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**ESSAYS IN ECONOMIC DEVELOPMENT AND
CONFLICT**

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**ESSAYS IN ECONOMIC DEVELOPMENT AND
CONFLICT**

by

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DISSERTATION

Presented to the Faculty of the Graduate School of
The University of Texas at Austin
in Partial Fulfillment
of the Requirements
for the Degree of

DOCTOR OF PHILOSOPHY

THE UNIVERSITY OF TEXAS AT AUSTIN

December 2004

To my family

Acknowledgements

I owe much gratitude to many people for the completion of this dissertation. None of the research in this dissertation would have been possible without the help of my supervisor, Professor James Galbraith. As mentor and as my friend, he is always been there for me. I hope that my career will one day be as rewarding for me as it has been for him and that I will be able to repay his kindness. The comments and suggestions of my dissertation committee members were instrumental for writing this dissertation. For that I am grateful to Professor William Black, Shama Gamkhar, Robert Wilson and William Glade. I would also like to thank Jurgen Brauer and Ron Smith for their helpful comments. I also thank seminar participants at the European University Institutes, the Association of Budgeting and Financial Management, The Southern Economic Association, the LBJ School of Public Affairs and the members of the University of Texas Inequality Project for their helpful comments and suggestions for the first two chapters. I am also grateful to Sencer Ecer and Eric Lin and Adam Rogoyski for providing suggestion for the dissertation formatting using Latex. Financial support in form of fellowships during graduate school was provided by Lyndon B. Johnson School of Public Affairs, the Ford Foundation and the Carnegie Scholars Program made my life much easier. The administrative staffs in LBJ School of Public Affairs at the University of Texas assisted me in many ways. For that I am grateful to Dan Wallace, Stephanie Hill, Paula Bickham, Talitha May, Mike

Faust. Most of all, I am grateful to my wife Samira Mustafa Ali for her constant encouragement and support during the process of this dissertation. I would not be in this position without her love and support. My special thanks to my daughters Marwa and Safa for their sacrifice as graduate school took a long time. They have remained the comfort and source of aspiration and love; Thank you Safa and Marwa- the blooming flowers. My thank to my son Mustafa who saw the light of the sun on the eve of submitting this dissertation as if he is telling his dad, it is time to move on to new challenges. All errors are solely mine.

ESSAYS IN ECONOMIC DEVELOPMENT AND CONFLICT

Publication No. _____

Hamid Eltgani Ali, Ph.D.
The University of Texas at Austin, 2004

Supervisor: James K Galbraith

My dissertation consists of three chapters dealing with issues related to economic development and conflict. The first and second chapters discuss military expenditures and inequality from global and regional perspectives. The third chapter focuses on the impact of wars on relative wages in the food sector.

In the first chapter we show that a substantial body of literature has uncovered a robust relationship between institutions-including unionization and political democracy- and economic inequality. This first chapter examines the effect of military spending on inequality controlling for the size of armed forces, GDP growth, per capita income and other possible determinants. Using a panel regression with country level observations from 1987-1997, we obtained consistent estimates that there is a positive effect of military expenditure on pay inequality. This relationship is robust across variable definitions and model specification. Given the close relationship between pay and income this result suggests that a country's reduction in military spending could reduce income inequality.

Studying the inequality of the Middle East and North African (MENA) countries provides an opportunity to assess factors that shape the countries' success in distributing the wealth by looking beyond simple measures of wealth creation. This second chapter examines two issues presented in the first chapter with more emphasis on the regional dynamics. The empirical results indicate that again the military spending has strong and positive effect on inequality. A systematic reduction in military spending could reduce the level of inequality since it frees resources for other social and economic development programs.

The final chapter introduces a new perspective in considering the impact of wars on relative wages in the food sector. In a state of war people are at risk of losing one of their most basic rights – food. Millions may live in the shadow of famine and poverty. Micro-level analyses of "food-cost ratio" during civil or international wars give us insight into governments' ability, or inability to mobilize the resources to counter the danger of hunger and famine. Understanding the factors that make the food-cost ratio rise may help to formulate policy responses that mitigate human suffering in wartime environments. Therefore, this paper examines two questions: first, the effect of wars on the food-cost ratio; second, what are policies likely reduce the food-cost ratio? To answer these research questions we use panel data for 50 countries from the 1960s to the 1990s. The results of this paper will show that civil wars positively affect the food-cost ratio, while international wars apparently do not. The policy implication of this analysis is that in the event of a civil war, policy makers lack the resources to exert control on rising food-cost ratio. A rise in the food-cost ratio could be translated into

higher food prices or lower purchasing power over food, either of which may have devastating impacts on social and economic well-being. In the event of an international war, as opposed to civil war, governments have a greater capacity to prioritize and mobilize resources. Food imports remain an effective tool to reduce the rise in the food-cost ratio.

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Chapter 1

Military Expenditures and Inequality: Empirical Evidence from Global Data

1.1 Introduction

A substantial body of literature has uncovered relationships between inequality and economic and political institutions. Gradstein, Milanovic and Ying (2001) showed that democratization can reduce inequality. More generally, affluence has been correlated with the presence of democratic institutions¹ (Lipset, Seong, Torres (1993) and Diamond (1992a)). Rodrik (1999) strongly suggested that democratic institutions are associated with higher wages; institutions do matter to distributive outcomes. Dinardo, Fortin, and Lemieux (1996) have

¹The term "institution" has different meanings: in economics and sociology it often denotes the incorporation of values or norms into conventional patterns of social behavior that are sanctioned and enforced by formal and informal authority. "Institution" may be used in broader sense to denote a complex social, political and economic system which incorporates values and discharges services to the community (Esman 1964). This commonly accepted use of the term institution is a point of departure in our inquiry into using the military expenditures and size of the armed forces as institutional parameters.

shown that de-unionization is an important factor explaining the rise in wage inequality from 1979 to 1988. Differences in labor market institutions, chiefly the relative decentralization of the wage-setting mechanism, provide a widely accepted explanation of wage inequality in the U.S. as compared with other OECD countries (Blau and Kahn, 1996).

Although much work has been done on the relationship between military spending and economic growth, I am not aware of any research that addresses inequality and military spending. A watershed study by Knight, Loazy and Villanueva (1996) extended a standard growth model and obtained consistent panel data estimates of the growth-retarding effects of military spending via its adverse impact on capital formation and resource allocation. This paper emulates Knight, Loazy and Villanueva's purpose and approach. However, we treat economic growth as a control variable rather than a dependent variable, and emphasize instead the relationship between military spending and inequality.

There are three ways by which higher military spending may increase economic inequality. First, increases in military spending could be at the expense of public spending on social programs such as health and education - which have an equalizing effect. The military as an institution, therefore, competes for scarce resources with other social entitlements and reduces the special advantages conferred by those social programs².

²Dreze (2000) for example, has criticized the Indian government's unwillingness to spend an additional 0.5 percent of GDP to ensure universal elementary education while it endorsed proposals for larger increases in military spending.

Second, the taxes required to support military spending may fall disproportionately on the middle classes; if so post-tax income inequality may be increased. Third, high levels of military spending may reflect the use of violence as a means of social control, notably against trade unions and other egalitarian social forces. It is not surprising to observe that higher military spending means more societal control and a sacrifice of egalitarian values.

On the other hand, certain aspects of the military experience may cut in the other direction. The military absorbs low-skilled labor, which may raise wages for the young and unskilled. Mobilization for war may require equalizing concession to labor's interests. In general, the more equipment-intensive military expenditure, the more we expect the inequality-increasing effects to dominate; the more labor-intensive the military and home grown the military production, the more we might expect to find inequality-reduction effects in the data.

The purpose of this chapter is to examine two important questions. First, to what extent does military spending affect inequality? Second, what are the factors that tend to influence or determine levels of military expenditure?

We note that the inequality and the military expenditure variables are both endogenous. The causation between them may run both ways - from military expenditure to inequality and from inequality to military expenditure. Consequently, Ordinary Least Squares (OLS) estimates of the effect of military expenditures on inequality are likely to understate the magnitude of the effect. Our objective therefore, is to obtain estimates of the effect of military expenditure on inequality that are unaffected by simultaneity bias.

The chapter is organized as follows: Section 2 describes the data on inequality, and the key variables such as military spending, armed forces and other control variables: GDP growth, per capita real income, and size of imports. Section 3 presents empirical methodology for the model specifications. Section 4 presents panel regression estimates of the effects of military spending on inequality, using a two-stage least squares regression. Section 5 shows the military expenditures estimates. Section 6 presents a sensitivity analysis to examine robustness of the effect of military spending inequality. Section 7 discusses findings and draws some conclusions.

1.2 Data on Inequality and the Key Variables

Research on inequality and growth can be divided into two paradigms. One paradigm originated from Kuznets: growth has an impact on inequality that varies with a country's stage of development. Kuznets' idea was developed further by Robinson (1976). In the early stages of the development of an economy, as industrialization intrudes on agrarian economy, the economy's overall level of inequality increases. Later on, as the industrial sector grows, the relative wages of the poor grow faster relative to those of richer workers. Therefore in the later stages of growth the overall level of inequality decreases. The other paradigm relies on a causal relation between inequality and growth. For instance Barro and Sala-i-Martin (1995) discuss the growth enhancing factors such as technological changes, while Birdsall and *et al.* (1995.) argue that lower inequality is growth

enhancing.

Li, Squire, and Zou (1998) argued that the Kuznets curve fits better for a cross-section of countries than for panel data. On contrary, Barro (1999) used panel data to estimate inequality measured using the Gini coefficient as a function of growth and reaffirmed that the Kuznets curve shows up empirically and regularly across countries and overtime. Our model uses a modified Kuznets curve framework, taking account of both per capital income, GDP growth in the determination of inequality. In addition, we seek other variables that may independently influence this relationship.

This section describes the key variables: (1) inequality measures and trends, (2) indicators of military activities and (3) economic and conflict variables.

1.2.1 Inequality Measures and Trend

As Galbraith and Conceição (2001) have shown, the partition of pay data based on the International Standard Industrial classification (ISIC) is a useful way to compute between-group Theil T statistics and to construct from them long and dense measures of industrial pay inequality. The between-groups component of Theil's T has the following formula:

$$Theil = \sum_{i=1}^n \frac{y_i}{y} \text{LOG} \left(\frac{\frac{y_i}{N_i}}{\frac{y}{N}} \right) \quad \text{where } n \text{ is the number of industry groups}$$

in the sample, y_i is the earnings in industry i ($i = 1, 2, \dots, n$) and $y =$ total wage

earnings. N and N_i represent total employment and employment of industry i respectively. For a detailed discussion on the properties of the Theil's T one may refer to Theil (1979), Galbraith (1998), Galbraith and Berner (2001). Comprehensive data on industrial pay inequality world wide are available from the University of Texas Inequality Project (UTIP)³ with measures of Theil indexes computed for 160 countries over the period 1987-1997.

In the sample used in this paper, there is generally an increase of inequality in most countries from 1987-1997. Figure 1.1 shows a selected group of countries from different regions of the world. Countries in South America, Central America, Western Europe, South America, North Africa and the Middle East demonstrate a consistent upsurge of inequality from 1987-1997. In East Asian countries Malaysia and Taiwan show declining inequality in the 1990s, while the Philippines and Korea show cyclical patterns.

1.2.2 Indicators of Military Activities

The U.S. Arms Control and Disarmament Agency (1998) reports that world military expenditures in the decade from 1987 to 1997 were an average of \$237 dollars per capita. By comparison, some countries in Africa have an average per capita income of \$250 dollars or less. Military expenditures in poor countries are often high relative to income and also to military need. Collier and Hoeffler (2002) for example, found that during a long period of military

³For most recent data on Theil index refers to UTIP web-site at <http://utip.gov.utexas.edu>.

