was to increase non-oil export performance. The efforts to increase non-oil export continued in the following years.

A very drastic and popular deregulation policy was also introduced in 1988, called “*Paket Deregulasi Kebijakan 27 Oktober 1988*” (October Package 27-88), to reform the banking system. The effect was an increase in the number of banks all over the country and increased mobilisation of public monetary assets.¹⁴ A series of trade reforms were also introduced in October 1986, January 1987, November 1988, and May 1990 (Aswicahyono and Firdhanustyawan, 2004). We can see then, the increase of non-oil exports in the next period (1987-1992) was tremendous, reaching 25.6 percent per annum. Indonesia in the 1980s was also characterised by industrial transformation: large scale industrial operations, vastly increased range of products, changing industrial structure, development of a stronger “indigenous” industrial base, a more broadly-based industrial structure, rapid productivity and real wage growth, and “evening up” of inter-industry productivity differentials (Hill, 1990a).

In addition, economic growth in this period was higher than in the previous five-year plan (Repelita), which was 5.32 percent annually. In this period, Indonesia successfully attained self-sufficiency in rice production and at the end of this Repelita there was a very promising sign of development in the banking sector and the stock exchange. However, in general, in this period the country still faced some problems that were, to some extent, not stimulating the macro economy. What Jayasuria and Manning (1988: 3) described for the situation might be the best illustration:

The current jewel in Indonesia’s economic crown, non-oil export, has continued to shine brightly. But there is now increasing concern with sluggish growth of the non-traceable

¹⁴ This policy was blamed to be the cause of a serious problem in the following period when many private banks went into bankruptcy.

sectors and implication on domestic income, wages and employment. Longer term uncertainty is heightened by the extent of the debt financing problem, a sensitive rice situation, and the possibility of another slide in oil price, all against a backdrop of slow overall economic growth rates, both in the recent past and (very likely) in the near future.

In the following Repelita, 1989-1994, Indonesia experienced better conditions due to government commitment to continue policy deregulation through a series of trade and investment reforms: June 1991 deregulation package, July 1992, June and October 1993, and June 1994. In this period, Indonesia enjoyed high economic growth, which was on average 6.7 percent per year. In addition, the government had also successfully increased non-oil exports. In the early 1990s, Indonesia was on the list of the Newly Industrialising Countries (NIC). In 1993, the World Bank characterised Indonesia as a one of the “high performing Asian Economies”.

Booth (2002a) argued that if the growth process in Indonesia in the 1960s-1990s, was not "export led", it certainly was "export facilitated". However, some experts were still unhappy with the deregulation policy due to the fact that policy implementation was too slow, much less comprehensive than they had hoped, and did not include various sensitive agricultural commodities and several manufacturing commodities (Aswicahyono and Firdhanustyawan, 2004: 14).

Table 3.3 shows several important concerns. At least until the recession period, it was not the manufacturing sector that had the highest share of GDP growth, but was the services sector. It was only in 1987-1992 that the share of manufacturing on GDP growth surpassed that of the services and constituted the highest share of GDP growth. In addition, the share of agriculture in the period of 1982-1987, when the economy was in recession, increased significantly compared to the previous period. The increase was even higher than services, but then declined to the lowest rate. This implies that agriculture was playing an important role in stimulating the growth of the GDP when industry experienced a drop in its share due to declining oil prices.

Nasution (1991) argued that in the period of 1987-1990, Indonesia experienced two contradictory developments. First, during this period investment, non-oil exports, private consumption and growth of performance were remarkable and unprecedented. Other indicators, such as poverty incidence, improved. Second, in the beginning of 1990, Indonesia faced very serious problems concerning a high inflation rate, insufficient infrastructure, a widening current account deficit, a growing foreign debt, and a fragile financial system. The inflation rate in 1990 was almost two digits (9.5 percent) and much higher than the previous year (6.0 percent). The current account deficit increased sharply from \$US 1.3 billion (2.2 percent) in 1989 to \$US 3.4 billion (3.5 percent) in 1990. At the same time, non-oil exports dropped from 20.0 percent to 6.1 percent.

Three decades after the New Order took power, regardless of having some problems, overall economic performance in Indonesia was extraordinary if we compare it with the conditions of the first year the New Order took power. Thee (2001) added that in spite of good macro economic performance, the economic structure had been transformed from a largely agrarian economy into one in which the manufacturing sector contributed more to the GDP (See also Van der Eng 2002a). This justified the argument that Indonesia was on the right track in modernising the country.

In short, the period of 1967-1997 can be characterised as one in which a "growth miracle" occurred. However, Indonesia's development experience is not unique, since the now developed countries have also gone through a similar process. According to Van der Eng (2002a), the unique feature of Indonesia's experience is that the growth was higher than that of Western Europe in the past and higher than in most of Asia in the same period. He continued (Van der Eng, 2002a: 9):

Very unique to Indonesia is that this process of rapid economic development was part and parcel of a process that involved the forging of a national economy and a nation state involving a number of disparate people and spanning a geographical area, and even a population of equivalent proportions to Western Europe in the past.

However, two important points should be borne in mind. First, at the end of the fifth Repelita (1989-1994), Indonesia faced a very significant current account deficit that was US\$ 2.940 million. Second, obliged total foreign debt caused a very serious problem. In the fourth Repelita (1984-1989), the proportion of routine expenditures used to pay the foreign debt was 41.2 percent. This figure increased to 44.6 percent in the next Repelita (1989-1994). This meant that almost 50 percent of routine expenditures were to pay the foreign debt. These conditions were indicators of how serious the problems the Indonesian government faced. It might be true to say that the country experienced “involution” or pseudo development rather than development.

In spite of this, there was also a problem related to employment. In the year 1988, when Indonesia experienced high economic growth, in a discussion hosted by Kompas daily newspaper (Sukamdi, 1996), there was a growing sceptical view regarding the future of employment in Indonesia as can be seen in the following statement:

Saya tidak khawatir mengenai ekonomi Indonesia di masa depan. Saya tidak khawatir akan pertumbuhannya, investasinya atau ekspor nonmigasnya. Soal pembayaran hutang luar negeri pun saya tidak khawatir, tetapi kalau sudah soal kesempatan kerja, ya maaf, saya tidak punya dasar untuk yakin.

I don't worry about Indonesian economy in the future. I don't worry about the growth, investment or non-oil exports. Concerning foreign debt payment I also don't have any worries, but if we turn to employment opportunities, sorry, I don't have any reason to be optimistic.

Two important points can be derived from this statement. First, there was an optimistic view about the future of the Indonesian economy. This was reasonable since the macro economy indicators generally did not show any serious problems. Second, good economic performance does not guarantee that other factors, such as employment, are positively influenced. Hasibuan (1994) stated that even though economic growth in the First Long Term Development Plan (PJP I) was high enough and the per capita income was significantly increasing, there was no evidence that employment was also growing as fast as economic growth. Table 3.4 shows that the employment growth in agriculture during 1961-1990 was

always higher than growth in industry. This means that industrialisation did not create sufficient employment to absorb the labour surplus in the agricultural sector. Moreover, the growth of industry was the lowest compared to both the agricultural and services sectors.

Table 3.4 Employment by Sector, 1961-1990

Sector	Share (%)				Growth (%)		
	1961	1971	1980	1990	1961-1971	1971-1980	1980-1990
Agriculture	73.0	65.8	56.1	50.1	28.2	24.4	34.1
Industry	8.1	10.1	13.3	17.0	20.6	23.7	26.7
• Manufacturing	5.9	7.8	9.2	11.6	18.2	13.6	18.1
• Construction	1.8	1.9	3.2	4.1	2.6	7.5	6.5
Services	18.9	24.1	30.6	32.9	51.2	51.8	39.2
• Trade	6.9	11.0	13.1	15.0	32.4	20.1	20.0
• Transportation	2.2	2.4	2.9	3.7	3.8	4.4	5.9
• Finance	9.8	10.7	14.6	14.2	15.0	27.4	13.2
Total (%)	100.0	100	100	100			
(000)	32,911	39,163	51,196	70,608	6,252	6,810	19,412

Source: Hill 2000, 33.

Note: These are census years.

One of the indicators that reveal this problem is open unemployment.¹⁵ In 1980, from a labour force of 52.4 million, 896 thousand, or 1.71 percent, were looking for a job. This figure increased to 3.2 percent in 1990, which was equivalent to 2.3 million in the labour force. This means that the number of unemployed increased by 3.3 percent annually. In the period of 1982-1997, the open unemployment rate increased substantially (Figure 3.4) and in 1997, the number of unemployed reached 4.27 million, or increased by 18 percent annually, during the period of 1980-1997. This was higher than the increase of the

¹⁵ The Open Unemployment Rate (OUR) is the percentage of the labour force that is looking for work.

labour force in the same period. Based on this figure, it is clear that the problem of both unemployment and underemployment was embedded in the fast increase of the labour force as a result of relatively high population growth and an increasing labour force participation rate during this period.

In addition, a large part of the labour force was lowly educated. For example, in 1997 about 65 percent of the labour force had only primary education or less. During the New Order, educational development achieved good progress, but it was not enough to enable people to enter the industrial sector.

Figure 3.4 Unemployment Rate 1982-1997

Source: ADB, 2000: Key Indicators of Developing Asian and Pacific Countries 1982-1999

The open unemployment rate (OUR) was, of course, increasing; however, we must bear in mind that the problem of employment in developing countries is not very well represented by open unemployment, but rather by underemployment. The OUR is not a good indicator for the employment problem in developing countries because of the absence of social security, people are forced to work in any type of job. This explains why the structure of employment did not transform from agriculture to industry, but to services, given the fact that the services sector was mostly dominated by the informal sector, which is

very easy to enter. The result is that many people are underutilised. The number of under employed persons in Indonesia was about 36.5 percent of the total amount of labour performed, both for 1980 and 1990.¹⁶

There are several reasons why we must worry about the problems of unemployment and underemployment (Turnham, 1993). First, mass unemployment may create social and political unrest. The chance is greater when unemployment is dominated by young, educated people, as can be observed in the Indonesian case. Secondly, while limited employment opportunities have forced people to enter unproductive jobs, which might be better than being unemployed, it does not eliminate their difficulties in fulfilling their basic needs. This in turn will create a new entrance into poverty. Even though it is not the only factor, it may generate a wider problem than the economic crisis. The Indonesian experience tends to prove this argument.

Figure 3.5 Employment Share 1982-1997

Source: ADB, 2000, Key Indicators of Developing Asian and Pacific Countries 1982-1999

Another problem is that industrialisation in Indonesia has not provided enough employment opportunities in industry. As can be seen

¹⁶ Underemployment based on working hours. Those working less than 35 hours per week were included as underemployment.

from Figure 3.5, during the period of 1982-1997, labour absorption in the industrial sector was limited. It is very clear that the structure of employment does not correspond to the model of the transition from agriculture to industry, but to the alternative model of the transition from agriculture to services. In 1997, one year before the crisis came to a peak, the services sector surpassed the agricultural sector, achieving more than 45 percent. At the same time, absorption in industry was very limited, less than 15 percent. What we can conclude from this fact is that industrialisation in Indonesia has failed to transform simultaneously the structure of employment.

Chapter IV

1993-1997: The Limits of Economic Growth and Regional Disparities

Abstract

The purpose of this chapter is to conduct an analysis of economic growth, including the economic and transformation processes and regional disparities, in order to understand the process of economic development in Indonesia during the period prior to the crisis. As the financial crisis started in August 1997, the analysis focuses on the period of 1993-1997. The main question is about the character of the economic transformation processes that occurred in the period prior to the crisis at national, provincial and district levels. To address this issue, spatially and sectoral disaggregated descriptive data analysis is used. The finding shows that at the national and provincial level, Indonesia experienced what can be called “weak industrialisation”, characterised by relatively high economic growth particularly supported by the growth of industry that was not accompanied by sufficient employment creation in that sector. Not industry but agriculture absorbed most of the employment. In addition, the economic and employment structures transformed from agriculture to services, not to industry.

IV.1 Weak Industrialisation

The history of the Indonesian economy provides an example on how the country has gone through a very dynamic situation and the way the country has escaped from a series of crises, which in turn have had their own influence on the country’s recent economic performance. It is also a fact that the crisis as understood at a macro level has a different impact on lower levels of administration units and even on the individual level.

Thus, it is important to understand the nature and impact of the crisis at all levels.

The discussion is divided into three analytical levels. First, national economic development is the main focus of analysis for understanding the structural transformation of the economic and employment structure at the national level. Second, the analysis of regional disparities focuses on the provincial level in Java with a similar approach as that is used to understand the structural transformation. These two levels of analysis will form the basis of the investigation on the impact of the economic crisis at the national and provincial levels in Chapter V. Third, the discussion at the national and provincial levels is followed by an analysis at the district level. The focus of this analysis is economic growth, and transformation of economic and employment structure. Combined together these three analyses form the basis for the further examination of industrialisation at the district level.

Discussion at the district level is very important especially in this chapter, since it provides the foundation to explain economic performance in the period prior to the economic crisis (1993-1997). Economic performance at the district level in this period is also the basis for testing the first hypothesis: the more industrialised the area was before the crisis, the more drastic the decrease of both the percentage of people working in the manufacturing sector and the contribution of the manufacturing sector to the Gross Regional Domestic Product (GRDP) will be during the crisis. This hypothesis will be tested in Chapter V.

There are two important aspects that should be taken into account for understanding contemporary Indonesian development. First, there are the factors related to the industrialisation process, the strategy that was chosen to foster economic development in Indonesia. These factors are correlated with the second aspect, that is, the regional component, especially in reference to disparity and inequality, which according to Hill (1992) is of great importance to national development. Williamson (cited in Brojonegoro, 2002) argues that the relationship between regional disparity and national development follows two stages (see also Szirmai, 2005). First, during the early stage of development regional

disparity grows wider and development tends to concentrate in certain areas. Second, in the more mature stage of national economic growth, regional convergence reduces the regional disparities significantly.

An important aspect of industrialisation is the development of the manufacturing sector, referring to its contribution to both economic and employment structure. As mentioned by Colin Clark and Simon Kuznets (cited in: Szirmai, 2005: 260), economic development involves a structural transformation in which factors of production are transferred from agriculture to the industrial sector. This process is defined by the decline of the share of agriculture and the increase of the share of industry to the total employment structure. At the same time, the share of agriculture also declines in terms of its share in the gross domestic product, while the share of industry in the gross domestic product increases.

Indonesia's development has been going through a very dynamic and fluctuating phase. According to Thee (2000), in the mid-1960s, Indonesia's manufacturing sector lagged behind compared to its Southeast Asian neighbours.

Table 4.1 Indonesia's Industrial Development in an Asian Perspective, 1965-1997

	Value Added in Manufacturing (US\$ Million)		Annual Growth of Manufacturing Sector (%)			Manufacturing Value Added (%GDP)		Manufactured Exports (% of total exports)	
	1970	1996	1965-1980	1980-1990	1990-1997	1965	1997	1980	1997
Asean 4									
Indonesia	994	58,244	12.0	12.6	10.8	8	26	2	42
Malaysia	500	34,030	-	8.9	13.1	9	34	19	76
Philippines	1,622	18,908	7.5	0.2	3.1	20	22	21	45
Thailand	1,230	51,525	11.2	4.5	9.3	14	29	25	71
Large Northeast Asian Developing Countries									
Rep of Korea	1,880	125,314	18.7	-	-	18	26	90	92
China	30,466	308,945	9.5	10.4	15.5	31	37	-	85

Source: Thee (2000) pp. 421.

As can be seen from Table 4.1, the growth of the manufacturing sector in the period of 1965-1997 reached double digits. It was the highest amongst the four ASEAN countries, except during the period of 1990-1997, when Malaysia achieved a higher growth than Indonesia. In addition to this, the contribution of the manufacturing sector to the total exports of the country increased dramatically, from 2 percent in 1980, to 42 percent in 1997. Hill (1996) argues that this was primarily caused by a series of deregulation measures in the trade, investment, and financial sectors, which started in the mid-1980s and lasted through the early 1990s.¹⁷ It is quite impressive that the manufactured exports comprised the largest part of non-oil and gas exports. Hill (1996) observes a tremendous growth in manufactured exports from \$500 million in 1980 to \$2.6 billion in 1986. The increase even more than doubled during the following two years, 1986-1988, and almost doubled again in 1988-1990.

In the 1990s, manufactured exports tended to slow down. Three plausible factors can be proposed (Thee, 2001). First, there was a decrease of wood-based products and textile/garments exports that constituted the largest portion of manufactured exports. Second, there was a decline of export competitiveness in the resource-intensive manufacturing sector and low-skilled labour-intensive products, such as wood-based products, textiles, garments, and footwear. Third, the high increase of manufactured exports was due to its very low rate at the beginning of the period. Additionally, the global recession in the 1990s affected the growth of world trade, which in turn affected Indonesian manufactured exports.

Table 4.2 shows the trend of manufactured exports in the period of 1980-1993. The data provide evidence that export from manufactured products increased significantly in the period of 1980-1993 from 2 percent to 53 percent. Throughout the entire period, the largest portion of manufactured exports came from labour-intensive products, except in 1985 when resource-intensive products were the highest. The share of

¹⁷ The description of deregulation measures can be found in Chapter II.

capital-intensive products was less than 20 percent at its highest level in 1980. During the period of 1985-1993, the share was even lower at less than 15 percent. It is important to bear in mind that the annual growth of these products consistently increased, while the others declined.

Table 4.2 Major Manufactured Exports, Indonesia, 1980-1993

Sources of Exports	Value of Exports				Annual Export Growth (%)			
	1980	1985	1990	1993	1980-1985	1985-1990	1990-1993	1980-1993
Labour intensive (million of \$)	287	785	4634	11344	22.3	42.6	34.8	32.7
Percentage of all manufactures	57.1	38.4	51.3	58.4				
Major Item (million \$)								
Clothing	98	339	1646	3502	28.2	37.2	28.6	31.7
Woven fabrics	43	227	1132	2247	39.5	37.9	25.7	35.6
Footwear	1	8	570	1661	51.6	134.7	42.8	76.9
Electronics	94	77	204	1382	-3.9	21.5	89.2	23.0
Resource Intensive (million of \$)	119	992	3324	5364	52.8	27.4	17.3	34.0
Percentage of all manufactures	23.7	48.5	36.8	27.6				
Major Item (million \$)								
Plywood	68	941	2791	4586	69.1	24.3	10.4	-56.8
Capital Intensive (millions of \$)	97	266	1083	2729	22.4	32.4	36.1	29.3
Percentage of all manufactures	19.3	13.0	12.0	14.0				
Total all manufactures (million of \$)	503	2044	9041	19437	32.4	34.6	29.1	32.5
Three largest (% of total)	52	74	61	53				
Manufactures as percentage of Total export	2	11	35	53				

Source: Hill (1996) Table 1. Export growth is calculated by the author.

IV.2 Regional Disparities and Inequalities

Spatial analysis on Indonesian development is very important for several reasons. First, it is self evident that Indonesia is a big country that clearly constitutes distinct cultures and regions. Hill (1991) aptly describes Indonesia as “unity in diversity”, whereas Dick (2002) refers to

the archipelago as “diversity in unity”. For many years, the country was divided into 27 provinces, but after decentralisation, some provinces split so that presently there is a total of 33 provinces.¹⁸ Each province has its own resources to support regional development, which not only affects performance at the provincial level but also at district levels. Meanwhile, regional contribution to the industrialisation process at the national level is also very important.

Second, regional development became an important issue after the implementation of regional autonomy. Shifting power from the central to the local government was expected to bring about a better local economy that could reduce regional disparity. Third, in reference to the analysis of this chapter, understanding the regional diversity in terms of provincial and district economic performance is indeed important to establish the correct contextual analysis.

Regional disparity and inequality represent the biggest challenges to Indonesian development. There are at least two approaches to understanding regional development (Aziz, 1991). The first approach starts from the economic base concept that considers a region’s exports as determining factors in regional economic development. This implies that “the regional problem is nothing but a balance of payments problem” (p: 56). The second approach views regional differentials in term of rates of return stemming from variations in environment and/or infrastructure, rather than from disequilibrium in the capital-labour ratio. Regions are becoming less developed because of low factors of productivity, not because of bad luck or market failure.

This chapter will examine the important issues in regional development using total and per capita Gross Regional Domestic Product (GRDP) as indicators. In addition, there will be an analysis of regional development in terms of how the provincial, as well as district, levels go through the industrialisation process. We will focus on structural transformation using two main indicators: sectoral share of GRDP and employment. The assumption is that industrialisation should take these

¹⁸ There is a great possibility that the number of provinces will increase in the future due to the increasing demand of several areas to establish new provinces.

two indicators in the same direction, shifting from agriculture to industry, then to services.

Figure 4.1 Pathways to enhance Human Development

Source: Indonesia Human Development Report 2004, Box 3.2

Economic development indicators are not sufficient to examine regional diversity. According to the human development approach, economic development is only a means to achieve a higher-level goal, namely human well-being. Economic growth should be accompanied by a changing income distribution to achieve an improvement in the standard of living and reduction in poverty. At the same time, economic growth should be used by the government to allocate the money for more public social spending that will in turn create improvement in health care and education (see Figure 4.1). These three dimensions - economy, education, and health - are essential in understanding development goals. Based on this argument, the discussion in this chapter will also employ HDI (human development index) as an indicator in the assessment of the diversity of regional situations.

Figure 4.2 The Share of GDP in 1996

Source: Dick, 2002

The gap between the more developed areas (Java, Sumatra, and Bali) and the less developed areas of Indonesia (Kalimantan, Sulawesi, Nusa Tenggara, Maluku, and Irian Jaya) reflects regional disparity in Indonesia. In 1971, for instance, Java island, which represents about 6 percent of Indonesia's land area, was occupied by roughly 60 percent of the population and produced more than 50 percent of the total GDP. In contrast, Irian Jaya with 20 percent of Indonesia's land area and 1 percent of the total population contributed only 0.7 percent of the GDP. Ten years later, the contribution of Java slightly decreased to about 50 percent and that of the other islands increased (see Hill 1991). Irian Jaya, for example, experienced an increase of 1.3 percent in 1983.

In 1997, at the beginning of the crisis, Java's share to the national GDP was even higher than it was in the 1970s and 1980s, at about 64.1 percent, while Irian Jaya's was only 1.6 percent after excluding the oil and gas sectors (Akita and Alisjahbana, 2002). Data provided by Dick (2002) shows a similar pattern (see Figure 4.2). The share of Java to the GDP was about 64 percent, of which about 20 percent was the share of the Greater Jakarta region. This is because Java supplies most of the non-oil exports of the country. Exports from Java were mainly dominated by three metropolitan areas (Greater Jakarta, Bandung, and Greater Surabaya), which according to Hill (1990a and 1990b) constituted about 60 percent of the non-oil and gas manufacturing GDP of Indonesia. This shows that Java played a crucial role in both the national economy and the industrialisation process. Figures provided by Garcia and Soelistyaningsih (1998: 97) have also strengthened the conclusion that regional disparity is eminent in Indonesia. During the period of 1975-1993, the contribution of Java alone to the national GDP increased from 50 to 59 percent. Sumatra came second after Java in terms of contribution to the national GDP. It experienced a decline of its share to the GDP from 32 to 23 percent in the same period (1975-1993). These two islands, Java and Sumatra, together produced about 80 percent of Indonesia's GDP. Using Williamson's index of regional disparities, Brodjonegoro

(2002) comes to the conclusion that in the period of 1995-1997, regional disparities in Indonesia were relatively high.¹⁹

Akita and Lukman (1995) as well as Akita and Alisyahbana (2002) conclude that at the provincial level, income equality remained stable. During the period of 1985-1993, for instance, the weighted coefficient of variation at the provincial level, after excluding the oil and gas sectors, was virtually constant. The coefficient was in the range of 0.54-0.55 during 1985-1993 as measured by the GRDP by the 1983 constant price, and it was in the range of 0.66-0.67 in 1993-1997 as measured by the 1993 constant price. The coefficient was much larger when the oil and gas sectors were included, but this gradually decreased with the fall of this sector's contribution.

Table 4.3 Distribution of GDP by Sector and Main Island Group, 1975 and 1993

Island	1975			1993		
	A	M	S	A	M	S
Sumatra	22	56	23	20	43	38
Java	33	16	51	15	28	57
Bali	48	4	49	22	8	69
Nusa Tenggara	65	3	32	39	6	55
Kalimantan	30	37	33	18	44	37
Sulawesi	51	4	44	35	13	52
Maluku+Irian Jaya	34	43	23	22	44	35
Indonesia	31	30	39	18	31	51

Source: Garcia and Soelistyaningsih (1998): Table 1 and 2 pp: 98-99 with modification

Note: A = Agriculture; M = Manufacture; S = Services

¹⁹ According to Brodjonegoro (2002), results from using another method, i.e., the entropy method, conflicted showing that economic activity in Indonesia was reasonably dispersed, but the Williamson Index is better for reflecting regional welfare, since it has the advantage of weighting the GRDP with the total population.

In 1975, the contribution of manufacturing to the GDP was low in Java, while in Sumatra, Kalimantan, and Maluku and Irian Jaya it was the highest. Two decades later, the share of manufacturing in Java still was lower than these three islands/island groups. The increase of the manufacturing sector²⁰ in Java during this period, however, was the highest (see Table 4.3), even higher than national growth. In the period of 1975-1993, the share of manufacturing to the GDP in Java increased by 12 percent, from 16 to 28 percent, while in Kalimantan it was only 7 percent, and in Maluku and Irian Jaya it was 1 percent. In contrast, Sumatra experienced a significant decrease, which was about 13 percent in the same period. Garcia and Soelistyaningsih (1998) argue that Java exported mainly manufactured goods, while Sumatra and Kalimantan exported primarily oil and gas. The decrease of manufacturing in Sumatra then probably is due to the decreasing role of exports from oil and gas.

From an economic geography perspective, the situation of recent Indonesian economic development concerning regional disparities is the best way to explain the spatial pattern of development and underdevelopment. Two interrelated aspects could describe this situation, namely regional context and historical context. In terms of regional context, the fact that Java, Sumatra, and Bali have been exposed and integrated into the world market might best explain why these areas are more developed. In contrast, the absence of networking with neighbouring economies might also explain why the rest of the regions are underdeveloped. This situation has been sustained since the early 18th century.

Historically, the Dutch government paid more attention to Java than to the outer islands (Dick; 2002), parts of which were, according to Lindblad (2002: 82) “only very loosely subject to Dutch colonial rule”. Only specific areas in Sumatra and Sulawesi received attention from the Dutch government. Dick (2002) notes that there were only 15 small settlements outside Java: Padang, Bengkulu, Palembang, Muntok, Riau, Sambas, Pontianak, Banjarmasin, Makassar, Manado, Ternate, Ambon,

²⁰ Includes manufacturing of oil and gas products.

Banda, Kupang, and Bima. In recent economic development, most of these settlements have become economically advanced. Riau, Padang, and Bengkulu are important cities in Sumatra, while Pontianak and Banjarmasin are prominent cities in Kalimantan, while Manado and Ambon are influential cities in Sulawesi and Maluku, respectively. Kupang and Bima are the growing cities in Nusa Tenggara, the eastern part of Indonesia. These facts confirm the notion that a historical perspective is important to explain why certain areas are more developed than others. In other words, the presence and attention of the Dutch during the colonial period bears significant influence on regional development in recent years.

IV.3 Interprovincial Disparities

As the core of the country's economy, Java as a whole has benefited from development more than the other islands have. However, some areas in Java seem to have enjoyed more advantages than others, as disparities among provinces persist.

Analysis of the distribution of the GDP among the 27 provinces in Indonesia (see Brodjonegoro, 2002) provides an example of how the economy had been centralised in Jakarta. In 1993, the share of Jakarta to the GDP, which is only 0.03 percent of total land area of the country, was as high as 17.5 percent. This figure increased from 8.8 percent in 1971, and 10.5 in 1983 (Table 4.5). Also, in the 1980s, Jakarta accounted for a significant share of Indonesia's estate product exports (Aziz, 1991: 59). Using categorisation developed by Hill (1992), Jakarta is the only province in the category of "consistent economic and social variables", which has the highest per capita GRDP, the highest growth rate, and the best overall social achievement. As capital of the nation, Jakarta has benefited the most from development in comparison to the other provinces.

In terms of per capita GDP, Jakarta is exceptional. This province is the richest, not only in comparison with the other provinces on Java, but also with Indonesia as a whole. Just as a comparison, in 1997, the per capita GDP of Jakarta was nine times higher than that of East Nusa

Tenggara, or almost four times higher than the other provinces on Java (Table 4.4). If we look back at the 1970s and 1980s (Table 4.5), the gap of per capita GDP between provinces on Java has already emerged. In 1971, for instance, the per capita GDP of Jakarta was three times that of Yogyakarta, which was the lowest on Java. In 1983, the gap increased to more than four times higher. This gap did not change very much until 1997 (Table 4.4).

Yogyakarta province contributes the least to the GDP in comparison to the other provinces on Java. As can be seen in Table 4.5, this province contributed only 1.5 percent to the total GDP. Yogyakarta and Central Java were among the poorest provinces in terms of regional income statistics (see Booth and Damanik, 1991). In addition, per capita GDP of this province was also among the lowest, and was lower than the average per capita GDP of Java.

However, special attention should be paid to the Special Region of Yogyakarta as we try to understand the relationship between economic and social development. Yogyakarta is unique in a sense that social and economic developments do not occur in accordance to theoretical expectations. Classical studies on the relationship between infant mortality and per capita income show that there is a negative correlation between the two: the higher the income, the lower the infant mortality rate, with the exceptions of Sri Lanka, Costa Rica, and Kerala. Yogyakarta is also one of these exceptions. Its per capita income is quite low compared to other provinces, but its infant mortality is among the lowest. According to Hill (1992), Yogyakarta, together with North Sulawesi, are among the provinces in the category of “good social indicators; lagging economies”. Comparing several social performance indicators, such as infant mortality rate, poverty rate, and junior high school enrolment, with the GRDP, Hill (1992) found out that these two province’s social performances are superior to the national average, while their GRDP was below average.

Table 4.4 Per Capita GDP by Province in 1993-1998(without Oil and Gas)

Province	Per Capita GDP (in thousands IDR)			Growth Rate (%)	
	1993	1997	1998	1993-1997	1997-1998
SUMATRA	1.342.1	1.717.5	1.583.8	6.4	-7.8
Aceh	1.308.3	1.644.3	1.521.6	5.9	-7.5
North Sumatra	1.648.5	2.186.6	1.981.1	7.3	-9.4
West Sumatra	1.448.7	1.815.5	1.678.7	5.8	-7.5
Riau	1.635.1	2.162.9	2.119.1	7.2	-2.0
Jambi	1.077.9	1.296.7	1.180.1	4.7	-9.0
South Sumatra	1.245.9	1.573.3	1.442.4	6.0	-8.3
Bengkulu	1.100.1	1.255.7	1.171.2	2.7	-4.4
Lampung	853.4	1.059.8	959.1	5.6	-9.5
JAVA AND BALI	1.661.6	2.173.8	1.852.5	6.9	-14.8
DKI Jakarta	5.801.7	7.424.2	5.979.2	6.4	-19.5
West Java	1.377.3	1.882.3	1.546.5	8.1	-17.8
Central Java	1.069.8	1.338.9	1.211.1	5.8	-9.5
DI Yogyakarta	1.390.5	1.760.1	1.562.5	6.1	-11.2
East Java	1.405.4	1.827.8	1.632.1	6.8	-10.7
Bali	2.009.6	2.579.3	2.447.2	6.4	-5.1
KALIMANTAN	2.043.5	2.681.6	2.585.0	7.0	-3.6
West Kalimantan	1.506.3	1.963.1	1.888.8	6.8	-3.8
Central Kalimantan	1.968.4	2.538.5	2.372.9	6.6	-6.5
South Kalimantan	1.624.0	2.092.3	1.965.0	6.5	-6.1
East Kalimantan	3.516.0	4.619.3	4.558.8	7.1	-1.3
SULAWESI	1.007.5	1.264.1	1.200.8	5.8	-5.0
North Sulawesi	1.091.3	1.465.4	1.443.4	7.6	-1.5
Central Sulawesi	948.5	1.138.3	1.070.4	4.7	-6.0
South Sulawesi	1.022.9	1.283.7	1.211.1	5.8	-5.7
Southeast Sulawesi	860.8	995.1	917.1	3.7	-7.8
OTHERS	872.6	1.096.2	1.030.1	5.9	-6.0
West Nusa Tenggara	719.0	897.3	859.1	5.7	-4.3
East Nusa Tenggara	610.1	771.4	718.3	6.0	-6.9
East Timor	623.6	825.6	813.4	7.3	-1.5
Maluku	1.219.8	1.441.5	1.342.6	4.3	-6.9
Irian Jaya	1.398.2	1.828.8	1.694.3	6.9	-7.4
TOTAL	1.520.9	1.973.8	1.738.1	6.7	-11.9

Source: Akita and Alisjahbana (2002) Table 2.

Like Yogyakarta, the contribution of Central Java to the GDP was low and the per capita GRDP was even lower than that of Yogyakarta. In 1971, its share was only 12.5 percent and even decreased to less than 10 percent in 1983 (Table 4.5). The growth of the industrial sector in this province, together with Yogyakarta, was lower than the country as a whole (Booth and Damanik, 1991: 294).

Table 4.5 GDP and GDP per Capita, 1971 and 1983 (Current Price)

Provinces	1971					1983				
	Total GDP		GDP per Capita (IDR. '000)	IGDP PC (with oil)	IGDP PC (with-out oil)	Total GDP		GDP per Capita (IDR. '000)	IGDP PC (with oil)	IGDPPC (with-out oil)
	IDR (billion)	%				IDR (billion)	%			
Jakarta	329.0	8.8	71.8	228	248	7192.5	10.5	984.3	227	276
West Java	550.1	14.6	25.4	81	88	9,185.9	13.4	309.7	71	87
Central Java	470.4	12.5	21.5	68	74	6,740.9	9.8	253.3	58	74
Yogyakarta	54.7	1.5	22.0	70	76	713.1	1.0	251.2	58	65
East Java	656.8	17.5	25.7	82	89	10,347.8	15.1	339.6	78	97
Java	2061.0	54.9	27.1			34180.2	49.9	356.7		
Indonesia	3,757.0	100.0	31.5	100	100	68,438.5	100.0	433.2	100	100

Source: Hill (1991) Table 1.1. with modification

Note: Figure for total GDP and GDP per Capita for Java are calculated by the author

IGDP PC: Index GDP Per Capita

In 1970s and 1980s, Hill (1992) included West Java in what he calls “prosperous economies; indifferent social records or growth without development”. Since its location is adjacent to Jakarta, this province has benefited from fast economic development of its neighbouring province. The value of the GRDP of this province was the second highest after East Java, and the contribution of its GRDP to the GDP was higher than Jakarta. However, due to its large number of inhabitants, the per capita GDP of this province was much lower than Jakarta’s. Daroesman’s research (Hill, 1991: 255) concludes that:

West Java has generally been the most prosperous of the provinces in Java. Its vast paddy fields produce more rice than any other provinces, its textiles produce two-thirds of all

domestic production, its population density is probably less and, to a casual observer its cities appear more prosperous than most of the large cities of Central and East Java and Yogyakarta.

However, in terms of social indicators, such as educational achievement, it was lowest, and its infant mortality rate was the fourth highest in the country.

East Java is a very densely populated and resource-poor (in terms of land-labour ratio). Hill (1992) considers this province as traditionally poor, but experiencing rapid improvement. The rapid development of this province is also seen by Mackie and Zain (1991) due to successful diversification, balanced growth, as well as commercialisation of the economy. In spite of that, this province is also a highly urbanised area with a high proportion of households working in industry. We can see in Table 4.5 that this province had the highest GRDP. It also had the highest contribution to the GDP. Similar to West Java, East Java's per capita GRDP was less than Jakarta's due to its large population. In the 1980s, when socio-economic changes had taken place, this province still faced a serious employment problem. Insufficient increase of employment opportunity resulted in unemployment and underemployment problems.

The main question is whether the differences in the levels of economic development as described here can explain the effects of the economic crisis. If so, the next question is to what extent different effects of the crisis can be observed among the provinces in terms of employment and economic structure. Before discussing the effects of the economic crisis at the provincial level, the following section will examine the structural transformation in each province to create a baseline for comparison with the conditions during the crisis.

IV.4 Economic and Employment Structure in Java (1993-1997)

IV.4.1 Provincial Level

This section will discuss the performance prior to the crisis (1993-1997) with a focus on the island of Java, excluding Jakarta. The analysis will be based on two important variables: sectoral share and growth, both

in economic and employment structures. This analysis is very important as a foundation for an understanding of the results of the industrialisation process on Java, which in turn will be used to analyse household economic performance in the following chapter. In addition to analysing employment and economic structure, we will also analyse development performance from a human development perspective, using the Human Development Index (HDI), as well as its components separately. The analysis will be divided into two parts, which represent the situation at the provincial and district levels.

a. Employment Structure

Tables 3.6 and 3.7 provide evidence that the island of Java, excluding Jakarta, experienced a tremendous decline in the capacity of the agriculture to absorb the labour force before the crisis. The decline of its share was more than 6 percent in the period 1993-1997. This decline was lower than the national level, which amounted to almost 10 percent. At the provincial level, the pattern is similar (see also Figure 4.1), showing a decline in all provinces. Among them, Central Java experienced the highest decline of agriculture's share of employment (7.6 percent) followed by, West Java (6.2 percent), Yogyakarta (6 percent), and East Java (4.2 percent).

Table 4.6 Share of Employment by Sector in 1993 and in 1997 (%)

Provinces	1993				1997			
	A	M	S	Total	A	M	S	Total
West Java	37.88	22.41	39.71	14613750	31.57	24.29	44.14	14968406
Central Java	50.67	17.78	31.55	14171820	43.09	21.28	35.62	13805856
Yogyakarta	45.83	18.03	36.14	1566441	39.82	18.97	41.21	1506376
East Java	51.46	15.82	32.71	16177147	47.23	16.73	36.04	16080822
Java	46.72	18.53	34.75	45349608	40.70	20.60	38.70	46515561
Indonesia	50.60	11.92	37.49	79200000	40.73	13.92	45.35	85406000

Source: BPS. 1994a; 1994b; 1994c; 1994d and BPS, 1998a; 1998b; 1998c; 1998d.

Note: A: Agriculture; M: Manufacture; S: Services

In contrast, the manufacturing sector in Java, which had become the main focus of economic development, was able to increase its absorption to merely 2.1 percent in the same period (see Figure 4.3), which was only half of the increasing share of service sector. This illustrates that manufacturing was not able to compensate for the limited capacity of agriculture to absorb labourers in the 1993-1997 period.

