

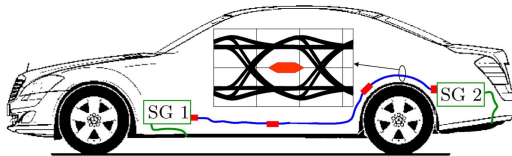


Volker Zwillich (Autor)

Elektromagnetische Verträglichkeit und Signalintegrität hochbitratiger Datenbussysteme im Kraftfahrzeug

Volker Zwillich

**Elektromagnetische Verträglichkeit
und Signalintegrität hochbitratiger
Datenbussysteme im Kraftfahrzeug**



Cuvillier Verlag Göttingen
Internationaler wissenschaftlicher Fachverlag

<https://cuvillier.de/de/shop/publications/1001>

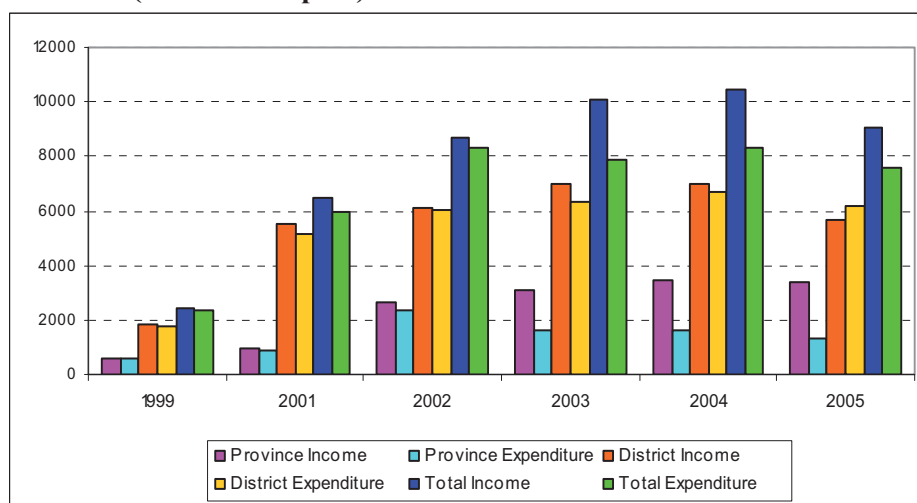
Copyright:

Cuvillier Verlag, Inhaberin Annette Jentzsch-Cuvillier, Nonnenstieg 8, 37075 Göttingen,
Germany

Telefon: +49 (0)551 54724-0, E-Mail: info@cuvillier.de, Website: <https://cuvillier.de>

Besides, the district government expenditures were spent more on the routine expenditure than the development expenditures. The general outlook of the local government income of Aceh shows that the higher contribution of government income comes from DAU (General Allocation Fund) on average 36.6 percent for the period of 1999-2005. In addition, the largest portion of the routine expenditure was spent mostly on government official salary on average 57 percent during 1999-2005. Moreover, the biggest part of the development expenditure of the local government income was expended for infrastructure and government office on average 27.9 and 21.4 percent during 1999-2005, respectively. This situation shows that there is a different performance of fiscal and expenditure of each district government in Aceh. It is highly emphasized by the maturity and orientation of the development planning of each region in the light of the implemented law of regional decentralization²¹. Figure 1.7 obviously shows the development of both province and each district governments' income and expenditure of Aceh for the period of 1999-2005.

Figure 1.7 Realizations of Provincial and District Government Income and Expenditure in Aceh, 1999-2005 at constant price 2006 (in Billion Rupiah)



Source: Own presentation based on The World Bank Data, 1999-2005²²

- ²¹⁾ Regional autonomy regulations were strengthened by the Law No. 22/1999 concerning on regional governments and the Law No. 18/2001 relating to the Special Autonomy for Nanggroe Aceh Darussalam Province. Furthermore, the Law No. 18/2001 is replaced by the Law No 11/2006 about the Aceh government.
- ²²⁾ The calculation based on merely regular fiscal revenues of local government as result of decentralization law excluding the reconstruction fund for the impact of tsunami on December 26th, 2004 around 16.4 trillion Rupiah (2005-2009) and a new administrative provincial law (UU No. 11/2006) that will be stated in 2008, The World Bank (2006).