Figure 1: Industrial Pay Inequality within Selected Countries (1987-1997)

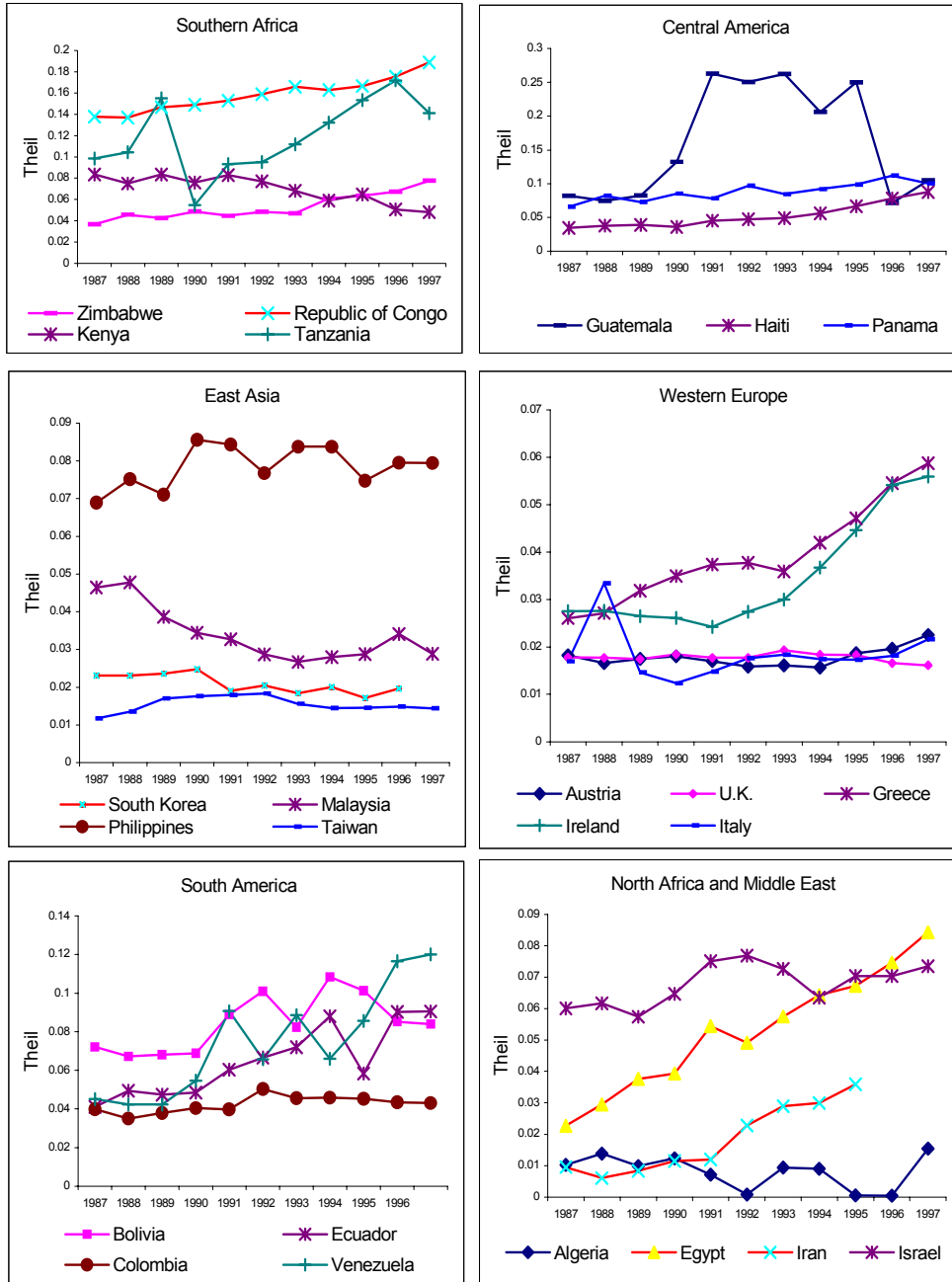


Figure 1.1: Industrial Pay Inequality within Selected Countries (1987-1997)

government in Nigeria, the navy accumulated more admirals than it had ships. This high expenditure on admirals reflects the preferences of the naval officers in the government, rather than the operational needs of the navy. Alternatively pressure from interest groups can sway policymakers to extract greater shares from government budgets for military purposes. Tanzi (1998) estimated that bribes account on average as much as 15 percent of the total spending on weapon acquisition. Corruption in campaign financing may also tend to increase public spending on the military and arms trade Pieth (1999).

To understand the impact of military expenditure on economic inequality, we will introduce the two most important indicators of military institutions: per capita military spending (MILEN) and size of the armed forces (ARMF).

1.2.2.1 Per Capita Military Spending

Data on aggregated military spending are provided by the U.S. Arms Control and Disarmament Agency (ACDA). Table 1.1 shows that in most regions of the world, military expenditures decline after the end of the Cold War; however, East Asia, South Asia and Central Africa show increases in military expenditures.

1.2.2.2 The Size of Armed Forces

The military remains a major employer and provider of jobs and this function also has an economic impact. We therefore introduce the size of armed forces

	Military Expenditure Billions of Dollars			Growth Rate 1987 base year	
	1987	1993	1997	1993	1997
World	1360	885	842	-34.9	-38.1
Developed	1120	688	610	-38.6	-45.5
Developing	234	197	232	-15.8	-0.9
Region					
North America	389	334	288	-14.1	-26.0
Western Europe	218	198	186	-9.2	-14.7
East Asia	121	145	174	19.8	43.8
Eastern Europe	472	88	65	-81.4	-86.2
Middle East	92	55.1	52.4	-40.1	-43.0
South America	22.1	21.5	28.7	-2.7	29.9
South Asia	11.8	12.7	16.3	7.6	38.1
Central America	3.1	1.6	1.7	-48.4	-45.2
Southern Africa	7.1	5.2	5.1	-26.8	-28.2
North Africa	5.8	4.3	5.5	-25.9	-5.2
Central Africa	3.5	4.9	4.3	40.0	22.9
Central Asia	--	5.4	4.4	--	
Europe, all	691	286	251	-58.6	-63.7
Africa, all	16.4	14.4	14.9	-12.2	-9.1

Table 1.1: World Military Expenditures (in constant 1987 dollars)

independently to capture the full impact of military activity on inequality. Why not treat armed forces as an endogenous variable? Because a country can retain large standing forces as the result of conscription. Conscripts cannot voluntarily withdraw their services, and when government allocates military spending the size of the armed forces may therefore be taken as predetermined. Our hypothesis is that as the size of the armed forces increases, other things equal, inequality decreases. Due to supply-side pressure on low-skilled labor market. Table 1.2 shows the size of armed forces on the decline in most regions of the world except for South Asia and southern African countries. Overall employment in the military is on the decline following the end of the Cold War.

1.2.3 The Economic and Conflict Variables

1.2.3.1 GDP growth and Per Capita Income

It is conventional in inequality models to incorporate GDP growth (GDPG) and per capita income (RGDP1) into the analysis of income distribution. The theoretical argument is based on the Kuznets hypothesis and a voluminous literature on inequality (Galbraith (1999), Loury (1981), Champernowne, (1953)). In general, we anticipate that as per capita income increases inequality should fall; most countries are on a downward sloping portion of the Kuznets curve. The literature gives a mixed view of the relationship between the economic growth rate and inequality; ours is simply that in booms jobs are plentiful and pay inequalities tend to decline. Data on income level and GDP growth are obtained

	Armed Forces (in millions)			Growth Rate 1987 base year	
	1987	1993	1997	1993	1997
World	28.3	24	22.3	-15.2	-21.2
Developed	12.00	8.2	7.18	-31.7	-40.2
Developing	16.4	15.8	15.1	-03.7	-7.9
Region					
North America	2.51	2.07	1.84	-17.5	-26.7
Western Europe	3.87	3.21	3.02	-17.1	-22.0
East Asia	8.05	7.75	6.96	-3.7	-13.5
Eastern Europe	5.65	3.21	2.8	-43.2	-50.4
Middle East	2.70	2.45	2.47	-09.3	-8.5
South America	1.19	0.91	0.94	-23.3	-21.2
South Asia	1.95	2.15	2.18	10.3	11.8
Central America	0.54	0.36	0.17	-34.7	-68.0
Southern Africa	0.44	0.45	0.36	03.7	-18.0
North Africa	0.49	0.44	0.42	-11.6	-15.0
Central Africa	0.83	0.69	0.71	-15.6	-14.1
Central Asia	--	0.19	0.29	--	--
Europe, all	9.52	6.42	5.82	-32.6	-38.9
Africa, all	1.76	1.59	1.49	-09.7	-15.3

Table 1.2: World Armed Forces

from Penn World Tables (1998).

1.2.3.2 Imports

Countries have different measures of protection against the import of goods and services. In general, we expect countries with high barriers and low import shares to be relatively more equal - the function of protection is, after all, to protect. Data on the volume of imports are obtained from ACDA (1998).

1.2.3.3 Conflict Variables

Our study includes 160 countries that are divided into two groups by introducing control variables; known internal security threats (INTSEC) and known external security threats (EXTSEC). (INTSEC) and (EXTSEC) correspond to civil and international wars respectively. The source of the data is from Heidelberg Institute for International Conflict Research (HIIKE) (1998-1999). HIIKE used qualitative definitions including the duration and magnitude of deaths to define violent conflicts. We hypothesize that conflicts increase inequality, while periods of peace tend to improve the prospects for inequality reduction. Controlling for known security threats therefore is important to improve the model specification.

1.3 Model and Empirical Methodology

This section describes the econometric model. We use a panel regression, on country level observations, extending from 1987 to 1997. We initially discuss the determinants of inequality followed by a specification for the demand for military expenditures.

1.3.1 Regression Model

We first use a single equation to investigate the impact of military spending on inequality. Our starting point is the following model for pay inequality:

$$\begin{aligned} THEIL_{it} = & \beta_1 + \beta_2 MILEN_{it} + \beta_3 GDPG_{it} + \beta_4 RGDP1_{it} + \\ & \beta_5 TIMN_{it} + \beta_6 ARMF_{it} + \beta_7 G * TIMN_{it} + \\ & \beta_8 RGDPWG_{it} + \beta_9 INTSEC_{it} + \beta_{10} EXTSEC_{it} + \nu_i + \varepsilon_{it} \end{aligned} \quad (1.1)$$

For a description of the variables in equation (1.1) refer to Table A.5 in the appendix. Equation (1.1) regresses inequality (THEIL) on explanatory variables: military expenditure (MILEN), GDP growth rate (GDPG), the share of imports in GNP (TIMN), the size of armed forces (ARMF), known internal security threats (INTSEC), known external security threats (EXTSEC) and interactions between GDPG, and TIMN (G*TIMN) and GDP growth with RGDP (RGDPWG). ν is a country specific factor such as geopolitical, cultural and other

attributes. ε represents a white noise error term.

Regression results are valid as long as there is one endogenous variable. What if we have more than one endogenous variable? What if, in other words, pay inequality and military spending are determined simultaneously? In such cases we need to deal with the issue of endogeneity and to find ways to obtain unbiased and consistent estimates.

1.3.2 Simultaneous Regression Model

Unequal societies may choose higher military spending because increased military spending can bring stability, for example through suppression of dissidents. On the other hand, the opportunity cost of higher military spending can lead to more inequality. If estimates using a single equation model are biased and inconsistent, then it becomes necessary to estimate the determinants of military spending with instruments that may be used to treat the simultaneity bias. This is the standard method of simultaneous equations models.

We postulate two endogenous variables: THEIL and MILEN, and several predetermined variables (instruments), to be described below. The process of implementing 2SLS is as follows: in the first-stage regression, we obtain the "estimated THEIL" and the "estimated MILEN". In the second stage we replace the MILEN by the "estimated MILEN" in equation (1.1) to obtain coefficient $\hat{\beta}_i$ for equation (1.1). In order to obtain unbiased estimates for the original postulated coefficients α_i in equation (1.2) see below we need to replace the

THEIL by the "estimated THEIL" as an instrumental variable in equation (1.2).

1.3.2.1 Military Expenditure Equation

Our model defines per capita military expenditure as a function of levels of inequality (THEIL), per capita income (RGDP1), share of arms imports in total imports (AITI), size of the armed forces (ARMF), and level of engagement in the arms trade (ARMTR), and known security threats (INTSEC) and (EXTSEC). v represents the country effects and η represents the error term. The military expenditures equation is:

$$\begin{aligned}
 MILEN_{it} = & \alpha_1 + \alpha_2 THEIL_{it} + \alpha_3 RGDP1_{it} + \alpha_4 AITI_{it} + \\
 & \alpha_5 ARMF_{it} + \alpha_6 ARMTR_{it} + \alpha_7 INSEC_{it} + \\
 & \alpha_8 EXTSEC_{it} + V_i + \eta_{it}
 \end{aligned} \tag{1.2}$$

1.3.2.2 Determinants of Military Expenditures

It should be recognized that there are no unique models for estimating determinants of military expenditure; for discussion see Smith (1977). Recent writings on the demand for military expenditures emphasize social choice theory: resources committed for public and private consumption and investment is determined by a benevolent leadership whose objective is to maximize social welfare

(Hewitt, 1992). From public choice theory, military spending is a type of public good but imperfect information makes it difficult for economic agents to assess the true value of military spending.