Figure 4.4 shows that among the provinces, Central Java had the highest increase of manufacturing share of employment before the crisis (3.5 percent), which was higher than that of Java, as well as of Indonesia as a whole. The second highest was West Java (2 percent), while in Yogyakarta and East Java, the share of employment in the manufacturing sector increased less than 1 percent. Interestingly, the service sector on Java as a whole achieved a remarkable increase of its share in employment at 4 percent. It was even more than 5 percent in Yogyakarta.

Agricultural employment declined significantly in relation to its share in total employment, as well as to the number of people working in this sector. The number of people employed in agriculture decreased from 21.7 million to 18.7 million during the 1993-1997 periods. In other words, Java's agricultural sector lost 2.9 million agricultural workers in 4 years, or 716,000 people annually. On the other hand, the capacity of the manufacturing and services sectors together increased by 2.7 million in the same period, or about 675,000 annually. Employment in Java experienced a deficit in this period of about 42,000 each year. Out of the 4 provinces, only West Java experienced a surplus (355,000). The other three provinces had deficit employment, with the highest deficit in Central Java (366,000) followed by East Java (96,000) and Yogyakarta (60,000). The pattern of employment growth is shown graphically in Figure 4.4.

What does this mean? First, relatively good economic development in terms of economic growth before the crisis failed to provide sufficient employment opportunities. Second, the shift of employment in Indonesia during a normal period was not from agriculture to manufacturing, but to services. This means that the transformation of the employment structure did not follow the patterns of industrialisation. This also tells us how

important the service sector is in employment development in Indonesia. The domination of the informal sector in the service sector is obvious. This enables the informal sector to expand its labour absorption capacity without any limitations. In the provinces where the growth of the manufacturing sector is stunted, the informal sector plays a significant role. This is especially true for the Special Region of Yogyakarta where, while the growth of the manufacturing sector came to a grinding halt due to limited resources, the expansion of the service sector in this province surpassed that of the other provinces.

Figure 4.3 **Changing Share of Employment by Province and Sector, 1993-1997**

Source: BPS, 1994a; 1994b; 1994c; 1994d and BPS, 1998a; 1998b; 1998c; 1998d

Figures 3.3 and 3.4 also reveal that, in general, agriculture still played an important role in employment, which can be seen from its share of employment, even though in the period of 1993-1997 its capacity had decreased substantially. However, a slightly different pattern can be found among the provinces. Yogyakarta experienced a shift in the employment structure from agriculture to services. In 1997, this province relied heavily upon the service sector to absorb labour. The situation was almost the same in Central Java and East Java where the employment structure transformed from agriculture to services, however until 1997,

agriculture was still the most important sector in terms of labour absorption. This situation reflects Java's pattern in general. The province of West Java is the only province where the service sector dominates the economy. Since 1993, the service sector absorbed most of the province's labour force. Its capacity increased the most during the period of 1993-1997. This may mean that in terms of employment structure, West Java is the only province that follows the pattern of industrialisation.

Figure 4.4 Employment Annual Growth Rate by Province and Sector, 1993-1997

Source: BPS, 1994a; 1994b; 1994c; 1994d and BPS, 1998a; 1998b; 1998c; 1998d

b. Economic Structure

In the last section the employment structure has been described. In this section the structure, pattern, trend, and growth of the economy will be addressed. As a measure GRDP (Gross Regional Domestic Product) is used in two variants: the growth of the GRDP and the sectoral share, or contribution, to the GRDP.

In the period 1993-1997, the economic growth in the province of Yogyakarta was 4.8 percent annually, which was the lowest compared to other provinces on Java (Figure 4.4). Interestingly, the growth of the service sector at more than 5 percent was the highest compared to agriculture and manufacturing in 1993-1997 (Figure 3.4). This again

shows that the service sector played an important role in the province's economy. Yogyakarta is also an example of a province where the service sector is the main driver of the economic growth. The contribution of this sector to the GRDP stood at almost 60 percent in 1993 and 1997 (Table 4.7). Even during this period the share of the sector slightly increased. The importance of the service sector for Yogyakarta is now obvious on two fronts, namely economic and employment development.

Table 4.7 Share of GRDP by Provinces and Sectors in 1993 and 1997

Province	1993			1997		
	A	M	S	A	M	S
West Java	17.13	43.81	39.07	13.49	47.10	39.41
Central Java	24.88	32.24	42.87	20.56	35.41	44.03
Yogyakarta	16.60	24.63	58.77	15.28	25.78	58.94
East Java	19.66	34.80	45.53	15.98	39.78	44.25
Java	19.83	37.45	42.72	16.03	41.30	42.67
Indonesia	17.88	39.68	42.44	14.88	43.16	41.96

Source: BPS, 1994a; 1994b; 1994c; 1994d and BPS, 1998a; 1998b; 1998c; 1998d

Note: A: Agriculture; M: Manufacture; S: Services

Central Java experienced a much higher economic growth rate than Yogyakarta at 7.25 percent, but still lower than that of Java in general (Figure 4.4). The pattern of sectoral growth was different compared to Yogyakarta. The highest growth rate was achieved by the manufacturing sector (9.8 percent), followed by services (8 percent), while the lowest was agriculture (2 percent). It is very interesting to find that even though manufacturing grew the fastest, its share of the GRDP was not the highest. In terms of sectoral share, Central Java has shown a similar pattern to Yogyakarta in which the service sector contributed the highest portion to GRDP. This indicates that the service sector, and in particular the informal sector, still plays an important role when economic growth is high.

Data for West Java show a different pattern. In both 1993 and 1997, manufacturing contributed more than 40 percent to the GRDP (Table 4.7). It was the only province in which the manufacturing sector made the largest contribution to the GRDP. During 1993-1997, the contribution of manufacturing increased to 54 percent, while services contracted from 51.3 percent to 42.73 in the same period. In terms of annual economic growth, West Java's performance was the best compared to the other provinces, where the economy grew by 8.55 percent annually in the period of 1993-1997. West Java was also the only province with higher growth than that of Java and Indonesia in general. The economic condition of West Java is the best example of how economic growth was induced by the growth of manufacturing, which achieved double digits in this period. This is also supported by the fact that in terms of sectoral allocation of production, the share of manufacturing to the GRDP was also the highest compared to the shares of agriculture and services.

Figure 4.5 **Changing Shares of GRDP by Province and Sector, 1993-1997**

Source: BPS, 1994a; 1994b; 1994c; 1994d and BPS, 1998a; 1998b; 1998c; 1998d

The economic performance of East Java before the crisis was almost the same as it was in Central Java. East Java's economic growth was slightly lower than that of Central Java, but the pattern of sectoral share was the same in which service had the largest contribution to the GRDP, followed by manufacturing and services.

In terms of sectoral growth, the findings show that three types can be identified (see Figure 4.6). The first type was the province with low economic growth, while the growth and share of the services sector was the highest. We find this type in the Special Region of Yogyakarta. The second type was the province with high economic growth, high growth of manufacturing and a high share of manufacturing. These characteristics are found in West Java. The third type was the province with high economic growth, which was supported by the growth of manufacturing, while the share of service sector was the highest. This is the case of Central and East Java. This case suggests that manufacturing plays an important role in economic growth. In the cases where manufacturing does not perform well, such as in Yogyakarta, the total economic growth was the lowest.

Figure 4.6 Annual Economic Growth by Province and Sector, 1993-1997

Source: BPS, 1994a; 1994b; 1994c; 1994d and BPS, 1998a; 1998b; 1998c; 1998d

Data on economic and employment structure performance reveals also important findings. Before the crisis, Java experienced quite high economic growth, from 4.78 percent to 8.55 percent annually, but employment decreased overall. In contrast employment grew only in West Java and East Java while Yogyakarta and Central Java experienced a decrease in employment. This strengthens the argument that economic

growth does not always leads to employment creation. In addition, there is very clear evidence that while manufacturing significantly contributes to economic growth, it does not always absorb labour in a significant manner. In Indonesia, which might not apply for other countries, the service sector fulfils the latter role, particularly in engaging labour surplus in the agricultural sector.

Table 4.8 Human Development Index (HDI) by Province, 1996

Province	Life Expectancy (years)	Adult Literacy Rate (%)	Mean Years of Schooling (years)	Adjusted per capita Expenditures (000 Rp)	HDI	HDI Rank
West Java	62.9	89.7	6.4	591.6	68.2	14
Central Java	64.8	81.3	5.5	594.5	67.0	17
Yogyakarta	69.9	79.8	6.9	612.3	71.8	2
East Java	63.8	77.7	5.5	594.3	65.5	22
Indonesia	64.4	85.5	6.3	587.4	67.7	

Source: Indonesia Human Development Report 2001.pp: 78

Surprisingly, the economic performance at the provincial level does not always relate positively to human development achievement. As can be seen in Table 4.8, Yogyakarta, which had the worst economic performance among provinces in Java, had the highest HDI scores. Among provinces in the entire country, this province occupies the second rank. It scored high in three components of HDI, namely life expectancy, mean years of schooling, and adjusted per capita expenditure. The province ranks third in the adult literacy rate. These figures again confirms Hill's (1992) statement that Yogyakarta, together with North Sulawesi, have "good social indicators; lagging economies".

However, based on district data, it is very clear that there is a positive correlation between economic growth and HDI with a Pearson correlation coefficient of 0.496 (level of significance 0.001). A scatter plot diagram (Figure 4.7) also supports this finding and magnifies the

statement that economic growth is a means for achieving human development. From a methodological point of view it illustrates nicely that correlates on higher level (see Table 4.8) maybe absent while it exists at lower levels.

Figure 4.7 Scatter Plot of Annual GRDP Growth in 1993-1997 (%) and 1996 HDI at District Level

Note: The plot is developed based on data provided by Central Bureau of Statistics (CBS) and the Indonesia Human Development Report 2001

IV.4.2 District Level

Before presenting the results at the district level it must be noted that not all districts and cities on Java are included to analyse the pattern of economic and employment structure due to the availability of data. The first focus of the discussion will be on the general pattern of employment and economic growth in Java during the period of 1993-1997. The next focus will be on the transformation of employment and economic structure in each province and also on the development of manufacturing both in terms of GRDP and employment growth.

Figure 4.8 Annual Economic Growth in Java, 1993-1997 (in %)

Figure 4.9 Annual Employment Growth in Java, 1993-1997 (in %)

In general, economic growth at the district level in Java before the economic crisis, 1993-1997, can be divided into two patterns (see Figure 4.8). First, most of the districts and cities surrounding the big cities, like Jakarta, Semarang, and Surabaya, experienced high economic growth before the economic crisis. Second, some of the districts near these big cities experienced very low economic growth (like the district of Lamongan near the city of Surabaya). In the case of the district of Bandung for example, economic growth was lower compared to the city of Bandung. This implies that the economies of the big cities on Java may have two contrasting effects on their surrounding areas. First, economic development of the big cities spilled over into the nearby areas. This is an example of what is called “generative cities”. However, economic development of the cities also had negative effects or, at the least, no effect, on the economic development of some of their surrounding areas. This may indicate that the cities acted as parasites, wiping out the resources of nearby areas.

Generative cities can be found around Jakarta, as it stimulates growth for surrounding areas such as the cities of Bekasi and Tangerang, and the District of Bekasi, Tangerang, Karawang, Serang, and Lebak.²¹ A similar phenomenon can also be found in cities surrounding other big cities, such as Bandung, Semarang, Surabaya, and Yogyakarta. However, not all such cities benefit from close proximity to bigger cities as many of them lag behind in development. In terms of employment growth, there is no one single pattern among the districts. As can be seen in Figure 4.9, areas surrounding big cities that experienced high economic growth did not show high employment growth. The exceptions are both the city and district of Bekasi in West Java and also Sidoarjo in East Java, which have high employment growth. In contrast, several areas that are considered as low performance areas in economic growth, such as Bangkalan and Sampang on Madura, East Java, enjoyed the highest employment growth.

²¹ The districts and cities of Tangerang, and the districts of Serang and Lebak are presently part of a new province called Banten.

a. West Java

Appendix 1 and 2 provide figures of changes in employment structure in the period of 1993-1997. In 1993, there was no single district or city in which the manufacturing sector was able to absorb the majority of the labour force. There were only three districts and cities in which manufacturing employment reached more than 30 percent; the districts of Bogor and Tangerang, and the city of Bandung. For almost all districts, agriculture played an important role in absorbing the labour force. Only five of them relied on services, including the districts of Bogor, Bandung, Kerawang, Bekasi, and Tangerang. In addition, it is very clear that the service sector was most important to provide employment in the cities. It constituted more than 64 percent of the total employment. This means that more than two-thirds of the total employment was to be found in the services sector. The data thus reveal again that the agriculture and service sectors played important roles in absorbing the labour force in 1993.

Four years later, in 1997, the pattern had not changed. The districts in which agriculture and the service sector were dominant in 1993 were still dominant in 1997. Only three districts changed their employment structure significantly. Cirebon, Majalengka and Serang no longer relied on agriculture, but on services. There was only one district where the contribution of manufacturing to employment was the highest, namely the district of Bandung. However, the percentage was almost the same as the service sector.

We must bear in mind that during the period 1993-1997, the capacity of agriculture to absorb the labour force was declining. As can be seen in Appendix 2, there were only 5 out of 24 districts/cities²² in which agriculture employment was increasing. Almost half of the districts and cities show a decline in manufacturing employment, while the service sector was increasing in 17 out of 24 districts and cities. This implies that in the period of 1993-1997, the service sector played a more important role in terms of labour absorption than agriculture.

²² For 1993, data for the city of Tangerang is not available, so the total number of districts and cities in West Java in that year was 24.

Figure 4.10 Annual Employment Growth of the Manufacturing Sector in West Java, 1993-1997 (in %)

Figure 4.11 Annual Growth of the GRDP for Manufacturing in West Java, 1993-1997 (in %)

In terms of total employment growth in 1993-1997, it is interesting to find that more than half of the districts and cities experienced a decline in employment. In some districts, the decline was more than 3 percent, which is why the entire province experienced a very low increase, less than one percent, of annual employment growth in this period. The districts and cities that experienced an increase in employment were located around Jakarta (see Figure 4.10).

In reference to employment growth of the manufacturing sector, a very high achievement can be found in the district and the city of Bekasi, and the district of Kerawang. These areas have acted for a long time as a buffer zone for Jakarta. It is interesting to note that Tangerang and Bogor, together with Bekasi, are included in an agglomeration that is called “Jabotabek” (JAKarta, BOgor, TAngerang, and BEKasi).

The economic structure of West Java provides a different picture. Agriculture was an important sector in employment, but not in the economic structure. As can be seen in Appendix 9, in 1993, there was only one district, Sukabumi, in which the contribution of agriculture to the GRDP was the highest. In 1997, in no single district agriculture was the most important in the local economy. The share of agriculture in Sukabumi declined significantly from 52 percent to 35 percent, so that the service sector became the highest contributor, due to its increase from 33 percent to 45 percent in the same period.

The service sector was dominant not only in Sukabumi, but also in the other 16 districts and cities. All cities in West Java relied heavily on the service sector. There were only 6 districts in 1993 and 7 districts in 1997 that showed the dominance of manufacturing in terms of contribution to the GRDP. These districts had significant influence on provincial economic performance, so that the share of the manufacturing sector on the GRDP was the highest at the provincial level.

Measured in terms of economic growth, agriculture suffered most in the period of 1993-1997. Amongst the 24 districts and cities, 7 of them experienced a negative growth in agriculture, even though in some districts an increase in agriculture reached double digits. At the same time, the manufacturing sector enjoyed significant growth in all districts

(see Appendix 10 and Figure 4.11), while services decreased only in one district, namely Bogor. This is the reason that, in general, annual economic growth in all districts and cities was substantial. In one district and four cities, economic growth was remarkably high, reaching double-digits, higher than that of the provincial level. This high economic growth was attributable to the growth of the manufacturing and services sectors.

Figure 4.12 Scatter Plot of GRDP Growth and Employment Growth in West Java, 1993-1997

Note: The plot is developed based on data provided by Central Bureau of Statistics (CBS)

Employment and economic structure are among the important indicators of regional economic development. The question then is: what is the relationship between these two? In general, we can say that at the provincial level there is no parallel development of employment and economy. Furthermore, a correlation test between economic and employment growth at the district level in West Java shows that there is no significant correlation between these two, both for a total and sectoral base. This means that economic growth most probably does not influence

employment opportunities on district level. However, it is still interesting to clarify the relationship between these two indicators. To do so, we employ a scatter plot with provincial performance as reference. As described previously, annual economic growth of West Java was 8.55 percent and employment growth was 0.60 percent annually.

Figure 4.13 Scatter Plot of Annual GRDP Growth in 1993-1997 and 1996 HDI in West Java

plot shows the relationship between the HDI and economic growth. The finding tends to support the argument that the HDI and economic growth are positively correlated. It is also affirmed by the correlation test, which shows a correlation coefficient as high as 0.599, significant at 0.01 level (see also Figure 4.13).

However, Figure 4.13 reveals an important issue. It seems most likely that the positive correlation between economic growth and the HDI in West Java was influenced by three outlier cities (located in the right upper corner of the plot) that have extremely high economic growth. These cities are Cirebon, Bogor and Sukabumi, which have more than a 14.5 percent annual growth rate. When we disregard these three cities, the correlation coefficient falls back to 0.264. All things considered, the correlation between these two variables is not significant.

b. Central Java and Yogyakarta²³

Appendices 3-6 show the changing employment structure in Central Java and Yogyakarta. From Appendix 3, we can see how important the agricultural sector is in labour absorption in Central Java. In 1993, only three of 29 districts show low labour absorption in agriculture. These districts are Klaten, Sukoharjo, and Kudus. Furthermore, these three districts display different patterns of growth. In Klaten and Sukoharjo, services play an important role in absorbing the largest portion of employment by absorbing more than 40 percent of employment. However, in Kudus, manufacturing was the most dominant sector. It had a share of almost 40 percent of employment. When we talk about Kudus, we must bear in mind the several large cigarette (*kretek*) companies located there that are basically labour-intensive. These companies contribute significantly to the labour absorption in this area. We can also notice that in Central Java, all urban employment is predominantly in the service sector.

²³ Central Java and Yogyakarta are analysed together because Yogyakarta only has 5 districts/cities.

Figure 4.14 Annual Employment Growth of the Manufacturing Sector in Central Java and Yogyakarta, 1993-1997 (in %)

Figure 4.15 Annual Growth of GRDP for Manufacturing in Central Java and Yogyakarta, 1993-1997 (in %)

In 1997, the pattern was almost stable except in the districts of Banyumas, Pemalang and Tegal, where agriculture was no longer dominant, and was replaced by the service sector. In addition to this, Jepara is the only district in which majority of the employment shares had shifted from agriculture to manufacturing. The cities displayed a similar pattern where the service sector had the largest employment share.

At the same time, agriculture dominated employment share in only two out of five districts/cities in the Special Region of Yogyakarta, namely Kulon Progo and Gunung Kidul. The other two districts (Sleman and Bantul) and one city (Yogyakarta) relied primarily on the service sector in employment shares. The manufacturing sector was very limited in labour absorption, even though we find quite a high percentage of shares in the manufacturing sector in two districts, Sleman and Bantul. However, the sector only absorbed less than 30 percent of the labour.

It is also interesting to find that before the crisis, employment growth of the manufacturing sector was high in most of the districts in these provinces (Figure 4.14). Only seven districts experienced a decrease in manufacturing employment. However, this pattern was not followed by the growth of the GRDP from manufacturing (Figure 4.15). The growth in most districts was more than 7 percent annually. We can also observe that higher growth was found primarily in the eastern part of the Central Java province.

In terms of labour force absorption capacity during the period of 1993-1997, the conclusion is that Yogyakarta and Central Java show similar pattern with West Java. First, agriculture experienced declining capacity in all districts and cities with the exception of six districts and one city, which experienced a rise in the number of people who worked in the agricultural sector (see Appendix 4 and 6). Second, in general, employment in manufacturing increased; although in some districts and cities it declined. It is quite interesting to find a very high (double digit) increase of employment in manufacturing in several districts, such as Purworejo, Klaten, Wonogiri, Batang, and also in the city of Yogyakarta.

Third, the service sector increased in all districts and cities, except in six districts and two cities. Due to all these changes, employment growth in almost all districts also declined in this period. The annual employment growth was positive in only a few districts and cities.

With regard to economic structure, we find unchanged patterns in the period of 1993-1997. Among 35 districts in Central Java, there were 12 districts with a domination of agriculture, five districts with a domination of manufacturing, and 18 districts and cities with the domination of services in the economic structure. This was true in both 1993 and 1997, except for the district of Demak, in which the economic structure shifted from agriculture to services. Meanwhile, in Yogyakarta, the economy of all four districts and one city was dominated by the service sector (Appendix 13). Thus, we can say that the service sector is the prominent sector in the economic structure of Central Java and Yogyakarta.

Figure 4.16 Scatter Plots of Annual GRDP Growth (%) and Employment Growth (in %) in Central Java and Yogyakarta, in 1993-1997

Note: The plot is developed based on data provided by Central Bureau of Statistics (CBS)

Development in Central Java and Yogyakarta ran well before the crisis in terms of economic growth. The economy in all of the districts and cities in these two provinces grew substantially. In both the district and city of Semarang, the economy grew in double digits annually. When we compare the growth among sectors, we can conclude that the high growth in these provinces has been driven by the growth of the manufacturing sector, while, unfortunately, agriculture has experienced a decrease in several districts and cities (see Appendices 12 and 14).

Figure 4.17 Scatter Plots of Annual GRDP Growthin 1993-1997 (in %) and 1996 HDI in Central Java and Yogyakarta

Note: The plot is developed based on data provided by Central Bureau of Statistics (CBS)

As can be seen in Figure 4.16, using the average GRDP and employment growth of these two provinces as reference, we can see that there is no systematic pattern of the relationship between economic and employment growth. However, economic growth is positively correlated with the HDI, with a correlation coefficient of 0.452 and significance at 0.01 levels. The scatter plot between economic growth and the HDI can be found in Figure 4.17.

c. East Java

The employment structure in East Java in 1993 was a clear example of how agriculture became an important sector in the employment share. There was only one district out of 29 districts, namely Sidoarjo, in which agriculture was less important than manufacturing and services. The cities show the same pattern that can be observed in other provinces, where the service sector dominates the employment share (see Appendix 7). In 1997, the pattern changed dramatically. The share of agriculture declined followed by an increase in the shares of both the manufacturing and service sectors. The general pattern is that the shift occurred from agriculture to services. There were four districts, namely Tulungagung, Mojokerto, Jombang, and Gresik, whose economic dominance shifted from agriculture in 1993 to the service sector in 1997. At the same time, the employment share in Sidoarjo shifted from agriculture to manufacturing. The pattern remained the same in cities, but the share of the services sector in employment increased. Therefore, in terms of the transformation of employment structure, East Java showed a similar pattern as in West Java, Central Java, and Yogyakarta.

Sectoral capacity in labour absorption as shown by sectoral growth of employment in the period of 1993-1997 tends to support the above conclusion. Half of the districts and cities experienced a decrease in employment in the agricultural sector. In the district of Sidoarjo and the city of Malang, the decrease reached double-digits. A similar figure can also be found in the manufacturing sector. Among 37 districts and cities in this province, 19 of them witnessed a decline in the manufacturing share of employment. In some districts, the decline was very substantial, as can be seen in Ponorogo, Banyuwangi, Sampang, and Pamekasan. In contrast, manufacturing employment increased very substantially in Nganjuk, and the cities of Probolinggo, Pasuruan, and Mojokerto. However, this increase was not able to shift the pattern of employment share, because the service sector also increased in almost all districts and cities. It was only in Blitar, Pamekasan, and the city of Kediri that the service sector declined.

Figure 4.18 Annual Employment Growth of Manufacturing Sector in East Java, 1993-1997 (in %)

Figure 4.19 Annual Growth of GRDP for Manufacturing in East Java, 1993-1997 (in %)

Overall employment in this region decreased slightly, although it was smaller than the decrease in Central Java and Yogyakarta. However, the data in Appendix 8 show a variation of employment growth among the districts and cities. Employment in the cities grew considerably, except in the city of Kediri, where employment dropped slightly. At the district level, 8 out of 29 districts witnessed a decrease in employment.

Figure 4.20 Scatter Plots of Annual GRDP Growth and Employment Growth in East Java, in 1993-1997 (in %)

Note: The plot is developed based on data provided by Central Bureau of Statistics (CBS)

Before the crisis, the province of East Java enjoyed high economic growth, even higher than that of Java as a whole. The high growth rate also occurred in all districts and cities in this province. The city of Kediri showed the best performance in economic growth, reaching more than an 11 percent annual growth rate in this period. The manufacturing and service sectors grew significantly. However, the agricultural sector seemed to have stalled. The production of the agricultural sector has dwindled in all of the cities and the district of Gresik.

From Appendices 15 and 16, it is very clear that even though the contribution of the manufacturing sector to the GRDP was not as high as the service sector, its growth was higher. This means that high economic growth in this province, as well as at the district level, was attributable to the high growth of the manufacturing sector. This growth did not correspond with employment growth in which the service sector played an important role. This is supported by the results of statistical tests that show a non-significant correlation that amounts to 0.154 (see also Figure 4.20).

As can be seen in Figure 4.20, most of the districts and cities fall into areas of lower economic growth and higher employment growth. In addition to this, we can also observe that when the district experienced relatively high economic growth, even though it was lower than the provincial level, employment growth remained low.

Figure 4.21 Scatter Plots of Annual GRDP Growth in 1993-1997 (in %) and 1996 HDI in East Java

Note: The plot is developed based on data provided by Central Bureau of Statistics (CBS)

Analysis of the relationship between economic growth and the HDI yields a similar conclusion drawn from three other provinces. Correlation between these two variables is significant with a correlation coefficient of 0.570 and significance at 0.01 levels. This means that the higher the economic growth, the higher the HDI (Figure 4.21).

IV.5 Summary of the Analysis at the District Level before the Crisis

Our analysis at district levels in all provinces revealed that, in general, the employment structure shifted from agriculture to services. On the other hand, the economic structure transformed from agriculture to manufacture. It is only in some districts or cities that have a large-scale and labour-intensive manufacturing sector, such as Kudus in Central Java, Kediri in East Java, and the districts surrounding Jakarta, that manufacturing has played an important role in both the economy and employment structures. This in turn also generated disparities and inequalities among the districts.

For all four provinces taken together, we found that economic growth in Java region was attributable to the growth rate of the manufacturing sector. We calculated that the overall correlation coefficient is as high as 0.680 and reaches significance at 0.01 levels. This means that the higher the growth of the share of the manufacturing sector to the GRDP, the higher the economic growth. However, as has been stated previous section, there is non-significant correlation between annual economic growth and manufacturing growth in GRDP on the one hand, and manufacturing employment and total employment growth on the other hand. This means that economic growth did not generate sufficient employment opportunities. This point affirms the idea that industrialisation on Java failed with respect to absorbing the labour surplus from agricultural sector sufficiently. From an economic growth point of view, industrialisation seems to be on the right track, but at the same time it creates employment problems, which in most cases, lead to poverty-related problems.

This does not mean that economic growth is not necessary, because there is evidence that in general, economic growth is most likely to correlate with the HDI. The higher the economic growth, the higher the HDI. However, this is not the case for West Java, since the existing strong correlation between the two was very much influenced by the extremely high economic growth in three cities. This tends to confirm Hill's (1992) conclusion that West Java was the area with contradictory tendencies, "prosperous economies; indifferent social records or growth without development".

The question now is how did these situations affect district performance during the crisis? The conceptual argument is that the more industrialised the area, the harder the area was hit by the crisis. As we learn from the analysis at the national level, the economic crisis hit the modern or manufacturing sector. We can expect that at the province and district level, the pattern would remain the same. However, we also expect that magnitude would be different across province and district. To analyse the impact of the crisis, the following chapters will discuss the impact of the financial crisis at the provincial level, followed by the analysis at the district level.

Chapter V

The Crisis at National and Provincial Levels

Abstract

This chapter discusses the economic crisis in 1998 and its structural consequences at national and provincial levels, especially focussing on the transformation of the production and employment structure. We address the question whether and how the production and employment structure has changed during and immediately after the occurrence of the crisis. Moreover, since geography matters, we further specify this question by focussing on differences in the adjustment process of the production and employment structures between provinces. For the analysis at the national level we mainly rely on data collected from previous studies and apply descriptive analysis to get a better understanding of the causes and consequences of the crisis. At the provincial level, additional data is gathered from the Central Bureau of Statistics and further analysed using scatter plots and growth rates comparisons. Findings show that the causes of the crisis were multifaceted and cannot be only derived from macroeconomic foundations. The crisis decreased real wages most strongly, but - interestingly enough - far less reduced employment. At the provincial level, some differences in the structures of the economy and employment were registered, but the overall development pattern was essentially quite uniform. So, the economic crisis did not have much influence on the predominant structures of economy and employment on the island of Java.

V.1 Indonesia in Crisis

Financial economists generally distinguish three stages of financial crisis. In the first stage, the exchange rate becomes overvalued as a result of internal and external macroeconomic events. In the second stage, the exchange rate is defended, but at the cost of a substantial drain of foreign exchange reserves held by the central bank. Thirdly, the depletion of reserves, usually in combination with devaluation, triggers a panicked resource outflow. The trigger is in most cases the devaluation itself, resulting from an exhaustion of reserves. The sudden outflow of short term capital leads to a macroeconomic collapse, characterised by a sharp economic downturn, soaring interest rates, depressed equity prices and a plummeting currency (Sachs and Woo, 2000: 17). These descriptions fit fairly well with the Indonesian crisis, which experienced all three of these stages.

As explained in the previous chapter, Indonesia had achieved a remarkable economic development success that led to large capital inflows in the 1990s. This is what Kindleberger (in: Montes, 2000: xix) calls the “euphoria” preceding all financial crises: the credit boom is fed by intense investor interests and rising asset values, which seems to confirm investors demands. The capital inflows and fixed exchange rate policy created economic vulnerability characterised by an overvalued currency, falling foreign exchange reserves, and high levels of foreign debt. Sachs and Woo (2000) therefore argue that the Asian financial crises, including Indonesia, were a “crisis of success” rather than a “crisis of failure”.

Until the mid 1990s the macro-foundation of the Indonesian economy did not show serious imbalances, as seen in Table 5.1. Firdhanusetyawan and Pangestu (2004: 2) commented in this respect that “the economic indicators up to November 1997 did not indicate that the Indonesian crisis would be much more severe than in other countries such as Thailand and Korea.”

On the average, the Indonesian economy was still able to grow at almost 5 percent in 1997, compared to 7.8 percent in the previous year, with the exchange rate and short-term interest rate still under control. As

can be seen in Table 5.2, almost all sectors experienced positive growth rates in the year 1997. There were only some sub-sectors that experienced negative growth rates, namely food crops, energy and textiles. Therefore, Sadli (1999) argued that there was no evidence of structural weakness of the Indonesian macro economy. The inflation rate was still less than 10 percent and the current account deficit had increased only slightly from 3 to 5 percent of GDP.

Table 5.1 Indonesia's Economic Performance (1995-2000)

	1995	1996	1997	1998	1999	2000
GDP and Major Components (percent change from previous year)						
Nominal GDP (US\$ billion)	202.2	227.3	218	103.1	144.2	151.0
Real GDP growth	8.2	7.8	4.9	-13.7	0.31	4.8
Total Consumption	11.2	8.9	5.9	-4.1	3.4	3.9
• Private Consumption	12.6	9.7	6.6	-2.9	3.7	3.6
• Government Consumption	1.3	6.6	0.1	-14.4	0.7	6.5
Total Investment (GFCF)*	14.0	14.5	8.6	-33.0	-19.4	17.9
Export of Goods and Services	7.7	7.6	7.8	10.6	31.6	16.1
Import of Goods and Services	20.9	6.9	14.7	-5.4	40.7	18.2
Fiscal and External Balances (percent of GDP)						
Budget Balance	1	1	0.4	-1.7	-7.9	-5.1
Merchandise Trade Balance (f.o.b)	2.8	1.5	4.4	17.8	14	16.8
Current Account Balance	-3.4	-3.5	-2.3	4.2	3.9	5.3
Economic Indicators (percent change from previous year)						
GDP Deflator	9.9	8.7	12.6	81.2	12.8	10.9
• CPI (Consumer Price Index)	9.4	7.9	6.2	58.0	20.7	3.8
• M2 (Money circulation)	27.6	29.6	23.2	62.4	11.9	15.6
Short-Term Interest Rate (%)	14.3	13.8	18.0	35.6	15.7	14.5
Exchange Rate (Local Currency/US\$)	2,308	2,383	4,650	8,025	7,085	9,595
Unemployment Rate (%)	7.24	4.89	4.68	5.46	6.36	6.14
Population (millions)	194.8	198.2	200.4	204	206.5	209.5

Notes: * Gross fixed capital formation.

Sources: IMF forecasts, *The World Economic Outlook Database* (September 2001).

LINK forecasts, Project LINK World Economic Outlook (April 2001).

ADB forecasts, *Asian Development Outlook* 2001. Downloaded on 25 November 2002

Hill (1999b: 14) provides a series of arguments why, until the middle of 1997, Indonesia performed better than Thailand, which was believed to be the first country hit by the crisis. First, Indonesia, as an authoritarian country at the time, was better able to respond to the crisis. This assessment was based on differences in the political systems between Indonesia and Thailand. Second, Bank Indonesia had not wasted its international reserves in fighting the foreign exchange market. Third, the Indonesian exchange rate system was far less rigid. Fourth, the IMF was invited in advance for a “consultation”.²⁴ Fifth, many countries were involved in a rescue package, given the importance of Indonesia in terms of its geo-strategic position.

Table 5.2 Sectoral GDP Growth Rate at Constant 1993 Market Prices 1996-1998 (Percent)

Industrial Origin	1996	1997	1998
Agriculture, Livestock, Forestry and Fishery	3,14	1,00	-1,33
Mining and Quarrying	6,30	2,12	-2,76
Manufacturing Industry	11,59	5,25	-11,44
Electricity, Gas and Water Supply	13,63	12,37	3,03
Construction	12,76	7,36	-36,44
Trade, Hotel and Restaurant	8,16	5,83	-18,22
Transport and Communication	8,68	7,01	-15,13
Financial, Ownership and Business Services	6,04	5,93	-26,63
Services	3,40	3,62	-3,85
Gross Domestic Product	7,82	4,70	-13,13
Gross Domestic Product Non-Oil Gas	8,16	5,23	-14,22

Source: Central Bureau of Statistics, Indonesia, <http://www.bps.go.id/index.shtml>

²⁴ Later this policy was criticized by many experts who believed that bringing the IMF into the country did not solve the problem and even made the crisis worse.

Table 5.3 Major Events and Causing Factors: June 1997-May 1998

Episode	Major events	Causing factors
June – July 1997	Massive capital outflow from the Southeast Asia economies, including Indonesia	The collapse of Thai economy exposed the region's vulnerability, changing perceptions of international investors, loss of confidence in Asian tigers
Aug – Sept 1997	<ul style="list-style-type: none"> • Early drop of the Rupiah • Early increase in interest rate • Early signs of panic in the financial market 	<ul style="list-style-type: none"> • Speculative attacks on the Rupiah • Increase in SBI rates • Monetary policy was too tight, without any effort to lift up the market's expectation (unclear strategy by the government in dealing with a floating rate)
Oct – Nov 1997	<ul style="list-style-type: none"> • Early signs of bank run, both from the sick and healthy banks • Loss of confidence in Suharto administration in handling the crisis 	<ul style="list-style-type: none"> • Liquidation of banks without any deposit guarantee in place • Suharto did not follow the first IMF reform package consistently • IMF package was not transparent – No information on foreign exchange exposures, the size of private debt, etc.
Episode	Major events	Causing factors
Dec 1997–Jan 1998	<p>Monetary development</p> <ul style="list-style-type: none"> • Rupiah slides further • Massive capital outflow, including smuggling of Rupiah out of the country • Inflation starts to pick up • The banking sector starts to collapse • Indonesian L/Cs were not honoured internationally 	<ul style="list-style-type: none"> • Sudden increase in demand for debt payment • Money supply was out of control • People loss confidence in domestic banks (Government's blanket guarantee was not in place yet)
	<p>Real Sector</p> <ul style="list-style-type: none"> • Panic among domestic investors, especially in the Chinese community • Food rush 	<ul style="list-style-type: none"> • Foreign banks no longer trust domestic banks • Growing anti-Chinese campaign, followed by anti-Chinese riots in various small towns in Java
	<p>Social and Political changes</p> <ul style="list-style-type: none"> • Loss of confidence in Suharto administration in handling the crisis • Political situation became uncertain 	<ul style="list-style-type: none"> • People expected shortages of food • People did not trust the credibility of the government to follow the IMF agreement; unrealistic state budget • Rumours over president's health

Source: Firdhanustyawan and Pangestu, 2004; Table 1.1, pp: 3

It was only towards the end of 1997 and the beginning of 1998 that the full impact of the crisis became alarming. The GDP contraction was

the highest in Indonesian history, with a decline of 13.7 percent. The exchange rate almost doubled compared to the previous year, and interest rates became very high. From Table 5.2 we can see that the contraction occurred in almost all sectors (except electricity, gas and water supply). The sharpest reduction in growth rate occurred in the construction sector, with a decline of more than 36 percent.

According to Firdhanustyawan & Pangestu (2004) the Indonesian crisis can be divided into three stages (see Table 5.3). The situation in 1997 marks the Indonesian crisis as a part of the general Asian crisis. One year later (1998) Indonesians suffered a ‘total crisis’, which was distinct from the other Asian countries. The last stage started in 1999, when Indonesia entered into the first phase of economic recovery while still suffering from social impacts of the crisis.