Unfortunately, so far, Aceh still faces a higher poverty rate as indicated by the yearly poverty rate recorded by the Central Bureau of Statistics of Aceh (CBS, 2005). According to the CBS of Aceh, a number of the poor in Aceh reached 426 thousands (10.79%) of the total population 3.93 million in 1996. Then, in 2000, a number of the poor sharply increased from 1.10 million (26.5% of the entire Aceh population 4.16 million) to 1.22 million (30.43% of total population 4.02 million) in 2001. In 2003, a number of the poor were 1.25 million (40.39% of total population 4.21 million). Thereafter, in the period of 2004-2005, a number of the poor increased from 1.16 million to 1.90 million which are generated by increasing vulnerability of households to poverty. This situation was affected by the tsunami catastrophe at the end of December 2004 together with the oil prices increases in March and October 2005. An increase in the oil prices, as triggered by the cutback of the oil subsidies, induced higher prices of goods and services in general. This had considerable impacts on certain households in particular on poor and middle-income households. The impact of higher consumer prices on households is that their purchasing power expressed as real income decreases and, in general, also consumption level declines. The more pronounced such changes in consumer prices are the more negative is their impact on households. In other words, inflation – measured at the level of consumer prices – causes consumer welfare to be reduced if the income is not compensated by e.g. transfer payments or other means.

Derived from the research background of this study comprehensively discussed above, the effects of reducing oil subsidies which induce the increasing oil prices will negatively encroach on the welfare-dropping of certain households, particularly the poor through the real income decrease. Therefore, this study will basically lay emphasis more on investigating the impact of the oil prices increases (i.e. especially gasoline, diesel, and kerosene prices) on account of the oil subsidy reduction on the poor in Nanggroe Aceh Darussalam (NAD) Province.

1.2 Research Question, Study Objective and Hypothesis

1.2.1 *Central Research Question*

How large is the impact of the oil prices increases on poor households in Nanggroe Aceh Darussalam Province?

1.2.2 *Sub Research Question*

1. What are the main characteristics of the poor being vulnerable to the oil prices increases in Nanggroe Aceh Darussalam?
2. Whether a direct or indirect effect is the most severe in striking down the poor into the adverse circumstances if the policy of increasing oil prices is implemented?
3. Whether poor households in urban regions or in rural regions are most affected by the oil prices increases?
4. What courses of action can be implemented to reduce the poverty rate and the vulnerability of the poor to higher oil prices, both in the short run and in the long run?

1.2.3 *Research Objective*

1. To identify the main characteristics of the poor being vulnerable to the oil prices increases descriptively.
2. To investigate a direct and indirect effect of the oil prices increases on the poor both in urban areas and in rural areas.
3. To examine the real impact of the oil prices increases on the poor and the vulnerability of the poor to the oil prices increases whether in urban regions or in rural regions.
4. To derive a set of feasible strategies aimed at reducing the impact of higher oil prices on the poor and the vulnerability of the poor, both in the short run and in the long run.

1.2.4 *Hypothesis*

In line with theoretical reviews and correlated previous researches with respect to the impact of the oil prices increases on the poor, the study undertakes to formulate some hypotheses as follows:

1. There is a positive relationship between the effect of increasing oil prices as a result of diminishing government oil subsidies and increasing poverty rate together with the vulnerability of the households to poverty in Nanggroe Aceh Darussalam Province whether a direct or indirect impact.
2. The increase in oil prices as a consequence of reducing government oil subsidies give significant impact on poor households, both in urban and in rural regions together with the vulnerability of the households to poverty in Nanggroe Aceh Darussalam Province.