The public-choice-based discussion of military expenditure obscures the politics and competing alternatives that are ruled out due to pressures from interest groups. Military issues involve secrecy; sometimes threats are manufactured to justify military spending. These concerns make it difficult to justify using models based on social choice theory.

In economic theory of alliance Sander and Hartley (1995) have shown in partial equilibrium model that military expenditure is a function of level of income, threat and relative price of defense goods to non-defense. They have shown that income level is a crucial determinant of military expenditures. Given that many alliances fell apart or changed after the end of the Cold War, we borrow part of Sander and Hartley model without the alliances variable.

Inequality (THEIL)

We believe the level of inequality has an impact on the demand for military spending. Unequal societies encounter a greater social and political unrest that require an increase in military spending to maintain social stability, especially in developing countries. As inequality increases, military spending therefore should be expected to rise.

Per Capita Income (RGDP1)

Sander and Hartley (1995) suggested that as income rises the nation has both more resources to protect and greater means to provide protection. In general, the higher the per capita income, the higher the military spending; the military needs are normal goods.

Armed Forces (ARMF)

The size of the armed forces is of course an important determinant of military expenditures. Once military institution commits to a specific size of armed forces, they maintain forces in most cases and military expenditure is therefore is an endogenous consequence of free structure. As the size of armed forces increases military spending should increase.

Arms Imports (AITI)

Arms imports are a component of military spending, but they may be funded off-budget, by credit and by grant aid. This can create a substitution effect so that a government will spend less on the military overall, from budget resources than would otherwise be the case. Arms importers also face a foreign exchange constraint, and may have less powerful local lobbies than arms producers. For this reason, we expect that countries which import a larger share of their armaments will spend less overall, other things equal, than countries which produce armaments at home.

Arms Trading (ARMTR)

The armaments trades may be a separate reason for high military spending, and therefore a useful instrument for predicting MILEN. Brauer (2000) created a sophisticated index with an arms export step dummy from 0 for non-exporters, 1 for occasional exporters, to 2 for regular exporters, to 3 for high-volume exporters. We create a simple index (ARMTR) to distinguish countries that both import and export arms from countries that only import them. This measure is created by the interaction of a dummy variable that defines whether a country is an arms exporter with the variable AITI.

Conflict Variables

Conflict variables categorize countries according to known security threats both internal and external; this is done in view of the hypothesis that known security threats matter to level of military expenditure. Controlling for the level of conflicts is important to isolate the impact of other variables on military spending. However, it is difficult to determine the direction of movement of military expenditure as threat levels increase. Our interpretation is that at an initial level of conflict military spending rises.

1.4 Estimation Results

To have valid instruments at least one instrument must enter into the first stage and be relevant. In our model we used arms import as instrument for model

1. The F-statistics at the first-stage on military expenditure equation is 120.11. The rule-of-thumb; if the first stage F-statistics is less than 10, then the set of the instruments are weak. All reported F-statistics are strictly greater than 10 so the instruments aren't weak. Further the explanatory power of the first-stage is 94 percent enforce the notions that we have good instruments that have predictive power.

Table 1.3 presents descriptive statistics for pay inequality. Single equation estimates for equation (1.1) are reported in Table 1.4; given that they are biased and inconsistent we will not discuss them. We conduct the Hausman test if variable military expenditure and inequality are correlated with v_i . The test of this hypothesis shows that the residuals for model (1)-(3) are statistically different from zero. So we conclude that endogeneity bias is serious in this case. Equation (1.1) and (1.2) are estimated using two-stage least squares. The regression results explaining variation in inequality in equation (1.1) are reported in Table 1.5. Table 1.5 shows that the estimates generated from the system of equations are robust. In regression (1)-(3) the variables -GDPG, RGDP1, G*TIMN, RGDPWG and INTSEC and EXTSEC are significant at the 0.05 significant level.

The results show a positive and significant – though of course small-relationship between military spending and inequality. Consistent with previous work, the rate of GDP growth and level of per capita income show evidence of a negative relationship with inequality. This result supports our hypothesis and much evidence from other work. The interaction between GDP growth and the level of income (RGDPWG) has a negative impact on inequality. If a country

Variable	N	Mean	Std. Dev	Minimum	Maximum
<i>Theil</i>	1106	0.081	0.096	0.001	0.893
<i>MILEN</i>	1556	239.662	713.015	0	17800
<i>GDPG</i>	1435	3.155	6.462	-41.054	54.949
<i>AITI</i>	1708	4.731	22.038	0	604
<i>ARMF</i>	1693	7.170	8.055	0	75.400
<i>TIMN</i>	1694	0.304	0.224	0	1.838
<i>RGDP1</i>	1396	7241.17	7234.90	276.00	37511.00
<i>GDPTI</i>	1394	2300.65	3787.31	0	44492.66
<i>INTSEC</i>	1725	0.201	0.400	0	1
<i>EXTSEC</i>	1725	0.103	0.305	0	1

Table 1.3: Simple Statistics on Military Expenditures and Pay Inequality

satisfies the condition of high income and high growth, inequality should fall because people are getting plenty of jobs with high pay.

The interaction term between the size of imports and GDP growth (G*TIMN) is also significant at the 0.05 significance level. Importing capital goods; such as machines and equipment promotes growth, while importing non-capital goods such as luxury items is detrimental to growth.

Estimates of the size of armed forces appear to have significant and negative effects on inequality. The known external security threats and known internal security threats variables are statistically significant. The G*TIMN and RGDPWG regressors are able to account for some variations in inequality. Overall, we find that the inequality model in Table 1.5 column (1) - (3) provide the best fit to the data, with an R-squared ranging from 64 percent to 68 percent.

<i>Regressions</i>	(1)	(2)	(3)
<i>Intercept</i>	0.067 (9.52)	0.070 (10.02)	0.072 (9.11)
<i>MILEN</i>	-.000006 (0.43)	-.000005 (0.33)	0.000009 (0.69)
<i>GDPG</i>	-.001 (4.36) ***	-.001 (4.56) ***	-.002 (5.58) ***
<i>RGDP1</i>	-.000001 (2.26) ***	-.000002 (2.61) ***	-.000002 (3.39) ***
<i>TIMN</i>	-.022 (1.47)	-.011 (0.53)	-.008 (0.40)
<i>ARMF</i>	-.0005 (1.62)*	-.0006 (1.91) **	-.0006 (1.93) **
<i>G * TIMN</i>	----- -----	0.0000003 (0.25)	0.000009 (0.13)
<i>RGDPWG</i>	----- -----	----- -----	-.0000001 (3.18) ***
<i>INTSEC</i>	0.027 (4.68) ***	0.025 (4.34) ***	0.025 (4.38) ***
<i>EXTSEC</i>	0.008 (1.24)	0.007 (1.09)	0.009 (1.25)
<i>F – statistics</i>	16.43	16.87	17.02
<i>R – squared</i>	0.70	0.69	0.70
<i>Number</i>	776	776	776

***, **, * indicate significance at the 1, 5, and 10 percent level respectively.

Table 1.4: OLS One-way Fixed Effect; Dependent Variable Theil

<i>Regressions</i>	(1)	(2)	(3)
<i>Intercept</i>	0.075 (9.53)	0.065 (7.26)	0.0681 (7.86)
<i>MILEN</i>	0.0002 (3.55) ***	0.0002 (3.04) **	0.0001 (2.91) ***
<i>GDPG</i>	-.001 (3.19) ***	-.001 (4.18) **	-.002 (6.05) ***
<i>RGDP1</i>	-.000001 (4.08) ***	-.00001 (3.74) **	-.00001 (3.92) ***
<i>TIMN</i>	-.032 (1.95) **	0.013 (0.45)	0.0152 (0.55)
<i>ARMF</i>	-.001 (2.94) **	-.001 (2.88) **	-.0009 (2.82) ***
<i>G * TIMN</i>	----- -----	-.000002 (1.48)	-.000002 (1.46)
<i>RGDPWG</i>	----- -----	----- -----	-.000002 (4.04) ***
<i>INTSEC</i>	0.033 (5.09) ***	0.030 (4.19) **	0.029 (4.98) ***
<i>EXTSEC</i>	0.019 (2.43) ***	0.016 (2.12) **	0.017 (2.20) ***
<i>F – statistics</i>	12.66	13.27	14.04
<i>R – squared</i>	0.64	0.66	0.68
<i>Observation</i>	774	712	712

***, **, * indicate the *t* – value significance at the 1, 5, and 10 percent level respectively.

Table 1.5: 2SLS One-way Fixed Effect; Dependent Variable Theil

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	-121.02 (3.79)	-134.49 (4.14)	-85.42 (3.11)
<i>THEIL</i>	1188.73 (2.30) ***	1248.56 (2.45) ***	-59.808 (0.69)
<i>RGDP1</i>	0.0348 (26.68) ***	0.0356 (26.24) ***	0.0343 (28.51) ***
<i>AITI</i>	-3.117 (4.29) ***	-3.832 (5.12) ***	-4.386 (6.54) ***
<i>ARMF</i>	4.966 (5.53) ***	5.13 (5.48) ***	5.33 (6.26) ***
<i>ARMTR</i>	--- ---	2.753 (3.06) ***	2.423 (2.97) ***
<i>INTSEC</i>	-45.442 (2.05) ***	-45.351 (1.96) **	-15.342 (0.77)
<i>EXTSEC</i>	-63.343 (3.28) ***	-59.808 (2.98) ***	-51.341 (2.82) ***
<i>F – statistics</i>	120.11	115.78	139.13
<i>R – squared</i>	0.94	0.94	0.95
<i>Observation</i>	774	712	712

***, **, * indicate the *t* – value significance at the 1, 5, and 10 percent level respectively.

Table 1.6: Simultaneous Equation Estimation ; the Dependent variable is Military Expenditure

1.5 The Military Expenditures Estimates

The regression results from equation (1.2) are estimates of the demand for military expenditures. Table 1.6 presents evidence on the empirical relationship between military expenditures and THEIL, level of income, size of arms imports, and intensity of arms trade.

1.5.1 Military Variables

The significance of the coefficients on arms imports, intensity of arms trade and the size of armed forces supports the main hypothesis of the model of determinants of military expenditures. Table 1.6 indicates that there is clear evidence of a positive link between the intensity of the arms trade and military expenditures. The coefficient of arms trade is significant at 0.05 significance levels. Also the coefficient of the armed forces is remains positive and significant at 0.05 levels across the model. The size of arms imports is also found to be at 0.05 level of significance and the coefficient is negative as expected.

1.5.2 Economic Variables

The per capita income variable in Table 1.6 shows that for every dollar increase in income, \$0.03 dollars are spent on the military after controlling for the other factors.

1.5.3 Inequality Variable

Not surprisingly, more unequal societies spend larger amounts on military spending. Table 1.6 shows the Theil variable has a positive and significant relationship with military expenditure as shown by column (1) and (2). In column 3, the inequality measures is insignificant because the variable RGDPW from the equation (1.1) has weakened some of the determinants of military expenditure variable like Theil.

1.5.4 Conflict Variables Reassessment

The coefficients on variables measuring external and internal security threats are consistent with predictions for the inequality model; as threat level increases inequality increases. On the other hand, the conflict variables contradict our premise that as threats increases military expenditure increases. The contradiction on the second part of the model could be stemming from one of three scenarios: a) model misspecification b) problems with the way the variables are measured and/or c) Our interpretation of these variables

To examine each scenario carefully we dropped the conflict variable all together and introduce regional dummies the inequality model to reduce heterogeneity problems associated with comparing small countries with big countries. These regional control variables are North Africa, Central Africa, South Africa, North America, Central America, South America, East Asia, South Asia, Middle East, Western Europe and Eastern Europe.

The operative assumption is that regional dynamics such as excessive military spending by neighbors or wars in the region can affect inequality. On the other hand dividends of peace and prosperity can be shared among neighboring countries, which can reduce levels of inequality. Controlling for regional variation is important for estimating inequality, since countries can export the plague of inequality across their territory to neighbors. Our study includes 160 countries divided into eleven regions.