Table 5.3 provides a step-by-step picture of the changing economic condition in Indonesia from 1997 to the middle of 1999. Until the second quarter of 1997, economic performance was still promising with an economic growth rate of almost 7 percent. The exchange rate was relatively stable, the volume of export was increasing and reserves were also increasing. However, starting in the third quarter of 1997, all these indicators began to deteriorate. The exchange rate declined sharply and at the end of January 1998 the exchange rate was at its lowest level; compared to the rate in mid-1997, the rupiah had depreciated by almost 84 percent. This was the worst depreciation in comparison to other Asian countries²⁵

There are numerous studies dealing with the causes of the Indonesian economic crisis that have addressed both external and internal factors (see Firdanustyawan and Pangestu, 2004; Hill, 1999b; Montes 2000; Radelet, et.al 2000; Sach and Woo, 2000; Sadli, 1999). However, there is a need to point out several key structural factors behind the Indonesian crisis. First, I would argue that the macroeconomic foundations were not as strong as those who marvelled with pride at how “strong” the

²⁵ This figure was the highest compared with Malaysian ringgit (-45%), Singapore dollar (19%), Phillipines peso (39%), Thailand bath (55%) and Korea won (49%) (see Montes, 1998: Table U-1, p: xv)

Indonesian economy was assessed. This is what was previously referred to as “involution”. In spite of several general public sector disequilibria that have been outlined before, it is the private sector was the primary trigger of the crisis. Sadli (1999: 18) mentioned that “the fundamental weakness in the economy lay within the private sector, which went on an investment spending spree, abetted by an ever increasing volume of foreign loans made available at minimum security and prudence”. Figure 5.1 shows the evolution of structure and trend in Indonesia’s external debts during the period 1991-1998. As per 30 September 1998, out of Indonesia’s external debt of US\$141.9 billion, US\$ 73.3 billion or 57.7 percent was in the private sector (Hill, 1999b: 57). In the period of 1991-1998, the private sector’s external debt significantly increased by 20.5 percent annually, compared to about 4.3 percent annually for public debt in the same period. In the period of 1987-1993, the external debt grew alarmingly, but the public sector debt decreased from 73 percent to 59 percent, while in contrast private sector debt increased. The problem is that most of the private sector debt was of a short-term nature. Interestingly, Radelet (1995) argued that this was not noticed as an indication that Indonesia was approaching a debt crisis. He also warned that the slowdown of non-oil export growth, increasing short-term debts, and the risk from the overvalued exchange rate might cause serious problems. In a similar vein, authors like Sadli (1999) and Hill (1999b) explained that the private sector’s external debt was indeed the key factor occasioning the crisis.

Second, the country’s economic order and national financial institutions proved unable to withstand the violent tremors against the nation’s economic foundations (see: Hill, 1999b). The reforms in macroeconomic policies had not kept pace with the financial, legal and political institutional reforms. This lack of functioning institutions made the country vulnerable to shocks, as the lack of appropriate controls and oversight weakened the financial sector, and corruption increasingly impeded rational policy making. It has often been argued that the elite, who had a close relationship with political power, dominated the policy decision-making process. It is not an exaggeration to say that the achievements of national development of the previous three decades were

wiped out by the crisis within only a few months, and worsened when the local currency lost its value.

Figure 5.1 Indonesia's External Debt, 1991-1998(US\$ billion, year-end)

Source: Hill (1999b) Table 12, p: 63.

Note: Government short term debt was only 0.1 percent in the year of 1993, 1994, 1996, and 1997

Third, it is interesting to review the critics against the IMF handling of the Indonesian crisis (see Sadli, 1999; and Tempo, 2003). Some critics suspect that the IMF prescription may have contained a hidden agenda reflecting the interests of its major stakeholders (Sadli, 1999). Rizal Ramli accused the IMF of intending to tighten up monetary and fiscal policies solely to ensure that there was a surplus to repay creditors (Tempo, 2003). One of the triggers created by the IMF was the closure of 16 banks in 1997, which - it was believed - created a domino effect both on the loss of investor confidence, as well as for capital outflow.

V.2 Impact of the Crisis at National Level

Firdhanustyawan (2002: 7) identifies three different channels for how an economic crisis transforms into a social crisis. The first channel is an adjustment at the macro level of output and input markets, especially the labour market. The crisis moves resources from the modern, non-trade and import-dependent sectors to traditional, tradable and export-oriented sectors. Local firms suffer through market adjustment in the form of declining levels of profit and real income, firm insolvency and company

closure. In contrast, export manufacturing and agriculture might benefit from the crisis, since the high inflation rate combined with labour market flexibility causes declining real wages and labour productivity, as well as a relatively small increase in unemployment.

The second channel is an adjustment at the micro level, namely changing patterns of household income and expenditures. The economic crisis pushes people to work in lower income jobs or to move from the modern sector to the traditional sector or from formal to informal sector. This is translated into lower household income and reduced purchasing power. In this situation, households can rely on several strategies to survive, such as selling assets, maximising labour use in the household (mainly children and women), and changing consumption patterns. Since the income is low, the household will shift its expenditures from investments to basic needs.

The third channel is direct transmission through reduced government expenditures, affecting the provision of public social services. The economic crisis has a serious impact on the government budget, which in turn affects government expenditures for public services, such as education and healthcare. Declining government expenditures on public services in turn creates problems for the people in accessing the services.

Many scholars have tried to estimate the overall social impact of the Indonesian crisis. We focus on two important aspects, i.e., poverty and employment. There are several analyses made of the impact of the crisis on poverty (see: Suharyadi et.al. 2000; Frankenberg et. al., 1999, Said and Wenefrida, 2001; Pradhan et.al. 2000; Islam, 1998; Booth, 1999), none of which have arrived at a consistent figure of the magnitude of poverty incidence. However, there is agreement that poverty increased significantly during the crisis. Said and Wenefrida (2001) provide a clear picture of how much the crisis affected poverty. They conclude that the poverty rate increased from 15.7 percent in 1996 to 26.4 percent in December 1998, which accounts for the increase of the number of the poor from 31 million to nearly 54 million.

Two factors play an important role in explaining the increase of poverty. The first one is the increase of the prices of essential

commodities (see Table 5.4). Based on the CBS data, Said and Wenefrida (2001) observe that during the period February 1996-December 1998, the inflation rate for food commodities increased by approximately 149 percent. This situation was worsened by decreasing nominal wages. Firdausy (www.ismea.org/asialist/Firdausy.html) finds that average income per employment per year decreased from Rp. 3.7 million in 1997, to Rp.3.5 million in 1998. Real wages also deteriorated from Rp. 70,700 per week in 1997, to Rp.68,000 per week in 1998. This implies that the crisis had an impact on declining purchasing power of the people. Therefore, it is not surprising to find that poverty incidence increased substantially during the crisis.

Table 5.4 Price Increase of Essential Consumption Commodities, July 1997-April 1998 (%)

Commodities	Java	Outside Java
Rice	50	37
Salted Fish	56	42
Palm Oil	134	80
Granulated Sugar	36	31
Salt	66	32
Kerosene	8	6
Washing Soap	77	72
Textiles	38	39
Batik	25	30
General	51	39

Source: Central Bureau of Statistics, 1999

The second effect refers to employment. It is quite interesting to find that the impact of the Indonesian crisis on unemployment was considered “not so serious”. In the period of 1995-1997, the unemployment rate decreased substantially from 7.3 percent to 4.7 percent, even while economic growth decreased from 8.2 percent in 1995 to 4.9 percent in 1997. Surprisingly, the unemployment rate only increased slightly to 5.5

percent in 1998, when economic growth (- 13.7%) was at its lowest level in modern Indonesia history (see Table 5.1). This provides some evidence that the impact of the crisis was not as severe as estimated.²⁶

Whereas most sectors experienced a very significant contraction, agriculture still had positive growth. In 1998, when the country was experiencing the worst of the crisis, the contraction in construction was 39.8 percent, followed by the financial sector in which contraction was 26.7 percent. Contraction in other sectors, such as manufacturing, transport and communication were also high, usually more than 12 percent. Agriculture and utilities were the only sectors that maintained positive growth rates of 0.2% and 3.7% respectively (see Firdhanustyawan, et.al. 2004). This indicates that the “traditional” sector is more resilient than the modern sector. Among nine sectors, only three, i.e. agriculture, mining and quarrying, and electricity, gas and water supply, showed an increase in employment in 1997-1998. The performance of agriculture was amazing, i.e., 432,400 extra jobs compared to manufacturing, which experienced a decrease in employment as much as 597,600 (Firdausy: www.ismea.org/asialist/Firdausy.html).

Two years after the peak of the crisis, all economic indicators seemed to have improved. Even though economic growth was still less than one percent in 1999 compared to the situation in 1998, it was already much better. In 2000, economic growth was as high as it was in 1997. Short-term interest rates jumped back from 35.6 percent in 1998 to “only” 15.7 percent in 1999 and further decreased to 14.5 percent in 2000. Imports also increased substantially from minus 5.4 percent in 1998 to 40.7 percent in 1999. However, imports then decreased to 18.2 in 2000. Other indicators, such as private and government consumption, were also improving. This indicates that the country was on its way to recovery.

Comparing the 1930s depression and the 1990s crisis in Southeast Asia, Boomgaard and Brown (2000: 14) come to the conclusion that “the 1930s depression was overwhelmingly a rural phenomenon... The 1990s

²⁶ See also Chapter 1 for a summary of the discussion on the impact of the crisis in Indonesia.

crisis is essentially an urban crisis...”. Thus, the 1990s crisis hit the urban economy far more than the rural economy (see also: Breman, 2000; World Bank, 1999; Suharyadi, et.al. 2000; and Sussangkarn et.al. 1999). From a sectoral differentiation point of view, this may explain why agricultural output tends to be rather constant (Hill, 1999b), and that “agriculture has been the strongest performing sector in the crisis economies...” (Hill, 1999b: 7). Especially in certain parts of rural Java, the economic crisis was not that severe (Koning, 2001). Indeed, there was even a dramatic increase in agricultural work (Manning, 2000). Boomgard and Brown (2000) have therefore argued that both in 1930 and in 1990 the rural areas coped better with the crisis. In line with these arguments, we can expect that the less-developed areas or less-industrialised regions will be less severely affected in comparison to the more developed or industrialised areas. In addition to this, less-developed usually rural areas will be able to cope better with the crisis compared to more developed or urban areas.

Based on the above discussion, it becomes clear that the Indonesian economy has undergone a very dynamic transition since the colonial period. Economic crises are not merely phenomena of the 1990s, but have a long history in this country and they have directly or indirectly influenced the present country’s performance. We can identify at least three economic crises standing out in this country’s economic past, i.e. in the 1930s, 1960s and 1990s.²⁷ This may represent a thirty-year cycle of economic crises. Interestingly, the last two crises were followed by very drastic social and political changes. The crisis in the 1960s laid the ground for the replacement of the Old Order and the emergence of the New Order. Of course, there are always debates on critical issues whether the economic crisis came before the political crisis or the other way around. When we follow the sequence, it is clear that the economic crisis came first in the early 1960s, and then the Old Order fell in 1967. However, we must bear in mind that the relationship is not a simple causal one.

²⁷ Some argue that Indonesia also experienced a crisis in the 1980s, but the impact is not as significant in comparison to these three crises.

The situation was somewhat similar in the 1990s. Starting in mid-1997, when the monetary crisis hit the country, the New Order became very unstable. Finally, in 1998 President Suharto resigned. As occurred in the 1960s, social and political unrest followed. We can conclude that the 1990 crisis was a starting point for very drastic changes in the governmental system, which was indicated by the implementation of regional autonomy. The centralistic system that gave very strong powers to the central government, slowly but surely has changed to give local governments more power in many aspects of social, economic and politic life. The problem is that - to some extent - local governments have not been equipped with sufficient capacities and capabilities to administer power and to manage their regions. This situation becomes worse due to the fact that local governments have also suffered from the economic crisis. However, there is still limited insight in the effect of the economic crisis on the local economy, which may vary according to the specific local economic conditions prevailing before the crisis. Hence, there is a need to understand how far the 1990s economic crisis has affected the local (provincial and district/city) economies.

V.3 The Differential Impact of the Crisis at Provincial Level

In 1997 all provinces experienced a decrease in their economic growth rate. Even the economic growth in the province of Nangroe Aceh Darussalam was negative at that time. However, three provinces suffered the most from the crisis – Central Kalimantan, South Kalimantan and Irian Jaya- which experienced a decrease of economic growth of more than five percent in 1996-1997. The second layer consisted of three Java provinces – West Java, Central Java, Yogyakarta, - and also Jambi and South Sulawesi, where economic growth decreased four to five percent. East Java and Jakarta suffered less with a decrease of just less than four percent. There was only one province with a decrease of less than one percent: Southeast Sulawesi.

We can divide the provinces into four quadrants using a median as a reference line (see Figure 5.2). The first quadrant encompasses provinces that had a lower GRPD growth than the median value both in 1996 and

1997. These include: Aceh, Riau, Bengkulu, Lampung, Central Java, Yogyakarta, and Maluku. The second quadrant consists of the provinces with a lower growth rate in 1997, but lower higher rate than median value in 1996. These include: Jambi, West Java, South Kalimantan, Central Sulawesi, South Sulawesi, and East Kalimantan. The third quadrant is the provinces having higher growth rate both in 1996 and 1997. This comprises North Sumatra, Jakarta, Bali, West Kalimantan, Central Kalimantan, North Sulawesi, West Nusa Tenggara, and East Nusa Tenggara. The rest were in the fourth quadrant that had a lower growth rate in 1996 and higher growth rate in 1997. None of the provinces on Java are in the last group.

Figure 5.2 Scatter Plot of Provincial GRDP Growth Rates in 1996 and 1997

Note: The plot is generated based on data provided by Central Bureau of Statistics (CBS)

When a scatter plot is made between the 1996 GRDP growth rate and the change in the GRDP growth rate during the period of 1996-1997, a clear negative correlation between the two indices appears. This is also shown by the correlation coefficient as high as -0.750 (significant at 0.001 levels). This means that the higher the GRDP (economic) growth

rate in 1996, the lower the decrease of the growth in the period of 1996-1997 (see Figure 5.3). As discussed before, the peak of the crisis was in mid 1998, but the crisis already started in mid 1997 (see also Table 5.2). This means that in the beginning of the crisis the more dynamic provinces were better able to withstand the crisis. The main reason is that in this period the manufacture sector was still surviving from the crisis and was able to support economic growth in the provinces.

Figure 5.3 Scatter Plot between the 1996 GRDP Growth Rate and the Decrease of Growth Rate in the Period of 1996-1997

Note: The plot is generated based on data provided by Central Bureau of Statistics (CBS)

V.4 The crisis in Java

Over the period of 1993-1997, it was clear that in terms of economic and employment structure, West Java was the most industrialised province in Java, excluding Jakarta. In 1997, the symptoms of the economic crisis were actually felt more in West Java than in the other provinces. Economic growth in this province declined sharper than the others. However, at the provincial level, it is still not clear how this relates to industrialisation. East Java, which ranked second in terms of level of industrialisation, experienced the least decline in economic growth.

Several analysts consider the period of 1997-1998 as the worst period of the crisis: the “total crisis”. In this period, at the national level economic growth declined almost 14 percent and the whole macroeconomic performance fell to the lowest level of the modern economic history of the country.²⁸ In fact, Java was hit by the crisis harder than Indonesia as a whole. However, the details of economic growth on Java, at the provincial level, do not confirm the hypothesis that the higher the degree of industrialisation, the worse the province was hit by the crisis. It can be seen from the fact (see Table 5.5) that contraction in West Java was the lowest (< 5%). It was even lower than Yogyakarta, where industry was not the highest contributor, both to economic and employment development. The data also shows that the highest contraction occurred in East Java, where industrialisation levels were considered more advanced.

Table 5.5 Annual Economic Growth (%) by Provinces and Sectors in 1997-1998

Province	1997-1998			
	Agriculture	Manufacture	Services	Total
West Java	-2.62	-6.25	-3.95	-4.82
Central Java	-3.70	-11.92	-11.66	-10.12
Yogyakarta	2.33	-16.16	-9.21	-9.23
East Java	-5.02	-23.62	-13.38	-16.12
Java	-6.14	-20.77	-13.36	-15.26

Note: calculated from CBS of various years.

Data at the district level reveals a different conclusion. Correlation analysis between economic growth before the crisis (1993-1997)²⁹ and during the peak of the crisis leads to the conclusion that economic growth before the crisis is most likely to correlate negatively with economic growth during the crisis, with a correlation coefficient of -0.276 (significant at 0.01 level). This means that the higher the economic

²⁸ A detailed discussion of this is presented in Chapter Two.

²⁹ A discussion on economic performance in 1993-1997 periods can be found in Chapter 3.

growth before the crisis, the higher the economic decline during the crisis. If economic growth can be treated as an indicator of industrialisation - since much of this growth was driven primarily by the manufacturing sector - this confirms the hypothesis that the higher the degree of industrialisation, the worse the province was hit by the crisis.

Figure 5.4 reveals some other important findings. During the peak of the crisis, especially the manufacturing sector lost most of its capacity to support economic growth. This sector suffered most, as is shown by the lowest economic growth compared to agriculture and services. Interestingly, agriculture suffered less than the other two sectors. This strengthens the conclusion that the economic crisis hit the manufacturing sector harder than the agriculture and services sectors.

Figure 5.4 Change of GRDP's Sectoral Share by Province -1997-1998 (%)

Source: calculation is based on CBS data

In terms of the sectoral shares in the GRDP, services dominated the structure of the economy in all provinces, except West Java, which is dominated by the manufacturing sector. Due to the decline in manufacturing share in the GRDP, its importance reduced in all provinces. Interestingly, the share of both agriculture and services increased in all provinces except Central Java, which experienced a decline of share from the services sector (see Figure 5.4). This decline does not reflect its importance in the economic structure of the province

because its share to the GRDP was still the highest. The importance of agriculture in the economic structure during the crisis is prominent. In all provinces, without exception, as well as in Java in general, the share of the agricultural sector in GRDP consistently increased.

During the peak of the crisis, agriculture's role increased not only in terms of the economy, but also of employment absorption which increased substantially in all provinces (see Table 5.7). This supports the finding that the agricultural sector played an important role in labour absorption during the peak of the crisis, not only for the new labourers, but also for those who lost their jobs because of the crisis. During this period, the overall employment structure in all provinces did not change very much. In 1998, when the crisis was at its peak, the service sector was able to absorb most employment needs.

Table 5.7 Share of Employment by Sector in 1997 and 1998

Province	1997			1998		
	Agri-culture	Manu-facturing	Services	Agri-culture	Manu-facturing	Services
West Java	31.61	24.33	44.06	32.19	23.34	44.47
Central Java	43.09	21.28	35.62	43.38	20.84	35.77
Yogyakarta	39.82	18.97	41.21	39.81	19.11	41.08
East Java	37.12	22.86	40.01	37.58	22.14	40.29
Java	37.21	22.74	40.05	37.65	22.04	40.31

Note: calculated from CBS of various years

In terms of sectoral share of employment, Yogyakarta is exceptional compared to other provinces. Agriculture and services, which were already very dominant in 1997, decreased slightly in 1998, while the other four provinces experienced an increase during the same period. In contrast, the share of manufacturing in Yogyakarta increased during the peak of the crisis and decreased in the other provinces. We have to bear in mind that the manufacturing sector in Yogyakarta was dominated by medium and small-scale industry that were mostly capital intensive. In

other provinces in Java, the large-scale and capital-intensive manufacturing sectors were more important. In most cases we observed that the crisis hit more the large-scale and capital-intensive industries. In addition, medium and small industries were easier to enter due to their relatively lower skill of labour requirement. This is the reason why the manufacturing sector in Yogyakarta still absorbed labour, while the other three provinces were severely hit by the crisis.

Table 5.8 Annual Employment Growth by Province and Sector, 1993-1997 and 1997-1998

Province	Agriculture		Manufacture		Services		Total	
	1993-1997	1997-1998	1993-1997	1997-1998	1993-1997	1997-1998	1993-1997	1997-1998
West Java	-3,78	3,67	2,76	-2,36	3,13	2,73	0,6	1,79
Central Java	-4,60	2,90	3,92	0,15	2,41	2,69	-0,65	2,26
Yogyakarta	-4,39	0,90	0,29	1,70	2,33	0,64	-0,97	0,94
East Java	-2,27	3,27	1,26	-1,24	2,30	2,72	-0,15	2,02
Java	-3,48	3,19	2,59	-1,16	2,63	2,65	-0,09	1,98

Note: calculated from CBS of various years

Comparing the growth of employment by sector during 1993-1997 (before the crisis) and 1997-1998 (during the peak of the crisis) reveals some interesting findings (see Table 5.8). First, in general, employment growth decreased before the crisis, but increased almost 2 percent annually during the crisis. The increase was attributable primarily to the increase in the agricultural sector (+3.2 percent). The increase occurred in all provinces, with West Java performing best. This supports the arguments of the importance of agriculture for labour absorption during the crisis. Second, manufacturing, which increased most compared to the two other sectors prior to the crisis, lost its capacity to absorb labour, resulting in a reduction in employment by more than 1 percent annually during the crisis. In terms of employment, the crisis hit manufacturing more than the other sectors.

The decrease of employment in manufacturing during the crisis occurred primarily in West Java and East Java, which were the most industrialised provinces compared to the other two, while Yogyakarta and Central Java continued to enjoy an increase in manufacturing employment. In addition to this, the pattern of growth of the services sector varies amongst the provinces. As can be seen in Table 5.8, the capacity of this sector to absorb the labour force in Java increased both before the crisis and during the crisis due to the increase in Central Java and East Java. However, in West Java and Yogyakarta, this sector experienced quite significant decrease in labour force absorption. This difference lays in the fact that the service sector in West Java and Yogyakarta had been very much associated with tourism. The crisis also affected the tourism industry in these two provinces (see Prabawa, 2010).

The overall figures reveal that it is a mistake to state that the economic crisis had a negative impact on employment creation. Our findings undermine experts' estimate that economic crisis is likely to create unemployment.³⁰ One important explanation of this situation was the existing labour force's market flexibility. When manufacturing lost its capacity to absorb the labour force, the agriculture and services sectors acted as "the saviours". The two sectors provided almost unlimited labour absorption. This supports the arguments for the importance of the agricultural sector functioning as a safety belt for the economy of this region.

However, we must be careful in interpreting the apparent increase of employment in agriculture. Not all people losing manufacturing sector jobs during the crisis moved to agriculture, rather many of them may have moved back to rural areas waiting for better economic condition to re-enter the manufacturing sector; they may have reported their occupations as 'agriculture' but not necessarily engaged significantly in agricultural work.

³⁰ As we can see in Chapter I, the ILO and several experts estimated that the crisis would increase the unemployment rate.

V.5 Economic Performance after the Crisis

After experiencing tremendous decline in economic growth in 1997-1998, economic performance in the following two years gradually improved. At the national level, the economy started to make progress with better performance. In 1999, economic growth regained the momentum to reach almost 1 percent.³¹ This was very impressive compared to conditions in 1998, but according to Thee (2000) it would be more accurate to interpret the growth as stagnation, rather than recovery. Moreover, he considered that the slight economic growth in 1999 was mainly driven by increased private household and government consumption that grew at 1.6 and 8.4 percent, respectively, after negative growth in 1998.

Figure 5.5 Share of GDP at Current Prices in 1998-2000

Source: Central Bureau of Statistics various years

Manufacturing gained in importance in supporting economic growth in this period. In 1998, the growth of this sector fell by 14 percent, but one year later the growth was 2 percent. A similar situation was also evident in the service sector, where growth dropped by minus 16.5 percent in 1998, and recovered to grow minus 1 percent in 1999. The highest growth in 1999 was achieved by agriculture, but this sector

³¹ Other data, such as that provided by Van der Eng (2009), shows a lower figure, i.e., 0.39 percent in 1999.

suffered the least in 1998 with a contraction of only 1.3 percent. This means that the service and manufacturing sectors actually achieved better progress. The sectoral shares to the GDP did not change very much during the period of 1998-1999. The share of manufacturing to the GDP fell slightly from 45.2 percent in 1998 to 43.4 percent in 1999. This was the only sector that experienced a decrease in its share. The other two sectors, agriculture and services, were growing (see Figure 5.5).

In terms of economic growth, the country started to recover relatively fast, although not as fast as other neighbouring countries. During the period of 1999-2000, the economy grew significantly to reach 5 percent growth rate in 2000. Compared to 1999, sectoral growth was more balanced with a strong increase in manufacturing. The agricultural sector grew at a modest level in 1998 and at an even lower level in 1999. This provides evidence to support the conclusion that agriculture in a better-off (macro) economic situation could not compete with the other sectors, mainly manufacturing, to foster economic growth and recovery.

As can be seen in Figure 5.5, the manufacturing share to the GDP was the largest and increased substantially from 43 percent in 1999 to 46 percent in 2000. At the same time, the shares of agriculture and services declined. Export had become the engine of growth, especially manufactured goods, which comprised of 68 percent of the total exports. Non-oil and gas exports reached USD 47.8 billion in 2000, or a 23.2 percent increase in value over 1999. Other exports, such as electronics and electrical equipment, as well as wood and paper products, textiles and garments, grew strongly in 2000 (<http://jakarta.usembassy.gov/econ/crossroad.html>).

As the economy grew, two years after the crisis employment also increased with more than one percent (Table 5.9). However, growth amongst the sectors showed a rather different pattern. In the first year after the total crisis, employment in agriculture decreased substantially, but then experienced a very dramatic rise in the following year to reach almost six percent. In contrast, employment in manufacture grew very fast in the period of 1998/99, which was more than fifteen percent, but in the period of 1999/2000, employment declined. A similar pattern can

also be observed for the services sector with a small increase in 1998/99 and a faster decline in 1999-2000. The overall growth for two years shows that manufacturing enjoyed the benefits of better economic growth by increasing its capacity to absorb the labour force by more than seven percent annually. This situation implies that those moving out from the manufacturing sector during the peak of the economic crisis re-entered the sector when the economy recovered. The better economic performance of manufacturing is a consequence of the unchanging government policy that had put priority more on industry development than other sectors.

We must bear in mind that the increase of employment in manufacturing did not influence the economic structure very much. The agricultural sector still dominated labour absorption, and its capacity even increased in the period of 1999-2000. The service sector was the second largest sector to absorb employment and manufacturing was the least. The tendency of a decreasing capacity of manufacturing can be observed in the period of 1999-2000.

Table 5.9 Employment Growth by Sector in 1998-2000

Sector	1998-1999	1999-2000	1998-2000
Agriculture	-2,63	5,99	1,59
Manufacturing	15,39	-0,63	7,08
Services	1,46	-3,14	-0,87
Total	1,31	1,15	1,23

Source: calculated from data downloaded on 3 November 2008 from http://www.adb.org/documents/books/key_indicators/2004/pdf/INO.pdf

All these figures provide us with a clear picture that at the national level, the economy was better off two years after the “total crisis” and employment growth was quite high, especially in manufacturing. However, the structure of employment remained virtually similar in the sense that agriculture played the most important role, followed by services and then manufacturing.

V.6 Economic and Employment Adjustments in Java (1998-2000)

We will finally discuss the economic performance in Java during the period of 1998-2000. As in the previous sections, we will concentrate on two variables, i.e., the economic growth and employment structures. The discussion will be focused first at the provincial level and then followed by an examination of the district level. This is important to the determination of whether a pattern can be found to explain subsequent household conditions.

On average, the economy of Java grew almost three percent during this period 1998-2000. This was similar as for all of Indonesia. Among the four provinces in the present study, Central Java was the fastest to recover with the highest economic growth (> 3 percent), which was higher than all of Java. At the same time, Yogyakarta was the province with slowest recovery.

Table 5.10 Annual Economic Growth and Employment Growth (%) by Provinces and Sectors (1998-2000)

Province	Agriculture		Manufacture		Services		Total	
	Produc-tion	Employ-ment	Produc-tion	Employ-ment	Produc-tion	Employ-ment	Produc-tion	Employ-ment
West Java	2.17	0.98	0.80	1.22	1.82	5.45	2.87	3.06
Central Java	1.70	0.99	3.28	0.25	4.07	3.13	3.28	1.61
Yogyakarta	1.14	6.18	-0.25	4.29	2.15	0.03	1.41	3.36
East Java	1.44	0.99	2.78	0.79	2.10	4.47	2.23	2.37
Java	2.47	1.17	2.31	0.88	3.16	4.34	2.71	2.40

Note: Calculated from Central Bureau of Statistics (CBS) data of various years.

It is interesting to note that in Java it was not manufacturing that grew fastest, but the services sector. This was different from what happened in Indonesia as a whole, where the growth of manufacturing was higher in comparison with agriculture and services. In this context, we can say that the recovery of economic growth in Java was supported primarily by the

services sector. This also can be observed from the GRDP structure in which the share of services was the highest, both in 1998 and 2000.

However, we will find a different pattern across the provinces. Manufacturing tended to recover faster in Central Java and East Java compared to West Java. Even in Central Java, the manufacturing sector increased faster than in Java in general, reaching more than three percent growth annually, while in East Java it was slightly lower. Manufacturing grew very slowly in West Java during this period. Even though this province achieved more advancement in manufacturing development before the crisis, because it had suffered very badly during the crisis, recovery was difficult. The only province that showed negative annual growth rate in manufacturing was Yogyakarta. We must bear in mind that before the crisis the growth of manufacturing in this province was also lowest.

In addition, in most provinces the structure of the economy followed the same pattern as in Java, where the service sector was dominant, with the exception of West Java where manufacturing was the most important sector in stimulating the economy. Agriculture was generally small in terms of GDP share (15-22%) and this sector played a slightly larger role only in West Java, while its contribution to the economy decreased in the other three provinces.

Employment in Java also grew relatively well, at more than two percent annually (Table 5.10). This was even higher than the growth rate before the crisis, which was minus 0.09 percent annually. However, the pattern of sectoral growth did not change in comparison to the situation before the crisis in which the services sector played a key role in driving overall employment growth in this region. In Java, employment growth in the service sector achieved more than 4 percent annually, followed by agriculture (1.77 percent) and manufacturing (less than one percent annually). Again this provides evidence that manufacturing was not able to increase its ability to absorb labour in spite of the fact that economic growth was quite high. Looking at this pattern we can expect that during this period, the economic gap between manufacturing on the one hand and agriculture on the other hand would widen.

Similar conditions can be found in all provinces, except Yogyakarta, which showed a very high growth of employment in manufacturing. The contribution of agriculture to absorb the labour force was also high; its share increased during the period of 1998-2000, when other provinces experienced a decline in the share of agriculture. This is surprising since the GRDP growth for manufacturing was negative during this period. The positive development of small and medium scale enterprises (SMEs) may be the explanation. These sectors have the capacity to absorb large numbers of labour force, but their contribution to the GRDP was rather limited. Also, it was only in Yogyakarta that employment in agriculture grew at a very high rate surpassing the employment growth in manufacturing. This influenced the overall growth of employment, becoming the highest among all provinces. Therefore, in terms of employment or labour force absorption, Yogyakarta performed best during this period.

Figure 5.6 Per capita GRDP Growth and GRDP Growth in 1997-1998 and 1998-2000 in Java

In Java, the agricultural sector played a key role in employment absorption. In the period of 1998-2000, the shares of the agricultural and manufacturing sectors decreased slightly while the other sectors increased. However, agriculture was still able to absorb more labour force than manufacturing. It is interesting to see that in Java it was not manufacturing that had the fastest growth, but the services sector. This was different with what happened in Indonesia as a whole. Even when we compare the growth of the manufacturing with the growth of the agricultural sector, it was slightly lower. In this context, we can conclude that the recovery in terms of economic growth in Java was supported mostly by the service sector.

Since the main objective of this study is to find out if there is any diverging pattern of recovery amongst the areas, it is interesting to compare economic growth during and after the crisis. As we can see from Figure 5.6, in terms of per capita GRDP, West Java suffered most during the crisis, followed by Yogyakarta, East Java, and Central Java. However, a different conclusion emerges when we look at the GRDP growth variable. It was not West Java, but East Java where the economy experienced the sharpest contraction, followed by Central Java, Yogyakarta, and West Java. In 1998-2000, this severe economic contraction was reversed in all provinces as the GRDP grew in a positive way. However, the pattern of the economic growth in 1998-2000 did not follow the earlier pattern of both the per capita GRDP growth and GRDP growth from 1997-1998. This means that at the provincial level, we do not have evidence to claim that the area most severely hit by the crisis will be the area to recover fastest.

What can we learn from the above analysis? Even though there was a difference in the structures of the economy and employment at the provincial level, the recovery pattern was essentially rather uniform. Gradual growth of the share of the manufacturing sector in the GRDP was observed in the period of 1993-2000. The structure of employment shows a less severe shift between sectors, where the dominance of the services and agricultural sectors still remains prominent in almost all of the provinces. This means that the economic crisis did not have much

influence on the predominant structures of the economy and employment on the island of Java. In order to examine more closely the relationship between these two conditions, the following chapter will focus attention on the district level.

Chapter VI

Coping with the Crisis at District and Household Levels

Abstract

This chapter deals with the determinants of economic growth and recovery at the district and household level, and the possible lock-in effects related to preceding growth patterns. There are two main types of analysis in this chapter. First, the association is described between the economic performances of the districts and cities before and during the crisis. Second, some important factors at household level and at district level are described as related to the household economy. The results show that in general, using district as a unit of analysis, the higher the economic growth before the crisis, the lower the economic growth during the crisis. However, the economic performance during the recovery period seems unrelated to the economic performance of the districts/cities during the crisis period. The other important finding is that economic growth has not been accompanied with sufficient employment opportunities, which is in line with our previous conclusions. When analysing the determinants of household economy levels, we found that education is an important factor, but, more importantly, the influence of educational attainment becomes stronger in districts having higher economic growth. The latter is in line with human capital theory.

VI.1 Introduction

The analysis of the impact of the economic crisis at the national level, as described in Chapter 5, led to the conclusion that the main two aspects of life that were seriously affected by the crisis were *poverty* and, to some extent, *employment*. The impact on other aspects of life, such as education performance, appears to be minimal. The rate of school

dropouts, for instance, seems to be not significantly different (see Strauss, et.al. 2002).

An important next question is how strong the crisis hit the district-level economy on the island of Java. There are two important reasons for this. First, Java has become the driving force of the national economy primarily due to its large contribution to GDP. It has been often said that Java is the core economy, while the outer Indonesian islands represent the periphery. In accordance with the general conclusion that the crisis hit urbanised areas more than the hinterlands, we found that the effects of the crisis were harsher on Java than on the outer, less urbanised islands. Second, economic development in Java has created diversified areas with widening economical gaps amongst its districts.³² Understanding the conditions of the districts has now become more important due to the implementation of regional autonomy that gives more power, both economic and political, to the districts. Thus, it is necessary to examine whether the effects of the crisis within these districts were different from those at the national and provincial levels.

At the district level, there are three hypotheses that will be tested. First, it is hypothesized that the *higher* the economic growth before the crisis, the *lower* the economic growth during the crisis. This hypothesis was already addressed in the previous chapter, where it was found that the economic crisis in Indonesia hit manufacturing most severe. In addition, it was shown also that the main contributing factor of economic growth prior to the economic crisis was the manufacturing sector. From this we may expect the area having high economic growth before the crisis will experience low economic growth during the crisis. This refers essentially to the so-called lock-in hypothesis (North, 1990; Arthur. 1994) that argues that lumpy investments in a sector create increasing returns for technologies, infrastructure and institutions. New institutions often entail high set-up or fixed costs. There are also significant learning effects for organisations that arise because of the growth opportunities provided. In periods of economic decline, however, these sectors adapt less flexibly to changing circumstances. Consequently, they suffer from

³² Discussed in Chapter 4.

more decline and stagnation because of dysfunctional institutional design. Switching costs may therefore be high.

This hypothesis is tested by analysing the performance of three sectors (i.e., agriculture, services, manufacturing) separately. The time period will be 1993-1997 for the pre-crisis period and 1997-1998 for the crisis period. The impact of the crisis will be examined using annual economic growth performance. With regard to our first hypothesis three scenarios are conceivable. First, there can be an overall positive relation between rates lower than 1, this means that economic growth slowed down. Second, the relationship can become negative, meaning that economic growth turned into negative growth. Third, the relationship may be negative while there is also an extra (constant) negative growth rate for all districts. We depicted these three scenarios in Figure 6.1. Scenario's 2 and 3 would be in line with our first hypothesis. From the results in previous chapters we expect scenario 3 to be more likely than the second scenario.

Figure 6.1 Three possible scenarios of the relationship between annual economic growth rates before and during the crisis

The second hypothesis is that the stronger the area was hit by the crisis, the better it was able to recover from the crisis. This implies that the crisis destroyed formerly dysfunctional institutions and that economic recovery in certain sectors is less constrained by lock-in effects. This is particularly true for the manufacturing sector that is assumed to recover better than the other two sectors, agriculture and services. As we observed at national and provincial level, the contribution of manufacturing to GRDP grew faster than agriculture and services (Chapter V). With manufacturing growing faster we can expect it will influence the economic growth strongest in the districts due to its importance in driving the total economy as before the crisis.

It is also important to know how economic growth rates helped to accelerate employment growth. This question will be answered for the island of Java. As Java is considered to be the core of the economy of the nation, it is very interesting to determine whether the economic trend at the provincial level in Java during the period of 1998-2000 followed the national trend. The analysis will then go to the lower levels in order to understand the pattern of structural transformation across the districts. Our third hypothesis therefore addresses the association between economic growth and employment opportunities. We expect that economic growth is not associated with employment creation in the case that lock-in effects prevail, even after taking into account a certain time lag. This hypothesis is based on results both at the provincial and national level, where economic growth was also not accompanied by extra employment opportunities. This hypothesis has its ground on the researches done by Ananta and Fontana (1995) and Sukamdi (1996). The findings show that the economic growth was mostly supported by large scale and capital-intensive industries that absorbed a very limited labour force. In turn this also affected sectoral disparities as well as income inequality (see Kuznets, 1955).

Next, in the second part of this chapter we will address two new research questions. The first question relates to household survival. The main focus is on what factors best explain household conditions in terms of household per capita expenditures changes during 1998-2000.

Regression analysis will be used to answer this question. Secondly, we combine both the district level and the household level and investigate which economic conditions of the districts and cities, together with household characteristics, explain household survival. Multi-level analysis will be the main statistical tool to address this last research question.

VI.2 District Economic and Employment development 1993-2000

In Chapter V we observed that the economy clearly recovered in terms of economic growth in the period of 1998-2000, both at national and provincial level. However, the pattern of economic and employment structure had not changed very much. At the national level, the service and manufacturing sectors actually achieved better progress. It is especially the manufacturing sector that grew by 2 percent in 1999 and almost 6 percent in 2000, after a fall of 14 percent in 1998. In Java, the economy grew faster than average. This means that on Java, the economy recovered better than that at national level. At the provincial level, Central Java's economy accelerated more than in the other three provinces on Java. However, we also noticed that the structure of economy and employment did not change very much over the years.

An examination of the regional pattern of economic growth during the crisis reveals that almost all of the big cities and their surrounding areas experienced worse conditions than those of the hinterland, which depended heavily on traditional economy (agriculture) prior to the crisis. At the same time, areas that benefited from developments prior to the crisis performed worse after the crisis. The districts with higher economic growth were clustered in Central Java and Yogyakarta, while they were scattered in West Java and East Java. We therefore conclude that the areas that relied on the agricultural sector were less affected by the crisis.

A similar pattern for employment growth does not emerge. There is no pattern of employment growth at the district level during the crisis (1997-1998). Districts that were better off in terms of economic growth did not show significant employment growth. Further, economic low-

growth areas in the southeast section of East Java, such as the districts of Lumajang, Jember, and Banyuwangi, still enjoyed employment growth rates of 3 percent or more annually. We can also find similar cases in Surabaya, Sidoarjo, Pacitan, and Lamongan, as well as several other districts in Madura, Central Java, and West Java.