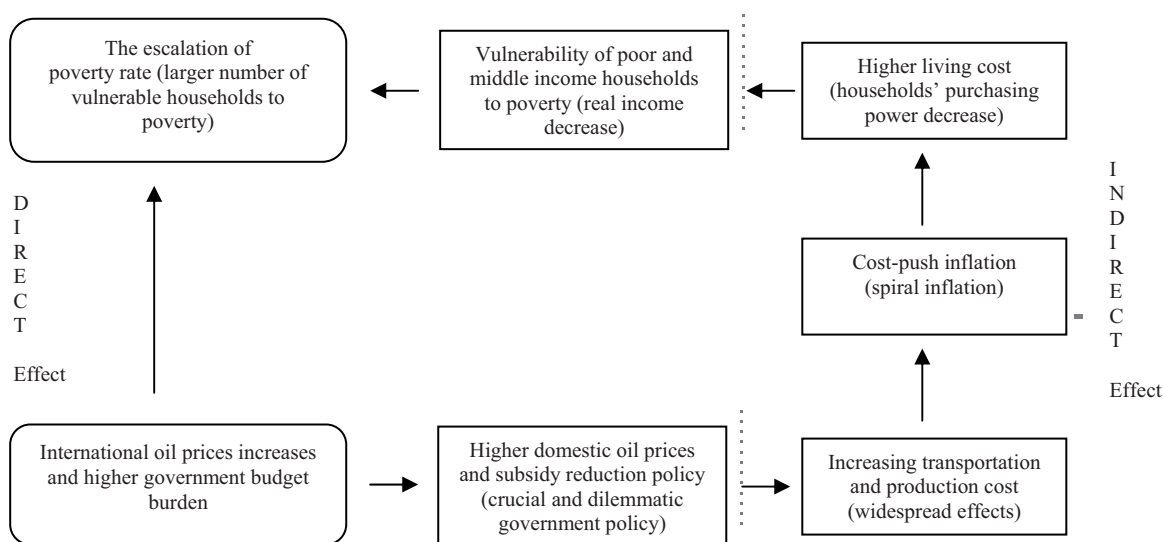
1.3 Structure of the Study

The specific discussions of this study are simply explained by presenting Figure 1.8. It is intended to capture the main relationship among elements from the analytical scheme and to illustrate the key mappings of the shocks of the oil prices increases on the poor. Also, it is followed by the investigation on the vulnerability of households to poverty as a consequence of the oil prices increases. In chapter 1, this study starts on an enlightenment of the relationship between the effects of rising oil prices and poverty along with the vulnerability of certain households related to poverty in Aceh. In the following chapter 2, this study embarks on describing a wide-ranging overview on the geographical and demographical settings accompanied by the socio-economic structure of Aceh. Moreover, the debates of the previous studies and theoretical concept concerning the correlation of the oil prices increases, inflation rate, and poverty as well as the description of the oil subsidy reduction impact on the whole economy through general equilibrium concept, particularly on the poor are explained in the subsequent chapter 3. The modelling concepts are employed by the study consisting of the Descriptive Analysis Approach (DAA), the SAM-based model alongside accounting multiplier decomposition analysis, and the CGE-based model in addition to the compilations of the involved data set are clarified in chapter 4. Afterwards, in chapter 5 will discuss and analyze the results of three approaches utilized by the study comprehensively.

Specifically, at the first stage of chapter 5, in section 5.1, this empirical study embarks on exploring the picture of pragmatic conditions of each household group by using a descriptive analysis approach. It is supported by primary data conducted through field study. Some particular information explored at the beginning of this observation is focused more on the characteristics of households relating to socio-economic conditions in addition to the behaviour of the oil prices increases in the society. Based on this information, the study undertakes to enlighten the basic stumbling block with respect to poverty analysis together with the investigation of the vulnerability of households to poverty through a simple framework analysis such as graphs and tabulations. At the second stage, in section 5.2, the study attempts to take a look at the impact of the oil prices increases on the poor along with the vulnerable households to poverty comprehensively by means of the SAM-based model.

The expected intention will be primarily cracked down on nominal and real income distribution across institutions²³ in Aceh, both direct and indirect accounting multipliers effect as a consequence of harmful effects of rising oil prices in 2005. Moreover, these analyses are also strengthened by global accounting multipliers effect which provides direct and indirect accounting multipliers effect in chorus. The SAM-based model utilized at the second phase of this study makes use of two periods of SAM data set in 2002 and 2005 and then the results will enable to be compared each other in line with obtaining the fundamental pattern of the income distribution issues extensively.