The model that controls for the regional variables is shown on Table 1.7.

The results and the findings are consistent with our theoretical prediction; as level of military expenditure increases inequality increases. Also Table 1.7 shows that coefficient estimates have expected signs. The magnitude for the military expenditure, GDP growth, per capita income and size of the armed forces variables are almost identical to their magnitude in Table 1.5. The R-squared is slightly higher than in Table 1.5. Dropping the conflict variable never distorts the results in the inequality model.

On the military expenditure model in Table 1.8, the absence of conflict variables does not change the theoretical underpinning of the model, however the magnitude of the Theil variable dropped by more than 50 percent across the model specification. However, the coefficient of the other variables: per capita income, arms trade and arms imports, and armed forces, did not change drastically as shown by Table 1.8 and Table 1.6. Therefore, with the exception of the value of Theil the rest of the variables have similar magnitudes of model results in Table 1.6. Therefore I assert that our model specification is robust and we rule out the possibility of misspecification.

The other possible scenario to investigate is whether the conflict variables are wrongly measured. The internal and external security threats are categorical dummy variables – too little can be done to redefine the terms. We confess that countries have different levels and intensities of security threats. We gave up any attempt to recode the conflict variables.

The last scenario regarding the interpretation of these variables and the type of information they convey are worthy of investigation. Whenever an attack

occurs, there is physical destruction and disruption of internal functions of government. These conflict variables may be capturing the destruction of wealth or disruption of internal functions of government by internal or external forces. The disruption of internal functions of government can increase the level of inequality, which is consistent with our theoretical assumptions. In addition, disruption of internal functions of government could negatively effect military spending due to "coordination failure". Even though the internal and external security variables when they were designed, it was intended to measure threats, but in reality they measure the disruption of internal functions of government. Therefore, the security threats variables are a good proxy for wealth destruction or disruption of internal functions of government. For any conflict to achieve its goal the prerequisite is to win the conflict by inflicting the maximum and sustainable damage to prevent the utilization of human and physical capital through time, and that is what is shown by our model results in Table 1.5. This finding that the internal and external threats variables convey information on coordination failure is profound, with broader implications for future uses of this data as proxy for it. Even though the data was originally coded for one purpose but it can also be used for multiple other purposes. We only need to be patient and not only let the data speak for itself but also we should critically assess what its means in the context of our model.

<i>Regressions</i>	(1)	<i>t - val</i> ¹	(2)	<i>t - val</i>	(3)	<i>t - val</i>
<i>Intercept</i>	0.2002	7.1	0.2126	6.8	0.2222	7.5
<i>MILEN</i>	0.0001	2.8	0.0002	3.1	0.0002	3.1
<i>GDPG</i>	-.00107	3.3	-.00148	4.3	-.00288	7.0
<i>RGDP1</i>	-.00001	3.6	-.00001	3.4	-.000001	3.7
<i>TIMN</i>	-.03728	2.1	0.07832	2.5	0.08509	2.8
<i>ARMF</i>	-.00104	2.3	-.00149	2.8	-0.00138	2.9
<i>G * TIMN</i>	---	---	-.00001	3.9	-.00001	3.7
<i>RGDPWG</i>	-----	---	-----	---	-.000001	4.9
<i>NAFRICA</i>	-.01246	0.2	-.01721	0.2	-.00902	0.1
<i>CAFRICA</i>	-.15411	4.9	-.18900	5.5	-.19842	6.1
<i>SAFRICA</i>	-.10374	3.4	-.13622	4.1	-.14380	4.6
<i>CAMERIC</i>	-.12690	4.1	-.16159	4.9	-.16965	7.5
<i>SAMERIC</i>	-.09064	2.9	-.12532	3.8	-.13402	4.3
<i>MEAST</i>	-.09666	2.8	-.12069	3.3	-.13007	3.8
<i>EASIA</i>	-.13673	4.8	-.17811	5.6	-.18576	6.1
<i>SASIA</i>	-.10419	3.4	-.14577	4.44	-.15323	4.9
<i>EUROPE</i>	-.01737	0.7	-.01719	0.6	-.01642	0.7
<i>WUROPE</i>	-.13671	4.7	-.18394	5.6	-.18546	5.9
<i>F - statistics</i>	13.46	---	11.86	---	13.25	---
<i>R - squared</i>	0.67	---	0.65	---	0.68	---
<i>Observation</i>	774	---	712	---	712	---

¹*t - val* indicates *t - value*

Table 1.7: 2SLS the Dependent Variable Theil

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	-104.74 (4.76)	-100.67 (4.58)	-83.84 (3.39)
<i>THEIL</i>	564.76 (2.33) ***	365.57 (1.65)*	112.40 (0.54)
<i>RGDP1</i>	0.0344 (30.89) ***	0.0348 (30.45) ***	0.0343 (30.52) ***
<i>AITI</i>	-3.6515 (6.06) ***	-4.4017 (6.93) ***	-4.503 (7.16) ***
<i>ARMF</i>	5.5346 (6.74) ***	5.6455 (6.74) ***	5.612 (6.76) ***
<i>ARMTRDE</i>	--- ---	2.417 (2.98) ***	2.362 (2.94) ***
<i>F – statistics</i>	139.31	139.87	142.54
<i>R – squared</i>	0.95	0.95	0.95
<i>Observation</i>	774	712	712

***, **, * indicate significance at the 1, 5, and 10 percent level respectively.

Table 1.8: Simultaneous Equation Estimation the Dependent Variable Military Expenditure

1.5.5 One-way vs Two-way Fixed Effects Model

After exploring the one-way fixed effect model we experiment with a two-way fixed effects model, controlling for the factors that are consistent across time and space. The regression results in Table 1.9 show that the time dummy variables are correlated with the size of the armed forces, rendering this variable to be insignificant. However, the signs for the variables military expenditure, GDP growth, real per capita income, and conflict remain unchanged compared with the model results in Table 1.5. In addition, the estimated coefficients for the real per capita income, GDP growth, and military expenditure did not change from what has been reported in Table 1.5. The estimated coefficients for the conflict variables are slightly higher in the one-way fixed effect model.

The military expenditure model in Table 1.10 shows no significant differences in coefficient magnitude between two-way and one-way fixed effects model. The inequality variable has a slightly higher value in Table 1.10 than Table 1.6. The value of R-squared does not change in Table 1.10, which led us to infer that the time effect model does not contribute significantly compared to the country effect model.

1.6 Sensitivity Analysis

To examine the robustness of our regression results we experimented with three cases. In the first case, the dependent variable was changed from Theil to Estimated Household Income Inequality (EHII). For the second case, we ex-

<i>Regressions</i>	(1)	(2)	(3)
<i>Intercept</i>	0.05906 (7.40)	0.05216 (5.60)	0.0615 (6.57)
<i>MILEN</i>	0.000109 (2.36) ***	0.0001 (2.20) **	0.00008 (2.15) **
<i>GDPG</i>	-.00142 (4.94) ***	-.00160 (5.48) ***	-.00231 (6.35) ***
<i>RGDP1</i>	-.000005 (3.45) ***	-.000004 (3.22) ***	-.000004 (3.38) ***
<i>TIMN</i>	-.01864 (1.38)	-.00817 (0.33)	-.02598 (1.13)
<i>ARMF</i>	-.00027 (0.81)	-.00019 (0.58)	-.00014 (0.43)
<i>G * TIMN</i>	-----	-.000001 (1.00)	-.00000 (0.01)
<i>RGDPWG</i>	-----	-----	-.0000001 (3.28) ***
<i>INTSEC</i>	0.02817 (5.05) ***	0.0304 (5.46) ***	0.03053 (5.54) ***
<i>EXTSEC</i>	0.01331 (1.91) **	0.0130 (1.88) **	0.0130 (1.94) **
<i>F - statistics</i>	15.16	15.17	15.53
<i>R - squared</i>	0.70	0.71	0.72
<i>Observation</i>	774	712	712

***, **, * indicate the *t* - value significance at the 1, 5, and 10 percent level respectively.

Table 1.9: 2SLS Two-way Fixed Effects; Dependent Variable Theil

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	-83.096 (2.81) ***	-80.402 (2.79)	-55.084 (2.06)
<i>THEIL</i>	1090.2 (2.29) **	918.96 (2.05) **	295.61 (0.75)
<i>RGDP1</i>	0.0361 (25.75) ***	0.0364 (27.01) ***	0.0354 (28.06) ***
<i>AITI</i>	-4.3730 (6.51) ***	-5.084 (7.26) ***	-5.272 (7.89) ***
<i>ARMF</i>	4.1362 (4.56) ***	4.205 (4.44) ***	4.573 (5.07) ***
<i>ARMTRDE</i>	----- -----	2.6752 (3.18) ***	2.4813 (3.09) ***
<i>INTSEC</i>	-37.649 (1.89) **	-34.371 (1.64)*	-15.3165 (0.79)
<i>EXTSEC</i>	-64.3082 (3.49) ***	-60.4940 (3.24) ***	-55.1654 (3.10) ***
<i>F – statistics</i>	123.07	118.74	129.53
<i>R – squared</i>	0.94	0.95	0.96
<i>Observation</i>	774	712	712

***, **, * indicate the *t* – value significance at the 1, 5, and 10 percent level respectively.

Table 1.10: Simultaneous Equation Estimation Two-way Fixed Effects the Dependent Variable Military Expenditure

perimented with the functional form by trying logs for the military expenditure and per capita income variables. In the third case we estimated the inequality equation separately for each region to see if the relationship is significantly different.

1.6.1 Estimated Household Income Inequality (EHII)

Much of our analysis rests on industrial pay inequality as a reasonable proxy for overall inequality, with data from a number of non-industrial countries in Africa, Latin America and Asia⁴. To reaffirm the usefulness of this measure as a good proxy for inequality, we need to introduce alternative measures to test the robustness of our model. We use the Estimated Household Income Inequality (EHII)⁵ data as an alternative measure. EHII data are a combination of industrial pay inequality data and Deininger and Squire data accounting for sample design with adjustment due to missing data. In other words EHII data are weighted data from a probability sample anchored on industrial pay inequality to improve upon Deininger and Squire data, which is widely used as a measure of household income inequality.

Results in Table 1.11 show that military expenditure positively affects EHII. Higher military spending corresponds with greater inequality within coun-

⁴We thank Jurgen Brauer for the idea to argue that the industrial pay inequality data are not heavily weighted towards industrial countries due to their strong industrial base that could biased upwards the industrial pay inequality estimates.

⁵James K. Galbraith and Hyunsub Kum (2003)

<i>Regressions</i>	<i>OLS</i>	<i>2SLS</i>	<i>OLS</i>	<i>2SLS</i>
	(1)	(2)	(3)	(4)
<i>Intercept</i>	38.940 (.000) **	35.280 (.000) **	39.075 (.000) **	35.960 (.000) **
<i>MILEN</i>	-.0037 (.000) **	0.0284 (.000) **	-.0035 (.000) **	0.0267 (.000) **
<i>GDPG</i>	-.1018 (.000) **	-.0415 (.319)	-.1360 (.000) **	-.1700 (.001) **
<i>RGDP1</i>	0.00005 (.2194)	-.00066 (.000) **	0.00003 (.4568)	-.0006 (.000) **
<i>TIMN</i>	-2.221 (.231)	7.334 (.070)*	-2.125 (.251)	7.480 (.055) **
<i>ARMF</i>	-.1151 (.000) **	-.1686 (.000) **	-0.1172 (.000) **	-.1736 (.000) **
<i>G * TIMN</i>	-.00001 (.892)	-.00072 (.001) **	-.00001 (.828)	-.00071 (.000) **
<i>RGDPWG</i>	----- (-----)	----- (-----)	.000004 (.1433)	.000016 (.002) **
<i>INTSEC</i>	3.2417 (.000) **	4.5862 (.000) **	3.2600 (.000) **	4.6005 (.000) **
<i>EXTSEC</i>	0.7905 (.158)	3.5954 (.000) **	0.7894 (.158)	3.4065 (.000) **
<i>F - statistics</i>	14.26	5.33	14.16	5.70
<i>R - squared</i>	0.64	0.43	0.64	0.45
<i>Number</i>	777	704	777	704

** , * indicate *p* values significance at the 5 and 10 percent level respectively.

Table 1.11: Military Expenditure and Inequality: Dependent Variable Estimated Household Income Inequality

tries. The relationship between the size of armed forces and EHII remains negative, consistent with findings when we have used pay inequality. The results suggest that the regression would be improved by adding additional variables in the interaction between economic growth and level of income (RGDPWG). As shown by Table 1.11, column 4 of the regression results, all the estimated coefficients indicate the expected direction of change and are statistically significant at a 5 percent p-value. Therefore, Table 1.11 shows that the results are not fundamentally different when the household income inequality is substituted for pay inequality.