In the period of 1998-2000 (two years after the crisis), employment growth seemed to be scattered across the region even though many of the districts with high growth rates were concentrated in West Java. High employment growth occurred in areas surrounding three major cities on Java, i.e., Jakarta, Bogor, and Bandung. Several areas, including the city of Bogor, and the districts of Bogor, Sukabumi, Cianjur, Serang, and Bandung, enjoyed employment growth rates of more than 4 percent annually, while several other districts – Lebak, Tasikmalaya, Kuningan, and Purwakarta – benefited from high employment growth ranging from 2 to 4 percent annually (see Appendix 2). High employment growth in West Java was due primarily to a relatively high growth in both the services and manufacturing sectors. However, there were some areas where agriculture contributed significantly to employment growth.

Comparing the average annual GRDP growth during 1993-1997 and 1997-1998, it is clear that the crisis hit the district level very hard. During 1993-1997, the districts enjoyed a high economic growth, 6.39 percent annually, which then contracted into -11.38 percent annually in 1997-1998. The rate however, was lower than that at national level (-13.7 percent annually). The next question is how these growth rates in all three periods are interrelated. We hypothesized that during the crises the districts with high growth rates were affected the hardest. In Figure 6.2a the relationship between annual growth rates before and during the crises is shown, together with an OLS regression slope.

From this, we can infer that on Java virtually all districts experienced a negative growth rate during the crisis. If the growth rate was 2.5 in 1993-1997 (lowest rate), then the rate in 97-98 was estimated to be about -7 percent ($-4.76 + 2.5 * -1.016$). Interestingly, the higher the district's rates before the crises, the more negative the growth rates during the crisis. In fact, the crisis hit that hard that all positive growth rates turned

into negative rates regardless their previous growth (scenario 3). So, on the level of districts Indonesia suffered from lock-in effects. These findings do support our first hypothesis: the higher the economic growth in a district before the crises, the less growth during the crisis. Next, we tested the hypothesis per sector, i.e., agriculture, manufacturing and services. From the results (see Figure 6.2b, 6.3 and 6.4) we conclude that in all three sectors on average the economic growth was lower during the crises. Although we have to add that only in figure 7.4 (services) scenario 3 is at work.

Figure 6.2a The relationship between annual total economic growth rates before and during the crisis (n=96)

Note:

1. GRDP Growth is calculated based on data provided by Central Bureau of Statistics
2. City of Cirebon, City of Bogor, Cilacap, Serang, and Bogor turned out to be influential outliers and were left out of the OLS equation (based on Cook's Distance)

Figure 6.2b The relationship between district-level annual agricultural economic growth during and after the crisis (n=96)

Note:

1. GRDP Growth is calculated based on data provided by Central Bureau of Statistics
2. Serang, City of Bogor, City of Sukabumi, City of Surabaya, Bekasi were left out.

Figure 6.3 The relationship between annual economic growth during and after the crisis within manufacturing (n=97)

Note:

1. GRDP Growth is calculated based on data provided by Central Bureau of Statistics
2. Serang, City of Cirebon, Cilacap, Sumenep were left out

Figure 6.4 The relationship between annual economic growth during and after the crisis within services (n=95)

Note:

1. GRDP Growth is calculated based on data provided by Central Bureau of Statistics
2. Serang, City of Bogor Cilacap Bogor Sukoharjo Jeparawere left out based on Cook's distance.

Next, we tested whether the districts recovered faster, the harder they were hit by the crisis (Hypothesis 2). We tested this again on the total growth and on growth per sector.

From Figure 6.5 we conclude that there is hardly any relationship between the rates during the crisis and after the crisis. All districts on average had a positive growth rate of about 2.5 percent no matter how hard they were hit by the crisis. This means we have to reject the second hypothesis, which claimed that the worse the area was hit by the crisis, the better it was able to recover from the crisis. As Figure 6.5 is almost identical for all three sectors separately analysed, we do not present them here.

Figure 6.5 The relationship between annual total economic growth rates during and after the crisis (n=97)

Note: Kulon Progo, Cilacap, Serang, and Indramayu were left out of the OLS equation because they are too influential

VI.3 The Impact of the Crisis at the District Level: Jobless Growth?

In Appendices 1 to 16, we observe that when the economy contracted at a very high level and most of the areas experienced a two-digit decline, employment still increased. This is due to the labour market flexibility existing in Indonesia (Manning, 2000). When someone loses his job, he/she can enter the informal or agricultural sectors, because these two sectors are characterised by their unlimited ability to absorb labour.

Correlation analysis on the district level also supports this finding showing very low correlations between annual economic growth and employment growth (see Figure 6.6), even if we take into account a time lag. The only exception is a correlation of 0.107, which hints at some job creation after the crises. These findings also apply more or less to the relationships between economic and employment growth within manufacturing, agriculture, and services (Figure 6.7, 6.8, and 6.9). This underscores once more that economic growth did not foster employment in Indonesia in the period 1993-2000. Therefore, the third hypothesis is

accepted. There is evidence that even though the correlations are rather low, a negative relationship exists between economic growth and employment growth in manufacturing, agriculture, and services at some points (see Figure 6.7: -0,117 (during crisis – recovery period), Figure 6.8: -0,213 (recovery period) and services -0,136 (pre-crisis-during crisis). So at some moments economic growth might even have hindered employment creation.

Figure 6.6 Correlations between Total Economic and Employment Growth (a few districts were omitted due to high Cook's distances)

Figure 6.7 Correlations between Total Economic and Employment Growth within manufacturing (a few districts were omitted due to high Cook's distances)

Figure 6.8 Correlations between Total Economic and Employment Growth within agriculture (a few districts were omitted due to high Cook's distances)

Figure 6.9 Correlations between Total Economic and Employment Growth within services (a few districts were omitted due to high Cook's distances)

VI.4 Survival from the Crisis at Household Level

An important finding concerning the crisis has been discussed previously both at the beginning of Chapter VI: namely that the impact of the crisis on economic growth varies across districts/cities. The next research question is whether this economic variation at the district/city level has led to variation in household expenditures. One of the main hypotheses to be tested states that economic growth at the district level in the period of 1998-2000 caused household expenditures to be higher in

1998-2000. This is based on the argument that the household will benefit from the better economic conditions in that area (Cortright, 2001). It is further hypothesized that human capital caused household expenditures to be higher in 1998-2000. We expect this human capital effect to be highest in districts with highest economic growth.

We will include two levels of analysis: district (macro or aggregate level) and household (micro level). As mentioned by Robinson (1950), as well as Roberts and Burstein (1980), usage of aggregate or macro level data only is open to the charge of ecological fallacy and aggregation bias and unrecognized individual variation (see: Jones, 1997: 20). Likewise, when working at the micro level only, one runs the risk of atomistic fallacies (Alker, 1969) and misses the context in which individual variation occurs (see: Jones, 1997: 20). To cope with these problems, multilevel analysis incorporating both macro and micro level data at the same time is a common solution (Snijders and Bosker, 1999).

A macro analysis was used in chapter 4 at national and provincial level and in the previous sections at district level to investigate correlations between economic indicators. We now focus on the micro level to determine the impact the crises might have had on Indonesian households. To compare our results with previous studies, we will first use OLS regression analyses to determine important household characteristics that influence variation in household expenditures.

In a macro perspective, traditional neoclassical growth models view the extra output of an economy as a result of larger input of physical labour. This model conforms to a law of diminishing returns in which technological progress is seen as exogenous to the system. Early neoclassical growth models therefore did not consider education as important factor in production. In the 1980s, based on the experience of East Asian developing economies, a new paradigm was introduced that is now commonly known as the *endogenous growth model* (see Romer, 1990; Cortright, 2001). Viewing the importance of investments in both education and health, the whole concept of capital has been broadened to include human capital in this model (Nerlove, 1974).

The importance of education and health in the household economy was also stressed in Schultz's (1981) Nobel lecture. He argues that investing in both children's health and education will help to escape from poverty. This argument has been supported by many research findings showing that education and health are essentials in increasing people's economic welfare (see: Wei, 2001 and Riddell, 2006). At the household level there is also evidence that education is raising household income and expenditures as proxies for the household economy. For instance Jamison and Lau's survey of the literature on schooling and household farm income in over 35 studies from Asia, Africa, and Latin America (Jolliffe 1997) has shown that the level of education obtained by the head of household positively affects farm income. A study by Jolliffe (1997) in Ghana concluded that education is an important (positive) predictor of household income. Similar findings can also be found in Weir's study (1999) in rural Ethiopia. In Indonesia, Ananta and Sugiharso (1988) have found that education measured by both the level of education achieved and years of schooling by head of household has a positive correlation with household income.

Work by Himaz and Aturupane (2011) based on the study in Sri Lanka during the period 1985-2006 has supported above findings saying that education has a positive effect on household welfare. For education levels between 1-10 years the impact is between 1 and 5 percent, while for higher levels it is 9-16 percent. Another study in rural China shows that the households with higher levels of education, better average health and more skilled workers had higher levels of per capita net income. In addition, human resources, like education, turn out to contribute more to household income level than land and financial capital (Wei 2001).

VI.4.1 Analysis at Household Level: Determinants of Household Economies

Based on the previous arguments, the first hypothesis to be tested is that education plays an important positive role in explaining the economic recovery of the household during the crisis. Testing this hypothesis requires two steps. First, we will use OLS regression analysis to examine the influence of all independent variables separately. In these

analyses the log transformed per capita expenditure in 2000 is the dependent variable and per capita expenditure in 1997 (also log transformed) serves as the control variable.³³ By doing so, we are actually analyzing *the difference* of per capita expenditure of the household between 1997 and 2000. This way we take into account bottom and ceiling effects (i.e., it is easier to spend more money in 2000, when little was spent in 1997, and it is more difficult to spend more money in 2000, when a relatively high amount in 1997 was spent). We define a household more successful in coping with the crisis if the difference in expenditure is positive (i.e., the standardised expenditure in 2000 is higher than its counterpart from 1997). Next, we include one of ten household variables: (1) residence, (2) age, (3) level of education of household head, (4) proportion of household members who achieved higher education, (5) proportion of household members working in industry, (6) occupation of household head, (7) occupational status of household head, (8) sex, (9) marital status, and (10) proportion of household members who are working (see Table 6.1 for detailed description). Among these variables, four represent human capital as introduced in the human development indicators (HDI), they are 1) economy (per capita expenditure in 1997), 2) health (age of the household head), 3) education (level of education of the household head and 4) proportion of household members achieving higher education.

Second, all independent variables will be entered in multiple multilevel analyses together with relevant variables on the district level. For area (district/city) context, we include four variables, i.e. total growth rate of GRDP in 1998-2000; the GRDP change of manufacturing share in 1998-2000; the growth of employment in manufacture during 1998-2000 and change of employment share of manufacture in 1998-2000. The first variable represents economic growth during the period of 1998-2000, while the second variable is an indicator of the changing contribution of manufacture to GRDP in the period of 1998-2000. The last two variables are employment variables to figure out the importance of manufacture in

³³ Because of their skewed distribution, we take from these variables the logarithms to have a more normal distribution. In addition, per capita expenditure for both years is standardised (see for standardisation details Strauss et.al. 2002: 50-53)

the economy from increasing number and share of employment in manufacture during the period of 1998-2000.

Table 6.1 Descriptive Statistics of the Variables

	N	Minimum	Maximum	Mean	Std. Deviation
Household Variables					
Per capita expenditure in 2000	2898	2.83	8.55	5.1469	.70945
Per capita expenditure in 1997	2898	2.80	10.34	5.1362	.79598
Place of residence (urban = 1)	2898	.00	1.00	.4110	.49210
Age of household head	2898	19.00	105.00	49.5055	13.56222
Average education level of the household member	2898	1.00	6.00	2.7567	1.61489
Proportion of household member having high education	2898	.00	1.00	.1666	.25373
Proportion of household members working in industry	2898	.00	1.00	.2041	.34812
Occupation of household head (industry = 1)	2898	.00	1.00	.1994	.39965
Occupational status of household head (formal vs informal with formal = 1)	2898	.00	1.00	.4448	.49703
Sex of house hold head (male = 1)	2898	.00	1.00	.8406	.36613
Marital status of household head (married = 1)	2898	.00	1.00	.8326	.37336
Proportion of household members who working	2898	.08	1.00	.5016	.25056
Valid N (listwise)	2898				
Area Variables					
Districts/cities identification number	69	3201	3578	3397.45	129.996
Mean of economic growth 1998-2000	69	-9.43	7.26	2.7760	2.42923
Mean of the GRDP change of manufacturing share in 1998-2000	69	-12.52	7.32	.0685	2.61418
Mean of employment growth 1998-2000	69	-11.48	21.35	2.2306	7.15313
Mean of employment change in manufacture 1998-2000	69	-6.05	9.63	.7743	3.11761
Valid N (listwise)	69				

Note: Household data is calculated based on the 1997 and 2000 Indonesian Family Life Survey and district data are based on Central Bureau of Statistics various years

Table 6.2 OLS Regression analysis at household levels (bivariate analyses) (y=log transformed expenditure in 2000, x1 = log transformed expenditure in 1997, x2 = one of 11 household characteristics) estimates are (un) standardized parameters. N=2898, listwise deletion of missings

Parameter	Estimate (b-coefficient)	Estimate (standardized)	Standard Error
Log Per capita Expenditure 1997 (control variable)	0.469	0.526	0.014**
Household characteristics:			
Residence (rural = reference vs. urban)	0.131	0.091	0.023**
Age	-0.001	-0.015	0.001
Education of Household Head	0.059	0.134	0.007**
Proportion of household members with higher education	0.666	0.238	0.047**
Proportion of household members working in industry	-0.104	-0.051	0.032**
Occupation of household head (non- industry = reference vs. industry)	-0.056	-0.032	0.028*
Occupational status of household head Informal = reference vs. formal	0.005	0.003	0.023
Sex (female=reference vs. male)	-0.031	-0.016	0.031
Marital status (not married=reference vs. married)	-0.078	-0.041	0.030*
Proportion of household members who are working	0.368	0.130	0.044**

Note: ** and * denote significance at .01 and .05 level, respectively.

At the household level, when the independent variables are treated separately, there are three out of ten variables that have no significant influence on the difference in per capita expenditure 1997-2000, i.e., age, sex and, occupational status of the head of the household, (see Table 6.2). These findings are quite interesting since occupational status and occupation are apparently not factors that help to explain a better household economic condition. It is also interesting to see the effect of working in the industrial sector is negative. This might be due to the fact that in 2000 the industry had not yet fully recovered from the impact of the crisis. This finding is also consistent with other findings that show the negative effect of occupation of household head (see Table 6.1), meaning that those working in industry have less chance to improve their

economic status. Table 6.2 also shows that households in urban areas had a better chance to improve their household economy during the period of 1998-2000.

Among the seven significant predictor variables, two variables concerning education, i.e. education of the household head and proportion of household members having higher education, are among the factors having a positive effect on the economic condition of the household. Additionally, the proportion of household members that achieved higher education has the strongest positive effect (in terms of standardised beta estimates) on the economic condition of the household. The higher the education of its members, the higher the 2000 expenditure compared to 1998. This result confirms the hypothesis that education (in terms of the proportion of household members that have higher education) is the best predictor for coping with the crisis.

VI.4.2 Multilevel Analysis

1. Model fit for several multilevel models

The hypothesis to be tested in the multilevel analysis, is that the effect of education on the ability to cope with the crisis will be higher in the areas showing better economic performance, but smaller in the areas with poor economic performance. This hypothesis rests on arguments from human capital theory in which investment in education is said to be an important factor in stimulating the economic condition of the household. However, as argued by Cortright (2001), the geographical (area) condition is also important. If we assume that people react rationally towards their environment it is expected that the better the economic condition of the area people live in, the more families will invest in human capital because the investment is expected to pay off. As a result, households with highly educated members in those areas will be better off after the crises. In case that same household would reside in areas with low economic performance the educational effect is expected to be lower.

The hypothesis that claims an interaction between education and geographical area is important for two reasons. First, there is no research

on the Indonesian crisis focusing on economic performance at the district level that affects household survival. Second, from a methodological point of view, combining macro (district) and micro (household) levels in one multilevel model introduces a new approach in understanding household survival.

Figure 6.10 A multilevel causal scheme explaining household economic performance

To test the hypothesis we use data that is hierarchically structured, consisting of two levels (Figure 6.10). As previously explained, the first level contains household data derived from the 1997 and 2000 Indonesian Family Life Survey (IFLS), including two groups of variables. The first group contains characteristics of the household as predictors for per capita expenditures in 2000. We use again all 10 household variables as explanatory variables, plus the control variable per capita expenditure in 1997.

In the multilevel estimation, higher-level units, such as community or district characteristics, need to be tested whether they show variation in the dependent variable. Following a criterion used by Goldstein (1995), Amin et al. (1997), and Rasbash et al. (2000), using the confidence interval, we conclude that there is sufficient variation in household expenditure among Indonesian districts if the value of 0 is not included in the confidence interval with $\alpha=0.05$.

Since the data sources are panel surveys we only used households that were successfully interviewed in both surveys. Level 2 in the analysis is the district level. We use a set of indicators for industrialisation in each district: (1) economic growth measured by the annual GRDP growth in the period of 1998-2000, (2) changing employment structure measured by the growth of employment in the manufacturing sector in 1998-2000, and (3) changing economic structure measured by the growth of the contribution of the manufacturing sector to GRDP in 1998-2000. All variables are gathered from data published by the Central Body of Statistics in Indonesia.³⁴ For all analyses we used the MLwiN program (Rasbash, et al. 2000).

There are several steps in the analysis. The first step (model 1) is a base line model estimation containing only a random intercept (β_0) and variance estimates at the household level (e_{oij}) and also at the district level (u_{oj}).

³⁴ This is the first time that the series of data on the GRDP at the district level on the island of Java are used as contextual variables in combination with household data.

Estimates of these variance parameters (Table 6.2) show the variance in per capita household expenditures on the district and household level. The t-tests for the variances and intercept are both significant, hence it can be concluded that districts do indeed differ in the average household expenditure in the year 2000 (variance = 0.042, t-statistic = $(0.042 / 0.003) = 14$).

In the second step, we include all level 1 (households) variables (model 2) to explain the observed variance in per capita expenditures in 2000. If these variables have an effect on per capita expenditures and if their distribution varies across districts, then they are a compositional explanation for the variance at the district level (Snijders and Bosker, 1999). As can be seen in Table 6.2, the level 2 variance is reduced from 0.042 to 0.010. In addition, the -2log likelihood has also reduced significantly. This implies that the level 1 variables taken as a whole do have an effect on per capita expenditure and it also means that they explain to a large extent the observed variance between the districts.

In the third step, we include level 2 (district) variables in a step-by-step procedure (we entered them separately and kept significant effects in the model). Of the three district variables, only the annual GRDP growth is significant. Hence, we treat this variable as the only district variable in predicting per capita expenditure differences. The level 2 variance, as well as the -2log-likelihood, is slightly reduced. Conceptually, the GRDP growth is a representation of economic growth in the district that also partly explains the variation of recovery achievement across districts. The fourth step is to check whether the effect of education of household members and the effect of the proportion of household members with a job varies across districts by estimating the slope variances.

The -2 log likelihood now is 4928.752, which is a reduction by 6.016, compared to the previous model (Model 3) at the cost of only two degrees of freedom namely two variance components (co-variances were nearly zero and fixed to zero in subsequent analyses). Therefore, this is a significant improvement and indicates that effects may vary across districts. The crucial question now is whether this variation is caused by economical growth at the district level; this is tested in a fifth step.

Table 6.3 Level 1 and Level 2 Variance and -2*log likelihood of multi-level models, n1=2898, n2=69

	Per capita expenditure 2000		
	Estimate	Standard error	$\Delta\log/df$
Model 1: base line			
Level 1 variance (eojj)	0.459	0.012	
Level 2 variance (uojj)	0.042	0.009	
-2*log-likelihood (IGLS)	6391.793		
Model 2: Model 1 + all variables on Level 1			
Level 1 variance (eojj)	0.316	0.008	
Level 2 variance (uojj)	0.010	0.003	
-2*log-likelihood (IGLS)	4942.246		-1449.547/11
Model 3: Model 2 + district economic growth			
Level 1 variance (eojj)	0.316	0.008	
Level 2 variance (uojj)	0.008	0.003	
-2*log-likelihood (IGLS)	4935.885		-6,361
Model 4: Model 2 + effect proportion of household members with higher education set random & proportion household members who are working set random	4928.752		-6,016/2
Model 5a: Model 3 + interaction variable proportion of household members with higher education and district economic growth in 1998-2000	4923.116		-4,170
Model 5b: Model 3 + interaction variable proportion household members with a job and district economic growth in 1998-2000 and proportion of household members with higher education and district economic growth in 1998-2000	4918.946		-5.572

This fifth step consists of two parts. In the first part, a model that includes an interaction between the proportion of household members with higher education and economic growth in 1998-2000 is tested. The -2 log likelihood now has gone to 4923.116 with just one extra parameter. With a reduction of about 4, this is significant. The second step involved the inclusion of an extra interaction between the proportion household members with a job and district economic growth. This again reduced the -2 log likelihood in a significant way.

2. Understanding the influence of household characteristics on household economy

Now that we tested our models we will describe the effects of each predictor variable (see Table 6.3). The individual determinants of per capita expenditure are examined in the multiple multilevel Model II. In the endogenous growth model (Schultz, 1981; Romer, 1990; Cortright, 2001; Wei, 2001; Riddell, 2006) education and health as human capital indicators are important factors influencing people's economic welfare. Thus we hypothesise that education is an important factor to influence per capita expenditure. In this analysis of Model II, the proportion of household members with higher education is again found to be positive and significant to per capita expenditures, after taking into account all other individual characteristics and variation in average expenditure across districts. As in our OLS regression, household head's education again turns out to have an insignificant effect on per capita expenditures in 2000 controlling for 1997 expenditures. This is different from findings in other studies, such as Fane (1975), Wu (1977), and Jamison and Mock (1984), which show the effect of education of the household head on household income (see Jolliffe; 1997). The reason for this difference may lay in the fact that these previous studies focus on household farms only, while this present study includes all types of households.

A striking figure is shown in the negative effect of the proportion of household members engaged in industrial sectors (which already showed up in Table 6.1): the more the relative share of industrial workers in a household, the less this household's expenditure in 2000 was in comparison to expenditures in 1997.³⁵ Vulnerability of this sector to macroeconomic shock might explain this variability. In line with this research, regional data has shown that the manufacturing sector suffered the most during the crisis. This phenomenon might be reflected at the household level, where a higher share of industrial workers had lower expenditure rates in 2000.

³⁵ As explained in Strauss, et.al (2002: 50) to calculate real values, the price deflator to pce was applied using December 2000 as the base. The mean rupiah-US\$ exchange rate in December 2000 was Rp. 9,400. Urban households are assigned a cpi for the nearest city from the BPS list, while rural households are assigned a cpi based on their province of residence.

Table 6.4 Multilevel Analysis(y=log transformed expenditure in 2000. Estimates are standardized parameters (n1=2898, n2=69)

Explanatory variables	Model II	Model III
Intercept	3.187** (.098)	3.152** (.099)
Expenditure 1997	.353** (.015)	.351** (.015)
Residence (rural = reference vs. urban)	.043(.029)	.041 (.028)
Age	-.0032**(.001)	-.003** (.001)
Head of HH Educ	-.002(.010)	-.001 (.010)
Proportion of High Educ. in HH	.681**(.064)	.689** (.064)
Proportion of HH members in industry	-.153**(.047)	-.151** (.047)
Occupation of HH Head (non- industry = reference vs. industry)	.033(.041)	.031 (.040)
Occupation status of HH Head (Informal = reference vs. formal)	-.036(.023)	-.038* (.023)
Sex (female=reference vs. male)	.037(.047)	.037 (.046)
Marital Status (not married=reference vs. married)	-.055(.047)	-.057 (.047)
Proportion of working in HH	.462** (.046)	.464** (.045)
GRDP Growth		0.016** (.006)
Estimates of residuals		
Household Residual	.316**(.008)	.316* (.008)
District residual	.010 ** (.003)	.008** (.003)
N	2898	2898
-2loglikelihood ratio	4942.246	4935.885

Note: ** and * denote significance at 5 per cent and 10 per cent level, respectively. Standard errors are in parentheses.

Explanatory variables	Model Va	Model Vb
Intercept	3.555** (.100)	3.562** (.101)
Expenditure 1997	.350** (.015)	.349** (.015)
Residence (rural = reference vs. urban)	.036 (.028)	.036** (.028)
Age	-.003** (.001)	-.003** (.001)
Education of household head	-.002 (.010)	-.002 (.010)
Proportion of high education in household	.701** (.066)	.624** (.078)
Proportion of household members in manufacturing sector	-.153** (.046)	-.145** (.046)
Occupation of HH Head (non- industry = reference vs. industry)	.031 (.041)	.030 (.040)
Occupation status of householdhead (Informal = reference vs. formal)	-.037* (.023)	-.036* (.023)
Sex (female=reference vs. male)	.035 (.046)	.035 (.046)
Marital Status (not married=reference vs. married)	-.053 (.047)	-.053 (.046)
Proportion of working in HH	.482** (.055)	.487** (.053)
GRDP Growth	.015** (.006)	.014** (.006)
Interaction of Prop. Educ and GRDP Growth	.042** (.017)	.043** (.018)
Interaction of Prop. Work and GRDP Growth		.040** (.019)
Estimates of residuals		
Household residual	.312 (.008)	.312 (.008)
Variances on district level		
Intercept	.008 ** (.003)	.008 ** (.003)
Prop. Educ (mean centred)	.010 (.020)	.011 (.020)
Prop. Work (mean centred)	.048 * (.029)	.036 (.029)
N	2898	2898
-2loglikelihood ratio	4923.116	4918.946

Note: ** and * denote significance at 5 per cent and 10 per cent level, respectively. Standard errors are in parentheses.

Further we find age of the household head to be negatively related to expenditure: the older the less one could improve expenditure.

The third multilevel model introduces explanatory variables at the district level. As with expenditures in 1997, age, the proportion of household members with higher education, and the proportion of working household members all continue to have a positive and significant effect on per capita household expenditure differences. This result confirms that education and economic aspects continue to be important as pathways for improving per capita household expenditures. In contrast, the larger the share of household members engaging in the industrial sector in both periods, the more deterioration of per capita household expenditures.

The results also again show the negative age effect of household head on the higher-level characteristic, namely annual GRDP growth. The effect confirms our hypothesis: the household expenditure in 2000 is higher compared to 1997 if a household lives in an area that enjoyed economic growth between 1998 and 2000.

In Model V we finally test our hypothesis that the educational effect is stronger if a household lives in an area with economic growth. This indeed turns out to be the case. In case the economic growth is average (2.77), the effect of the proportion of highly educated household members is 0.701 and it rises to $0.701 + 0.042 * 4.49 = 0.89$ when growth is at its maximum. When growth is at its minimum the effect is $0.701 + 0.042 * -12.02 = 0.19$ (not significant). This tells us that households with a higher share of highly educated members will survive better if they live in areas that have better economic conditions. We have shown this mechanism in Figure 6.11.

In the last model we added the interaction between economic growth and the proportion of the household members that work. We find results that are comparable to that of the interaction with education. The effect of the proportion of working household members is strongest when economic growth is strongest, and becomes less strong when there is less economic growth in a district. Again, we show this interaction in a graph (see Figure 6.12).

Figure 6.11 The effect of proportion of highly educated household members under 3 conditions of economic growth

Figure 6.12 The effect of proportion of household members with a job under 3 conditions of economic growth

In sum, the interactions found tell us that household variables, i.e., education of household members and the proportion of working household members, together with the area variable, i.e., economic growth of the district, are important in explaining the better economic conditions in the period of 1997-2000. Providing access for education, as well as employment, become important factors for households to improve their economic condition. However, this must be supported by favourable economic conditions as expressed by economic growth. Economic growth, then, is important even though some argue that it might create a wider economic gap amongst people.

These results bring us to the notion that economic performance of districts in the years following the crisis may play an important role in understanding the economic conditions of the households. The next chapter will examine the economic performance of the provinces, as well as the districts, in the period of 2000-2007, the continuation of the recovery period.

Chapter VII

2000 - 2007: Recovery Continued

Abstract

The period of 2000-2007 was marked by the introduction of regional autonomy: switching the power from central government to district or local government. This has been seen as a milestone in Indonesian development and expected to stimulate local development performance. This chapter addresses the question whether recovery started in 1999/2000 was continuing in the period 2000-2007. The analysis is based on economic growth performance and the production as well as employment structure at national, provincial, and district level. At district level we analyse if regional autonomy functions as stimulating factor for local economic growth. The findings show that the recovery continued with a remarkable increase in economic growth, which almost reached the level before the crisis. However there is no evidence that regional autonomy was able to stimulate local economic growth

VII.1 Introduction

Many experts were sceptical about Indonesia's future economy after the crisis. The country did not only have to struggle out of the economic crisis, but also had to rebuild social and political structures. Social conflicts occurred in several parts of the country, like Pontianak, Ambon, Aceh, East Timor, and Poso, which in turn made it even more difficult for the country to rebound from the crisis.

Social conflict disrupted economic development because, to a certain degree, its effects were damaging the economic infrastructure and activities. It also caused distrust to the individual economic actors that led the capital outflow. Under these conditions it was very difficult for the government to quickly restore the national economy. This was also

complicated by political turbulence during a period of at least five years after the fall of Suharto, which caused political instability and uncertainty, and in turn created similarly unstable and uncertain economic conditions.

On one hand, Suharto's downfall brought new hope, at least in terms of democratisation, but the political euphoria of the Habibie and Abdurrahman Wahid administrations, to a certain extent, became an obstacle to the recovery effort.

The downfall of the Suharto regime was followed by an increasing demand for regional autonomy. The government then introduced a new policy of decentralisation and regional autonomy, which is outlined in Law No. 22/1999³⁶ concerning “Local Government”, and Law No.25/1999³⁷ concerning “The Fiscal Balance Between the Central Government and the Regions”. These laws are based on five principles (Usman, 2002): (1) democracy, (2) community participation and empowerment, (3) equity and justice, (4) recognition of the potential and diversity within regions, and (5) the need to strengthen local legislatures. Law No. 22/1999 transfers functions, personnel and assets from the central government to provincial, as well as to district and municipal, governments. The main objectives of regional autonomy are to promote better public services and raise good governance practices. However, much remained unclear about the scope and implications of their implementation.

The basic principles for the implementation of decentralisation in Indonesia are:

- To shift the rights, authorities and accountability/responsibilities from the central government to the regions to rule and govern the regions in accordance with national laws,

³⁶ This law was replaced by Law No. 32/2004 concerning Regional Government, and then substituted by Law No. 12/2008. This is not the first law on decentralisation in Indonesia. There were several laws prior to the 1999 law, such as Law No. 5/1974, Law No. 18/1965, Government Decree No. 6/1959, Law No. 1/1957, Law No. 22/1948, Law No. 1/1945, and Desentralisatie Wet 1903.

³⁷ This law was replaced by Law No. 33/2004 concerning The Fiscal Balance between the Central Government and the Regional Government.

- To delegate authority from the central government to the lower entities to undertake certain duties.

The 1999 Regional Autonomy Law passed a lot of governmental power to the city and district levels, not to the provincial level. To some extent, this has created problems in coordination between the provincial and district levels. Many cases of poorly formulated local regulations (*Perda*) have been identified during the implementation of regional autonomy. These local regulations contradicted the higher laws, disturbed public activities, or hampered the region's investment climate. During the period of 1999 to 2007, there were 1,406 *Perda* annulled due to the above reasons (Butt, 2010).

Regional autonomy has not only affected the decentralisation of the central government's power to local governments. It is believed that the laws have functioned as an engine to split provinces and districts, thus increasing the total number of provinces and districts. Since 1999 to the end of 2007, 179 *pemekaran*, or new autonomous regions, have been legalised. One of them is Banten Province, which has separated from the province of West Java.

In addition to this, the first five years of the implementation of regional autonomy witnessed the constant emergence of new problems. Law No. 22/1999 was quite ambiguous and, thus, was interpreted differently to cater to the interests of the local elite. Some regions took advantage of the regional autonomy laws to maximise their regional revenues from taxation and retributions, and/or to exploit natural resources (Dwiyanto, et al., 2003: 174). Corruption, collusion and nepotism (familiarily referred to as KKN, *korupsi kolusi nepotism*, in Indonesian) were also other common issues that found fertile ground in regional autonomy (Ananta and Eko Riyanto, 2006). In this situation we can question whether the autonomy at district level would lead to better economic performance or not.

In the first part, this chapter is to discuss the economic transformation 7 years after the crisis. It mainly focuses on economic growth performance and the production, as well as employment structure at national and provincial level, while at district level the analysis focuses

on economic growth and sectoral share. The analysis of this chapter will provide understanding whether and how the country and Java island had recovered from the economic crisis. It is also to understand whether the economic growth during the recovery era led to a changing economic and employment structure. We are therefore interested to ascertain whether economic growth could create sufficient employment in this period.

In addition, since we know that economic growth at the district level is an important factor in explaining the household welfare conditions (see Chapter 5), then by understanding the economic performance at the district level we can also predict in which locations households will get more chances in improving their livelihoods. However, due to the lack of detailed data at household level, our analysis will not be able to identify individual household variables.

VII.2 Weak Industrialisation: Unchanged Production and Employment Structure

The discussions in Chapters IV and V have clearly shown that in two years immediately following the total crisis all macro-economic indicators at the national level showed improved performance. Surprisingly, in 2000 economic growth was remarkably high, achieving a similar rate as in 1997, the year before the crisis. Bank interest rates in 2000 also dropped more than half compared with that in 1998. Other macroeconomic indicators, such as the inflation rate, decreased to less than 10 percent compared to 77.6 percent in 1998 (Bank Indonesia 2001). Consumption and exports also increased substantially, while the exchange rate remained relatively stable after 2000 (see Figure 7.1). During the period of 2000-2007, economic growth continued to increase and on the average the growth was almost 5 percent annually (Figure 7.2).

However, overall economic performance in the period of 2000-2007 still lagged behind the achievements during the period of 1993-1997. The economy in this period grew at 4.73 percent annually; compared to 7.06 percent during the 1993-1997 periods (see Table 7.1). Several factors contributed to the slower economic growth. One important factor was the

large debt, which at the end of 2005 was US\$ 130,709 million. In addition to this, various structural problems, such as deficient law enforcement, labour regulations, and the implementation of regional autonomy, had hindered economic recovery (Bank Indonesia, 2005).

Table 7.1 shows that even though agriculture grew at a lower rate in 2000-2007, it surpassed the annual growth rate before the crisis (1993-1997). While manufacturing grew far less compared to its achievement in 1993-1997, mining lost its capacity to support economic growth with very low growth rate (less than 1 percent) in 2000-2007. The other sectors performed quite well, but still below the rate in 1993-1997. The service sector grew slightly higher in 2000-2005 than it had performed in 1993-1997. This was attributed to high growth rates in the transportation and communication sub-sectors, as well as other services.

Figure 7.1 Exchange Rates of Rupiah against the Dollar 1990-2007

Source: www.adb.org/documents/books/key_indicators/2008/country.asp downloaded on 10 December 2008

When we examine sectoral growth of GDP, we find an interesting pattern (see Figure 7.2). First, it was the service sector (S) which had the highest growth and was consistently growing, except in 2004-2005. We

can say that this sector had the highest contribution to economic growth in this period. Second, agriculture (A) started with a higher rate than manufacturing/industry (M), but it ended with a lower rate. There was a tendency towards decreasing growth of agriculture. This means that agriculture performed worse than manufacturing in terms of economic growth. Manufacturing tended to increase, although not as high as the service sector. Hence, the sectoral performance of the service sector (S) was the highest, followed by manufacturing/industry (M) and agriculture (A). The annual growth during this period has also confirmed this finding showing the highest annual growth rate of the service sector (6.81 percent) followed by the manufacturing/industrial sector (3.88 percent), and finally, the agricultural sector (3.21 percent).

Figure 7.2 Economic Growth in 2000-2007

Note: Calculation based on data downloaded from www.adb.org/documents/books/key_indicators/2008/country.aspx downloaded on 10 December 2008

Table 7.1 has also strengthened the above argument that - at the national level - Indonesia was on the track to recover. After having suffered from the crisis with a 1.33 percent decrease at the peak in 1997-1998, agriculture increased by more than 2 percent in 1998-1999. It

decreased again slightly in 1999-2000, but then grew by more than 3 percent annually in the 2000-2007 period. Manufacturing, after having been hit very badly with a decrease of almost 14 percent in 1997-1998, enjoyed an increase of almost 2 percent one year after the total crisis and then jumped to almost 6 percent in 1999-2000. The increase of manufacturing in 1998-1999 was mostly because of a significant increase in the manufacturing and electricity, gas and water supply sub-sectors. Surprisingly, mining and construction grew at negative rates in 1998-1999, but in the following year, experienced a tremendous increase by 5.5 percent per annum and 5.6 percent per annum consecutively. Compared with 1999-2000, in the manufacturing sector only construction had a higher growth rate in 2000-2007, while the other sub-sectors were lower. Unlike the agriculture and manufacturing sectors, only the service sector, as explained above, consistently increased during the period of 1998-2000. Even in the period 2000-2007 the growth rates were beyond the total GDP growth rate. Almost all sub-sectors in the services sector had higher growth rates than the over-all GDP growth rate, with the exception of the public administration sub-sector, which grew at a lower rate than the over-all GDP growth rate. This is evidence that in terms of economic growth, services recovered better than the other sectors.

In terms of sectoral shares, it is very clear that manufacturing contributed most to the GDP in the country. During the recovery period, 2000-2007, the sector composition did not change very much (see Table 7.2). However, the share of two sectors, i.e., manufacturing and agriculture, decreased about two percent during this period, while the services sector increased its contribution to the GDP by five percent in the same period. Again, these facts reinforce the conclusion that the service sector had become an important sector in the economic development of the country. It was trade that had become an engine of growth in the service sector. The manufacturing sector having the highest contribution to the GDP also implies that the economy of the country was on the right track. It shows that the structure of economy had transformed from agriculture to manufacture.