Figure 1.8 Schematic Relationships of the Major Elements of the Impact of the Oil Prices Increases on the Poor



Source: Own presentation

Lastly, in section 5.3, this study takes a crack at investigating the impact of the oil prices increases on the poor in addition to the vulnerability of households to poverty. To capture this purpose, the first step, it compares between the values of the CGE results at the initial level of

²³⁾ The term “institutional” in the Systems of National Account (SNA) or The Social Accounting Matrix (SAM) is to stress formal and organizational features of transactors and, to a lesser extent, transactions. Thus an institutional definition of transactors emphasizes the units that make decisions and an institutional definition of transactions is the formal appearance of these transactions. As a consequence institutional definitions and classifications remain close to the actual experience of the economic agents (Bochove and Tuinen, 2005) and (Pyatt, 1991). Therefore, institutions employed in this study are represented by households, firms and the government (see section 4.2.2 relating to Simplified Schematic Social Accounting Matrix (SAM) Table).

the years 2002 and 2005 in order to illustrate the preliminary conditions of the whole economy of Aceh of these years. Afterwards, the second step, the primary values of the CGE results of the year 2005 are compared by the outcomes of the CGE simulations derived from SAM 2005 base. This is examined to portray the real impact of the oil prices increases on the poor. Last but not least, the third step, the study compares between the preliminary values of the CGE results of the year 2002 and the values of the CGE simulations derived from SAM 2005 base. This is aimed to illustrate the conditions of the vulnerability of households to poverty in Aceh. Specifically, the substantial investigations which will be highly expected from this third approach are able to illustrate undoubtedly the impact of the oil prices increases on the poorest, poor and middle-income households in addition to the vulnerable households to poverty. This is highlighted by presenting the variation of household income and expenditure; the saving performance of each household group; the factor income of household; the economy-wide wage (rent) for formal and informal labour²⁴ as well as capital; the local government issues with regard to the local government income and expenditure; and finally the performance of economic sectors in Aceh.

²⁴⁾ Informal labour is a concept used extensively to describe insecure forms of economic activity. Such activity may include self-employment or own-account work, employment in fragile micro-businesses or family-run activity, as well as employment where the employer fails to provide appropriate access to social protection or formal registration of any contractual relationship (Galli and Kucera, 2004 and Henley et al, 2009).

2. PROVINCIAL BACKGROUND

2.1 Geographical Outlook of Aceh

The Republic of Indonesia is one of nations in Southeast Asia, which is well known as the world's largest archipelagic country extending 5,120 kilometres from the east to the west and 1,760 kilometres from the north to the south. It is inhabited with a number of population 218,868,791 people in 2005 and the annual rate of population growth during the years 2000-2005 amounting to 1.30 percent (CBS, 2005). The total territorial area of Indonesia is 9.8 million square kilometres and brings Indonesia as generally recognized territorial country which covers land and sea. The largest part of territorial area is sea approximately 7.9 million square kilometres (81%) and then 1.9 million square kilometres (19%) constitutes land area. The country divides up land borders with Papua New Guinea, East Timor and Malaysia. Other neighbouring countries take account of Singapore, the Philippines, Australia, and the Indian territory of the Andaman and Nicobar Islands.

Furthermore, Indonesia consists of 17,508 islands including small and bigger islands and only 6,000 of which are occupied and sprinkled over both sides of the equator. From a large number of islands, Indonesia has five main islands and two large groupings of smaller islands such as Maluku and Nusa Tenggara. Then, the five largest islands are Sumatera has area 425,606 square kilometres and is settled by 21.0 percent of total population, Sulawesi is lived in by 7.2 of total population which spread over 174,219 square kilometres of Indonesia's total land area, and Java has area 129,187 square kilometres of Indonesia's total land area and is populated by 58.8 percent of total population. Furthermore, two of the islands are carved up with other nations i.e. (i) Kalimantan (the Indonesian part of Borneo) which is the largest island as compared to the others shared with Malaysia and Brunei which has 539,460 square kilometres of Indonesia's total land area and is dwelled in by 5.5 percent of total population, and (ii) Irian Jaya shared with Papua New Guinea in addition to two major archipelagos such as Nusa Tenggara and the Maluku Islands. It has 421,981 square kilometres of Indonesia's total land area and is inhabited by only 7.5 percent of Indonesia's total population. Moreover, Indonesia convincingly has a tropical climate with two dissimilar seasons such as wet and dry season cause of lying along the equator.