1.6.2 Functional Forms

When estimating equation (1.1), we assumed a linear form. To check the robustness, of the model, we substituted a linear-log model.⁶ The dependent variable THEIL was unchanged but the military expenditure and per capita income variables appear in logarithmic form. Table 1.12 shows that Log military expenditure (LMILLEN) has a positive and significant effect on THEIL. In regard to log per capita income (LRGDP1), Table 1.12 shows that the marginal increases in THEIL is a decreasing function of per capita income; the P-values illustrate that per capita income is statistically significant. The Linear model in equation (1.1) remains robust to change in the functional form.

⁶We thank Ron Smith for the suggestion to use liner-log function.

<i>Regressions</i>	<i>OLS</i> (1)	<i>2SLS</i> (2)	<i>OLS</i> (3)	<i>2SLS</i> (4)
<i>Intercept</i>	0.1967 (.001) **	0.3404 (.000) **	0.2204 (.000) **	0.3489 (.000) **
<i>LMILEN</i>	0.0076 (.051) **	0.0344 (.003) **	0.0083 (.031) **	0.0321 (.005) **
<i>GDPG</i>	-.00127 (.000) **	-.00143 (.000) **	-.00196 (.000) **	-.0022 (.000) **
<i>LRGDP1</i>	-.0205 (.001) **	-.0518 (.000) **	-.0239 (.000) **	-.0518 (.000) **
<i>TIMN</i>	0.0022 (.911)	0.0273 (.3234)	0.0070 (.724)	0.0318 (.247)
<i>ARMF</i>	-.0005 (.093)*	-.0011 (.006) **	-.0005 (.106)*	-.0009 (.010) **
<i>G * TIMN</i>	-.000001 (.547)	-.000001 (.157)	-.000001 (.359)	-.000001 (.094)*
<i>RGDPWG</i>	----- (-----)	----- (-----)	.0000001 (.002) **	.0000001 (.000) **
<i>INTSEC</i>	0.027 (.001) **	0.0337 (.000) **	0.0274 (.000) **	0.0334 (.000) **
<i>EXTSEC</i>	0.0092 (.177)	0.0111 (.095)*	0.0103 (.129)	0.0119 (.068)*
<i>F – statistics</i>	16.96	15.40	17.08	15.72
<i>R – squared</i>	0.69	0.69	0.70	0.70
<i>Number</i>	773	709	773	709

*, ** indicate *p* values significance at the 10 and 5 percent level respectively.

Table 1.12: Log military Expenditure and Inequality: Dependent Variable Theil

1.6.3 Regional Inequality

We shift from an analysis of inequality and military spending in all countries to an analysis of inequality and military spending on a regional level. For example, we would expect the relationship between military expenditure and inequality to be different between Europe and Latin America. In Table A.1 in the appendix the military expenditure variable in the West Europe remains statistically significant but with a negative coefficient. However, the coefficient for the size of armed forces remains negative increasing armed forces creates jobs and lowers inequality. Table A.2 in the appendix shows estimates of inequality in Sub-Saharan Africa. The military expenditure variable has a positive effect on inequality which is consistent with our original hypothesis. Results of estimating variables such as per capita income, GDP growth, and size of the armed forces have an expected sign except for TIMN and RGDPWG and EXTSEC. These results show that Europe and Latin America are distinctly different.

Similar to Sub-Saharan Africa, Table A.3 in the appendix shows that inequality estimates in Latin America have similar signs and are statistically significant, except that internal and external security threats are statistically insignificant. In contrast with Africa and Latin America, Table A.4 in the appendix shows that not only does military expenditure in Asia have a negative impact on inequality but also that the coefficient of GDP growth and level of per capita income have different signs. The Asian model departs distinctly from our hypothesis.

1.7 Conclusion

This study has attempted to examine the relationship between military spending and inequality. Our hypothesis is that as per capita military expenditure increases, inequality increases, controlling for the size of armed forces, and for known security threats and economic variables. Our findings lend support to the hypothesis that expenditure on militarization drains resources from public spending on human, other social programs and infrastructure development that may lead to promote development and reduce economic inequality. On the other hand, employment by the military is helpful for reducing the level of inequality.

Also we developed a simple model of determinants of military spending as a function of economic, and institutional variables, and the level of inequality. We obtain estimates that are robust and that suggest a causal relation between the level of inequality and military expenditures. However, the issue of the causation remains worthy of further research. The sensitivity analysis reveals robustness of the model across the variable definition, and model specification. However, the regional analysis shows heterogeneity among regions. The relationship between military spending and inequality in the regional level is distinctly different from the estimates of the global sample in West Europe and East Asia.

Chapter 2

Inequality and Military Spending in the Middle East and North Africa

2.1 Introduction

A recent report from United Nations Development Program (2002), commissioned by Arab intellectuals, fleshed out the state of human development in 22 countries from the Maghreb to the Gulf. Overall the report shows that the Middle East and North African countries (MENA) have made substantial progress in human development over the past three decades. However the report also underlines how far the MENA countries must advance to tackle the human development and economic scourge of unemployment rates, which greatly exceeds the rates in other developing regions of the world. Another report prepared by the RAND Corporation portrays the economic challenges facing the Middle East countries. These challenges include low growth, population expansion, unemployment among youth, and environmental degradations. In the final assessment, the study indicates Washington consensus policies- such as balancing the budget,

maintaining low inflation, reducing regulation and promoting free market - has produced a dismal economic result (Richards, 2001).

Studying the inequality of MENA¹ countries provides an opportunity to assess factors that shape the countries' success in distributing the wealth by looking beyond simple measures of wealth creation. It has been a long established tradition to relate income distribution to economic and political variables. Affluence and higher growth rates have been correlated with the presence of low inequality. Adams and Page (2001) have shown that MENA countries have had the lowest regional incidence of extreme poverty in recent years, with less than 2.5 percent of the population living on or below the \$1 per day income level. The authors attributed the decline of poverty levels to egalitarian income distribution practices and economic growth. In contrast to the Adams and Page study, which focuses on censured distribution of individuals or households below a certain poverty line, we will instead focus on inequality as a broader concept to define the whole distribution. One can easily object to the use of absolute poverty measures because as we increase the poverty line, the number of destitute will rise as well. Given that the per capita incomes in MENA countries are much higher than the poorest countries of the world, it will be misleading to use absolute poverty measures to make a comparative study with the rest of the world.

As discussed in chapter one, many factors affect inequality, such as per

¹The countries in MENA are Iran and Arab countries; including Algeria, Egypt, Iraq, Jordan, Morocco, Tunisia, and GCC countries.

capita income, GDP growth, and democratic institutions. While acknowledging that all these factors are important for inequality, we will instead consider a novel factor that we believe contributes to the rise of inequality: military expenditures. The purpose of this chapter is to examine two research questions raised in Chapter One with more emphasis on regional dynamics.

The paper is organized as follows: Section 2 reviews the literature on inequality, growth, and military spending in MENA countries. Section 3 describes the data on inequality and key variables, such as military spending, other control variables, like GDP growth, per capita real income, and the size of arms imports. Section 4 presents empirical methodology for the model specifications. Section 5 presents panel regression estimates of the effects of military spending on inequality. Section 6 discusses findings and draws some conclusions.

2.2 Inequality, Growth and Military Spending

2.2.1 Inequality in MENA

Richards and Waterbury (1996) argued that all governments in MENA countries have proclaimed that reducing and achieving a more equitable distribution of income are central goals. They contend that poor data quality and most of the information about income distribution comes from sample surveys plagued by conceptual and methodological inconsistencies. Evaluating whether countries achieved their stated goals for equal distribution of wealth cannot be verified. Most analysts agree that the poverty problem is very serious for surveys

conducted in 1984-1985 and in 1990-1991 for Morocco, Tunisia, and Jordan. For Egypt the poverty level fell between 1974-1975 and 1981-1982 but increased by the 1990s. A study by Eeghen (1998) provided analysis from household expenditure surveys from six countries: Egypt, Jordan, Morocco, Tunisia, Algeria, and Iran. It indicates that economic growth has been the most important determinant of poverty performance in MENA.

In this study we use the same conceptual framework of Chapter One to analyze inequality. We use data collected by United Nation Industrial Development Organization (UNIDO). The Theil index for each country describes the dispersion of wage earnings across industries for 17 countries. The preliminary statistics of the panel data on inequality support the Kuznets hypothesis²; however, the apparent upsurge of inequality in most of the MENA countries is not only attributed to slow of economic growth but also the current level of military expenditures in MENA countries.

Figure 2.1 shows the region experiencing rising inequality from 1987-1997, particularly after the Gulf War. The increase in inequality is more pronounced in Egypt, Iran, Iraq, and Saudi Arabia. In MENA countries, only Algeria, Syria, and Oman showed decrease in inequality from 1996 to 1997. There should be other underlying institutional parameters that are responsible for the rise in inequality. By incorporating economic growth and military expenditure and arms imports variables, we can obtain consistent estimates of inequality parameters. In the

²Kuznets postulates that in the early stages of development, both a country's economic growth and its income inequality rise. For MENA countries income inequality showed a tendency to diverge as economic growth fell from 1987 to 1997.

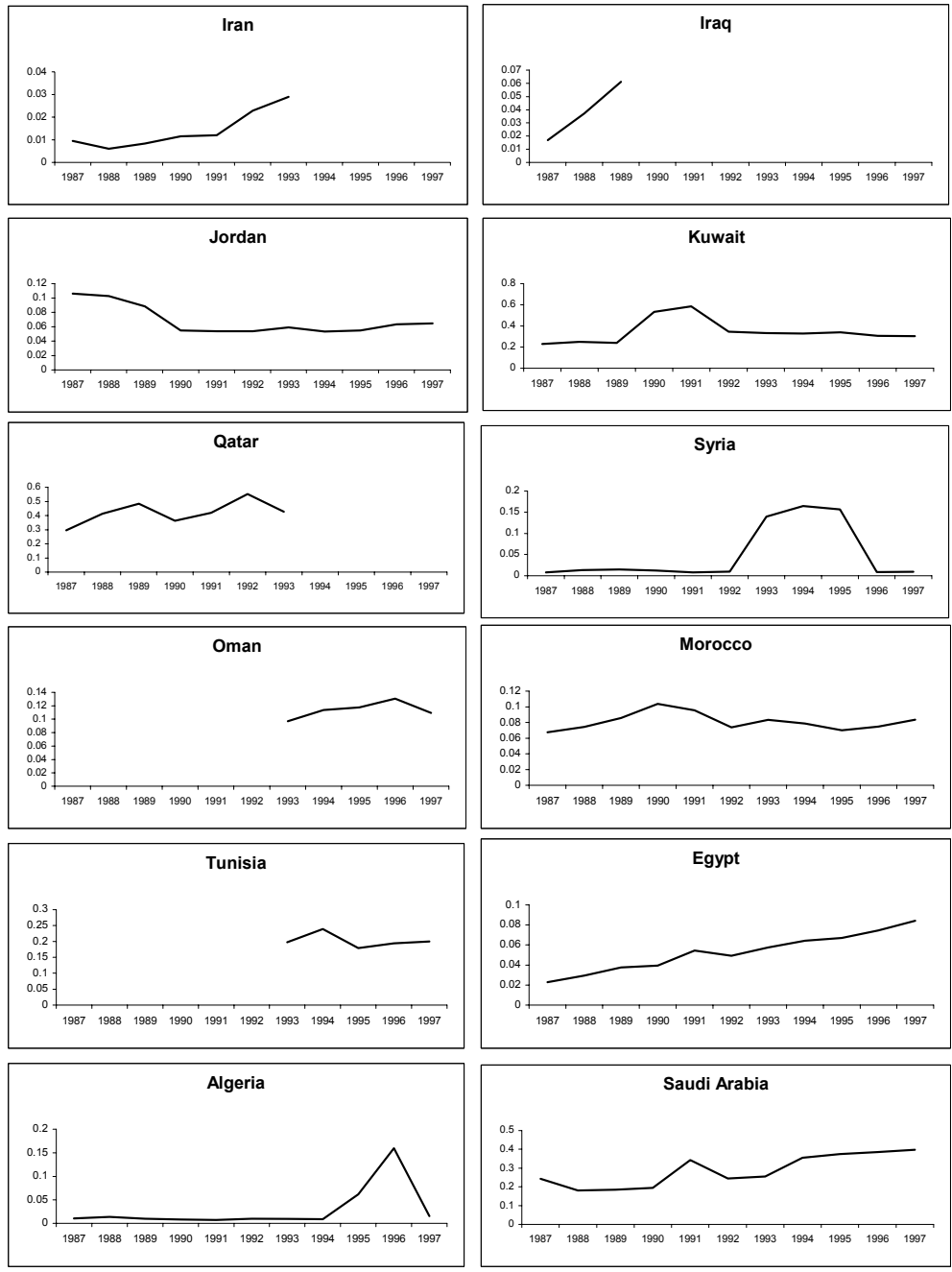


Figure 2.1: Inequality in North Africa and the Middle East

subsection below, we provide a brief overview of the economic growth issue in MENA countries.