Table 7.1 Growth Rate of Real GDP in 1993-2007

Sector	1993-1997	1997-1998	1998-1999	1999-2000	2000-2007
AGRICULTURE (A)	2.26	-1.33	2.16	1.88	3.27
Mining	5.17	-2.76	-1.62	5.51	0.31
Manufacturing	9.98	-11.44	3.92	5.99	4.88
Electricity, gas, and water	13.60	3.03	8.27	7.55	7.05
Construction	11.94	-36.44	-1.91	5.64	6.87
MANUFACTURING (M)	9.33	-13.95	1.97	5.89	4.09
Trade	7.38	-18.22	-0.06	5.66	6.07
Transport and communications	8.13	-15.13	-0.75	8.59	11.91
Finance	8.27	-26.63	-7.19	4.59	6.86
Public administration	1.27	-7.32	1.66	1.37	2.18
Others	7.05	1.89	2.36	3.77	7.68
SERVICES (S)	6.76	-16.46	-1.03	5.17	6.80
TOTAL GDP	7.06	-13.13	0.79	4.92	5.06

Sources:

1. The growth for 1993-2000 is calculated based on data downloaded from http://www.adb.org/documents/books/key_indicators/2004/pdf/INO.pdf on 3 November 2008
2. The growth for 2000-2005 is calculated based on data downloaded from www.adb.org/documents/books/key_indicators/2008/country.asp on 10 December 2008

The improved economic conditions can be derived from several indicators. In 2007, for instance, the investment rate was relatively high, averaging 22.9 percent of the GDP. This was high enough to sustain a growth rate of 5 to 6 percent, but increased investments were needed to spur more rapid growth and faster gains in productivity. However, some argue (see Sari, 2009) that the very low rate of public sector investment emerged as a major obstacle to achieve a faster growth rate due to the country's weak infrastructure. The other constraint for faster growth is the poor business environment related to high cost economy, weak governance, and a very rigid labour market.

Another indicator is per capita GDP rebounding from a level of \$516 (in current U.S. dollars) in 1998 to \$1,947 in 2007 (or \$3,724 in terms of purchasing power parity [PPP] dollars). The average income is now above the global median for L&MI countries of \$1,608 (or PPP \$3,693), using the World Bank's income classification.

Table 7.2 Sectoral Share of GDP (%) in 2000-2007

Sector	2000	2001	2002	2003	2004	2005	2006	2007
AGRICULTURE (A)	15.60	15.64	15.39	15.24	14.92	14.50	14.20	13.83
Mining	12.07	11.66	11.29	10.63	9.66	9.44	9.10	8.73
Manufacturing	27.75	27.60	27.86	28.01	28.37	28.08	27.83	27.40
Electricity, gas, and water	0.60	0.63	0.66	0.66	0.66	0.66	0.66	0.69
Construction	5.51	5.55	5.61	5.68	5.82	5.92	6.08	6.21
MANUFACTURING (M)	45.93	45.44	45.42	44.97	44.51	44.09	43.66	43.02
Trade	16.15	16.24	16.16	16.26	16.37	16.77	16.92	17.26
Transport and Communications	4.68	4.87	5.06	5.42	5.85	6.24	6.77	7.28
Finance	8.31	8.53	8.74	8.90	9.12	9.21	9.21	9.35
Public administration	5.00	4.86	4.68	4.51	4.37	4.21	4.15	4.11
Others	4.34	4.42	4.55	4.69	4.86	4.97	5.09	5.15
SERVICES (S)	38.47	38.92	39.19	39.78	40.57	41.41	42.13	43.15

Note: Calculated from www.adb.org/documents/books/key_indicators/2008/country.asp downloaded on 10 December 2008

VII.3 Employment Growth and Employment Structure

Economic growth, along with changing its structure, showed promising outcomes during the period of 2000-2007. However, important questions concerning its impact on employment creation remain. The earlier forwarded conclusion that industrialisation in Indonesia has failed to create sufficient employment requires further elaboration.

During the period of 2000-2007, employment creation remained a major problem in Indonesian development. In this period, the labour force grew at 2.05 percent annually, while employment grew at only 0.94

percent annually. This difference between the growth rates of the labour force and employment caused an increase of unemployment by 15.4 percent annually in the same period. Looking into the yearly trend is also interesting. The period of 2000-2001 was the only phase when the growth of employment was higher than the growth of the labour force (see Figure 7.3). A year later, the labour force grew at its highest rate, while employment grew less than 1 percent. This created a widening gap between the two. In the period of 2002-2005, the growth of employment was always lower than the growth of the labour force. During this period, the number of unemployed almost doubled from 5.8 million in 2000 to 11.9 million in 2005. The unemployment rate increased from 6.1 percent to 11.2 percent in the same period. On the other hand, economic growth increased steadily to reach the highest point in 2007. The situation was exactly similar to the situation in 1993-1997, explaining the process of industrialisation without job creation. High economic growth does not mean high employment growth. Even the period of 2003-2005 has clearly supported the notion that higher economic growth was followed by lower employment growth.

Figure 7.3 Annual Growth Rates of GDP, Labour Force, and Employment (%) in 2000-2007

Note: Calculated from www.adb.org/documents/books/key_indicators/2008/country.asp downloaded on 10 December 2008

Table 7.3 Sectoral Employment Growth (%) in 2000-2007

Sector	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2000-2007
Agriculture	-2.29	2.24	5.93	-5.65	4.22	-5.17	6.16	0.67
Manufacture	-0.65	5.43	-4.03	-1.01	6.21	-2.76	3.27	0.85
Services	5.35	-1.81	-1.91	9.24	-5.44	9.70	-1.12	1.85
Total	1.08	0.93	1.27	0.98	0.25	1.30	2.53	8.62

Note: Calculated from www.adb.org/documents/books/key_indicators/2008/country.asp downloaded on 10 December 2008

Table 7.3 provides additional evidence that during the period of 2000-2007, employment conditions were not yet stable. The growth of employment for all sectors fluctuated. In 2000-2001, employment increased at a relatively high rate because of the growth of services. The following year, the increase of employment was attributed to the increase in agriculture and manufacturing/industry. During the next period employment in agriculture continued to increase at a rate double that of the previous year (2001-2002). In this period, employment in agriculture grew by almost 6 percent, and this was the highest growth it had in 2000-2005. In contrast, manufacturing dropped by more than 4 percent in the same period. During the period of 2003-2004, agriculture lost its capacity by -5.65 percent and then increased again at a high rate in 2004-2005. In 2003-2004, when agriculture decreased at its highest rate, the services sector enjoyed a very high growth rate, more than 9 percent. By the end of 2004, the services sector went through its worst period with employment decreasing by 5.44 percent. The overall figures show that in this period the annual growth of employment in agriculture was the lowest, followed by services, and the highest growth was in manufacturing/industry.

Even though the annual GDP growth for manufacturing was relatively high in the period of 2000-2007, the share of manufacturing to total employment was the smallest (see Table 7.4). The share of manufacturing to employment did not exceed 14 percent. On the one

hand, agriculture absorbed almost 45 percent on average, while services absorbed slightly more than 41 percent. This tells us that development of manufacturing/industry was not capable of providing sufficient employment. On the other hand, agriculture, which contributed very little to the GDP, had to absorb most of the labour force. This reveals the wide gap between sector development and the unemployment rate. This situation caused not only economic problems, but also social and political tensions.

Table 7.4 Sectoral Share of Employment (%) in 2000-2007

Sector	2000	2001	2002	2003	2004	2005	2006	2007
Agriculture	45.28	43.77	44.34	46.38	43.33	45.04	42.17	43.66
Manufacture	13.54	13.31	13.90	13.18	12.92	13.68	13.14	13.23
Services	41.18	42.92	41.76	40.45	43.76	41.27	44.69	43.11
Total (000)	89838	90807	91647	92811	93722	93958	95177	97583
Unemployment (000)	5813	8005	9132	9820	10251	11899	11105	10548
Labour Force (000)	95651	98812	100779	102631	103973	105857	106282	108131

Note: Calculated from www.adb.org/documents/books/key_indicators/2008/country.asp downloaded on 10 December 2008

The problem of unemployment can be observed from the fact that the unemployment rate remained beyond 9 percent in 2007. In the period of 2005-2006, the unemployment rate was decreasing after experiencing a dramatic increase in 2000-2005 (see Figure 7.4). However, we must bear in mind that the decrease of the unemployment rate in 2006-2007 occurred together with an absolute decrease in the number of unemployed persons. In 2005, the number of unemployed persons was 11.9 million and decreased to 10.5 million in 2006. This is the first time in the post-war period that a decrease occurred in both the rate and the number of unemployment.

Figure 7.4 Unemployment Rate (%) in 2000-2007

Note: Calculated from www.adb.org/documents/books/key_indicators/2008/country.asp downloaded on 10 December 2008

The problem of unemployment was worsened by the fact that most of the unemployed persons were educated (graduates of senior high school and above), representing more than 42 percent in 2005. One of the reasons for this is the failure of the industrial sector to create enough qualified jobs. As explained in previous chapters, this is what is referred to as “weak economic transformation”.

VII.4 Provincial Performance

In line with Indonesia as a whole, economic performance in Java (excluding Jakarta) during the period of 2000-2007 was promising. In 2006-2007, economic performance almost reached levels comparable to those before the crisis. This was quite surprising considering the pessimistic views about the Indonesian economy at the beginning of the recovery period (see: Mubyarto, 2001; Sadli, 1999).

Four typical patterns can be identified based on the GRDP growth. The first pattern concerns provinces with high growth at the beginning of the period, but slower growth at the end of the period. Such was the case of the province of Banten³⁸ in which the GRDP grew from 3.67 percent

³⁸ Banten was previously part of the province of West Java.

in the first year to 4.87 percent in the second year. The increase was slower in the following three years and decreased in the fifth year, to increase again at the end of period. This means that the economy of the province was not yet stable. The second pattern is for provinces with very slow progress in the first two years, but high growth in the later years. This pattern can be found in the provinces of East Java and Central Java. These two provinces performed better in the later years with stable growth to show better recovery. The third pattern concerns provinces with slow growth in the first three years, but with very significant GRDP growth in the last four years to reach the highest growth rate at the end of the period. This pattern can be found in West Java. This province showed the best performance in terms of economic growth. We can expect that this province would also recover better and faster than the other provinces. The last pattern is for the provinces that started with the highest growth (2000-2001), but ended with the lowest growth rate (2006-2007). This occurred in the Special Region of Yogyakarta. At the end of the period, the economy of the province of Yogyakarta was growing; however it was far below the levels of the other provinces (Figure 7.5).

Figure 7.5 Growth of GRDP by Province in 2000-2007 (%)

Source: BPS, 2005b; 2008b, 2011

In 2006-2007, all provinces enjoyed economic growth by more than 6 percent, except for Yogyakarta, which was only 4.3 percent. The highest economic growth was in West Java, followed by Central Java, East Java, Banten, and Yogyakarta. High economic growth in the four provinces, especially in 2006-2007, in fact has different explanations.

In West Java, for instance, we would expect to see the role of industry as an engine of growth since this sector has been developed in the province more than in the other provinces. In addition, this province has also enjoyed the advantage of being located close to Jakarta. However, the high economic growth in 2006-2007 was attributed not to the advantages of its location, but to high growth in the transportation, communications and finance sub-sectors, which made double-digit increases in their growth. Trade also made a significant contribution with an 8 percent growth rate. These three sub-sectors are incorporated in the services sector. On the other hand, in the sub-sectors included in industry, only construction and manufacturing had growth rates above average. Even the mining sub-sector contracted more than 7 percent, and this sub-sector did not recover, but has exhibited minus growth rates since 2000-2001. The contraction for this sub-sector reached the highest rate in 2002-2003 with a decline of more than 50 percent. We can conclude that the high growth rate in 2006-2007 can be attributed to the growth of the services sector rather than to the growth of manufacturing sector.

However, we cannot ignore the importance of manufacturing for the economy of the province. The share of the manufacturing sub-sector to the GRDP was significant in the period of 2001-2007, reaching 44.8 percent in 2007. The overall manufacturing sector contributed more than 52 percent of the GRDP, while the service sector's contribution was 35 percent, which was followed by agriculture with less than a 15 percent share. As we can see in Figure 7.6, the share of manufacturing (including mining, electricity, water, and construction) declined together with agriculture, while at the same time, the service sector increased.

Figure 7.6 Sectoral Share of GRDP in West Java, 2000-2007

Sources: BPS, 2005b; 2008b, 2011

In Central Java, the economy almost doubled in the period of 2000-2007. In 2000-2001, growth was only 3.6 percent, but six years later it was recorded as high as 6.3 percent. The most impressive performance was trade, which rebounded from minus 0.97 percent in 2000-2001 to 6.54 percent in 2006-2007. Looking at the growth in 2006-2007, it is more likely that the high growth during this period was possible because of the contributions of the service sector, comprised of trade, transport and communication, finance, and services itself. The only sub-sector showing two-digit growth was also part of the services sector that is transport and communication. The manufacturing sector grew at a modest rate, while agriculture suffered, growing at less than 3 percent. This sector even experienced a minus growth rate in the year 2002-2003.

In Central Java, in the period 2000-2007, the sectoral contribution to the GDP did not change very much with comparable shares of the manufacturing and services sectors accounting for about 40 percent. These two sectors together played an important role in fostering the economy in this area. Agriculture still lagged behind with a contribution

of about 20 percent, but this number is higher than its equivalent in West Java. The trend indicates a decline in agriculture in the future.

Figure 7.7 Sectoral Share of GRDP in Central Java, 2000-2007

Sources: BPS, 2005b; 2008b, 2011

Comparing the growth before and during the recovery, we can observe contrasting trends. Before the crisis, the sectoral growth of GRDP exhibited a consistent pattern, i.e., a decrease in agriculture and an increase in manufacturing and services. This pattern does not appear during the recovery period, 2000-2007, as all sectors fluctuate. This may be an indication of an unstable economy in the midst of unstable non-economic conditions.

As explained previously, the Special Region of Yogyakarta showed a different pattern. This province had the lowest economic growth rate. Due to a very dynamic pattern of sub-sector growth, it is quite difficult to determine which sub-sector contributed most to the GRDP. We can see that from year to year, the highest and the lowest sub-sector growth changed from one sub-sector to another. In 2000-2001 and 2001-2002, electricity, gas and water showed the highest growth. In the following year (2002-2003), construction was the highest. Transport and

communication exhibited the highest growth in 2003-2004, while construction increased in the following two years. In 2006-2007, surprisingly the growth of mining was the highest, while in the previous years this sub-sector was the lowest, except in 2005-2006 when electricity, gas and water reached minus growth rates, making the growth of this sector the lowest. We must be careful in interpreting the high growth of mining. Unlike in other provinces, mining in Yogyakarta refers to small-scale activities that are referred to as “C group” (*golongan C*). Its capacity to support economic growth is minimal. Together with manufacturing, this sector has understandably lagged behind, considering the limited resources available in the area.

Figure 7.8 Sectoral Share of GRDP in Yogyakarta, 2000-2007

Sources: BPS, 2005b; 2008b, 2011

We can see from Figure 7.8 that the largest part of the GRDP of the province came from the services sector. It comprised more than 56 percent of the GRDP in 2007, an increase from 54 percent in 2000. Agriculture lost its contribution from 20.6 percent in 2000, to 18 percent in 2007. There is a great possibility that this sector will continue to decline. Manufacturing had been stable at 24 percent. We estimate this

sector will remain stable in the future. If this is the case, we can expect that this province will depend largely on the services sector. Since the services sector in this province has been dominated by tourism and related industries, any occurrence which potentially hampers the tourism industry will affect the province's economy.

In spite of having a progressive increase of economic growth, it is only in East Java that construction grew at a very slow rate, on an average of less than 2 percent. On the other hand, mining held a high growth rate in the last three years after only an approximate 2 percent increase in the period of 2000-2004. It seems to me that mining in East Java grew before the crisis. Together with West Java, East Java is a province in which economic growth was stimulated by the growth of the manufacturing sector.

Figure 7.9 Sectoral Share of GRDP in East Java. 2000-2007

Sources: BPS, 2005b; 2008b, 2011

Nevertheless, the services sector has also played an important role as an engine of growth. Among the four sub-sectors in this sector, only the services sub-sector showed a lower than average growth rate. This means

that trade, transportation and communications, and finance were important as driving forces for economic growth in East Java.

Data on sectoral shares strengthen the above statement. As we can see from Figure 7.9, the largest contribution to the GRDP in East Java is from the services sector. This sector increased in the period of 2000-2007, from 42.9 percent in 2000, to almost 50 percent (49.8 percent) in 2007. It was accompanied with an increase of its growth rate from 6 percent to almost 8 percent. Interestingly, the share of the manufacturing sector decreased from 37.4 percent to 33.5 percent in the same period, when growth more than doubled from 2.4 percent in 2000-2001 to 5 percent in 2006-2007. It is very clear that the services sector was the most important sector for the economy of the province during the recovery period.

Banten is a new province that had previously been part of the West Java Province. The establishment of this new province would influence the economic performance of West Java, because some areas close to Jakarta are now part of this new province. As this is a new province, it is difficult to analyse development in the period of 2000-2007 in comparison with performance during the crisis era. Therefore, the explanation in this part will include data from West Java.

The performance of the economy in Banten during the period of 2000-2007 is shown in Figure 7.10. The economy grew significantly and consistently only in 2004-2005, and in 2005-2006 growth decreased slightly. Interestingly, no single sub-sector experienced consistent economic growth. The growth of all sub-sectors fluctuated. Of the sub-sectors, transportation and communication experienced a high growth rate throughout the entire period, while agriculture showed the least growth.

Unlike in East Java, the high growth rate in the services sector did not have a parallel of its share of the GRDP. The share of the services sector in Banten increased in 2000-2007, but it was still lower than the manufacturing sector, which experienced a decreased share during the same period (Figure 7.10). The services sector increased from 31.24 percent in 2000 to 36.5 in 2007, while manufacturing decreased from 59

percent to 55.5 percent with a stable growth rate at 3-4 percent in the same period.

Figure 7.10 Sectoral Share of GRDP in Banten. 2000-2007

Sources: BPS, 2005b; 2008b, 2011

Again, as it was in other provinces, the growth pattern of sectors was inconsistent across the years. Our conclusion is that this is a sign of economic instability during the recovery period that is apparent in all provinces, without exception. This conclusion may apply for the entire island of Java, if Jakarta is included in the analysis. Considering the fact that Java constitutes a major part of the country, it would not be an exaggeration to say that the situation in Indonesia as a whole was not far from this.

With the assumption that economic growth will generate employment, we can expect that the pattern of employment growth rate will also follow the pattern of economic growth. However, data of employment growth (Figure 7.11) does not confirm this assumption. Employment growth fluctuated and varied across the provinces. In the last two years, at least four out of five provinces included in this analysis

showed a high employment growth rate. It was only in Yogyakarta that the employment growth rate declined. The relationship between the employment growth rates and the economic growth is very difficult to understand. As discussed above, although none of the provinces experienced a negative economic growth rate, employment rates declined in several provinces, especially in the years of 2002-2003, 2004-2005, and 2005-2006.

Figure 7.11 Growth of Employment in 2002-2007 (%)

Sources: BPS, 2003; 2004; 2005a; 2006; 2007; and 2008a

As an illustration, Figure 7.12 outlines a comparison between economic growth and employment growth in Java in 2002-2003 by sector. Agriculture is the sector that grew more than 3 percent and its capacity to absorb employment increased at almost the same rate. On the other hand, employment growth in manufacturing, which enjoyed economic growth of more than 3 percent, declined. A similar situation could also be observed in services sector.

Figure 7.13 provides a likewise explanation. This figure tells us that economic growth was able to stimulate employment opportunities so that the labour absorption capacity for each sector also increased significantly (albeit not always proportionally). This is confirmed in agriculture, but not in the manufacturing and services sectors. This is the main factor that

explains why the number (not only the rate) of unemployment strongly fluctuated in the last two years.

Figure 7.12 Comparison between Economic and Employment Growth by Sector in Java, 2002-2003

Sources:

1. BPS, 2005b; 2008b, 2011
2. BPS, 2003; 2004; 2005a; 2006; 2007; and 2008a

When we calculate the average annual employment and economic growth in the period of 2002-2007,³⁹ the general pattern of sectoral growth can be identified. Table 7.10 shows a very clear picture of how economic growth was not able to stimulate employment creation, also called ***Jobless Growth***. With an annual economic growth of more than 5 percent, employment grew only less than 2 percent. Employment in agriculture was declining in three provinces, i.e., West Java, Yogyakarta and Banten. However, interestingly, in East Java, employment growth in agriculture was higher than employment growth in manufacturing. At the same time, economic growth for manufacturing in East Java grew higher

³⁹ This calculation is made in a different period because data for employment is available only for the period of 2002-2007.

than for the same in agriculture. There is clear evidence that the manufacturing sector was incapable of generating sufficient employment.

The best performance of employment growth in manufacturing was in Central Java where it achieved more than 2 percent. This was the only area in which employment in manufacturing grew higher than that in services. In the four other provinces, employment in the services sector grew with the highest rate. Economic growth for the services sector was the highest in all provinces except Yogyakarta, where manufacturing was highest. These figures have also supported the notion that in both employment and economic growth, the services sector, not manufacturing, played a leading role. Any policy to direct future economic development in this country must consider this fact. Moreover, we must bear in mind that most of the services sectors were dominated by the informal sector.

Figure 7.13 Comparison between Economic and Employment Growth by Sector in Java, 2006-2007

Sources:

1. BPS, 2005b; 2008b, 2011
2. BPS, 2003; 2004; 2005a; 2006; 2007; and 2008a

Table 7.5 Sectoral Annual Employment and Economic Growth in the Period 2002-2007

Province	Annual Employment Growth (%)				Annual Economic Growth (%)			
	A	M	S	Total	A	M	S	Total
West Java	-0.93	1.09	4.18	1.92	4.10	4.96	6.39	5.32
Central Java	0.79	2.07	1.79	1.47	2.82	5.82	6.40	5.41
Yogyakarta	-2.05	1.70	4.26	1.53	2.57	5.09	4.88	4.48
East Java	1.87	0.94	2.65	1.97	3.00	4.41	7.62	5.67
Banten	-3.87	-0.94	4.96	1.01	2.25	4.49	8.76	5.72
Total Java	0.56	1.22	3.13	1.74	3.22	4.91	7.02	5.48

Sources:

1. BPS, 2005b; 2008b, 2011
2. BPS, 2003; 2004; 2005a; 2006; 2007; and 2008a

Is it true that economic growth was not able to generate employment? Table 7.11 provides an answer this question. We use this table to calculate growth/employment ratios. The method compares the annual growth of employment with the annual economic growth. The formula is as follows:

$$Ee = \frac{Yae}{Eg} \quad \text{Where}$$

- Ee : Estimated number of additional employment when the economy grows by 1 percent
 YAe : The number of yearly additional employment
 Eg : Annual economic growth

The smallest employment creation was found in Yogyakarta and Banten, with roughly 6,000 employed per 1 percent of economic growth. The largest number was in East Java, followed by Central Java and West Java. This variation was related primarily to a sectoral pattern of growth. When the labour force increases by 2 million annually, the economy must grow by more than 10 percent just to absorb the entrance of new members of the labour force. This only maintains the unemployment rate at a stable position. If the government wants to decrease unemployment,

the economy must grow at a rate of more than 10 percent, depending on the sectoral composition of the regional economy.

During the New Order, using similar calculations, every 1 percent of economic growth was able to create an additional 400,000 employed. With the same addition of 2 million to the labour force annually, it required at least a rate of 5 percent of economic growth. Even though the economic growth reached about 5.5 percent in 2000-2007 as a sign of economic recovery, it is not sufficient to generate employment. We can simply conclude that the conditions in 2000-2007 had not reached the conditions of the New Order period in terms of employment creation.

Regional differences in both economic growth and employment are based on the fact that large and medium scales of the manufacturing industry have been concentrated in two provinces: West Java and East Java. During the period of 1985-2001 for instance, foreign direct investment (FDI) and domestic investment in both provinces represented 40.2 percent of total investment in the country, while in Yogyakarta and Central Java it was only 13.4 percent (Santosa and McMichael, 2004). According to a study by Wahyudi and Jantan (2011) on distribution of the manufacturing industry in three provinces, West Java, Central Java and East Java, medium scale manufacturing industries concentrated in East Java, while large scales are located more in West Java. The effect is visible on both sides of the equation, economy growth and employment creation. The manufacturing industries stimulate economic growth and at the same time create job opportunities. As shown by Santosa and McMichael (2004) the amount of employment was also concentrated in East Java and West Java. East Java mostly relied on *kretek* (clove cigarette) industries and West Java was based on garment industries.

The important remaining question refers to the driving forces of economic performance at the district level. How does economic growth and structure correlate with employment growth and structure? These questions are important for understanding the results of the previous chapter that outlined how economic performance at the district level is an important contextual factor for households to survive.

Table 7.6 Estimation of Employment Creation

Province	Average Annual Economic Growth, 2000-2007 (%)	Average Annual Employment Growth, 2002-2007 (persons)	Total Additional Employment 2002-2007 (persons)	Additional Employment per 1 % Economic Growth
West Java	6.10	287,216	1,436,083	47,084
Central Java	4.63	229,840	1,149,202	49,641
Yogyakarta	4.46	26,011	130,055	5,832
East Java	5.14	347,981	1,739,909	67,700
Banten	5.30	3,3293	166,469	6,281

Sources: Calculated form Table 1.1-1.5

1. BPS, 2005b; 2008b, 2011

2. BPS, 2003; 2004; 2005a; 2006; 2007; and 2008a

VII.5 District Performance

The analysis in this part will focus on economic growth at the district level and how growth explains the employment variables. Unlike the previous section, Banten will be analysed as part of West Java because this province has only six districts/cities (the districts of Pandeglang, Lebak, Tangerang, Serang city of Cilegon, and the city of Tangerang). However, data on economic growth is only available for the period 2000-2005, while employment data is only available for 2001-2004. Hence, the results of the analysis will not represent the entire period of 2000-2007.

Economic growth in West Java varied across districts ranging from the highest of 7.24 percent in the city of Cilegon and the lowest of 6.96 percent in Indramayu. Among the districts in the province of West Java, only Indramayu had a minus growth rate in the year 2000-2005. One important reason for this is that contraction in manufacturing reached two digits in this period (-10.53 %). In addition to this, when we look at the data in detail, we will see that the contraction for manufacturing occurred for years during this period, meaning that manufacturing had not been

able to develop well. A more intensive study should be done to understand why this area became the exception in terms of economic development in West Java.

Overall performance was relatively high because out of 31 districts and cities in this province, 13 districts (more than one third) grew by more than 5 percent annually, and 8 districts grew by 4-5 percent annually. Economic growth was driven mostly by the growth of manufacturing and services. However, there were some districts that showed the importance of agriculture, such as Sukabumi, Subang, Purwakarta, the city of Bogor, and Tangerang. In these districts/cities, agriculture was able to grow by more than 5 percent, and in two districts, Sukabumi and Subang, the growth was more than 5 percent. In Indonesia, the first three of these districts are well known as *lumbung padi* (rice stockhouses). These districts produce the best quality of rice and have become a safety belt for the national rice stock. Bogor was the only city in this province in which agriculture still played an important role in stimulating economic growth. It may be the site of developing urban farming activities; however this needs further clarification through careful study.

With regards to the correlation between economic development and employment growth, a correlation test has been conducted, concluding that the correlation between the two is not significant ($\alpha = 0.153$). This means that economic growth does not have any direct association with, or influence on, employment creation. A similar result is also found in the correlation tests for provinces of Central Java and Yogyakarta. The correlation between economic growth and employment growth is not significant ($\alpha = 0.152$). This reconfirms the previous conclusion that economic development occurred in West Java, Central Java and Yogyakarta without employment creation.

Table 7.7 Annual Economic Growth in West Java by District in 2000-2005

District	2000-2005 (%)			
	A	M	S	Total
Bogor	-0.80	5.17	7.14	5.24
Sukabumi	5.79	7.95	6.01	6.44
Cianjur	3.64	3.03	3.97	3.74
Bandung	3.80	5.25	5.27	5.11
Garut	3.11	4.26	4.31	3.69
Tasikmalaya	2.46	3.70	3.93	3.32
Ciamis	2.82	3.41	5.19	4.03
Kuningan	1.49	3.63	6.94	4.16
Cirebon	3.81	4.60	5.16	4.56
Majalengka	1.91	5.49	4.16	3.78
Sumedang	2.54	4.59	4.67	4.02
Indramayu	2.29	-10.53	6.54	-6.96
Subang	5.11	-2.60	7.64	3.23
Purwakarta	4.63	2.00	5.26	3.55
Karawang	1.36	7.74	5.45	6.07
Bekasi	2.73	5.49	5.85	5.48
City of Bogor	4.45	5.99	5.94	5.95
City of Sukabumi	1.81	7.03	5.53	5.50
City of Bandung	-1.69	7.78	7.24	7.40
City of Cirebon	3.96	3.68	4.96	4.37
City of Bekasi	2.32	5.11	5.56	5.29
City of Depok	3.55	7.25	5.57	6.32
City of Cimahi	3.43	4.04	6.65	4.72
City of Tasikmalaya	1.37	5.35	4.31	4.29
City of Banjar	0.65	2.63	5.79	3.96
Pandeglang	3.89	4.53	5.95	4.92
Lebak	3.30	4.91	4.12	3.91
Tangerang	4.32	5.09	7.39	5.60
Serang	3.39	3.29	5.89	3.92
City of Tangerang	2.38	4.50	7.74	5.78
City of Cilegon	1.86	7.19	8.16	7.24

Source: calculated from Badan Pusat Statistik (BPS) various years

Data on Central Java and Yogyakarta reveals some important issues (see Table 7.13). First, unlike in West Java and Banten, the gaps between

the highest and the lowest growth rates were not so wide. We can observe that the lowest economic growth rate occurred in the district of Wonosobo (2.19 percent) and the highest in the city of Tegal (5.81 percent). The gap is only about 3.6 percent compared to West Java and Banten, which reached double digits. Second, in general, manufacturing developed better with no contractions during this period. In many districts, manufacturing grew by more than 5 percent in districts such as Purbalingga, Purworejo, Magelang, Klaten, Wonogiri, Karanganyar, Sragen, Pati, Kudus, Demak, Tegal, Brebes, and Sleman. Boyolali is the only district with a growth rate of less than 2 percent. Third, on an average, the growth of manufacturing was higher (4.70 percent annually) than that of services (4.68 percent annually) and agriculture (1.78 percent annually). The growth of manufacturing in this region became an important factor in supporting economic growth of the region. However, as mentioned in the previous section, the growth of manufacturing failed to stimulate employment opportunities.

Agriculture performed well in some districts with growth rates of more than 4 percent, such as in Boyolali (4.61 percent annually), Karanganyar (5.01 percent annually), Jepara (4.04 percent annually), and Brebes (4.94 percent annually). Boyolali and Jepara were the districts where agriculture grew higher than the average economic growth. This reflects the importance of agriculture in influencing economic performance in the region. The performance of manufacturing in East Java varied and the gap between growth rates among the districts was quite high. As we can see from Table 7.13, two districts experienced negative growth rates, i.e., Sumenep (5.02 percent annually) and Probolinggo (3.80 percent annually). At the same time, some districts enjoyed high growth rates, such as Ponorogo, Blitar, Kediri, Malang, Banyuwangi, Pasuruan, Mojokerto, Jombang, Bojonegoro, Bangkalan, and Blitar. Manufacturing in these districts grew by more than 6 percent annually, and even in four of them, i.e., Kediri, Banyuwangi, Bojonegoro, and Bangkalan, it grew by more than 7 percent. In general, manufacturing developed strongly in this province.

Table 7.8 Annual Economic Growth in Central Java and Yogyakarta by District in 2000-2005

District	200-2005			
	A	M	S	Total
Cilacap	2.74	4.06	7.26	5.63
Banyumas	3.42	3.73	4.20	3.89
Purbalingga	2.80	5.23	3.73	3.66
Banjarnegara	0.02	3.36	4.47	2.42
Kebumen	1.94	2.89	2.96	2.53
Purworejo	2.31	5.82	5.22	4.22
Wonosobo	1.46	2.42	3.17	2.19
Magelang	0.89	5.38	5.29	3.83
Boyolali	4.61	1.88	5.18	4.25
Klaten	1.47	6.15	5.13	4.54
Sukaharjo	2.91	3.73	4.30	3.80
Wonogiri	1.77	7.05	4.35	3.21
Karanganyar	5.01	6.79	3.10	5.52
Sragen	2.02	5.51	5.07	4.02
Grobogan	3.98	4.42	4.24	4.25
Blora	2.96	4.19	3.15	3.19
Rembang	3.92	2.60	3.89	3.77
Pati	1.09	5.86	4.09	3.48
Kudus	0.60	6.62	5.41	5.99
Jepara	4.08	4.07	3.76	3.94
Demak	1.89	5.00	3.98	3.23
Semarang	0.52	4.85	3.63	3.78
Temanggung	2.95	4.25	3.96	3.70
Kendal	2.02	2.98	3.90	3.02
Batang	-0.31	3.52	3.39	2.36
Pekalongan	2.64	2.82	4.19	3.36
Pemalang	1.31	3.42	5.38	3.60
Tegal	-0.45	7.74	5.68	4.93
Brebes	4.94	6.31	4.99	5.14
City of Magelang	-0.25	4.30	4.02	3.93
City of Surakarta	-6.10	4.74	5.62	5.23
City of Salatiga	2.96	3.67	4.59	4.21
City of Semarang	3.01	4.41	4.49	4.43
City of Pekalongan	0.51	4.90	4.04	3.82
City of Tegal	1.38	6.30	6.66	5.81
Kulonprogo	2.75	3.94	5.26	4.25
Bantul	2.86	4.30	5.81	4.59
Gunung Kidul	2.09	3.57	5.18	3.55
Sleman	3.40	6.12	4.94	4.98
City of Yogyakarta	-8.79	4.42	4.80	4.62

Source: calculated from Badan Pusat Statistik (BPS) various years

Table 7.9 Annual Economic Growth in East Java by District in 2000-2005

District	2000-2005			
	A	M	S	Total
Pacitan	0.78	5.52	3.22	2.62
Ponorogo	0.65	6.69	4.58	3.85
Trenggalek	4.04	4.80	3.59	3.92
Tulungagung	1.87	5.78	6.24	5.27
Blitar	2.12	6.60	5.12	3.72
Kediri	1.51	8.43	4.97	4.46
Malang	2.73	6.29	4.41	4.30
Lumajang	4.28	4.52	7.40	5.62
Jember	2.20	4.77	6.49	4.29
Banyuwangi	3.15	7.22	6.11	4.84
Bondowoso	2.21	5.10	4.24	3.33
Situbondo	3.12	4.00	4.35	3.90
Probolinggo	1.77	3.05	7.20	4.06
Pasuruan	1.29	6.92	6.34	5.15
Sidoarjo	2.41	2.43	9.42	4.75
Mojokerto	2.90	6.03	5.46	5.10
Jombang	0.29	6.48	6.63	4.34
Nganjuk	1.24	3.77	5.42	3.75
Madiun	0.03	4.21	3.86	2.54
Magetan	1.09	3.57	4.98	3.36
Ngawi	0.12	2.89	4.95	2.86
Bojonegoro	0.95	7.59	5.31	3.96
Tuban	0.43	5.69	7.52	4.76
Lamongan	2.19	5.30	7.04	4.60
Gresik	3.79	5.07	7.42	5.61
Bangkalan	0.84	7.82	5.37	3.87
Sampang	3.41	2.92	4.80	3.80
Pamekasan	2.65	4.39	4.26	3.35
Sumenep	4.56	-5.02	3.07	2.74
Kediri	3.13	0.92	6.60	2.30
Blitar	2.21	6.79	4.72	4.87
Malang	-0.21	3.51	4.70	4.22
Probolinggo	8.15	-3.80	6.96	4.63
Pasuruan	3.68	3.09	5.65	4.90
Mojokerto	-0.25	4.71	8.00	7.11
Madiun	0.58	3.77	6.58	5.38
Surabaya	4.07	3.18	8.97	6.54
Batu	2.54	2.39	6.99	5.58

Source: calculated from Badan Pusat Statistik (BPS) various years

However, we must bear in mind that it was not the growth of manufacturing that contributed most to overall economic growth in this region, but rather, the services sector. On average, manufacturing grew by 4.5 percent annually, while services grew by 6 percent annually. Table 7.14 shows that the services sector in almost half of the districts and cities grew at more than 6 percent. Some of them, i.e., Sidoarjo, Mojokerto and Surabaya, even grew by more than 8 percent.

Agriculture developed quite well, as only two districts had a negative growth rate, i.e., Malang and Mojokerto. At the same time, the growth of agriculture reached more than 4 percent in Trenggalek, Lumajang, Sumenep, and Probolinggo. One important aspect is that in Probolinggo, agriculture grew by more than 8 percent annually and this was higher than in manufacturing and services. In this district, we know that manufacturing experienced a contraction by almost 4 percent. Thus, agriculture was the most important factor for economic growth in Probolinggo.

Statistical tests of the relationship between economic growth and employment growth reveal similar results as in other provinces. There is no significant correlation between the two ($r = 0.167$). It is, thus, also to be expected that the correlation between the two for all provinces combined will be also insignificant. Indeed the statistical test proves this ($r = 0.089$). This means that during the recovery period the situation did not change in comparison to the situation prior to and during the economic crisis. Economic growth had not been able to create sufficient employment opportunity. This may continue in the following years.

VII.6 Decentralisation and Economic Growth

The following discussion will focus on answering the question concerning the effect of regional autonomy on economic performance of the district. The association between decentralisation and economic growth has its foundation in the neoclassical model of economic growth explaining the direct and indirect effect of decentralisation on economic growth through public sector efficiency and macroeconomic stability. We

can observe this from disaggregation model that shows exogenous Conditional Convergence Hypothesis from Barro and Sala-i-Martin (1991)

Iimi (2005) has identified two contradictory findings with regard to the relationship between growth and fiscal decentralisation (see also: Tirtosuharto, 2009). A study in China during the period of 1986-1992 reveals that higher degree of fiscal decentralisation was associated with the lower regional economic growth. Another study in USA from 1948 to 1986 shows the effect of decentralisation on regional growth is hardly significant (see: Iimi, 2005 and Tirtosuharto, 2009). However several studies have shown a positive correlation between decentralisation and growth. Study by Jin (1009) find out that fiscal decentralisation would have beneficial effect on economic equalization and growth, but not in India. The study by Iimi (2005) supported the finding that there is a significant positive relationship between fiscal decentralisation and per capita growth rate. Using province as unit of analysis, Tirtosuharto (2009) finds out that in Indonesia there is no indication that the incentive structures from decentralisation are associated with higher growth, despite the fact that fiscal decentralisation is the determinant of state efficiency. Using different predictors, the study by Ismail and Hamzah (2006) shows different results. They provide evidences that at provincial level, expenditures positively and significantly influence economic growth, while revenue indicators influence economic growth negatively. They also find that investment is negatively associated to economic growth. Pepinsky and Wiharja (2011) based on their study at district level have also concluded that decentralisation has had effects on Indonesian development between its onset in 2001 and 2007. We can conclude that in general there is no common finding regarding the relationship between decentralisation and district-level economic growth.