2.2.2 Economic Growth in MENA Countries

Growth rates do matter when addressing the issue of inequality (Kuznets, 1955; Lipset, Seong, Torres, 1993; Galbraith, 1998). The divergence in growth across countries can be translated into a divergence of inequality. From the 1960s through the first half of the 1980s, the MENA countries experienced an economic boom; however, by the second half of 1980s, the growth collapsed (Page, 1998). MENA countries are facing challenges, including a high level of inequality and low economic growth rates. Despite the regional endowment of natural resources, including 46 percents of the world's oil reserves and 15 percents of its natural gas reserves, economic growth remains below regional expectations. Real GDP growth has been marginally negative on average from 1980 to 2000, compared to global real GDP growth of 3 percent (Azzam, 2002). Moreover, the population size in MENA countries, excluding Iran, has more than doubled in the last 20 years, increasing from approximately 140 million persons in 1980 to nearly 278 million in 2000 from which 3 percent to 8 percent of the population are expatriates in the GCC. The accelerating growth in population strains both the government budget and infrastructures such as housing, sewerage, and garbage collection.

The economic aftermath of the Gulf War has placed countries like Sudan, Yemen, Syria, Egypt and, Jordan on brink of bankruptcy with broader politi-

cal and economic implications. These countries cite deep economic crises, heavy external debts, and severe balance of payments problem. Economic relations between these non-oil producing countries and the GCC are cases of dependence labor remittance and oil – two dominant forms of capital inflow in the Middle East (Chaudhry, 1997). The trends and business cycles can be easily transmitted from one country to the other based on this mutual economic interdependence. Countries in the region shared the dividends of growth in 1970s and misery indexes of last two decades.

Historically, governments of the region invested directly in industrial capacity, financial institutions and utilities; however, the fiscal constraints and globalization in recent years have caused a profound shift in the role of government to become a referee rather than a player (Azzam, 2002). The implementation of neoliberal reforms or "Washington consensus policies" is politically motivated from the Western governments and encourages neither social equity nor advanced growth in Middle East. The prevailing sentiment in the region is that economic openness is unfavorable to development, and the persistent volatility of commodity prices is seen by many countries as serious source of vulnerability.

Increasing globalization of economic activities deepens the crisis of depending on oil to generate revenue. Middle Eastern economies have become extremely vulnerable to the external shocks. Oil revenue precipitously declined during the past decade, and most analysts suggest that there is a high correlation between the growth and the oil-price. Most changes in the oil price are translated into some level of output, but not necessarily all the change in economic growth is

attributed to oil price movement. In this study we include both the oil price and GDP growth to measure their impacts on inequality. Since our study covers the period from 1987-1997, the price of the oil remains relatively stable, and we anticipate it may have no impact on income distribution but the economic growth does impact the inequality.

Figure 2.2 shows that most MENA countries posted improvement of GDP growth from 1989-1991, except for Iraq and Kuwait. Iran showed high economic growth rates between 1989-1991, followed by period of precipitously declining in growth. In 1990-1991, higher growth rates were attributed to regional conflicts and the mass-war mobilization in Qatar, Egypt Saudi Arabia and Oman. The high growth rate was more pronounced in Saudi Arabia, which is logistical based for the war efforts. Even though Kuwait was in period of war during 1991 and the economic growth was negative, after the war recovery was rapid and growth reached 77.4 percent in 1992. In general, MENA countries experienced their lowest levels of growth after 1993, except for Algeria.

2.2.3 Military Spending

Before we proceed into a substantive discussion on the relation between military spending and inequality, several comments need to be made about MENA countries. One facet of military expenditure is the fiscal strains it puts on government spending priorities on social spending such as education, health, and housing as stated in chapter one. Therefore, higher military spending results in

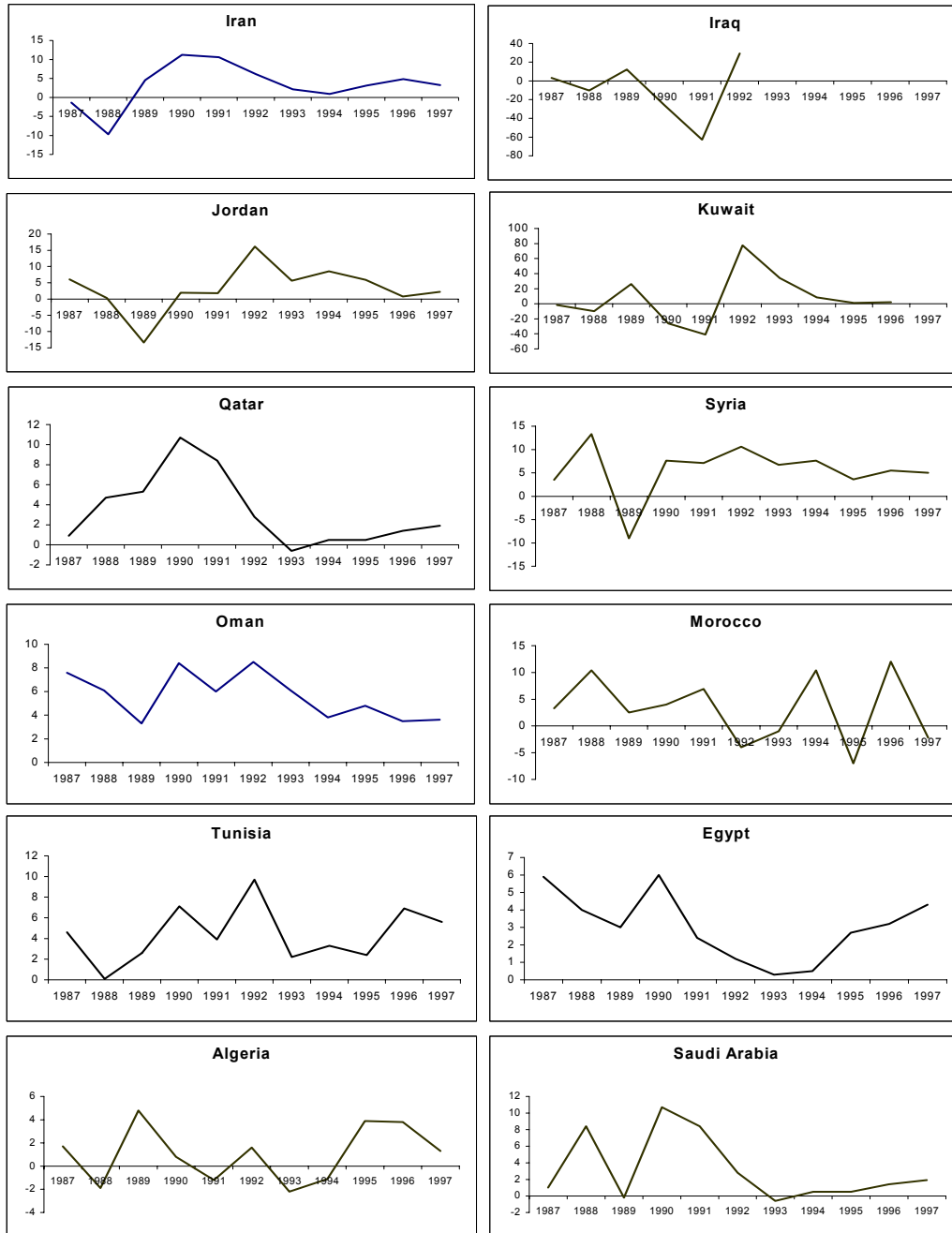


Figure 2.2: GDP Growth in North Africa and the Middle East from 1987-1997

higher inequality. The other facet of military spending is related to arms imports which is more visible in MENA than the rest of the World. Military industrialization and technology acquisition are the most important elements behind massive arms imports. Transferring technology that is embodied in weaponry systems promotes import substitution. We therefore expect that there is a negative relationship between inequality and arms imports. In the section below, we discuss these two facets of military spending.

2.2.3.1 Military Spending vs. Social Spending

Putting aside the ongoing Israeli-Arab conflict, the most recent conflicts in MENA countries include the Iran-Iraq War from (1981-1988), the Gulf War from (1990-1991) and ongoing internal conflicts in Sudan and Algeria. National and international pressure sparked an arms race in the region. The Middle East accounts for 3 percent of the population but consumed more than 30 percent of the world's military goods and services in the 1980s. From 1989 to 1991, the Middle East accounted for 57.5 percent of arms transfer agreements and 53.4 percent of arms imports (Said Aly, 1997).

Figure 2.3 shows military expenditures in MENA countries as prepared by the U.S. Arms Control and Disarmament Agency (ACDA) and the Stockholm International Peace Institute (SIPRI). ACDA uses official and unofficial reports to estimate military expenditures, while SIPRI uses official reports to in their estimates. Despite differences in the measurement between ACDA and SIPRI in

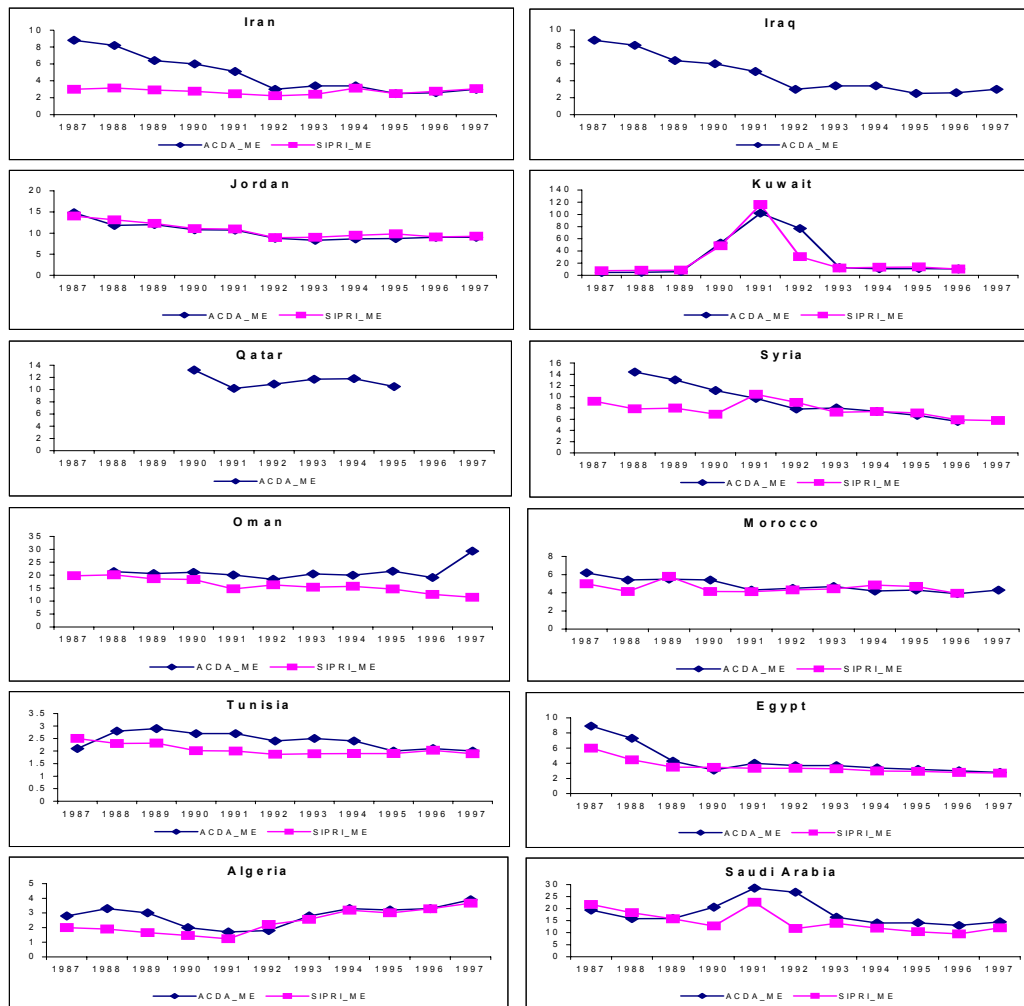


Figure 2.3: Military Expenditure in North Africa and the Middle East

estimating military expenditures, however, there are similarities in the patterns within countries. As shown in Figure 2.3, ACDA military spending was about 25 percent of GNP in Oman, 14 percent in Jordan, 7 percent in Egypt, 27 percent in Saudi Arabia, and about 12 percent in Qatar. Tunisia and Algeria spent far less, between 3 to 4 percent of their GNP. Nevertheless, we can observe similar patterns and trends in military expenditures when we use SIPRI military expenditure estimates. Only Oman, and Iran show some divergence between ACDA and SIPRI estimates of military expenditures.