This section is to test the relationship between decentralisation and economic growth. As indicator of decentralisation we will employ fiscal transfer as a proxy variable. There are two policy variables included, that are: General Purpose Grant (GPG) and Specific Purpose Grant (SPG).⁴⁰

⁴⁰ General Purpose Grant (GPG) in Bahasa Indonesia is Dana Alokasi Umum (DAU) and

The GPG intends to address both problems of vertical and horizontal fiscal imbalance. The purpose is to balance fiscal capacities across regions to finance public services (see: Fadzil and Nyoto, 2011). Based on the law 25/1999, the fiscal variables of the GPG comprise the factors of population, area, geographical condition, and income level which also consider poverty. It is easy to understand that the volume of GPG varies across districts. In the law 33/2004, the poverty variable is not included, but instead HDI (Human Development Index) has been used. Since we use data from 2003-2005, the calculation of GPG still rely on the old formula.

The second policy variable is the Specific Purpose Grant (SPG). The SPG is a special grant to ‘promote the attainment of minimum standards and compensate for benefit/cost spill-over related to priority capital investment’ (Sidik, 2003). SPG is sectoral-based aiming at financing capital investments. As it is of GPG, the SPG covers a three year period: 2003-2005. The basic assumption is that GPG and SPG act as stimulus for local government to enhance sub-regional economic development.

Considering the importance of human capital, we include HDI (Human Development Index) as a control variable. The benchmark variable is the HDI of 2002. If local government is capable to invest both in economic and human capital, we can expect they influence positively on economic performance or economic growth (EGR05). Therefore, the regression equation to test the influence of SPG, GPG and HDI on regional economic growth is as follows:

$$EGR05 = \beta_0 + \beta_1 GPG35 + \beta_2 HDI02 + \beta_3 SPG35 + \epsilon$$

where:

EGR05 is annual economic growth during 200-2005

GPG35 is average GPG received by the district/city in 2003-2005

HDI02 is HDI in 2002

SPG35 is average SPG received by the district/city in 2003-2005

Table 7.10 Growth regressions (OLS Regression Analysis)**All Districts and Cities**

Parameter	Estimate (b-coefficient)	Estimate (Standardized)	Standard Error
Model 1			
Intercept	3.922		0.317**
General Purpose Grant (2003-05)	0.001	0.120	0.001
Adjusted R Square = 0.004			
Model 2			
Intercept	-1.923		1.583
General Purpose Grant (2003-05)	0.002	0.192	0.001*
Human Development Index	0.085	0.366	0.023**
Adjusted R Square = 0.125			
Model 3			
Intercept	-0.378		1.543
General Purpose Grant (2003-05)	0.001	0.073	0.001
Human Development Index	0.077	0.332	0.021**
Specific Purpose Grant (2003-05)	-0.114	-0.352	0.031**
Adjusted R Square = 0.229			

Districts only

Parameter	Estimate (b-coefficient)	Estimate (Standardized)	Standard Error
Model 1			
Intercept	3.064		0.363**
General Purpose Grant (2003-05)	0.003	0.318	0.001*
Adjusted R Square = 0.089			
Model 2			
Intercept	1.125		1.674
General Purpose Grant (2003-05)	0.003	0.309	0.001*
Human Development Index	0.030	0.130	0.026
Adjusted R Square = 0.094			
Model 3			
Intercept	1.251		1.631
General Purpose Grant (2003-05)	0.002	0.180	0.001
Human Development Index	0.042	0.180	0.026
Specific Purpose Grant (2003-05)	-0.076	-0.274	0.034*
Adjusted R Square = 0.141			

Cities Only

Parameter	Estimate (b-coefficient)	Estimate (Standardized)	Standard Error
Model 1			
Intercept	3.791		0.554**
General Purpose Grant (2003-05)	0.007	0.502	0.003*
Adjusted R Square = 0.120			
Model 2			
Intercept	6.786		8.896
General Purpose Grant (2003-05)	0.007	0.539	0.001*
Human Development Index	0.043	-0.080	0.026
Adjusted R Square = 0.169			
Model 3			
Intercept	6.164		9.321
General Purpose Grant (2003-05)	0.006	0.453	0.005
Human Development Index	-0.028	-0.052	0.139
Specific Purpose Grant (2003-05)	-0.051	-0.106	0.150
Adjusted R Square = 0.141			

Dependent variable is district annual economic growth (%) in the period of 2000-2005

We test the equation in three steps. The first step includes all district/cities in Java island (97 districts/cities).⁴¹ The second step is to specify the equation for the districts (n=77) and for the cities (n=20) separately, We expect there will be a difference in effect between district and city concerning their difference in industrialisation or urbanization.

The analysis finds three different and interesting results (Table 7.17). First, when both districts and cities tested together, General Purpose Grant (GPG) and Human Development Index (HDI) are good predictors for local economic growth, but GPG turn to be insignificant when Special Purpose Grant (SPG) is included. Thus, SPG and HDI are good predictors for local economic growth. Second, when only districts are analysed, General Purpose Grant (GPG) is the best predictor for local economic growth, even when HDI is added. But, GPG turns to be insignificant when SPG is included and SPG is the only significant variable to predict local economic growth. This means that variance explained for economic growth for SPG is higher than others. Third, it is

⁴¹ This number is less than actual number of districts and cities in Java due to the data availability

very clear that only GPG function as good predictor for local economic growth when only cities are included.

These findings have two important implications. First, local economic growth is clearly associated with fiscal decentralization as an effect of regional autonomy. The local economic growth is also associated with HDI. But one has to bear in mind that the association is different between district and cities. This brings us to different policy implication for districts and cities concerning the impact of grant allocations. Second, in all cases, GPG is positively associated with local economic growth but in the same time SPG is negatively associated with local economic growth. This points to a trade-off between both instruments. However, at city level can conclude that there is no clear association between regional autonomy and local economic growth. This finding seems to confirm other findings on both at provincial and district level (see: Pepinsky and Wiharja, 2010).

The statement by Fadzil and Nyoto (2011: 510) might be the explanation why the grants have not fully worked as expected:

The imbalance of fiscal capacity of the regions is determined by the difference in views between the national and regional governments. In the perspective of the national government, as has been mentioned in the statute, the allocation of subsidies and grants are used to enhance the ability of regions to finance the needed public services, and to organize and keep pace regional development. In terms of the local government view, before the implementation of regional autonomy, the central government has received such benefit from the exploiting local resources, so in this era of autonomy, the central government has to pay back what has been delayed.

This statement is also supported by their finding that there is still inequality of local fiscal capacity across the country. This situation has pushed the local governments to impose tax efforts which might impede the local economic growth.

Finally, the question is what other factor(s) might explain the differences in local economic growth. Arrow and Kurz (cited by Devarajan, et.al. 1996) developed a model based on the neoclassical tradition where public spending only affected the economy's transitional

growth rate, but the steady state growth rate remained unaltered. The mode is used to explain the importance of private consumption as well as the public capital stock on consumer utility derivation. They assumed that all government investment was productive. The other model linking public spending with economic growth is coming from Barro's work (1990). He argued that government expenditure to be complementary with private production and - like Arrow and Kurz - he assumed all government spending is productive. However, several studies (i.e. Landau, 1993 and Barro, 1991) concluded that output growth could be negatively correlated with the share of government consumption in GDP. Devarajan, et.al (1996) pointed out that in developing countries productive expenditures had either negative or insignificant relationship with economic growth. Only when expenditure was measured in broad category namely current expenditures, it was associated with higher economic growth.

The most interesting finding is from Aschauer's (1989) study, suggesting that government capital plays an important role in economic growth. Finn (1993:1) argued, however, that the finding is surprising since "the output elasticity of government capital is relatively high and because government capital contains many different types of stocks". Based on the explanation above we decide to use capital investment to predict the local economic growth. The assumption is that capital investment is productive which act as stimulus for economic growth.

Table 7.11 Growth regressions (OLS Regression Analysis)

Parameter	Estimate (b-coefficient)	Estimate (Standardized)	Standard Error
Intercept	3.782		0.254**
Average annual investment 2003-2005	3.744	0.317	0.000*
Adjusted R Square = 0.085			

Dependent variable is district annual economic growth (%) in the period of 2000-2005

Regression analysis using capital investment⁴² of the districts as a predictor to show that there is indeed significant association between the amount of investment and districts/cities economic growth. Unfortunately, the pattern of investment did not change very much before and after regional autonomy. This strengthens the previous conclusion that regional autonomy has not had any influence on regional economic growth, but the level of investment clearly has.

⁴² Investment is calculated based on districts expenditures. Capital expenditures has been treated as the amount of investment. For this analysis the amount is calculated as average amount of investment in the period of 2003-2005. The reason of using only the year Of 2003-2005 is because of data availability. In addition, analysis does not disaggregate districts and cities and again it is because of a very limited data available for the cities.

Chapter VIII

Conclusions and Outlook

VIII.1 Addressing the research questions

VIII.1.1 Were there any different causes and impacts of the 1930s, 1960s and 1990s crises?

The history of modern Indonesian economy has shown that Indonesia perceives economic development as a growth process that requires specific steps. As a result, Indonesia's development strategy has shifted factors of production from the primary sector to the industrial sector. The former sector is characterised by low-productivity, traditional technology and decreasing returns. Meanwhile, the latter is characterised primarily by high-productivity, modern technology, increasing returns, and structural transformation that alters both the economic and employment structures. However, data has revealed that the development process in Indonesia has succeeded in achieving economic growth, but failed to create sufficient employment growth, especially in industry. This may reflect a process of weak structural economic transformation.

This country has gone through a series of crises. It has experienced three different crises in different periods of time, namely in the 1930s, in the 1960s and in the 1990s. The crises in the 30s and 90s had similar causes and external factors, but yielded different effects. The crisis in the 30s hit the agricultural sector the most, while in the 90s the modern, or urban, sector bore the brunt of the economic crisis. There are similarities between the 60s and 90s crises. Both crises were followed by social and political unrest that ended the reign of the old regime and ushered in new political administrations. There has been a debate on the sequence of the political and economic crisis in the 60s. There is no agreement in terms of whether the political crisis preceded the economic one or vice versa. What distinguishes the 60s crisis from those of the 30s and 90s is that the 60s crisis was caused by internal factors.

Comparing the three crises, in 1930s, 1960s, and 1990s, there are similarities and differences in the causes of the crisis. The crisis in the 1930s and 1990s was caused by external and internal factors together, albeit in different contexts. The 1930s crisis was due to economic contraction in North America and Western Europe, which was transmitted through the contraction in demand of major primary commodity exports and the tightening of credit. This crisis caused deflation and money scarcity with the availability of food. The 1990s crisis was started by the collapse of Thai economy that exposed the region's vulnerability, changing perceptions of international investors and loss of confidence in Asian tigers. The distinct difference with the 1930s crisis is that the 1990s crisis caused a high inflation with skyrocketing prices. In the meantime there is no strong evidence for linking the causes of the crisis in the 1960s to external factors. The crisis in 1960s is mainly due to internal factors, both economic and socio-political. A very weak national economy due to the absence of foreign capital and problems with the exchange rate, combined with socio-political unrest, triggered the crisis.

The following table shows the summary of the causes and effects of the 1930s, 1960s and 1990s economic crisis.

However, the crises both in 1930s and 1990s also had internal causes though of a different in nature. In the 1930s, the main factors were serious oversupply of major primary commodity exports, such as rubber and sugar, increasing land scarcity, and declining labour wages. In the 1990s, internal factors are mostly due to the weakness of macro economy foundations in which private sector was trapped in short-term debt. We cannot deny that speculative attacks against the Rupiah, increase in SBI rates, and too tight monetary policy were also among the factors that contributed to the worsening national economy

Table 8.1 The causes and effects of the 1930s, 1960s, and 1990s crises

	<i>1930s</i>	<i>1960s</i>	<i>1990s</i>
Causes	<p>External factor:</p> <ol style="list-style-type: none"> 1. Sharp contraction in economic activity in North America and Western Europe <p>Internal factors:</p> <ol style="list-style-type: none"> 1. A serious oversupply of major primary commodity exports, such as rubber and sugar 2. In the agricultural area, land was becoming a scarce factor of production as the open land frontier was closing, and tenant profits and labour wages fell 	<p>Internal factors:</p> <ol style="list-style-type: none"> 1. Unstable political situation 2. Economy: a. economic problems due to the independence war as well as Japanese occupation, b. the absence of foreign capital and problems with the exchange rate, and c. exchange rate 	<p>External factors:</p> <ol style="list-style-type: none"> 1. The collapse of Thai economy exposed the region's vulnerability 2. Changing perceptions of international investors, 3. Loss of confidence in Asian tigers <p>Internal factors:</p> <ol style="list-style-type: none"> 1. Weak macroeconomic foundation, especially due to the increasing external debt causing an increase in debt payment 2. The private sector went on an investment spending spree, 3. Tight money policy
Effects	<ol style="list-style-type: none"> 1. Export was decreasing 2. Decreasing income per capita 3. Increasing poverty incidence 4. The impact is more to rural (agriculture) than urban sector 5. High deflation rate, scarcity of money 	<ol style="list-style-type: none"> 1. Decreasing economic growth and high inflation rate 2. Income per capita was the lowest in the world 3. Increasing poverty incidence 4. Political crisis 	<ol style="list-style-type: none"> 1. Decreasing economic growth 2. Dramatic decrease in exchange rate of rupiah to US dollar 3. High inflation rate 4. Decreasing government budget on public services causing difficulties for people to access the services 5. Prices were skyrocketing 6. Declining real wages and labour productivity 7. Increase of poverty incidence 8. Lead to multi dimensional (economy, politics, and social) crisis 9. Politics: changing government

The impact of the crisis is similar in some ways between the 1930s, 1960s and 1990s. These three crises had decreased per capita income causing an increase of poverty. However, the 1930s crisis was mostly hitting the rural (agriculture), while in 1960s both rural and urban were

affected at almost the same rate, and the 1990s crisis mostly hit the urban economy whereas in some regions the agriculture sector benefited from the crisis. Interestingly, the 1990s crisis had little impact on employment. The impact on the macro economy was almost the same: high inflation rate and contraction of economic growth, which turned to economic turmoil. The last two crises, in the 1960s and 1990s, ended by changing government: in the 1960s, *Orde Lama* (New Order) was replaced by *Orde Baru* (New Order) and in 1990s, the *Orde Baru* (New Order) was replaced by *Orde Reformasi* (Reformation Orde).

VIII.1.2 Was there any difference in economic performance at the provincial and district level before and during the 1990s economic crisis?

Before the crisis, Indonesia was marked by two contrasting phenomenon. First, Indonesia experienced impressive economic growth, especially during the New Order. This achievement was accompanied by the increase of the manufacturing sector shown by the very high contribution of this sector to GDP. The second important phenomenon in Indonesian economic development was the high contribution of the manufacturing sector to GDP that was not accompanied by sufficient labour absorption. Therefore, along with higher education levels, labour shifted away from agricultural labour surplus sector to services, not to manufacturing. The effect was that agriculture and services functioned to absorb most of the labour surplus. This is the sign of failed structural transformation as well as weak industrialisation. Third, the regional disparity and inequality in development appeared to exacerbate the situation, thus performing the biggest challenges to Indonesian development. The regions having more advanced industrialisation, such as Java, enjoyed high economic growth, while outer islands were still lagging behind.

The island of Java, a small and densely populated region, has become the centre of economic activities, contributing to almost 50 percent of the country's GDP. On the other hand, Papua (Irian Jaya), a large island occupied by only 1 percent of the national population, produces less than 1 percent of the GDP. The growth of manufacturing in Java has also been

faster than that in the outer islands. This is not a new phenomenon since it has an historical economic precedent, especially under colonial rule in the 19th century.

The disparity is not limited to Java versus non-Java, nor is it specific to inter-provincial differences. It is most noticeable within the island of Java. Our discussion on provincial disparity places Jakarta on the centre stage. As the capital of Indonesia, this province has played a substantial role in driving the country's economy. The centralisation of the national economy in Jakarta has widened the gap between Jakarta and the other provinces. For example, per capita GRDP of Jakarta is three times that of the Yogyakarta province, even though both provinces are on the island of Java.

In relation to economic performance differences, this research reveals in all provinces the discrepancy between economic growth and the creation of job opportunities. This caused two problems. First, there was a growing gap between the industrial and agricultural sectors. This presented a serious problem, as this gap will persist in the absence of government support for encouraging competitiveness in the agricultural sector. Secondly, most of the labour force was absorbed in the services sector, which is dominated by the informal sector. This contributed to the high rate of underemployment. Thirdly, unemployment was, and still is, on the rise, and will potentially be a major societal problem in the near future. Combined together, these problems will become obstacles in any poverty alleviation program.

Compared to Indonesia in general, Java was hit harder by the crisis. It can be seen from the different economic growth patterns during the peak of the crisis when Indonesia experienced a decline of economic growth by about -14 % and Java it was more than -15 %. At the provincial level, East Java suffered more than the other provinces. Interestingly the contraction in East Java was higher compared to West Java, while West Java was more industrialised than East Java. These findings at the provincial level do not confirm the hypothesis that the higher the degree of industrialisation, the worse the province was hit by the crisis.

The effect of the economic crisis in the 90s was very eminent. First, the crisis shifted resources back from the modern to the traditional sector, from the non-trade to the trade sector, and from the import-dependent to the export-oriented sector. Many firms suffered in the form of declining profit levels and real income, and in many cases, firms and companies were forced to declare bankruptcy. On the other hand, export manufacturing and agriculture benefited relatively from the crisis. Interestingly, at the provincial level, we hardly find significant changes in the patterns of both economic and employment structures, which remained fairly stable throughout the crisis.

Secondly, patterns of household income and expenditures changed. Those who lost jobs in industry moved to lower-income jobs or to the agricultural or service sectors. This transition affected people's purchasing power and forced them to find strategies to survive.

Thirdly, the economic crisis decreased government expenditures on public services, such as education and health. As a consequence, people had less access to a variety of services. The data reveal a ten percent increase of poverty during the period of 1996-1998, expanding the number of poor people from 31 million to nearly 54 million people. The price hike of essential commodities that define people's basic needs is the main factor behind the increase of poor people. During this period, inflation stood at almost 150 percent. In the meantime, real wages decreased from Rp. 70,700 per week to Rp. 68,000 per week. These factors conspired to cause the decrease in purchasing power.

The impact of the Indonesian crisis on unemployment was modest. The unemployment rate increased only slightly to 5.5 percent in 1998 from 4.7 percent in 1997, when economic growth was at its lowest level in modern Indonesia history. One important explanation lies in labour market adjustment. During the crisis, all sectors experienced a double-digit contraction, for example, -39.8 percent in construction and -26.7 percent in the financial sector. It is important to note that employment in agriculture was still growing (0.2 percent). This explains that the "traditional" sectors are more resilient than modern ones. The informal sector demonstrated similar elasticity. It had the capacity to absorb

people who left industry for services, which are part of the informal sector. Based on this tendency, the argument that the agricultural and informal sectors are safety valves during an economic crisis is not without merit. Indeed, these two economic sectors played important roles as buffers that alleviated the impact of economic shock by absorbing labour who otherwise would have been unemployed.

It is important to bear in mind that economic performance has not always corresponded with social indicators. Yogyakarta provides a good example. The social indicators for this small province show high achievement in both education and health. However, its economic development has lagged behind other provinces in Java. In contrast, West Java, which has benefited from development in manufacturing as a spill over effect from Jakarta, has poor social indicators. Its performance in education, for example, has been among the lowest in the country.

Economic performance in Java before the crisis appeared to follow the Indonesian pattern. First, all provinces in Java enjoyed high economic growth, with manufacture grew at the highest rate. Secondly, in terms of economic structure, there was a shift from agriculture to manufacturing and services. This tendency, however, was not followed by a changing pattern in employment structure. Manufacturing failed to provide sufficient jobs, so it was not able to absorb the labour surplus from agriculture. Consequently, employment grew at a negative rate. This confirms the previous conclusion that development in Java reflected industrialisation without employment creation or failed industrialisation.

The conclusion that we can draw from this analysis is that it is not manufacturing that plays an important role in labour absorption, but rather the service sector. This is true in all the provinces. Even in West Java where manufacturing grew at the highest level, the share of the service sector was the highest. Again, since the service sector was dominated by the informal sector, we can say that the informal sector played a crucial role as a safety valve for the economy: it provided jobs and its contribution to the economy was quite high.

The development pattern across the district before the crisis also revealed an interesting pattern. Large cities in Java played two

contrasting roles simultaneously, i.e., generative and parasitic. Areas surrounding the big cities showed mixed economic performance. Some of them experienced high economic growth, possibly caused by a spill over effect from the big cities, such as Jakarta, Bandung, Semarang, and Surabaya. However, not all surrounding areas have benefited in this way. In fact, some areas suffered economic deterioration from exploitation of resources that made economic development in the big cities possible.

When the economic crisis hit the country, all areas suffered badly. At the provincial level, there was no correlation between better economic performance before the crisis and positive or negative effects during the crisis. East Java was hit hardest, while West Java, which had better pre-crisis performance, was spared the worst effects of the crisis. However, at the district level, our analysis confirms the hypothesis that the better the economic performance was before the crisis, the worse the results of the crisis was.

These findings also support the general conclusion that the crisis affected the modern (urban) sector more than it did the traditional (rural) sector. The manufacturing sector lost most of its capacity to support economic growth. Manufacturing was also the sector that lost its capacity to absorb the labour force, which showed a negative growth rate in this period. In contrast, the agriculture and services sectors demonstrated higher capacities to increase labour absorption. This means that agriculture and services played important roles as buffers during the economic downturn.

The analysis has also revealed another interesting finding. When the economy grew at a high rate (before the crisis), employment opportunities declined. However, it increased almost two percent during the peak of the crisis. In two provinces, namely Central and East Java, the growth was more than 2 percent. When we compare conditions before and during the 1990s crisis, as well as throughout the economic recovery, a curious trend emerges. Economic growth did not correspond with employment generation. In fact, employment tended to decline. For example, in the era of the New Order, every 1 percent of economic growth generated 400,000 jobs. However, during the recovery period,

one percent economic growth resulted in the generation of only less than 200,000 employment opportunities. This means that with the entrance of approximately 2 million people into the labour force per year, the economy should grow more than 10 percent just to absorb the new labour force. Even then it will not be able to reduce open unemployment.

At the district level, the economic contraction reached two digit-levels in almost all districts. All big cities, the capital city of each province, including Bandung, Semarang, Yogyakarta, and Surabaya, experienced lower economic growth than the average rate of other districts. Interestingly, two districts in Central Java, Cilacap and Jepara, enjoyed positive economic growth during the peak of the crisis. The high economic growth in these two districts was attributed to the resilience of the manufacturing and services sectors, which showed high growth rates during the peak of the crisis. Manufacturing in Cilacap depended primarily on the oil refinement industry, while in Jepara it was comprised primarily by the handicraft industry.

In general, both at the provincial and district levels, the period of 1998-2000 represented the first stage of recovery. Economic growth gained momentum with most districts benefiting from positive economic growth, ranging from 1 to 6 percent annually. However, there was no significant correlation between economic growth during the two years after the peak of the crisis and economic growth before the crisis. This may be because this period was still the first stage of recovery. Hopefully, a correlation will emerge when we examine the second stage of recovery in the following period, 2000-2007. Only three districts continued to suffer negative economic growth, namely Indramayu in West Java, Kulonprogo in Yogyakarta, and Sumenep in East Java. Factors behind the negative economic growth in these three districts included the failure of the manufacturing sector to gain back its role in stimulating economic growth. In these three districts manufacturing also grew at a negative rate.

VIII.1.3 To what extent does the economic performance at the provincial and district level explain the changing household economic performance?

We analysed the relationships between provincial and district economic performance with household welfare in order to identify specific factors that influence the pattern of poverty during and after the crisis. This provides insights in the transmission intensity of macro-economic crises to lower system levels.

There is evidence that per capita expenditures (PCE) were increasing in the period of 1997-2000. The increasing PCE means that at the household level, people were able to cope with the crisis. The findings also show the importance of education in reinforcing the household economy. Households that had better educated members enjoyed better conditions. This confirms the human capital theory, which puts education as part of human capital as an important factor to improve household welfare conditions. Education was more effective if the economic conditions of the district were sound. This complementarity strengthens the argument that economic growth is still important as a stimulating factor for survival.

Next to showing the importance of education, further analysis shows that employment together with the area variable, economic growth of the district, are important in explaining better economic conditions in the period of 1997-2000. This means providing access for education, as well as employment, become important factors for households to improve their economic condition. However, this must be supported by favourable economic conditions as expressed by economic growth. Economic growth, then, is important even though some argue that it might create a wider economic gap amongst people.

These two variables, education and employment, are the most critical issues in Indonesian development. Comparing the HDI among ASEAN countries we come up with the conclusion that education is the main factor contributing to Indonesia's low ranking on the Human Development Index (Hayes and Sukamdi, 2012). At the same time, the unemployment rate is high, 6.32% in February 2012, while the

underemployment rate is much higher, 35.55 % in February 2012 (Badan Pusat Statistik. 2012b). Since Indonesia successfully maintains relatively high economic growth, 6.3 % in 2011-2012 (Badan Pusat Statistik, 2012a), education and employment problems become the biggest challenges in Indonesian development.

VIII.1.4 Are there any changing economic performances at the district level during the recovery period and how might decentralisation explain the change in performance?

Looking at the economic growth at the district level during the period of 2000-2007, we can conclude that Indonesia was entering the stage of recovery. On average, economic growth during the stage of recovery was higher than it was at the end of crisis. This is a good indication of better conditions for households, since the district's economic situation is important in shaping household economic conditions. However, regional disparities that existed prior to the crisis remains.

The province of West Java performed the best among provinces in Java island in terms of annual economic growth during the recovery period. At district level, overall district economic performance was impressive: out of 31 districts, in 23 districts the economy grew by 4-5 percent annually. It is also very clear that the gap between the districts was widening. Moreover, economic growth was driven mostly by the growth of manufacturing and services. Data on Central Java and Yogyakarta reveal two important issues. First, unlike in West Java, the gaps between the highest and the lowest growth rates were not so wide. Second, in general, manufacture developed better and with less contraction during this period. The growth of manufacture in this region became an important factor for supporting economic growth. However, as mentioned in the previous section, the growth of manufacture failed to stimulate sufficient employment opportunities.

Statistical tests of the relationship between economic growth and employment growth revealed similar results as in other provinces. There is no significant correlation between the two variables. It is, thus, also to be expected that the correlation between the two variables for all

provinces combined would be insignificant. Indeed, our statistical tests prove this. Thus, in the recovery period the situation did not change in comparison to the situation prior to and during the economic crisis. Economic growth had not been able to create sufficient employment opportunities. This may continue in the upcoming years.

These findings have two important implications. First, local economic growth is clearly associated with regional autonomy, when regional autonomy is measured by grant allocation and human capital (HDI). But one has to bear in mind that the association is different between district and cities. This brings us to a second policy implication for districts and cities concerning the impact of grant allocations. In all cases, General Purpose Grants (Dana Alokasi Umum/DAU) are positively associated with local economic growth but in the same time Specific Purpose Grants (Dana Alokasi Khusus/DAK) are negatively associated with local economic growth. This points to a trade-off between both instruments.

VIII.2 Theoretical Implications

The results of this study reinforce the critique against the Harrod-Domar growth model: economic growth is not always able to create adequate employment opportunities. This is because economic growth, at least in the case of Indonesia and many other developing countries, is based on capital-intensive industries. At the same time, the industrial sector has no linkages with other sectors such as agriculture and services, so that these two sectors fail to grow and absorb adequate workforce. Instead, what happened was that the surplus in the agricultural sector led to a shift of labour from the agricultural sector to the services sector - which is largely an informal sector - and not to the industrial sector. This symptom is also evidence that industrialisation in Indonesia is not accompanied by structural transformation. This refuted suggestions of Snow's argument that "... industrialisation is the only hope for the poor" (cited in: Firebaugh and Beck, 1994: 631). The failed structural transformation is becoming an obstacle for the country to follow the subsequent stages as proposed by Rostow. Therefore, these theories

cannot be used to explain the process of economic development in Indonesia.

Theoretically, to understand economic development in Indonesia it is necessary to capture the systematic interaction between the primary and secondary as well as tertiary sector. There are symptoms that indicate that the growth of the industrial sector was mostly accompanied by the exploitation of the agricultural and the services by the industrial sector. Therefore, the use of development theory generated from the experience of developed countries today should be adapted to incorporate these interactions as the main analytical focus.

At the micro level, human capital theory is an appropriate approach for analysing household economic performance, by looking at the importance of education as an important factor contributing to welfare. However, it is not sufficient since, based on our findings, it is very clear that the influence of education changes alongside the changing regional economic performance of the district. In other words, the role of education in the household economy is strongly contextual in character. Therefore, contextual analysis using multilevel method proves to be the preferred approach.

VIII.3 Policy Implications

One important conclusion from this study is that economic development in Indonesia during the New Order had been able to produce fairly stable economic growth. But it turns out that success was not accompanied by structural transformation, which led to persistent high levels of unemployment and high underemployment, and a high number of people working in the informal sector. These facts persist and worsen when the economic crisis of the 1990s occurred. This makes the Indonesian economy fare worse, because what happened next was not only an economic but also a multidimensional crisis, occasioning political and social unrest. Therefore, the government of Indonesia, together with the maintenance of relatively high economic growth, should focus on the acceleration of the structural transformation in the

right direction, in particular focussing on the transformation of the employment structure.

To achieve the transformation of the employment structure, there are several things that can be done. The first is to create linkages between large-scale industry, which is generally capital-intensive and a pillar of economic growth, with medium and small-scale industries, which are more labour-intensive. This should be done in order to increase the absorption of the labour force into the industrial sector. Second, the government must be able to provide links between industry and agriculture. There is very clear evidence that the agricultural sector tends to be ignored in the strategies for economic development in Indonesia, which causes that sector to have a surplus of labour and very low value added. Making the linkages between the agricultural sector and the industrial sector will reduce the surplus of manpower and could increase the value added of the agricultural sector. Strengthening the agricultural sector is very important, because the results of this study prove that the agricultural sector was able to survive in times of economic crisis and serve as a safety belt for harbouring manpower vis-à-vis the modern sector.

Another important conclusion is that education is an important factor in developing the household economy. This means that the current policy of the Indonesian government as mandated in the constitution, which provides a strong focus on education (one of them by achieving a 20% proportion of the State Budget for education program) is an appropriate policy. There is a clear effort to increase people's access to educational services. However, concerning regional disparity and inequality, the government has to give more priority to backward regions that show inferiority in almost all aspects of development. It is also in line with the MDG's "education for all". This is the best solution for helping people to emerge from a crisis and also to support poverty alleviation programs.

The economic crisis in 1997-1998 caused many problems, but also offered new opportunities for future development. Our analysis has shed some light on systematic institutional policy issues needed to deal with challenges toward the development of a more equitable Indonesia.

Political transition from centralised rule to a decentralised government, as a political consequence of the economic crisis, brings new hope for the new era of economic development in the country. However, this study proves that decentralisation has not been able to encourage economic growth at the level of districts and cities. The government's policy to provide a budget (General Allocation Fund and the Special Allocation Fund) was not a good enough instrument to promote economic growth at the level of districts and cities. Apparently, this is because most of local budget has been allocated to pay staff salaries (routine expenditures). The result has been that only a small fraction of the available budget is used for development expenditures. Therefore, the government must seek schemes to help the district and city governments to improve economic performance. One way is to implement systems of incentives and disincentives in the budget allocation from the central government. Incentives can be introduced by allocating a larger budget if government districts/cities are better able reduce routine expenditures. Otherwise, the budget allocation may be reduced if the routine budget isn't lowered. A final issue concerning decentralisation in Indonesia is the need for the government to set up long-term policy for encouraging local governments to intensify their own revenue generation.

Appendixes

Appendixes

Appendix 1 Sectoral Share of Employment. West Java. 1993-2000

District	1993			1997			1998			2000		
	A	M	S	A	M	S	A	M	S	A	M	S
Pandeglang	59.14	11.16	29.70	57.10	9.02	33.88	56.82	9.55	33.62	60.96	22.97	16.08
Lebak	69.16	7.52	23.32	57.93	13.50	28.57	56.86	11.34	31.80	69.37	17.77	12.86
Bogor	20.61	30.39	49.00	12.11	28.64	59.25	11.90	28.66	59.44	31.63	39.64	28.73
Sukabumi	53.24	15.15	31.61	46.77	21.07	32.15	43.26	19.11	37.63	52.19	31.11	16.70
Cianjur	59.56	12.22	28.22	55.92	11.13	32.95	62.92	12.21	24.88	63.37	22.15	14.48
Bandung	32.87	29.97	37.15	26.46	36.89	36.65	30.16	33.72	36.12	48.73	33.04	18.23
Garut	59.56	12.10	28.34	48.57	15.75	35.67	48.77	17.42	33.81	46.43	34.80	18.77
Tasikmalaya	45.41	23.02	31.58	39.44	25.54	35.02	41.37	19.83	38.80	46.82	35.16	18.03
Ciamis	45.64	21.83	32.53	47.38	18.90	33.73	45.34	17.62	37.04	49.55	32.96	17.48
Kuningan	55.23	11.26	33.52	43.06	11.81	45.13	43.23	11.16	45.62	54.29	31.98	13.72
Cirebon	39.07	22.53	38.40	30.37	23.44	46.19	28.58	25.29	46.13	27.12	55.27	17.61
Majalengka	43.88	23.11	33.01	37.33	22.29	40.38	49.88	17.99	32.13	43.12	42.20	14.68
Sumedang	52.77	16.12	31.11	47.42	20.19	32.39	54.40	14.59	31.01	46.68	33.83	19.49
Indramayu	55.57	10.48	33.95	49.11	10.43	40.47	49.86	10.54	39.61	43.73	34.36	21.91
Subang	46.49	15.68	37.83	58.06	12.50	29.44	50.13	11.93	37.95	56.27	30.43	13.30
Purwakarta	43.60	28.40	28.00	36.57	30.36	33.07	36.60	25.31	38.09	43.98	36.15	19.86
Karawang	34.04	20.47	45.49	32.87	22.80	44.33	35.12	21.36	43.51	40.60	39.68	19.71
Bekasi	17.94	25.52	56.54	7.86	34.80	57.34	4.76	38.55	56.68	20.76	45.76	33.48
Tangerang	12.05	38.93	49.02	14.29	27.58	58.14	12.80	30.33	56.87	22.81	46.42	30.77
Serang	45.13	17.51	37.36	38.40	22.06	39.54	37.52	20.92	41.56	42.62	36.41	20.98
City of Bogor	1.66	25.61	72.73	6.20	35.97	57.84	6.41	32.58	61.00	17.53	46.90	35.57
City of Sukabumi	2.93	19.66	77.41	8.01	19.03	72.97	4.85	18.85	76.30	8.98	57.24	33.78
City of Bandung	0.94	34.71	64.35	1.54	34.36	64.10	0.69	34.41	64.89	17.68	50.32	32.00
City of Cirebon	4.19	21.38	74.43	1.89	19.64	78.47	1.70	18.88	79.42	7.53	58.56	33.91
City of Tangerang	na	na	na	3.83	42.38	53.79	2.57	38.15	59.28	19.36	49.55	31.08

Note : calculated based on data provided by BPS various year

Appendix 2 Sectoral Growth of Employment. West Java. 1993-2000

District	1993-1997				1997-1998				1998-2000			
	A	M	S	Total	A	M	S	Total	A	M	S	Total
Pandeglang	-0.15	-4.72	3.95	0.66	1.29	2.89	1.25	1.42	1.38	-1.59	0.87	0.94
Lebak	-3.58	19.52	5.40	0.82	0.04	-3.93	2.82	0.36	5.84	-6.44	-2.97	2.02
Bogor	-10.07	1.21	7.78	2.76	-0.94	-2.33	-2.41	-2.20	15.84	2.49	2.10	4.28
Sukabumi	-3.08	8.71	0.10	-0.03	-5.71	-6.31	-0.40	-4.01	5.89	1.71	4.26	4.51
Cianjur	-4.14	-4.87	1.22	-2.62	5.13	4.42	-5.06	2.00	3.06	-5.82	10.76	4.22
Bandung	-4.92	5.73	-0.58	0.15	4.40	-2.22	-0.25	0.36	-7.03	11.37	8.54	5.52
Garut	-4.85	6.97	5.46	-0.02	1.81	4.19	0.04	1.58	-6.73	-2.30	4.54	-1.76
Tasikmalaya	-6.36	-0.46	-0.50	-3.02	-0.78	-8.10	0.25	-2.11	0.26	7.40	5.04	3.64
Ciamis	0.33	-4.12	0.24	-0.62	-0.56	-1.26	2.57	0.40	-1.47	-6.17	1.09	-1.26
Kuningan	-9.55	-2.58	3.47	-3.80	0.79	-1.02	0.12	0.28	7.11	-1.54	-1.82	2.42
Cirebon	-6.45	0.62	4.33	-0.37	0.32	2.34	0.55	0.91	-6.80	6.34	2.24	0.95
Majalengka	-3.56	-0.48	5.01	0.23	11.29	-2.38	-2.84	3.21	-6.31	4.14	5.09	-0.37
Sumedang	-4.09	4.21	-0.54	-1.50	3.78	-7.73	-1.27	0.10	-6.74	5.05	9.63	0.88
Indramayu	-5.87	-3.04	1.29	-2.96	3.82	3.55	1.96	3.05	-5.17	-5.61	3.90	-1.39
Subang	6.58	-4.74	-5.56	0.72	-3.29	-0.92	7.27	0.45	1.74	-6.15	-1.31	-0.27
Purwakarta	-5.57	0.34	2.69	-1.37	1.04	-3.72	4.36	0.85	1.24	-0.56	5.00	2.29
Karawang	0.78	4.45	0.43	1.40	1.85	-1.97	-0.83	-0.17	-2.21	3.39	3.28	1.45
Bekasi	-14.92	13.02	4.88	4.54	-9.51	0.51	-1.65	-1.43	9.32	-23.11	-8.91	-11.90
Tangerang	-1.15	-13.09	-1.14	-5.26	-1.04	4.19	1.16	1.72	-8.49	2.15	0.70	0.12
Serang	-3.37	6.60	1.85	0.54	-2.35	-3.59	-0.96	-2.06	2.59	3.23	5.71	4.04
City of Bogor	37.78	7.96	-6.93	-1.29	23.50	19.56	24.14	22.51	-6.40	4.65	9.43	7.08
City of Sukabumi	28.23	-1.06	-1.91	-0.41	6.23	20.11	21.75	20.40	-8.22	0.22	0.49	0.07
City of Bandung	16.29	2.39	2.42	2.57	-17.08	1.23	1.55	1.22	-7.57	-6.21	-1.84	-3.31
City of Cirebon	-16.38	-0.83	2.02	0.88	-0.21	1.18	2.39	2.11	7.89	3.18	-0.46	0.41
City of Tangerang	na	na	na	na	-8.01	0.98	5.84	3.41	-16.63	-3.94	-4.16	-4.32

Note: na = data not available

calculated based on data provided by BPS various year

Appendixes

Appendix 3 Sectoral Share of Employment. Central Java. 1993-2000

Districts	1993			1997			1998			2000		
	A	M	S	A	M	S	A	M	S	A	M	S
Cilacap	46.55	23.42	30.03	46.00	18.80	35.20	42.47	20.23	37.30	49.47	35.03	15.49
Banyumas	40.23	23.23	36.54	28.25	26.93	44.82	33.42	22.30	44.28	40.94	35.68	23.38
Purbalingga	47.28	21.57	31.15	36.92	28.46	34.62	40.56	25.83	33.61	54.88	33.15	11.97
Banjarnegara	61.00	14.04	24.96	55.34	18.87	25.79	56.27	16.31	27.41	62.94	24.88	12.19
Kebumen	55.08	16.20	28.72	47.48	25.18	27.34	55.51	20.51	23.98	51.14	33.59	15.27
Purworejo	67.48	9.08	23.44	62.13	10.76	27.10	52.78	13.79	33.43	55.91	28.87	15.22
Wonosobo	70.77	10.97	18.26	57.71	11.21	31.08	63.46	15.73	20.82	68.66	22.22	9.13
Magelang	47.72	25.27	27.01	48.29	17.94	33.77	44.52	21.62	33.86	59.39	32.73	7.89
Boyolali	60.50	14.91	24.60	55.81	11.49	32.70	51.25	17.75	31.00	63.27	23.44	13.29
Klaten	34.90	24.23	40.86	31.08	29.79	39.13	30.65	27.60	41.75	38.76	40.19	21.04
Sukoharjo	36.82	19.50	43.68	24.59	31.66	43.74	22.16	30.50	47.34	35.14	42.14	22.72
Wonogiri	65.93	10.33	23.74	64.56	15.08	20.36	60.46	13.15	26.38	68.59	22.94	8.47
Karanganyar	48.79	25.10	26.11	47.81	25.25	26.94	44.13	25.29	30.59	52.87	27.44	19.69
Sragen	56.47	15.48	28.05	51.75	18.01	30.24	53.51	18.71	27.77	53.07	33.49	13.44
Grobogan	75.62	6.71	17.67	64.84	10.94	24.22	62.46	10.17	27.37	67.54	22.62	9.83
Blora	72.11	7.25	20.64	73.58	6.19	20.24	73.20	4.71	22.09	73.73	17.09	9.17
Rembang	73.94	6.66	19.41	58.13	13.87	27.99	52.88	11.01	36.11	52.10	33.80	14.10
Pati	61.08	12.43	26.49	49.85	17.50	32.65	56.36	14.48	29.16	52.76	32.40	14.84
Kudus	24.26	39.82	35.91	13.49	55.35	31.16	18.35	40.47	41.18	43.55	40.06	16.39
Jepara	36.50	34.39	29.11	24.28	42.29	33.44	25.79	43.47	30.74	24.14	63.67	12.18
Demak	56.31	16.78	26.91	41.66	21.32	37.02	46.70	22.64	30.66	45.86	35.39	18.75
Semarang	52.58	19.85	27.56	50.38	21.31	28.30	47.44	22.66	29.90	51.73	32.02	16.25
Temanggung	66.03	10.63	23.35	63.03	11.36	25.61	61.08	14.46	24.46	68.10	21.26	10.64
Kendal	48.75	15.59	35.67	40.24	20.24	39.52	43.65	20.97	35.38	52.06	33.58	14.36
Batang	52.17	21.35	26.48	44.96	21.32	33.73	50.10	18.56	31.34	55.82	31.91	12.27
Pekalongan	39.54	31.11	29.35	35.20	34.63	30.16	34.19	33.38	32.43	50.98	33.38	15.64
Pemalang	56.16	9.82	34.02	41.41	13.99	44.60	42.86	15.16	41.98	45.97	36.49	17.54
Tegal	42.30	23.22	34.48	32.51	22.47	45.02	28.34	26.09	45.57	47.09	35.64	17.27
Brebes	59.07	8.02	32.92	54.21	11.12	34.67	48.91	14.13	36.96	51.40	32.51	16.09
City of Magelang	2.10	14.83	83.07	2.72	20.26	77.02	2.42	19.75	77.84	11.82	48.99	39.19
City of Surakarta	0.54	21.63	77.84	0.91	25.30	73.79	1.05	30.19	68.76	16.99	50.78	32.23
City of Salatiga	5.33	20.46	74.21	4.38	25.60	70.02	2.53	27.79	69.68	20.82	44.41	34.77
City of Semarang	4.08	29.90	66.01	6.20	30.79	63.02	5.29	26.36	68.35	12.59	48.39	39.02
City of Pekalongan	3.84	38.63	57.54	6.16	36.67	57.17	6.72	34.97	58.31	35.14	41.62	23.25
City of Tegal	11.18	19.53	69.30	8.43	22.56	69.01	11.22	21.32	67.46	11.50	57.89	30.61

Note : calculated based on data provided by BPS various year

Appendix 4 Sectoral Growth of Employment.Central Java. 1993-2000

Districts	1993-1997				1997-1998				1998-2000			
	A	M	S	Total	A	M	S	Total	A	M	S	Total
Cilacap	-3.08	3.24	2.13	-1.16	-4.28	5.91	4.68	-0.44	-0.57	-2.13	0.88	-0.29
Banyumas	-5.67	-0.18	13.41	-0.70	4.39	10.90	-8.11	1.84	2.02	2.06	1.32	1.88
Purbalingga	-0.13	-8.60	5.26	-0.42	-0.65	6.10	0.92	1.18	6.13	0.23	-2.36	2.22
Banjarnegara	-19.74	-7.39	5.85	-13.20	0.08	13.03	0.16	1.86	3.80	-1.47	1.19	2.14
Kebumen	-1.13	7.17	0.69	1.78	-0.99	-2.77	0.55	-0.89	-4.43	0.90	1.98	-0.18
Purworejo	-10.75	11.45	-2.05	-1.63	-1.97	-1.19	1.70	-0.07	-0.82	0.90	3.53	1.79
Wonosobo	-2.36	7.88	-5.82	-1.92	-0.31	-2.67	6.61	0.89	0.79	-3.46	-2.17	-0.47
Magelang	1.34	2.01	2.85	1.91	-3.60	-1.94	0.55	-2.01	-3.51	-4.39	6.80	-0.25
Boyolali	-1.22	4.85	2.56	0.87	1.42	1.54	-1.44	0.60	-3.96	-4.77	9.49	0.22
Klaten	-4.48	12.17	4.89	-1.16	1.48	0.18	4.82	2.19	1.61	-0.33	-1.71	0.55
Sukoharjo	0.77	-3.63	-2.81	-0.30	3.59	-3.36	5.76	3.66	-0.79	5.51	-1.08	-0.53
Wonogiri	-4.27	22.15	10.90	1.57	-2.01	-5.54	6.30	0.10	2.62	-6.75	-5.01	-0.89
Karanganyar	-5.57	8.23	4.02	-0.81	3.40	-4.52	-3.07	0.08	-2.62	2.89	5.81	0.83
Sragen	-10.98	11.94	-0.44	3.11	8.05	-8.23	5.92	-0.77	1.79	4.90	-0.02	2.38
Grobogan	-9.07	6.04	4.18	0.68	5.35	3.55	0.45	3.00	-5.02	3.85	3.20	1.51
Blora	-7.39	6.01	8.25	-0.09	4.77	3.21	-3.77	1.48	1.48	-5.33	5.54	1.38
Rembang	-1.17	1.68	0.53	-0.12	-0.28	2.22	1.56	0.79	-5.38	-0.32	2.78	-1.66
Pati	-2.12	0.68	1.18	-1.01	-0.52	6.48	-0.56	0.34	3.36	-11.48	2.92	1.48
Kudus	-5.15	6.23	2.00	-0.52	3.62	2.06	-1.69	1.28	1.98	-6.52	-2.28	-1.13
Jepara	-4.61	-1.02	4.42	-1.17	3.89	-2.71	-1.50	0.79	-2.45	9.14	1.17	1.09
Demak	-1.86	3.79	1.67	1.02	-1.30	-1.64	1.11	-0.67	-7.06	5.81	4.40	1.42
Semarang	-7.75	8.76	6.06	-0.60	0.55	1.54	-2.23	-0.51	0.02	7.21	2.37	2.18
Temanggung	-5.55	0.06	7.61	0.81	-3.17	2.99	-0.18	-0.36	10.14	-3.37	0.77	2.83
Kendal	-0.83	9.97	2.03	1.12	-1.13	7.34	2.43	1.16	0.28	-14.48	2.57	-0.52
Batang	9.37	10.87	0.85	2.72	-3.04	-0.74	0.09	-0.16	-1.02	-2.58	-2.40	-2.40
Pekalongan	13.93	3.85	-2.00	-0.57	6.53	7.40	1.28	2.98	-3.21	-1.83	-1.67	-1.73
Pemalang	-2.17	8.71	0.89	2.47	-12.47	2.50	0.30	0.42	23.03	10.47	9.77	10.37
Tegal	11.09	0.81	-0.53	0.43	-1.68	-1.55	3.65	1.85	-12.04	0.86	0.93	0.34
Brebes	17.63	3.16	4.67	4.70	5.84	2.07	3.16	2.94	-11.83	-6.03	-10.08	-8.70
City of Magelang	-1.43	9.65	5.55	5.69	8.44	-0.21	0.58	1.14	-51.18	-6.82	-7.85	-10.07
City of Surakarta	-10.01	3.30	7.34	-3.16	9.07	-6.77	-2.55	2.68	-5.34	14.83	2.69	0.33
City of Salatiga	-0.56	0.39	-1.09	-0.52	2.18	-1.21	0.27	0.49	0.91	6.19	0.89	2.36
City of Semarang	-2.26	2.49	5.59	-0.65	-3.84	8.24	-2.36	-2.29	9.79	-21.07	-1.84	4.97
City of Pekalongan	-8.81	-2.19	4.47	-1.34	1.24	0.93	-0.82	0.13	3.34	5.74	2.53	3.52
City of Tegal	6.64	1.91	0.22	0.55	-12.76	1.25	3.49	2.97	12.87	-3.72	-4.91	-4.56

Note : calculated based on data provided by BPS various year

Appendixes

Appendix 5 Sectoral Share of Employment. Yogyakarta. 1993-2000

Districts	1993			1997			1998			2000		
	A	M	S	A	M	S	A	M	S	A	M	S
Kulon Progo	62.40	15.28	22.32	46.53	19.78	33.69	58.64	13.52	27.83	58.43	25.97	15.60
Bantul	31.93	26.87	41.20	31.86	27.85	40.30	34.07	26.01	39.92	43.74	38.05	18.21
Gunung Kidul	77.99	8.00	14.01	73.06	9.06	17.88	68.01	13.61	18.39	84.49	8.42	7.09
Sleman	36.06	23.13	40.81	26.32	22.35	51.32	26.03	23.41	50.57	33.01	44.51	22.48
City of Yogyakarta	1.18	14.08	84.73	1.50	14.86	83.64	0.77	13.89	85.34	8.46	48.34	43.20

Note : calculated based on data provided by BPS various year

Appendix 6 Sectoral Growth of Employment. Yogyakarta. 1993-2000

District	1993-1997				1997-1998				1998-2000			
	A	M	S	Total	A	M	S	Total	A	M	S	Total
Kulon Progo	-3.27	-8.16	1.16	-2.90	-4.10	-0.43	-1.11	-2.31	4.94	1.64	1.72	3.11
Bantul	-9.83	2.21	2.84	-1.75	5.06	-4.25	-0.58	0.20	-3.62	4.83	4.45	2.02
Gunung Kidul	-5.69	7.53	3.56	0.51	2.00	-2.79	-1.69	-0.58	-1.63	1.11	-1.61	-0.89
Sleman	-1.74	8.40	1.65	0.72	-1.48	-5.53	-0.67	-1.99	0.47	1.95	1.93	1.12
City of Yogyakarta	-4.38	10.80	-2.18	-0.82	6.05	-3.11	-1.50	1.93	-4.94	0.92	9.10	0.13

Note : calculated based on data provided by BPS various year

Appendix 7 Sectoral Share of Employment. East Java. 1993-2000

Districts	1993			1997			1998			2000		
	A	M	S	A	M	S	A	M	S	A	M	S
Pacitan	73.47	9.98	16.55	76.72	6.57	16.71	79.02	5.44	15.53	79.17	13.00	7.83
Ponorogo	63.66	13.49	22.84	65.26	9.09	25.65	61.89	8.32	29.79	65.76	21.36	12.88
Trenggalek	60.99	18.89	20.12	56.57	16.83	26.60	52.26	22.83	24.91	52.79	33.67	13.54
Tulungagung	49.53	20.15	30.32	37.90	23.38	38.72	39.40	27.62	32.98	49.18	36.01	14.81
Blitar	64.05	10.87	25.09	60.47	13.08	26.46	55.84	13.76	30.40	62.17	25.32	12.50
Kediri	54.22	15.03	30.75	47.64	19.39	32.97	46.47	16.78	36.75	52.20	33.26	14.54
Malang	54.56	16.45	28.98	48.16	17.85	33.98	47.44	15.88	36.68	51.97	34.24	13.79
Lumajang	58.66	13.23	28.11	57.82	10.22	31.96	52.47	11.60	35.92	52.98	33.00	14.02
Jember	56.84	14.84	28.32	52.90	12.53	34.57	47.30	16.43	36.27	51.63	32.78	15.58
Banyuwangi	51.01	12.30	36.69	51.20	14.71	34.08	54.14	15.25	30.61	56.54	26.73	16.73
Bondowoso	64.09	12.38	23.53	58.85	11.91	29.23	58.69	10.26	31.05	67.79	22.20	10.01
Situbondo	58.88	7.15	33.98	57.99	6.31	35.70	59.97	8.85	31.18	56.57	28.59	14.84
Probolinggo	68.26	9.34	22.40	67.02	7.41	25.56	62.10	10.90	27.00	61.18	27.53	11.28
Pasuruan	50.28	21.86	27.85	39.55	28.94	31.51	43.48	23.01	33.51	48.57	35.92	15.51
Sidoarjo	16.29	40.19	43.52	9.62	47.50	42.88	9.27	41.99	48.73	22.93	52.13	24.94
Mojokerto	46.39	20.90	32.71	29.79	30.04	40.16	31.87	30.34	37.78	46.32	38.90	14.78
Jombang	46.33	17.42	36.25	36.51	16.86	46.63	32.58	18.62	48.81	33.16	44.24	22.60
Nganjuk	53.91	12.44	33.65	52.55	11.69	35.76	56.88	11.45	31.67	51.05	31.18	17.77
Mediun	56.77	8.59	34.64	49.42	11.64	38.94	57.89	9.77	32.34	55.79	28.23	15.98
Magetan	57.85	14.15	28.00	48.21	15.90	35.89	59.64	13.56	26.80	49.72	33.42	16.87
Ngawi	64.57	10.91	24.51	63.77	9.14	27.09	62.79	6.85	30.36	61.62	26.20	12.18
Bojonegoro	63.89	10.50	25.61	68.12	8.59	23.29	68.65	9.24	22.11	60.77	27.01	12.21
Tuban	63.33	10.06	26.61	61.35	10.70	27.95	60.43	9.75	29.82	57.81	27.78	14.40
Lamongan	65.24	10.58	24.18	63.78	8.81	27.42	69.95	8.10	21.95	59.23	29.13	11.64
Gresik	47.03	27.88	25.09	30.64	32.94	36.42	28.76	34.52	36.72	36.55	48.86	14.59
Bangkalan	68.24	8.84	22.93	62.68	9.04	28.28	65.89	9.45	24.66	68.59	20.50	10.91
Sampang	82.09	5.35	12.55	78.44	3.72	17.84	77.77	6.48	15.76	80.61	11.63	7.76
Pamekasan	68.47	7.34	24.19	69.92	7.73	22.36	72.62	7.05	20.33	64.64	21.60	13.76
Sumenep	69.10	7.82	23.08	67.16	10.70	22.14	64.02	11.10	24.88	66.31	25.30	8.40
City of Kediri	9.90	31.78	58.32	6.97	34.89	58.14	6.65	32.33	61.02	23.56	45.62	30.82
City of Blitar	10.40	18.73	70.87	9.71	13.61	76.68	7.27	16.08	76.65	16.84	47.16	36.01
City of Malang	2.51	28.47	69.03	2.61	19.63	77.76	2.09	26.64	71.27	13.92	44.69	41.40
City of Probolinggo	20.94	20.20	58.86	15.48	21.56	62.96	12.47	18.02	69.50	19.67	39.35	40.98
City of Pasuruan	11.45	33.25	55.30	10.39	29.57	60.05	10.69	34.83	54.48	11.26	61.25	27.49
City of Mojokerto	4.68	31.61	63.72	2.55	33.19	64.27	2.94	28.70	68.36	22.44	44.65	32.91
City of Madiun	4.31	13.82	81.88	3.12	13.73	83.15	4.24	12.02	83.74	7.88	39.28	52.84
City of Surabaya	1.11	24.82	74.07	1.34	25.81	72.85	1.26	27.23	71.52	10.34	58.11	31.55

Note : calculated based on data provided by BPS various year

Appendixes

Appendix 8 Sectoral Growth of Employment. East Java. 1993-2000

Districts	1993-1997				1997-1998				1998-2000			
	A	M	S	Total	A	M	S	Total	A	M	S	Total
Pacitan	-1.45	5.04	7.60	0.34	8.82	-41.86	-1.56	2.29	-3.66	18.12	1.49	-1.54
Ponorogo	1.14	-13.05	1.99	-0.49	-5.70	-11.20	12.36	-1.57	-2.24	4.86	-3.26	-1.93
Trenggalek	2.18	-1.71	6.65	2.53	-6.38	37.22	-5.01	1.31	-1.83	-8.04	11.27	0.26
Tulungagung	-7.59	2.15	6.76	-0.79	5.10	15.06	-18.96	-1.89	-0.75	-7.85	-0.39	-2.53
Blitar	-0.80	-7.69	-1.81	-2.11	-10.62	-0.28	6.32	-4.78	3.65	4.52	1.80	3.23
Kediri	1.61	2.86	5.69	3.12	-1.02	-14.62	9.75	-0.11	-8.73	2.40	-0.25	-3.70
Malang	-1.71	3.90	5.20	1.38	-4.81	-15.33	1.98	-4.38	0.56	17.13	0.82	3.45
Lumajang	-2.07	-5.96	1.02	-1.59	-3.88	17.59	15.96	4.66	-0.09	21.35	1.89	3.29
Jember	-0.94	-8.17	5.40	-0.14	-4.25	39.98	11.48	6.73	-1.30	-5.36	4.16	0.06
Banyuwangi	-1.48	-10.24	0.09	-2.57	10.85	8.51	-6.16	4.71	-0.47	-5.67	2.20	-0.41
Bondowoso	0.66	-1.03	2.44	0.95	-1.37	-14.78	4.71	-1.19	3.62	17.09	-9.61	1.24
Situbondo	3.97	1.87	4.73	4.03	5.41	-5.78	-13.58	-2.18	-3.17	-10.46	-1.08	-3.14
Probolinggo	5.27	2.11	4.42	4.75	-6.55	16.74	5.58	-1.37	-6.26	-4.49	-4.85	-5.69
Pasuruan	0.70	7.12	2.53	2.97	16.04	-16.83	10.93	4.92	-5.04	8.33	1.11	0.21
Sidoarjo	-10.61	9.02	4.21	4.21	4.45	-10.33	18.97	3.42	1.39	7.30	7.97	7.08
Mojokerto	-3.84	4.22	7.05	2.42	7.64	-0.62	-7.26	-0.83	7.75	0.49	-1.79	2.06
Jombang	-1.03	-1.57	5.98	1.84	-13.58	4.17	-2.71	-5.52	-12.01	9.83	9.28	2.77
Nganjuk	17.88	22.15	27.66	21.47	11.53	-0.86	-10.62	2.16	-15.91	-1.46	4.67	-7.34
Madiun	-0.01	-1.73	5.69	1.80	12.92	-19.52	-20.62	-3.92	-5.74	2.99	7.36	-0.49
Magetan	-3.69	4.80	7.79	1.07	32.64	-8.44	-19.66	7.37	-20.41	3.80	8.74	-8.30
Ngawi	-2.18	-5.60	0.10	-1.94	5.81	-19.61	19.65	7.23	-8.11	19.43	-4.04	-4.74
Bojonegoro	5.71	1.74	3.64	4.84	-3.75	2.57	-10.20	-4.71	-12.15	12.58	12.60	-3.74
Tuban	3.13	-2.24	0.21	1.65	-5.43	-13.09	1.48	-4.32	-2.02	-2.56	8.93	1.29
Lamongan	3.26	-7.15	2.01	1.76	17.34	-1.66	-14.48	6.94	-6.76	9.37	9.70	-1.56
Gresik	-4.03	7.54	5.06	2.59	-0.39	-0.71	2.28	0.45	1.07	-3.12	-1.59	-1.31
Bangkalan	5.26	1.84	3.56	4.37	0.02	-24.72	-18.07	-7.81	8.29	6.99	3.88	7.10
Sampang	5.77	-20.18	1.62	3.08	2.95	80.28	-8.99	3.70	5.44	-27.82	0.22	2.79
Pamekasan	5.86	-11.30	-0.33	1.83	11.43	-30.90	-3.11	3.80	-5.87	21.26	17.20	1.28
Sumenep	2.97	-4.01	3.64	2.24	-7.01	0.72	8.54	-2.74	3.28	5.69	-17.31	-1.12
City of Kediri	0.75	2.95	-1.69	-0.02	-1.56	-3.29	9.81	4.44	-17.20	-7.93	-5.39	-6.94
City of Blitar	2.47	-3.64	9.04	6.57	-31.33	9.60	-25.07	-21.62	34.66	3.32	-1.78	2.06
City of Malang	-13.49	-4.82	7.05	3.42	-14.87	45.55	-5.66	3.83	-6.99	-8.00	-1.33	-3.18
City of Probolinggo	4.19	13.33	6.17	7.65	-17.31	-44.22	-1.34	-15.09	5.46	-3.08	-5.72	-3.84
City of Pasuruan	5.23	13.90	6.25	8.50	6.66	-19.81	-25.39	-20.92	-23.51	-4.26	0.07	-3.71
City of Mojokerto	-3.71	22.48	9.12	12.98	15.63	-47.35	-19.98	-29.80	12.19	5.22	-4.67	-1.21
City of Madiun	-2.66	-2.31	3.15	2.11	35.91	-9.36	4.74	3.77	-22.50	0.37	-5.68	-5.55
City of Surabaya	-4.46	-0.76	3.50	2.16	-0.49	7.99	3.97	4.97	24.90	1.66	-8.05	-4.83

Note : calculated based on data provided by BPS various year

Appendix 9 Sectoral Share of GRDP, West Java, 1993-2000

District/City	1993			1997			1998			2000		
	A	M	S	A	M	S	A	M	S	A	M	S
Pandeglang	41.68	13.97	44.36	37.83	15.80	46.37	36.59	17.80	45.61	36.02	16.64	47.34
Lebak	33.37	16.72	49.91	33.07	19.76	47.18	35.90	14.90	49.20	39.53	14.12	46.35
Bogor	12.42	57.81	29.77	11.01	62.87	26.12	10.44	63.32	26.23	10.47	63.20	26.33
Sukabumi	51.59	15.19	33.22	34.91	20.06	45.03	35.22	18.36	46.42	36.52	16.79	46.69
Cianjur	43.02	8.95	48.02	39.47	10.37	50.16	42.80	8.00	49.20	43.03	7.57	49.39
Bandung	14.06	55.62	30.33	9.56	64.22	26.22	10.59	59.75	29.65	10.25	60.42	29.33
Garut	40.08	12.18	47.74	33.18	14.71	52.11	33.80	14.14	52.06	34.88	13.41	51.71
Tasikmalaya	27.98	21.11	50.90	26.13	21.59	52.29	23.77	18.37	57.86	24.06	19.03	56.91
Ciamis	34.59	18.38	47.03	32.33	20.48	47.19	34.01	16.29	49.70	34.13	16.36	49.52
Kuningan	38.88	8.32	52.80	33.27	10.79	55.94	35.24	10.16	54.59	35.59	9.79	54.62
Cirebon	22.23	29.57	48.20	19.31	32.44	48.26	22.44	24.55	53.00	24.89	23.65	51.46
Majalengka	28.84	24.03	47.13	28.26	25.43	46.31	31.29	22.40	46.32	32.70	20.79	46.51
Sumedang	34.50	19.84	45.66	29.05	23.69	47.26	29.74	20.97	49.29	29.73	20.77	49.51
Indramayu	13.28	71.86	14.86	13.79	70.61	15.59	12.51	72.00	15.49	15.55	65.49	18.96
Subang	41.19	13.62	45.20	39.69	13.76	46.55	42.19	10.36	47.45	41.73	9.86	48.41
Purwakarta	21.95	27.29	50.76	20.95	31.51	47.54	19.79	30.75	49.46	19.46	31.25	49.28
Karawang	21.26	35.55	43.20	15.31	42.46	42.23	16.73	40.61	42.66	17.86	39.61	42.53
Bekasi	9.43	61.17	29.40	3.39	72.55	24.06	3.95	69.67	26.38	3.75	70.18	26.07
Tangerang	13.75	59.56	26.70	11.16	62.57	26.27	10.40	64.91	24.69	10.79	63.64	25.57
Serang	6.43	74.31	19.26	7.18	71.49	21.33	12.34	63.40	24.26	13.18	62.82	23.99
City of Bogor	0.37	36.75	62.88	0.42	38.59	60.99	0.45	39.60	59.95	0.47	39.56	59.96
City of Sukabumi	1.66	12.48	85.86	8.22	11.91	79.87	4.36	11.09	84.55	3.03	11.82	85.15
City of Bandung	0.45	32.09	67.46	0.30	35.79	63.92	0.40	35.47	64.13	0.37	35.59	64.04
City of Cirebon	0.98	15.55	83.47	0.43	40.16	59.41	0.34	44.43	55.23	0.36	38.31	61.33
City of Tangerang	1.18	47.50	51.32	0.36	56.91	42.73	0.37	57.29	42.34	0.34	57.72	41.94
City of Bekasi	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a

Note : calculated based on data provided by BPS various year

Appendixes

Appendix 10 Annual Growth of GRDP, West Java, 1993-2000

District/City	1993-1997				1997-1998				1998-2000			
	A	M	S	Total	A	M	S	Total	A	M	S	Total
Pandeglang	2.85	8.67	6.55	5.37	-10.40	4.33	-8.89	-7.37	5.04	2.36	7.86	5.87
Lebak	7.28	12.11	6.03	7.53	-2.96	-32.61	-6.80	-10.63	11.19	3.14	2.85	5.96
Bogor	-2.04	3.11	-2.27	0.97	-21.91	-17.12	-17.37	-17.71	2.39	2.17	2.46	2.27
Sukabumi	1.48	19.93	20.73	11.89	-9.16	-17.58	-7.18	-9.95	4.08	-2.27	2.50	2.20
Cianjur	3.48	9.68	6.89	5.73	1.35	-27.93	-8.34	-6.55	2.96	-0.06	2.89	2.69
Bandung	-1.33	12.62	4.76	8.64	-10.90	-25.16	-9.03	-19.57	2.37	4.63	3.48	4.05
Garut	0.85	10.85	8.07	5.73	-9.99	-15.11	-11.72	-11.64	4.84	0.52	2.85	3.20
Tasikmalaya	4.49	6.89	7.02	6.30	-20.96	-26.07	-3.87	-13.13	2.84	4.04	1.37	2.21
Ciamis	4.15	8.82	6.02	5.93	-4.75	-27.96	-4.63	-9.45	3.03	3.06	2.66	2.85
Kuningan	1.64	12.77	7.21	5.68	-0.07	-11.15	-7.93	-5.66	2.53	0.14	2.06	2.03
Cirebon	2.81	8.99	6.53	6.50	-7.89	-40.03	-12.98	-20.77	9.62	2.18	2.58	4.10
Majalengka	6.85	8.93	6.93	7.40	0.38	-20.16	-9.34	-9.35	6.25	0.12	4.13	3.92
Sumedang	1.45	10.70	6.82	5.91	-9.71	-21.90	-8.01	-11.79	3.13	2.63	3.37	3.14
Indramayu	5.07	3.63	5.34	4.08	-14.21	-3.53	-6.01	-5.39	5.61	-9.67	4.78	-5.29
Subang	4.75	6.01	6.51	5.73	-1.31	-30.14	-5.38	-7.17	2.62	0.71	4.23	3.19
Purwakarta	6.17	11.36	5.68	7.42	-16.57	-13.83	-8.13	-11.69	1.64	3.33	2.31	2.49
Karawang	-0.72	12.67	7.16	7.77	-12.37	-23.28	-18.97	-19.79	9.36	4.53	5.67	5.84
Bekasi	-14.46	15.27	5.05	10.45	-8.44	-24.49	-13.77	-21.36	1.25	4.33	3.34	3.95
Tangerang	2.81	9.66	7.88	8.32	-15.46	-5.87	-14.72	-9.26	5.17	2.23	5.07	3.25
Serang	10.10	6.05	9.85	7.09	-26.31	-61.97	-51.22	-57.11	6.56	2.61	2.50	3.08
City of Bogor	23.78	21.40	19.02	19.93	-10.49	-14.47	-18.07	-16.65	6.31	3.96	4.02	4.01
City of Sukabumi	71.31	13.49	12.78	14.83	-56.01	-22.84	-12.30	-17.15	-13.37	7.38	4.38	4.00
City of Bandung	-1.97	11.72	7.26	8.72	7.40	-20.40	-19.42	-19.69	0.28	4.27	4.03	4.10
City of Cirebon	-4.78	48.51	7.61	17.15	-25.92	4.71	-12.01	-5.36	6.05	-4.96	7.84	2.34
City of Tangerang	-14.05	21.42	10.86	16.05	-12.69	-16.21	-17.53	-16.76	-1.80	3.68	2.80	3.29
City of Bekasi	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a

Note : calculated based on data provided by BPS various year

Appendix 11 Sectoral Share of GRDP, Central Java, 1993-2000

District/City	1993			1997			1998			2000		
	A	M	S	A	M	S	A	M	S	A	M	S
Cilacap	11.95	48.65	39.41	12.41	48.02	39.57	10.70	51.11	38.19	10.83	51.72	37.45
Banyumas	32.84	16.70	50.46	27.51	25.02	47.46	28.21	24.83	46.96	26.74	24.94	48.32
Purbalingga	36.63	16.27	47.10	34.89	17.20	47.91	32.98	16.62	50.40	31.58	17.17	51.25
Banjarnegara	43.48	20.33	36.19	41.45	22.61	35.94	45.00	21.55	33.45	40.37	21.27	38.37
Kebumen	47.01	12.19	40.81	39.79	17.46	42.75	38.42	18.34	43.24	39.44	16.80	43.76
Purworejo	34.47	16.76	48.76	30.96	17.83	51.22	34.89	16.60	48.51	34.47	16.49	49.04
Wonosobo	45.71	19.55	34.74	53.36	15.62	31.01	52.80	15.58	31.62	52.39	15.07	32.54
Magelang	41.20	25.23	33.57	34.65	27.52	37.82	34.26	27.61	38.13	31.52	28.31	40.17
Boyolali	31.45	22.28	46.27	29.10	25.41	45.49	32.17	22.80	45.03	33.28	21.44	45.27
Klaten	27.20	25.90	46.90	22.74	30.35	46.91	23.02	30.02	46.95	19.46	32.44	48.10
Sukoharjo	30.78	29.02	40.20	23.70	36.88	39.42	25.01	31.24	43.76	21.27	32.81	45.92
Wonogiri	45.65	12.58	41.77	45.43	12.98	41.59	50.03	9.60	40.36	50.49	9.49	40.02
Karanganyar	24.46	38.23	37.31	18.21	46.27	35.52	18.82	42.60	38.58	19.13	43.74	37.13
Sragen	46.39	22.15	31.46	37.40	28.52	34.08	39.85	26.07	34.08	40.05	24.42	35.54
Grobogan	49.66	12.90	37.44	42.34	17.02	40.64	47.03	13.57	39.41	47.52	8.82	43.66
Blora	44.86	17.27	37.87	42.34	17.56	40.10	45.01	14.73	40.26	45.28	14.92	39.80
Rembang	45.89	12.04	42.07	42.84	15.21	41.95	46.10	10.79	43.12	46.21	10.80	42.99
Pati	47.34	15.64	37.02	42.34	20.22	37.45	46.24	17.21	36.54	44.81	18.50	36.70
Kudus	3.44	63.34	33.22	3.22	63.32	33.46	3.40	62.87	33.73	3.24	62.08	34.69
Jepara	36.03	23.41	40.56	26.01	30.06	43.93	21.07	33.95	44.97	22.31	32.39	45.30
Demak	41.90	18.10	40.00	39.33	19.77	40.91	45.07	14.56	40.37	44.34	15.06	40.60
Semarang	30.44	36.77	32.79	17.66	49.90	32.44	18.97	45.38	35.65	18.23	44.56	37.22
Temanggung	35.10	26.07	38.83	33.35	25.68	40.97	34.46	25.26	40.28	32.38	26.11	41.51
Kendal	25.35	43.92	30.73	19.14	50.21	30.65	19.45	49.84	30.71	20.23	48.55	31.22
Batang	30.29	34.70	35.01	26.35	36.33	37.32	28.00	36.47	35.53	27.17	37.01	35.82
Pekalongan	26.20	31.86	41.94	21.14	35.60	43.26	18.80	37.81	43.39	16.85	38.56	44.59
Pemalang	39.41	20.27	40.33	34.93	25.00	40.07	35.73	23.97	40.29	33.95	25.12	40.93
Tegal	31.83	25.40	42.78	25.78	28.55	45.67	28.38	25.31	46.31	27.43	25.84	46.74
Brebes	50.07	15.15	34.78	51.10	15.26	33.64	51.52	14.85	33.63	52.89	14.40	32.70
City of Magelang	4.23	23.24	72.54	3.28	24.22	72.50	3.34	22.67	74.00	3.05	21.95	75.00
City of Surakarta	2.16	33.30	64.54	1.29	38.93	59.78	1.51	40.83	57.66	1.50	40.39	58.10
City of Salatiga	5.44	30.16	64.40	5.05	30.12	64.84	5.51	29.10	65.39	5.68	28.97	65.35
City of Semarang	2.03	36.30	61.67	1.53	38.53	59.94	1.22	37.29	61.48	0.79	36.68	62.52
City of Pekalongan	15.90	28.11	55.98	11.02	36.44	52.54	12.33	34.91	52.77	9.53	35.52	54.95
City of Tegal	15.81	23.48	60.71	9.92	29.56	60.52	10.39	29.75	59.86	14.21	30.01	55.77

Note : calculated based on data provided by BPS various year

Appendixes

Appendix 12 Annual Growth of GRDP, Central Java, 1993-2000

District/City	193-1997				1997-1998				1998-2000			
	A	M	S	Total	A	M	S	Total	A	M	S	Total
Cilacap	2.83	1.52	1.96	1.85	-3.76	18.88	7.77	11.67	5.97	5.93	4.28	5.31
Banyumas	0.55	16.28	3.50	5.10	-4.45	-7.52	-7.79	-6.80	-0.43	2.50	3.73	2.26
Purbalingga	5.11	7.89	6.85	6.40	-12.18	-10.23	-2.28	-7.10	-0.41	3.44	2.62	1.77
Banjarnegara	4.35	8.46	5.42	5.60	4.52	-8.26	-10.39	-3.73	-4.56	0.11	7.92	0.77
Kebumen	0.76	14.94	6.27	5.05	-16.03	-8.68	-12.02	-13.03	5.09	-0.73	4.34	3.72
Purworejo	2.75	7.19	6.86	5.56	5.39	-12.93	-11.43	-6.49	1.83	2.11	3.00	2.45
Wonosobo	12.05	1.92	4.78	7.80	-16.01	-15.34	-13.46	-15.12	2.56	1.23	4.45	2.95
Magelang	0.06	6.78	7.65	4.48	-4.25	-2.82	-2.36	-3.14	-1.61	3.85	5.27	2.57
Boyolali	3.75	9.32	5.34	5.79	-0.78	-19.45	-11.17	-10.25	3.37	-1.46	1.90	1.62
Klaten	1.18	10.08	5.82	5.81	-10.25	-12.30	-11.28	-11.35	-6.02	6.26	3.46	2.22
Sukoharjo	2.61	16.30	9.00	9.54	-5.35	-24.02	-0.44	-10.30	-5.57	4.93	4.88	2.38
Wonogiri	4.93	5.87	4.94	5.05	4.98	-29.48	-7.48	-4.67	3.31	2.23	2.39	2.84
Karanganyar	-1.12	11.66	5.15	6.45	-8.69	-18.66	-4.03	-11.65	4.57	5.07	1.73	3.70
Sragen	0.39	12.85	8.08	5.94	-2.56	-16.40	-8.58	-8.56	2.67	-0.88	4.59	2.42
Grobogan	-1.88	9.44	4.22	2.11	0.39	-27.96	-12.35	-9.62	4.22	-16.39	9.14	3.68
Blora	1.88	3.79	4.85	3.36	0.83	-20.45	-4.76	-5.15	2.25	2.60	1.35	1.94
Rembang	2.23	10.27	3.93	4.01	-3.21	-36.22	-7.54	-10.05	4.06	4.00	3.79	3.94
Pati	0.73	10.45	3.88	3.59	3.65	-19.21	-7.41	-5.11	-0.63	4.65	1.17	0.95
Kudus	4.89	6.63	6.84	6.64	-6.81	-12.42	-11.07	-11.79	-1.13	0.70	2.76	1.34
Jepara	-1.76	13.46	8.73	6.58	-18.97	13.00	2.40	0.03	5.60	0.23	3.00	2.62
Demak	5.41	9.49	7.70	7.10	2.55	-34.09	-11.69	-10.52	1.77	4.37	2.90	2.61
Semarang	-1.50	21.82	12.57	12.87	-11.68	-25.23	-9.67	-17.79	1.07	2.16	5.35	3.11
Temanggung	3.37	4.30	6.11	4.69	-3.00	-7.63	-7.70	-6.12	-0.29	4.57	4.42	2.86
Kendal	-1.26	9.53	5.85	5.92	-8.24	-10.36	-9.52	-9.70	4.10	0.75	2.93	2.08
Batang	1.87	6.69	7.18	5.48	-4.55	-9.83	-14.48	-10.17	0.63	2.92	2.59	2.17
Pekalongan	0.60	9.14	6.98	6.15	-18.51	-2.70	-8.12	-8.39	-2.49	4.03	4.43	3.01
Pemalang	3.18	12.06	6.17	6.33	0.63	-5.65	-1.09	-1.63	0.05	5.06	3.45	2.64
Tegal	0.29	8.85	7.46	5.72	0.15	-19.35	-7.75	-9.02	1.95	4.78	4.17	3.70
Brebes	6.59	6.24	5.17	6.04	3.15	-0.41	2.28	2.32	5.88	2.90	3.04	4.49
City of Magelang	-0.91	6.64	5.53	5.55	-5.81	-13.30	-5.46	-7.37	-0.84	2.09	4.43	3.73
City of Surakarta	-3.46	14.13	7.68	9.76	0.80	-9.74	-16.98	-13.93	2.49	2.24	3.18	2.79
City of Salatiga	4.49	6.40	6.63	6.45	7.58	-4.84	-0.68	-1.51	4.20	2.45	2.64	2.67
City of Semarang	10.35	20.25	17.64	18.48	-49.21	-38.61	-34.94	-36.57	-16.03	3.33	5.06	4.18
City of Pekalongan	-1.49	15.19	6.26	7.96	2.41	-12.26	-8.03	-8.42	-8.60	4.89	6.10	3.97
City of Tegal	-5.42	12.57	6.19	6.27	-0.13	-4.02	-5.67	-4.64	80.79	55.24	49.19	54.56