After the Gulf War, the United States signed defense agreements with Oman (1990), Saudi Arabia (1990), Bahrain (1990), Kuwait (1991), Qatar (1992) and the United Arab Emirates (1994). These agreements are long-term military relationships between U.S. and Gulf Cooperation Council (GCC). Deployment of the military assets resulted in a spike on military spending in the region as reported in figure 2.3. As Table 2.1 shows, five of the world largest military spender in 1997 included four from MENA countries: Oman (second), Saudi Arabia (fourth), Bahrain (fifth) and Qatar (eighth). The largest arms importers in the world in 1997 are: Saudi Arabia (second), Kuwait (third), Qatar (fourth) and Egypt (seventh). Eight of MENA countries ranked in the top 20 in terms of military expenditures in 1997.

Lavy and Sheffer (1997) argued that defense spending represented 55 percent to 65 percent of total public consumption in Jordan and Syria between 1985 and 1987, crowding out social and economic services and leaving fewer resources

Country	Rank	MILEN	Rank	AIMT
Saudi Arabia	4	14.4	2	40.4
Kuwait	11	7.5	3	24.3
Qatar	8	<i>NA</i>	4	14.3
Egypt	62	2.8	7	12.1
Iran	59	3.0	12	5.8
Algeria	44	3.9	13	5.7
Yemen	9	8.0	14	5.5
United Arab E.	12	6.8	16	4.7
Oman	2	26.1	23	3.2
Jordan	7	9.0	24	3.2
Bahrain	55	10.3	31	2.2
Morocco	36	4.3	35	1.9
Syria	22	5.6	38	1.7
Lebanon	58	3.0	73	0.5
Libya	23	<i>NA</i>	121	0.1
Iraq	29	4.9		

Table 2.1: Country Rank in 1997 by Military Expenditures and Arms Imports

for social development. The rapid rise of military spending in the GCC stripped most of their oil revenue. To counter this strain in fiscal spending, the government scaled down social spending. Most of the analysts agreed that the Gulf War made the region as whole much poorer than it was in 1989, and inequality between the "have and have not" states is likely even to have become pronounced. Military expenditures have crowded out expenditures in health care, education, housing and infrastructure. The military expenditure caused subsidies to be reduced and taxes increased, leading to an increase in inequality (Sadowski, 1991). The opportunity cost of building this massive military machine is very high, given the level of economic development. Since the regimes in the region are in closely tied to the military establishments, it is not surprising that military institutions have received a disproportionate share of resources.

2.2.3.2 Military Industrialization and Imports Substitution

It is a very complex issue to parse out the benefits and costs of arms imports. In general, the type of arms imported is critical to the effect on social welfare. MENA countries are more interested in acquiring military technology than on importing light arms or ammunition. In that regard, the benefits of arms imports could outweigh their cost.

Contrary to the conventional wisdom, we assume there is a negative relationship between arms imports and inequality in the MENA countries. We can justify this assumption based on two strands of argument. Our first strand of

argument suggests that most of the countries in the region have encouraged military industrialization for economic and strategic reasons. Egypt, Saudi Arabia, Iran, and Iraq are major arms importers and producers as well. Import substitution is a driving force behind arms imports in general and technology importation in particular. Economic and commercial considerations add importance to arms imports, and military industrialization fosters technology through research and development. Therefore, one of the purposes of the arms imports is to foster production and consequently, to encourage import substitution. Brzoska and Ohlson (1986) argued that the most important economic incentive for defense production is that it should substitute for imports. Higher arms imports are indicative of where countries stand on the ladder of military industrialization.

The second strand of our defense of the negative relationship between arms imports and inequality is that arms may be purchased with external loans or grants or financed by the oil revenues. The payments may be spread out over period of many years, so that the full cost does not reflect the defense budget as argued by (Sayigh, 1992), who contends that most arms purchases are financed by oil wealth or debt. Nearly half of Arab countries have accumulated large debts to foreign nations, substantial parts of which are from loans to buy major arms items and other military needs. For example Egypt accumulated military debt as high as 20 percent of GDP. Countries that defer payment of arms imports could ease pressure on domestic resources and lower their inequality.

It is extremely difficult to quantify which strands of the arguments are the more powerful. Evidence from figure B.1 in the appendix shows that countries

like Egypt, Saudi Arabia, with high military industrialization have shown no tendency to scale back on arms imports from 1987 to 1997. Contrary to Iran, Jordan and Morocco, countries like Oman and Qatar showed upsurges in arms imports after the Gulf War. The price of oil between 1987 to 1997 remained relatively flat and economic conditions in the MENA countries deteriorated. Why do countries need to import arms? The only pressing needs for arms imports are to expand the industrial base and diversify the exports. In other words, desire for import substitution is one of reasons for arms imports and technology transfers. Therefore, we support the first strand of our argument, that arms imports from 1987-1997 are related to military industrialization to expand the technological, economical and import substitution, all of which which could greatly affect the level of inequality.

2.3 Data Sources

The Theil index is used to measure inequality. It is computed using industrial wages and employment from United Nations Industrial Development Organization (UNIDO). The Theil Index gives measures of manufacturing pay inequality in MENA countries from 1987-1997. By using the Theil index, we are able to overcome the data deficiencies that characterize MENA countries due to lack of transparency.

The other key policy variable is military expenditure. There are two data sources for this key variable. One source is the U.S. Arms Control and Disarma-

ment Agency (ACDA), which publishes estimates on military spending. These estimates are based on official and unofficial sources. We define the military expenditure from ACDA sources as "ACDA military expenditure." ACDA military expenditure is measured as percentage to GNP.

The other data source is Stockholm International Peace Research Institute (SIPRI) their estimates of military expenditures are based on official sources and sometimes adjusted if official data are considered to be partial. The military expenditure data from SIPRI is defined as "SIPRI Military Expenditures." SIPRI military expenditures is measured as percentage of GNP.

As mentioned in Chapter One, we are aware of the problems related to accuracy and reliability of military expenditure estimates. Countries tend to disguise their military spending under different banners or other government's departments. Military secrecy makes verifying the data's accuracy even more difficult. To strengthen our arguments, we use two data sources to test the validity of our model's specification and its robustness.

The arms import variable is percentage arms import out of total imports. This variable comes from ACDA, the Department of Commerce, the Bureau of Economic Analysis, the Bureau of Census, and the Department of Defense. The other control variables, GDP growth, per capita income, are from different sources, the International Monetary Fund and the World Bank.

2.4 Model and Empirical Methodology

This section describes the econometric method that is used to estimate inequality. We use a panel regression, country level observation, extend from 1987-1997. We initially discuss the determinants of inequality followed by a specification for the demand for military expenditures. This system of equations is used to estimate the parameters of inequality that is unbiased and consistent.

2.4.1 Determinants of Inequality

We use a system of equations to investigate the impact of military spending on inequality. Our starting point is the following model for inequality:

$$\begin{aligned} THEIL_{it} = & \beta_1 + \beta_2 MILEN_{it} + \beta_3 GDPG_{it} + \beta_4 RGDP1_{it} + \\ & \beta_5 OILPR_{it} + \beta_6 MAJ_{it} + \beta_7 AITI_{it} + \\ & \beta_8 AITI * MAJ_{it} + \nu_i + \varepsilon_{it} \end{aligned} \tag{2.1}$$

For a description of the variables in equation (1) refer to Table B.1 in the appendix. Equation (2.1) describes the inequality (THEIL) with explanatory variables: military expenditure³ (MILEN), GDP growth rate (GDPG), per capita income (RDDP1), oil price (OILPR), major arms conflict (MAJ), arms import

³MILEN in equation (1) is used as a generic term to describe military expenditures variables regardless of the source of the data, whether from SIPRI or ACDA.

(*AITI*) and interactions between arms import and major conflict (*AITI*MAJ*). ν is a country specific factor, such as geopolitical, cultural and other attributes. ε represents a white noise error term. Inequality and military spending are determined simultaneously; in other words the Theil index and the military expenditures are jointly determined. As stated in Chapter One, military expenditure and inequality are both endogenous variables: the military spending influences inequality and vice versa.

Table B.3 and B.4 in the appendix depict regression results from equation (2.1) using the data on military expenditures from ACDA and SIPRI. Regression results from Table B.3 and B.4 suggest that even though the coefficient of military expenditures is statistically significant, it ignores the simultaneity bias. The $MILEN_{it}$ is correlated with stochastic disturbance term ε_{it} . Therefore, we propose simultaneous equation models to correct for this endogeneity problem. The estimates using the single-equation model is not meaningful, and the information provided by the other equation of demand for military spending is critical to the model specification. The causal chain between the $THEIL_{it}$ and $MILEN_{it}$ runs in both direction.

We need to specify the demand for the military expenditure with better instruments to treat simultaneity bias. However, before specifying the demand for military expenditures, we need to clarify the process of using the "proxy" to get better estimates for our model. We postulate two endogenous variables $THEIL_{it}$ and $MILEN_{it}$, and predetermined variables (instruments): $GDPG_{it}$, $RGDP1_{it}$, $OILPR_{it}$, MAJ_{it} , $AITI_{it}$, $AITI*MAJ_{it}$, $ARMF_{it}$, and $ISRAL_{it}$. The estimation

results of 2SLS are sensitive to the chosen list of instrumental variables. The input of sound list of instrumental variables would definitely improve the estimation results. As you will see later, when we will specify equation (2.2), Equation (2.1) and (2.2) are over-identified. It means the reduced-form method cannot be used to obtain the original postulated parameters for equation (2.1) and (2.2) from the estimated coefficients of the reduced-form equations. Thus, the two-stage least squares (2SLS) method can be used to estimate both equations (2.1) and (2.2). The process of implementing 2SLS as follows: in the first-stage regression, we can obtain the "estimated $THEIL_{it}$ " and the "estimated $MILEN_{it}$ ". In the stage-two we replace the $MILEN_{it}$ by the "estimated $MILEN_{it}$ " in equation (2.1) to obtain coefficient, β_i , for equation(2.1). In order to obtain the unbiased estimates for original postulated coefficients α_i , in equation (2.2), we need to replace the $THEIL_{it}$ by the "estimated $THEIL_{it}$ " as an instruments variable in the equation (2.2) to get estimated coefficients α_i . Next, we discuss the demand for the military expenditures and its specifications.

2.4.1.1 Demand for Military Expenditures

Our model defines per capita military expenditure as a function of levels of inequality (THEIL), per capita income (RGDP1), GDP growth rate (GDPG), share of arms imports (AIMT), size of the armed forces (ARMF), interaction term between arms import and major conflict (AITI*MAJ), and Israel military expenditure (ISRAL). ν is the country effects and η represents the error term. The mili-

tary expenditures equation is:

$$\begin{aligned}
 MILEN_{it} = & \alpha_1 + \alpha_2 THEIL_{it} + \alpha_3 RGDP1_{it} + \alpha_4 AITI_{it} + \\
 & \alpha_5 ARMF_{it} + \alpha_6 GDPG_{it} + \alpha_7 ISRAL_{it} + \\
 & \alpha_8 AITI * MAJ_{it} + V_i + \eta_{it}
 \end{aligned} \tag{2.2}$$

The determinants of the military expenditures are driven by three forces. First, the institutional variables, such as size of the armed forces, and arms imports are relevant to military spending. We suggest that arms imports, size of arms forces, and level of inequality that exists in the country all positively affect military spending. The other control variables, such as Israeli military spending, reveals the degree to which countries are engaged in building armaments that can export their negative externality to the region. MENA countries concerned with their own security, either from neighbors or from Israel, bear the full cost of obtaining a military edge over their rivals.