Note : calculated based on data provided by BPS various year

Appendix 13 Sectoral Share of GRDP, Yogyakarta, 1993-2000

District/City	1993			1997			1998			2000		
	A	M	S	A	M	S	A	M	S	A	M	S
Kulon Progo	23.59	27.34	49.07	24.73	28.39	46.89	27.16	25.95	46.89	28.45	13.43	58.13
Bantul	23.59	24.96	51.46	21.68	26.86	51.46	22.53	26.10	51.37	21.70	27.16	51.14
Gunung Kidul	31.27	24.46	44.27	28.47	26.05	45.48	30.94	24.71	44.36	37.33	22.08	40.59
Sleman	17.07	27.16	55.77	15.14	28.57	56.28	13.10	27.60	59.29	14.18	27.67	58.15
City of Yogyakarta	1.53	20.74	77.72	0.98	20.03	78.99	0.98	18.65	80.37	0.91	18.64	80.45

Note : calculated based on data provided by BPS various year

Appendix 14 Annual Growth of GRDP, Yogyakarta, 1993-2000

District/City	1993-1997				1997-1998				1998-2000			
	A	M	S	Total	A	M	S	Total	A	M	A	Total
Kulon Progo	4.57	4.33	2.18	3.35	-6.73	-22.36	-15.07	-15.08	-7.31	-34.85	0.84	-9.43
Bantul	4.00	8.19	6.22	6.22	-5.78	-11.92	-9.51	-9.35	0.35	4.30	2.01	2.24
Gunung Kidul	4.25	8.41	7.43	6.72	0.90	-11.91	-9.43	-7.14	17.82	1.39	2.61	7.26
Sleman	3.92	8.45	7.32	7.08	-20.37	-11.11	-3.08	-7.99	6.79	2.80	1.68	2.67
City of Yogyakarta	-3.32	7.13	8.52	8.08	-11.06	-17.24	-9.59	-11.13	-1.76	2.30	2.37	2.32

Note : calculated based on data provided by BPS various year

Appendixes

Appendix 15 Sectoral Share of GRDP, East Java, 1993-2000

District/City	1993			1997			1998			2000		
	A	M	S	A	M	S	A	M	S	A	M	S
Pacitan	43.33	10.02	46.66	42.13	10.32	47.55	45.20	9.06	45.74	44.07	11.71	44.22
Ponorogo	43.82	10.00	46.18	40.92	11.70	47.37	43.98	10.01	46.01	40.02	17.58	42.40
Trenggalek	34.31	8.39	57.30	33.29	9.31	57.40	34.62	7.79	57.59	33.68	10.06	56.25
Tulungagung	18.85	30.44	50.71	16.05	35.01	48.94	17.98	31.31	50.71	16.27	35.69	48.05
Blitar	44.75	8.03	47.22	44.33	9.00	46.67	45.08	7.88	47.03	43.06	13.70	43.24
Kediri	38.49	17.12	44.39	34.96	18.66	46.38	35.36	17.78	46.86	33.91	21.43	44.65
Malang	31.26	16.91	51.82	27.36	20.39	52.25	28.96	17.83	53.21	29.38	18.01	52.61
Lumajang	40.58	13.54	45.88	37.05	15.45	47.50	40.28	11.20	48.53	40.57	12.17	47.25
Jember	36.02	12.28	51.70	32.52	14.62	52.87	34.28	11.66	54.05	34.63	12.13	53.24
Banyuwangi	33.50	16.95	49.56	29.70	19.13	51.18	32.63	14.62	52.74	32.36	15.48	52.17
Bondowoso	43.51	7.16	49.32	40.38	8.89	50.74	41.68	6.84	51.48	42.11	6.54	51.35
Situbondo	41.16	11.73	47.11	36.47	14.40	49.13	40.72	10.73	48.55	40.06	11.57	48.37
Probolinggo	43.15	21.87	34.98	41.03	24.42	34.55	45.18	20.67	34.15	45.44	19.86	34.70
Pasuruan	21.16	44.21	34.63	17.31	49.54	33.15	20.30	45.71	33.99	19.34	46.38	34.28
Sidoarejo	5.72	55.98	38.30	4.37	58.43	37.20	5.10	56.29	38.61	4.66	56.04	39.29
Mojokerto	20.59	36.39	43.02	18.27	37.79	43.94	20.56	34.05	45.39	18.85	36.31	44.84
Jombang	34.61	13.61	51.78	30.08	16.53	53.39	33.00	13.23	53.77	32.73	13.24	54.03
Nganjuk	36.07	11.06	52.86	33.10	13.38	53.52	35.46	10.30	54.23	35.39	10.02	54.59
Mediun	44.73	6.92	48.34	41.62	8.09	50.29	42.54	6.24	51.21	41.66	6.00	52.34
Magetan	45.08	6.96	47.96	40.95	8.61	50.44	42.12	6.14	51.74	43.90	5.93	50.17
Ngawi	46.25	6.89	46.87	42.90	8.49	48.61	45.27	6.20	48.52	45.34	6.29	48.37
Bojonegoro	52.43	6.43	41.14	48.79	8.03	43.18	50.20	6.76	43.04	50.24	6.70	43.07
Tuban	22.22	41.85	35.93	19.02	43.66	37.31	24.45	33.30	42.26	20.45	41.97	37.58
Lamongan	50.42	6.13	43.45	46.86	7.46	45.68	51.22	5.29	43.48	51.02	6.15	42.83
Gresik	12.26	57.48	30.26	9.10	61.11	29.79	11.03	57.86	31.10	10.14	60.36	29.51
Bangkalan	45.32	4.68	50.00	41.94	5.83	52.23	44.12	5.14	50.73	44.87	5.21	49.92
Sampang	53.57	4.62	41.81	50.61	5.42	43.97	53.68	3.82	42.51	54.41	3.58	42.00
Pamekasan	33.17	7.46	59.37	30.24	8.12	61.65	32.99	5.45	61.55	33.24	5.85	60.91
Sumenep	41.24	14.03	44.73	35.84	20.72	43.44	37.01	23.76	39.24	38.43	21.15	40.42
City of Kediri	0.79	77.54	21.67	0.30	80.75	18.95	0.26	80.91	18.83	0.26	80.37	19.37
City of Blitar	5.76	17.45	76.79	4.31	19.27	76.42	4.49	19.14	76.37	4.35	19.86	75.79
City of Malang	1.34	41.71	56.95	0.89	45.92	53.19	0.75	40.10	59.15	0.72	39.99	59.29
City of Probolinggo	5.23	29.58	65.18	3.53	34.32	62.16	3.80	31.80	64.40	3.84	31.54	64.62
City of Pasuruan	6.43	29.63	63.94	4.57	32.74	62.69	5.36	30.48	64.16	5.15	30.88	63.97
City of Mojokerto	2.76	29.62	67.63	1.89	34.52	63.58	2.05	32.92	65.04	1.92	35.10	62.98
City of Madiun	2.97	23.97	73.06	1.89	27.82	70.30	1.83	25.86	72.30	1.79	25.89	72.32
City of Surabaya	1.25	44.76	53.99	0.26	49.50	50.23	0.29	45.48	54.23	0.26	43.96	55.77

Note : calculated based on data provided by BPS various year

Appendix 16 Annual Growth of GRDP East Java 1993-2000

District/City	1993-1997				1997-1998				1998-2000			
	A	M	S	Total	A	M	S	Total	A	M	S	Total
Pacitan	2.85	4.36	4.07	3.58	-0.05	-18.23	-10.40	-6.85	1.41	16.74	1.00	2.71
Ponorogo	2.40	8.33	4.83	4.16	-0.82	-21.03	-10.37	-7.71	0.91	40.16	1.55	5.78
Trenggalek	3.23	6.76	4.06	4.01	-4.37	-23.07	-7.73	-8.04	1.98	17.50	2.18	3.39
Tulungagung	2.79	10.83	6.08	7.02	-5.58	-24.62	-12.67	-15.72	-0.37	11.81	1.95	4.74
Blitar	4.07	7.33	4.01	4.31	-8.35	-21.09	-9.17	-9.88	2.91	38.81	0.97	5.30
Kediri	1.68	6.42	5.30	4.16	-12.82	-17.87	-12.93	-13.81	2.02	14.38	1.70	4.18
Malang	1.96	10.47	5.63	5.42	-5.99	-22.36	-9.59	-11.21	3.41	3.18	2.10	2.67
Lumajang	1.85	7.67	5.10	4.19	-7.12	-38.07	-12.72	-14.56	2.30	6.26	0.57	1.92
Jember	1.85	9.16	5.08	4.49	-6.56	-29.28	-9.39	-11.38	3.02	4.50	1.72	2.50
Banyuwangi	1.73	8.06	5.68	4.84	-4.21	-33.34	-10.16	-12.83	1.32	4.67	1.19	1.75
Bondowoso	2.52	10.24	5.20	4.46	-5.59	-29.63	-7.19	-8.54	2.10	-0.69	1.44	1.57
Situbondo	1.02	9.61	5.21	4.12	0.22	-33.16	-11.29	-10.24	0.78	5.52	1.42	1.61
Probolinggo	4.31	8.58	5.31	5.63	-3.85	-26.09	-13.69	-12.68	1.01	-1.28	1.52	0.72
Pasuruan	2.75	11.15	6.86	8.04	1.30	-20.32	-11.46	-13.64	0.17	3.38	3.07	2.63
Sidoarejo	1.67	9.92	7.96	8.75	-7.05	-23.37	-17.46	-20.46	-2.00	2.30	3.43	2.52
Mojokerto	2.00	6.10	5.66	5.10	-4.15	-23.22	-11.99	-14.80	-1.25	6.50	2.50	3.13
Jombang	1.73	10.60	6.17	5.36	-4.35	-30.22	-12.19	-12.81	1.46	1.89	2.12	1.87
Nganjuk	2.63	9.98	5.20	4.87	-7.05	-33.21	-12.11	-13.26	1.39	0.06	1.83	1.49
Madiun	2.61	8.63	5.51	4.47	-11.06	-32.88	-11.39	-12.99	-0.22	-1.13	1.94	0.84
Magetan	0.90	9.02	4.67	3.36	-9.26	-37.10	-9.50	-11.78	4.36	0.47	0.66	2.23
Ngawi	1.77	9.27	4.64	3.69	-5.08	-34.28	-10.22	-10.06	1.91	2.52	1.69	1.84
Bojonegoro	1.55	9.30	4.66	3.40	-9.17	-25.68	-12.03	-11.73	1.43	0.91	1.43	1.39
Tuban	1.54	6.69	6.56	5.56	-1.53	-41.58	-13.23	-23.38	-1.41	21.02	1.66	7.79
Lamongan	1.77	8.85	4.95	3.64	-0.89	-35.68	-13.68	-9.33	2.12	10.26	1.55	2.32
Gresik	-0.06	9.33	7.25	7.67	-1.65	-23.19	-15.31	-18.88	0.33	6.90	1.95	4.67
Bangkalan	1.69	9.56	4.82	3.68	-3.99	-19.53	-11.36	-8.75	1.63	1.48	-0.04	0.78
Sampang	2.09	7.74	4.86	3.55	-2.51	-35.29	-11.12	-8.07	2.05	-1.75	0.76	1.36
Pamekasan	1.94	6.54	5.31	4.33	-3.17	-40.38	-11.40	-11.26	1.35	4.64	0.45	0.98
Sumenep	2.12	16.61	5.00	5.77	-1.28	9.59	-13.63	-4.39	1.47	-6.03	1.06	-0.43
City of Kediri	-12.77	12.23	7.43	11.10	-20.80	-9.57	-10.31	-9.74	0.81	0.11	1.87	0.44
City of Blitar	-1.09	9.01	6.22	6.35	-12.38	-16.49	-15.95	-15.90	0.49	3.94	1.65	2.04
City of Malang	-1.55	11.86	7.35	9.20	-33.83	-31.70	-13.03	-21.79	-0.95	0.82	1.07	0.96
City of Probolinggo	-3.05	11.03	5.73	6.99	-12.33	-24.55	-15.63	-18.57	1.24	0.24	0.83	0.66
City of Pasuruan	-1.36	10.13	6.90	7.42	3.55	-17.71	-9.56	-11.63	0.97	3.66	2.84	2.99
City of Mojokerto	-2.09	11.77	5.93	7.57	-5.44	-16.60	-10.52	-12.52	-0.47	6.08	1.10	2.73
City of Madiun	-2.93	12.82	7.66	8.70	-20.50	-23.96	-15.88	-18.22	0.59	1.89	1.85	1.84
City of Surabaya	-26.17	12.15	7.40	9.36	-12.53	-28.68	-16.21	-22.38	-4.39	-0.17	2.98	1.54

Note : calculated based on data provided by BPS various year

Appendix 17 Growth Rate of Gross Regional Domestic Product at Constant 1993 Prices by Provinces, 1996-1997

Province	Growth rate (%)		Change 1996-1997
	1996	1997	
1. Nanggroe Aceh Darussalam	2,47	-0,16	-2,63
2. North Sumatra	9,01	5,70	-3,31
3. West Sumatra	7,87	5,14	-2,73
4. Riau	5,46	3,16	-2,30
5. Jambi	8,81	3,91	-4,90
6. South Sumatra	8,03	5,08	-2,95
7. Bengkulu	5,72	3,07	-2,65
8. Lampung	7,95	4,15	-3,80
9. Jakarta	9,10	5,11	-3,99
10. West Java	9,21	4,87	-4,34
11. Central Java	7,30	3,03	-4,27
12. Yogyakarta	7,74	3,51	-4,23
13. East Java	8,26	5,02	-3,24
14. Bali	8,16	5,81	-2,35
15. West Kalimantan	10,75	7,53	-3,22
16. Central Kalimantan	11,85	6,29	-5,56
17. South Kalimantan	9,95	4,69	-5,26
18. East Kalimantan	8,29	4,45	-3,84
19. North Sulawesi	9,25	5,38	-3,87
20. Central Sulawesi	8,33	4,71	-3,62
21. South Sulawesi	8,31	4,30	-4,01
22. Southeast Sulawesi	6,01	5,32	-0,69
23. West Nusa Tenggara	8,11	5,26	-2,85
24. East Nusa Tenggara	8,22	5,62	-2,60
25. Maluku	7,14	3,51	-3,63
26. Papua	13,87	7,42	-6,45
Indonesia	7,82	4,7	-3,12

Note: calculated based on data provided by BPS various years

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Summary in Dutch

De geschiedenis van de moderne Indonesische economie heeft aangetoond dat men in Indonesië de economische ontwikkeling beschouwt als een groeiproces dat specifieke maatregelen vereist. Als gevolg daarvan is de ontwikkelingsstrategie van Indonesië geweest om de productiefactoren uit de primaire sector naar de industriële sector te verschuiven. De primaire sector wordt gekenmerkt door lage productiviteit, traditionele technologie en dalende rendementen. De industriële sector daarentegen wordt vooral gekenmerkt door een hoge productiviteit, moderne technologie, toenemende opbrengsten en structurele transformatie die zowel de economische als de werkgelegenheidsstructuren verandert. Echter, uit de gegevens blijkt dat het ontwikkelingsproces in Indonesië alleen economische groei veroorzaakte, maar heeft nagelaten om de werkgelegenheidsgroei te versnellen, vooral in de industrie. Het resultaat is industrialisatie zonder het scheppen van extra werkgelegenheid.

Als we een vergelijk maken tussen de tijd voor, tijdens en na de crisis, dan ontstaat een merkwaardige trend. Zo kwam economische groei niet overeen met het creëren van werkgelegenheid. In feite daalde de werkgelegenheid juist. In het tijdperk van de Nieuwe Orde bijvoorbeeld, genereerde 1 procent economische groei ongeveer 400.000 banen. Echter, tijdens de herstelperiode resulteerde 1 procent economische groei in minder dan 200.000 nieuwe banen. Dit betekent dat bij een netto instroom van ongeveer 2 miljoen mensen in de beroepsbevolking per jaar, de economie met meer dan 10 procent moest groeien, alleen maar om de nieuwe arbeidskrachten op te vangen, zonder dat de dan heersende werkloosheid wordt teruggedrongen.

De discrepantie tussen de economische groei en het scheppen van werkgelegenheid veroorzaakt verschillende problemen. Ten eerste is er een groeiende kloof tussen de industrie en de landbouw. Dit vormde een ernstig probleem, aangezien deze kloof zal blijven bestaan bij gebrek aan steun van de overheid bij het stimuleren van het concurrentievermogen in

de agrarische sector. Ten tweede, het grootste aandeel in de beroepsbevolking is werkzaam in de dienstensector, die wordt gedomineerd door de informele sector. Dit heeft bijgedragen aan een hogere graad van onderbezetting. Ten derde, de werkloosheid zat, en zit in de lift, en zal mogelijk een groot probleem gaan vormen in de nabije toekomst. Gecombineerd, zullen deze problemen geduchte hindernissen voor elk armoedebestrijdingsprogramma vormen.

Indonesië is zoals bekend door een aantal economische crises gegaan. Er zijn drie verschillende crises in verschillende perioden, namelijk in de jaren 1930, in de jaren 1960 en in de jaren 1990. De crises in de jaren '30 en '90 hadden soortgelijke, externe veroorzakers, maar de gevolgen waren verschillend. De crisis in de jaren '30 raakte namelijk de agrarische sector het sterkst, terwijl in de jaren '90 de moderne sector de last droeg van de economische crisis. Er zijn ook overeenkomsten tussen de crises uit jaren '60 en '90. Beide crises werden gevolgd door sociale en politieke onrust waardoor het bewind van de oude regering ten einde kwam en plaats maakte voor nieuwe politieke coalities. Er is een debat over de volgorde van de politieke en economische crisis in de jaren '60: ging de politieke crisis vooraf aan de economische of was het juist andersom? Wat de crises uit de jaren '60 van die uit de jaren '30 en '90 onderscheidt, is dat de eerste werd veroorzaakt door interne factoren.

Het effect van de economische crisis in de jaren '90 was zeer duidelijk. Ten eerste verschoven de hulpmiddelen van de moderne naar de traditionele sector, van de non-trade naar de sector handel, en van de import-afhankelijke naar de op de export gerichte sector. Veel bedrijven kregen te maken met kleinere winstmarges en dalend reëel inkomen, en in veel gevallen werden bedrijven en bedrijven gedwongen tot een faillissement. Aan de andere kant profiteerde de exportindustrie en de landbouw van de crisis. Interessant is dat op provinciaal niveau nauwelijks verandering in de patronen van zowel de economie als de werkgelegenheidsstructuren werd gevonden.

Ten tweede veranderden door de crisis in de jaren '90 de patronen van het gezinsinkomen en de uitgaven. Degenen die hun banen in de industrie verloren, werden verplaatst naar lagere inkomensbanen of

vonden werk in de landbouw- of de dienstensector. Deze overgang trof de mensen in hun koopkracht en dwong hen tot het vinden van alternatieve strategieën om het hoofd boven water te houden. Ten derde daalden de overheidsuitgaven aan openbare diensten, zoals onderwijs en gezondheidszorg. Bijgevolg kregen mensen minder toegang tot verschillende diensten. De gegevens hebben aangetoond dat de crisis zorgde voor een toename van de armoede. Uit gegevens van Said en Winifred (2001) blijkt dat er een armoedestijging van tien procent was in de periode van 1996-1998, en steeg het aantal armen van 31 miljoen naar bijna 54 miljoen mensen.

De prijsstijging van essentiële grondstoffen die nodig zijn om in de basisbehoeften van mensen te voorzien, is de belangrijkste factor achter de stijging van het aantal arme mensen. Tijdens deze periode bedroeg de inflatie bijna 150 procent. Verder daalden de reële lonen daalden van Rp. 70.700 per week naar Rp. 68.000 per week. Deze twee factoren samen veroorzaakten de daling van de koopkracht.

De impact van de Indonesische crisis in de jaren negentig op de werkloosheid was "niet zo ernstig". Alleen de werkloosheid steeg licht tot 5,5 procent in 1998 (het kwam van 4,7 procent in 1997) en wel op het moment dat de economische groei op het laagste niveau stond in de geschiedenis van het moderne Indonesië. Een belangrijke verklaring voor de relatief milde effecten op de werkgelegenheid ligt in aanpassing van de arbeidsmarkt. Tijdens de crisis was er in alle sectoren een dubbelcijferige krimp, bijvoorbeeld -39,8 procent in de bouw en -26,7 procent in de financiële sector. Het is belangrijk op te merken dat de werkgelegenheid in de landbouw nog steeds groeiende (0,2 procent) was. Dit geeft aan dat de "traditionele" sectoren veerkrachtiger bleken te zijn dan moderne. De informele sector toonde vergelijkbare elasticiteit. Het had de capaciteit om mensen die uit de industrie vertrokken op te vangen in diensten die deel uitmaken van de informele sector. Op basis van deze tendens, lijkt het een steekhoudend stelling dat de landbouw en informele sectoren de veiligheidskleppen zijn tijdens een economische crisis. Inderdaad hebben deze twee economische sectoren een belangrijke rol gespeeld als buffers

die de gevolgen van de economische schok hebben verminderd door het opvangen van arbeiders die anders werkloos zouden zijn geworden.

Zwakke structurele transformatie was een van de ontwikkelingsgerelateerde problemen waarmee Indonesië werd geconfronteerd. De regionale verschillen in de ontwikkeling leek de situatie te verergeren. Op basis van theoretisch uitzichten bestaat de relatie tussen regionale verschillen en nationale ontwikkeling uit twee fasen (Szirmai, 2005). In de eerste fase, heeft de ontwikkeling de neiging om zich te concentreren op bepaalde gebieden en dat leidt tot toenemende regionale verschillen. Tijdens de tweede fase, als een land voldoende nationale economische groei realiseert, dalen de regionale verschillen aanzienlijk. Indonesië bleek echter niet deze twee fasen te volgen. Het land is namelijk blijven steken in de eerste fase, wat resulteerde in langdurige regionale verschillen, die nooit leken te verdwijnen. Het verschil is heel duidelijk te zien. Zo is Java, een klein en dichtbevolkt eiland uitgegroeid tot het centrum van de economische activiteiten, dat bijdragen levert tot bijna 50 procent van het BBP van het land.

Aan de andere kant vinden we Papua, een groot eiland bezet door slechts 1 procent van de nationale bevolking, en daar wordt minder dan 1 procent van het BBP gegenereerd. De groei van de productie in Java is sneller dan die in de buitenste eilanden, die betere prestaties in de ontwikkeling van de productie hebben. Dit is geen nieuw fenomeen omdat het historische economische precedenten kent, vooral tijdens de koloniale heerschappij in de 19e eeuw, die de regionale ontwikkeling en onderontwikkeling het best kunnen verklaren.

Het verschil is niet beperkt tot Java versus niet-Java, noch tot specifiek inter-provinciale verschillen. Dat is merkbaar op het eiland Java. In discussies over provinciale ongelijkheid, wordt Jakarta vaak in het midden geplaatst. Als vestiging van de hoofdstad van Indonesië, heeft deze provincie een belangrijke rol gespeeld in het besturen van de economie van het land. Door centralisatie van de nationale economie in Jakarta, is de kloof tussen Jakarta en de andere provincies verbreed. Bijvoorbeeld, de GRDP per inwoner van Jakarta is drie keer die van de provincie Yogyakarta, hoewel beide provincies op het eiland Java liggen.

Het is belangrijk om in gedachten te houden dat de economische prestaties niet altijd overeenkomen met de sociale indicatoren. Yogyakarta is een goed voorbeeld. De sociale indicatoren voor deze kleine provincie laten een hoge prestatie in zowel onderwijs- als gezondheidszorg zien. Echter, de economische ontwikkeling bleef bij andere provincies in Java achter. In tegenstelling hiertoe heeft West-Java, die heeft geprofiteerd van de ontwikkeling in de verwerkende industrie als een spill-over effect van Jakarta, slechte sociale indicatoren. Zijn prestaties in het onderwijs, bijvoorbeeld, is een van de laagste in het land.

De economische prestaties in Java voor de crisis bleken het Indonesische patroon te volgen. Ten eerste kenden alle provincies in Java een hoge economische groei, waarbij de industrie het hardst groeide. Ten tweede was er in termen van de economische structuur een verschuiving van landbouw naar industrie en diensten. Deze tendens werd echter niet gevolgd door een veranderend patroon in de werkgelegenheidsstructuur. De industrie kon niet voldoende banen bieden, zodat ze niet in staat waren om het arbeidsoverschot in de landbouw over te nemen. In aanvulling hierop kromp de werkgelegenheid. Dit bevestigt de eerdere conclusie dat in Java industrialisatie verliep zonder het scheppen van extra werkgelegenheid, ook wel mislukte industrialisatie genoemd.

De conclusie dat we uit deze analyse kunnen trekken is dat de industrie niet een belangrijke rol speelde in het scheppen van banen maar de dienstensector. Dit geldt voor alle provincies. Zelfs op West-Java, waar de productie het snelst groeide, was het aandeel van de dienstensector het hoogst. Omdat de dienstensector in Indonesië werd gedomineerd door de informele sector, kunnen we zeggen dat de informele sector een cruciale rol heeft gespeeld als een veiligheidsklep voor de economie: het voorzien van banen en de bijdrage aan de economie was vrij hoog.

Het ontwikkelingspatroon binnen de districten voor de crisis bleek ook een interessant patroon te hebben. Grote steden op Java speelden twee contrasterende rollen tegelijkertijd, dat wil zeggen een generatieve en een parasitaire. Gebieden rond de grote steden toonden namelijk gemengde economische prestaties. Sommigen van hen kenden een sterke

economische groei, mogelijk veroorzaakt door een spill-over effect van de grote steden, zoals Jakarta, Bandung, Semarang en Soerabaja. Niet alle omliggende gebieden hebben echter op deze manier geprofiteerd. In feite leden sommige gebieden economische achteruitgang door de exploitatie van de hulpbronnen die de economische ontwikkeling in de grote steden mogelijk maakte.

Toen de economische crisis het land raakte, werden alle gebieden zwaar getroffen. Op provinciaal niveau bleek er echter geen samenhang tussen betere economische prestaties vóór de crisis en de mogelijke positieve of negatieve effecten van de crisis. Oost-Java werd het hardst getroffen, terwijl West-Java, die betere pre-crisis prestaties kende, bespaard van de ergste gevolgen. Op districtsniveau waren de resultaten echter zeer interessant. Zij bevestigden de hypothese dat hoe beter de economische prestaties waren vóór de crisis, hoe harder de crisis toe sloeg.

De bevindingen steunden ook de algemene conclusie dat de crisis meer invloed had op de moderne (stedelijke) sector dan de traditionele (landelijke) sector. De industriesector verloor het grootste deel van haar vermogen om de economische groei te ondersteunen. Industrie verloor ook zijn vermogen om de beroepsbevolking, die een negatief groeipercentage in deze periode toonde, over te nemen. Juist de dienstensectoren en landbouw toonden een hogere arbeidscapaciteit. Dit betekent opnieuw dat ook hier de landbouw en diensten een belangrijke rol hebben gespeeld als buffer tijdens de economische neergang.

De resultaten onthulden een andere interessante bevinding. Toen de economie (vóór de crisis) snel groeide, namen de kansen op werk juist af. De arbeidsmarkt groeide echter met bijna twee procent tijdens de piek van de crisis. In twee provincies, namelijk Midden-en Oost-Java, was de groei zelfs meer dan 2 procent.

Op districtsniveau liep de economische krimp in de dubbele cijfers in bijna alle districten. Alle grote steden, de hoofdstad van elke provincie, met inbegrip van Bandung, Semarang, Yogyakarta en Surabaya, hadden toen een lagere economische groei dan gemiddeld. Interessant is, dat twee districten in Midden-Java, Cilacap en Jepara, juist een positieve

economische groei tijdens het hoogtepunt van de crisis meemaakten. De hoge economische groei in deze twee districten wordt wel toegeschreven aan de veerkracht van de industrie-en dienstensectoren, die tijdens het hoogtepunt van de crisis hoge groeicijfers lieten zien. Zo steunde de industrie in Cilacap vooral op de olie-industrie, terwijl in Jepara de ambachtelijke industrie belangrijk was.

In het algemeen gesteld, vertegenwoordigde op provinciaal en districtsniveau, de periode van 1998-2000 de eerste fase van herstel. Economische groei kwam in een stroomversnelling en de meeste districten profiteerden van de economische groei, variërend van 1 tot 6 procent per jaar. Er was echter geen significante correlatie tussen economische groei gedurende de twee jaar na de piek van de crisis en de economische groei voor de crisis. Dit kan zijn omdat deze periode nog steeds behoort tot de eerste fase van herstel. Hopelijk zal een correlatie ontstaan wanneer we de tweede fase van herstel in de volgende periode analyseren namelijk 2000-2007. Slechts drie districten kenden een negatieve economische groei, namelijk Indramayu in West-Java, Kulonprogo in Yogyakarta, en Sumenep in Oost-Java. Tot de factoren achter de negatieve economische groei in deze drie districten, is het falen van de industrie om de economische groei te stimuleren. In deze drie districten kromp ook het aandeel van de industrie.

De vraag is vervolgens, hoe de economische omstandigheden op districtsniveau huishoudelijke omstandigheden kunnen verklaren in de eerste fase van herstel. Gebaseerd op de analyse van huishoudelijke economische omstandigheden, zijn er aanwijzingen dat de uitgaven per hoofd van de bevolking (PCE) in de periode van 1997-2000 steeds groter werden. Nadere analyse laat zien dat de economische huishoudelijke omstandigheden werden beïnvloed door verschillende huishoudelijke indicatoren, namelijk het onderwijs van de leden van het huishouden en het aandeel van de leden van het huishouden dat werkzaam was. Huishoudens die beter opgeleide leden en meer werkende leden hadden, kenden meer voorspoed. Verder bleken huishoudens in stedelijke gebieden onder gunstiger omstandigheden te verkeren in vergelijking met de huishoudens in plattelandsgebieden. Binnen de verklarende factoren

bleek onderwijs de variabele die het best het verschil in de huishouduitgaven kon verklaren.

Interessant is verder dat de resultaten uit multilevel analyse erop wijzen dat het onderwijs effectiever is wanneer de economische omstandigheden binnen een district goed zijn. Deze bevinding versterkt het argument dat de economische groei nog steeds belangrijk als een stimulerende factor om economisch te overleven.

We kunnen uit deze bevindingen de conclusie trekken dat het noodzakelijk is voor de overheid om de economische groei in districten / steden te (blijven) stimuleren door het aanbieden van beter onderwijs voor de mensen. Dit is de beste oplossing voor het helpen van mensen om uit een crisis te geraken en ook om zo indirect armoedebestrijdingsprogramma's te ondersteunen.

Tijdens de tweede fase van herstel, 2000-2007, was de economische groei op districtsniveau beter. Geen enkel district toonde namelijk negatieve economische groei. Gemiddeld genomen was de economische groei in de tweede fase van herstel hoger dan in de eerste fase van herstel. Dit is een goede indicatie van betere voorwaarden voor gezinnen, omdat de economische situatie in een district belangrijk is bij het vormgeven van huishoudelijke economische omstandigheden, hoewel de problemen blijven bestaan. Zo zijn de regionale verschillen die voor de crisis bestonden nog steeds aanwezig. Dit betekent huiswerk voor de overheid als het gaat om de toekomstige ontwikkelingen.

Uit de analyse van de regionale autonomie en de lokale economische groei komen drie verschillende, interessante resultaten. Ten eerste is het zo dat wanneer beide districten en steden samen worden getoetst, General Purpose Grant (GPG) en Human Development Index (HDI) goede voorspellers blijken te zijn van de lokale economische groei, maar GPG blijkt onbelangrijk te zijn als het Special Purpose Grant (SPG) ook wordt opgenomen in de analyses. Dus, na controle zijn SPG en HDI goede voorspellers voor de lokale economische groei. Ten tweede blijkt dat als alleen districten worden geanalyseerd, General Purpose Grant (GPG) de beste voorspeller voor de lokale economische groei is, zelfs wanneer HDI wordt toegevoegd. Maar GPG blijkt onbelangrijk te zijn als SPG wordt

toegevoegd en de laatste is dan de enige belangrijke variabele om de lokale economische groei te voorspellen. Dit betekent ook dat de verklaarde variantie van de economische groei door SPG hoger is dan door andere variabelen in de analyse. Ten derde, het is heel duidelijk dat alleen GPG een goede voorspeller is voor de lokale economische groei indien alleen steden zijn opgenomen.

De implicaties van deze uitkomsten zijn tweeledig. Ten eerste houdt de lokale economische groei duidelijk verband met fiscale decentralisatie als een gevolg van de regionale autonomie. De lokale economische groei is ook mede het resultaat van HDI. Maar men moet bedenken dat dit effect anders is in districten dan in steden. Dit impliceert een ander beleid voor districten en steden wat betreft subsidie toewijzingen. Ten tweede is in alle gevallen GPG positief verbonden met de lokale economische groei, maar SPG is tegelijkertijd negatief verbonden met de lokale economische groei. Dit wijst op een trade-off tussen beide instrumenten. Echter, op stadsniveau kunnen we concluderen dat er geen duidelijk verband tussen de regionale autonomie en de lokale economische groei.

De economische crisis in 1997-1998 veroorzaakte veel problemen, maar biedt ook nieuwe mogelijkheden voor toekomstige ontwikkelingen. Het werpt ook licht op systematische institutionele beleidskwesties die nodig de zijn op weg naar een meer rechtvaardig Indonesië. De politieke overgang van gecentraliseerde regelgeving naar een decentrale overheid, als een politiek gevolg van de economische crisis, brengt hoop voor het nieuwe tijdperk van economische ontwikkeling in dit land. Echter, de huidige situatie met betrekking tot de wereldwijde financiële crisis van 2008 belemmert vooralsnog de ontwikkelingsinspanningen.

Curriculum Vitae

Sukamdi was born August 5, 1960 in the village of Cawas, Klaten, Central Java, Indonesia. He studied Population Geography, at the Faculty of Geography, Universitas Gadjah Mada (UGM), Yogyakarta, Indonesia between 1980-1985 and since then he has been working as lecturer in the same department. In addition he has been working as researcher at the Center for Population and Policy Studies (CPPS) in the same university. He received his master degree in demography from Florida State University, USA in 1990. In the period of 1994-2004 he was appointed as the vice director of the CPPS and in 2005-2008 he acted as the director of the center. After finishing his directorship he was appointed as vice dean of the Faculty of Geography, Universitas Gadjah Mada in the period of 1998-2012. He worked as research fellow at ISEAS (Institute of Southeast Asian Studies) Singapore in 1995. In 1993, he was a mentor for regional development planning training at International University of Japan and International Development Center of Japan (IDCJ) and two years later he also mentored the Indonesian participant in similar training at International Management Institute (IMDI) University of Pittsburg, USA. Since 2000 he has been teaching in master program of population studies, public administration and policy studies at UGM. In 2004-2005 he was appointed as a member of National Expert Team to amendment Law No. 10/1992 on Population Dynamics and Family Welfare. In 2006 he was also a member of National Independent Academic Review Team to amendment Law No. 13/2003 on Labour Force. He worked as short time consultant for the World Bank; International Organization of Migration (IOM), Jakarta; United Nation Population Fund (UNFPA), and Asian Development Bank, manila during the period of 2009-2012. Recently, 2011-2013, he acts as a member of Expert Team for the Implementation of electronic identity card (e-KTP) by the Ministry of Internal Affairs, Indonesia.

From a historical point of view, the modern economy of Indonesia is characterised by changing economic and employment structures that indicate a process of industrialisation without job creation. The relatively high economic growth during the New Order era, accompanied by limited job creation brought about high rates of unemployment and underemployment. This is true at the national, provincial and district/city level, and has been going on for decades. The situation got worse when the crisis hit the country in 1998; the GDP contraction was the highest in Indonesian history reaching 13.7 percent, the exchange rate almost doubled compared to the previous year, and the interest rate became very high. The manufacturing sector was hit the most by the crisis, causing the layoff of thousands of workers. Together with skyrocketing food prices, people's parity purchasing power declined strongly, which led to increasing poverty rates. Interestingly, Agriculture and the services sector served as a safety belt for the stressed economy. In the 1998-2000 period the economy started to recover slowly, at both macro and micro level.

Using multilevel analysis, the study contends the importance of household and area factors in explaining the economic performance of Indonesian households. Education and employment combined with economic growth within the district showed to be the best predictors for household economic conditions. Unfortunately, regional autonomy, which started in 2000, has not had any significant influence in fostering district/city economic growth. In addition, the problems of education and employment proved to be the main issues affecting Indonesian economic development. Thus, the agenda of the future development is twofold: (1) how to make decentralisation work as an engine of economic development at the district/city level, and (2) to prioritise employment creation and education development. The study also contributes to the importance of employing multilevel analysis to provide deeper understanding on Indonesian economy.

Sukamdi holds a Bachelor's degree in Population Geography (Universitas Gadjah Mada, Indonesia, 1985) and Master of Science in Population Studies (Florida State University, US, 1990). He currently works as lecturer at the Faculty of Geography, Universitas Gadjah Mada and is senior researcher at the Center for Population and Policy Studies at the same university.

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