The other determinants of military expenditures are GDP growth and per capita income; the higher the GDP growth the higher the military spending. Regarding per capita income; rich countries can afford to increase military spending and income effect is dominant given that the military needs are normal goods. The level of inequality in countries has a greater impact on the level of government spending in general. The correlation between military spending and inequality

is 0.79. Unequal societies encounter a greater social and political unrest that requires an increase on military spending to maintain the social stability, especially in countries like Egypt, Syria, and Iraq. As inequality increases, military spending should rise to protect the institutions of the state and to maintain law and order.

2.5 Empirical Results

2.5.1 Determinants of Inequality Standard

In Chapter 2 the natural tendency to examine the impact of military spending on inequality is to standardize the model presented in Chapter 1. As mentioned previously this study is conducted over the 1987 to 1997 time-period. Table 2.2 and 2.3 report the results of 2SLS regression based upon the standard model in Chapter 1. As presented in Tables 2.2 and 2.3, the overall specification appears to fail to support the theoretical premise of relationship between military expenditures and Inequality except in model 3. This relationship is statistically significant in model 3 in Table 2.2 and 2.3. The standard model presents weak results in Chapter 2 for possible reasons: the first reason is the model specification; we cannot standardize the model to fit in every case. The MENA countries are middle income countries that embroiled with conflicts that latent and some times it surfaces with waves of violence. Something that is unique to this region of the world. Further, the Israel's-Arab's conflict for decades set a new dynamics and reality that cannot captured by the standardized model of chapter 1. The

second reason, there is correlation between the known security threats variables and country and time dummies. We need to find a better variable to define the security threats; instead we used the major security threats variables that code only the bloody and devastating conflicts. Also not only the variable measures the size of imports is highly correlated with the arms imports, but also the arms imports is correlated with conflicts. Therefore the model specification in equation 2.1 (non-standard) better describes the reality in the MENA countries given the poor quality of data in MENA countries as discussed previously.

2.5.2 Determinants of Inequality Non-standard

Tables B.3 and B.4 in the appendix present panel results from 1987-1997 for inequality, however, they biased and inconsistent. The results on determinants of inequality estimates that are consistent and unbiased are presented in Tables 2.4 and 2.5. As expected, military expenditure turns out to be an important determinant of inequality. In Table 2.4, regression 1 to 3 shows as we increase military expenditures, the inequality increases. Table 2.5 shows the regression results on military expenditure again has positive and significant relationship with inequality. Regression 2.1 in Tables 2.4 and 2.5 indicates that as military expenditure increases, the inequality increases by (0.0190) and (0.0201) unit respectively. Regardless of which data source is used, there is robust relationship between inequality and military spending. Both ACDA and SIPRI measures of military spending have a strong and positive impact on inequality across the models in Tables 2.4 and 2.5.

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	-.01252 (0.31)	-.01162 (0.28)	-.2228 (0.46)
<i>MILEN</i>	-.00264 (0.69)	-.00182 (0.55)	-.00714 (1.60)*
<i>RGDP1</i>	0.00001 (4.70)***	0.000002 (0.34)	0.000003 (0.43)
<i>ARMF</i>	-.00223 (3.04)**	-.00257 (4.02)***	-.00224 (3.33)***
<i>TIMN</i>	0.02787 (5.14)***	0.01457 (2.34)**	0.01815 (2.77)***
<i>GDPG</i>	0.00062 (0.64)	-.000953 (1.13)	-.00025 (0.19)
<i>G * TIMN</i>	----- -----	-.00002 (1.03)	-.00003 (1.21)
<i>RGDPWG</i>	----- -----	----- -----	-.00000 (0.12)
<i>INTSEC</i>	0.0011 (0.06)	-.00191 (0.11)	0.0051 (0.30)
<i>EXTSEC</i>	0.01689 (1.33)	0.00949 (0.72)	0.0111 (0.85)
<i>F – statistics</i>	7.78	4.25	3.91
<i>R – squared</i>	0.69	0.68	0.69
<i>Observation</i>	78	78	76

***, **, * indicate the *t* – value significance at the 1, 5, and 10 percent level respectively.

Table 2.2: Simultaneous Equation Estimation Using ACDA Military Expenditures: Two-way Fixed Effects the dependent variable is Theil

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	-.01492 (0.58)	-.06363 (1.79)	-.12986 (2.32)
<i>MILEN</i>	0.00243 (0.76)	0.00908 (1.80) **	0.02565 (2.14) **
<i>RGDP1</i>	0.00001 (3.63) ***	0.000002 (0.40)	0.00001 (0.65)
<i>ARMF</i>	0.00182 (2.42) **	0.0008 (0.91)	-.00027 (0.20)
<i>TIMN</i>	0.02015 (3.19) ***	0.014361 (2.50) **	0.01155 (1.54)
<i>GDPG</i>	0.00046 (0.57)	-.00003 (0.04)	-.00083 (0.57)
<i>G * TIMN</i>	----- -----	-.00002 (1.10)	-.00003 (.91)
<i>RGDPWG</i>	----- -----	----- -----	-.00000 (0.87)
<i>INTSEC</i>	0.0011 (0.06)	-.01386 (0.89)	0.00229 (0.11)
<i>EXTSEC</i>	0.01689 (1.33)	0.01453 (1.07)	0.01801 (1.13)
<i>F - statistics</i>	9.47	4.41	3.00
<i>R - squared</i>	0.82	0.68	0.69
<i>Observation</i>	80	78	78

***, **, * indicate the *t* - value significance at the 1, 5, and 10 percent level respectively.

Table 2.3: Simultaneous Equation Estimation Using SIPRI Military Expenditures: Two-way Fixed Effects the dependent variable is Theil

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	0.00929 (0.19)	−.00655 (0.13)	−.004070 (0.09)
<i>MILEN</i>	0.01900 (2.43) ***	0.01931 (2.64) ***	0.02000 (2.70) ***
<i>OILPR</i>	−.00380 (1.88) **	−.00291 (1.52)	−.00303 (1.56)
<i>RGDP1</i>	−.0000007 (2.00) **	−.0000009 (2.60) ***	.0000009 (2.67) **
<i>MAJ</i>	−.04733 (2.26) ***	−0.03309 (1.81) **	−.03769 (1.54)
<i>AITI</i>	−.00388 (2.71) ***	−.00463 (3.30) ***	−.004730 (3.37) ***
<i>GDPG</i>	− − − − − − − −	−.00238 (2.98) ***	−.00243 (3.03) ***
<i>AITI * MAJ</i>	− − − − − − − −	− − − − − − − −	−.00400 (0.21)
<i>F – statistics</i>	13.45	14.04	12.95
<i>R – squared</i>	0.76	0.78	0.78
<i>Observation</i>	78	78	78

***, **, * indicate the *t* – value significance at the 1, 5, and 10 percent level respectively.

Table 2.4: Simultaneous Equation Estimation One-way Fixed Effect Using ACDA Military Expenditures; the dependent variable is Theil

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	0.01307 (0.29)	0.02686 (0.66)	0.01411 (0.33)
<i>MILEN</i>	0.02010 (2.89) ***	0.014663 (2.35) ***	0.015631 (2.46) ***
<i>OILPR</i>	-.00195 (1.01)	-.00158 (0.31)	-.00135 (0.76)
<i>RGDP1</i>	.0000002 (1.37)	.0000003 (1.87)*	.0000003 (2.04) **
<i>MAJ</i>	-.02031 (1.07)	-.02590 (1.48)	-0.03796 (1.65)*
<i>AITI</i>	-.00216 (3.26) ***	-.00224 (3.65) ***	-.00239 (3.75) ***
<i>GDPG</i>	----- -----	-.00196 (2.71) ***	-.00193 (2.66) **
<i>AITI * MAJ</i>	----- -----	----- -----	0.001530 (0.87)
<i>F – statistics</i>	14.34	16.16	15.08
<i>R – squared</i>	0.77	0.80	0.80
<i>Observation</i>	80	80	80

***, **, * indicate the *t* – value significance at the 1, 5, and 10 percent level respectively.

Table 2.5: Simultaneous Equation Estimation One-way Fixed Effect Using SIPRI Military Expenditures; the dependent variable is Theil

The regression coefficients in Tables 2.4 and 2.5 explain 76 to 80 percent of the variation in inequality. The coefficients of military spending remain significant at the (0.05) level of significance. These results emphasize our central message, that the level of military expenditure has a strong and positive effect on inequality. The public policy implication is that any reduction in military spending is desirable, since it frees the resources for other social and economic development programs.

The regressions in Tables 2.4 and 2.5 also reveal that the size of arms imports has a significant and negative coefficient. Even after controlling for GDP growth, and major conflict, the higher level of arms import is associated with lower level of inequality. One explanation for the significant and negative relationship is demonstrated by arms imports: the core of the military industrialization is protected and empowered by importing military hardware and technology embodied in weapons systems to expand the industrial base. The tendency of MENA countries to follow the path of import substitution was reinforced by need for indigenous technology implanted from abroad. Technology transfers and modernization can be achieved through imports in general and arms import in particular for strategic and economic reasons. To check the robustness of the arms import variable we added additional regressors such as (AITI*MAJ). The coefficient of arms import in Tables 2.4 and 2.5 remains stable and significant.

Oil price (OILPR) in regressions of Tables 2.4 and 2.5 remains insignificant for determining the inequality, because a significant share of oil is sold on the basis of long term contracts, the price changes do not reflect the short-term

fluctuations. However, the GDP growth shows a significant and negative relationship with inequality. GDP growth captures the urbanization and general economic prosperity, which narrows the gap between "haves and have-nots" in the region.

Surprisingly, in MENA countries, as per capita income rises, inequality rises. There are general possible interpretations for this relationship. One interpretation is that MENA countries are polarized in terms of wealth, and it is possible that income divergence is skewed toward the poorest countries in the distribution. For a relatively poor country, as income rises, the inequality will rise. This finding is consistent with Kuznets hypothesis. Another possible interpretation: during the period from-1987-97, MENA countries were plagued with economic recessions prior to and after the Gulf War and overall income level remained stagnant. Governments in this period introduced major cuts in social spending, causing reduction in safety nets and further increasing wealth polarization in the region.

2.5.3 Regression Estimates of Military Expenditures

Tables 2.6 and 2.7 present the estimates of the demand function for military spending. We have two types of demand functions for military spending; one demand function is known as "ACDA demand for military expenditures" and the other is "SIPRI demand for military expenditure." These two demand functions are drawn from different data sources with different definitions. The purpose of

introducing two data sets, as mentioned earlier, is to check whether demand for military expenditure is robust to the data change. Using more than one data source to estimate the demand for military expenditure addresses the contested debate among policy analysts on the validity of using one data set or the other. We agree with the critics that the greater risk pertains to the use of a single-data source to validate results that could have broader social, political and economic implications. Using ACDA and SIPRI measures of military spending give more tools to investigate the model specification and weigh the validity of our results more carefully.

Tables 2.6 and 2.7 present evidence on empirical relationships between inequality and military expenditures. Regression (1) - (3) shows that the level of inequality significantly affect military expenditures, controlling for other factors. This robust relationship between military expenditure and inequality across the models in Tables 2.6 and 2.7 confirms our original hypothesis that unequal societies choose higher military spending. There are possible explanations why unequal societies choose higher military spending, including: unequal societies tend to be unstable, and increasing military spending brings some sort of stability. Governments in unequal societies are keen to cement their ties to military institutions and win their allegiance or neutralize them from meddling in political affairs.

In regressions (1) to (3) in Tables 2.6 and 2.7, we introduce the size of arms imports. As countries imports more arms, military expenditure rises. In Table 2.6, as we increase the arms imports, ACDA military expenditures increases from

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	0.18475 (0.12)	0.31216 (0.16)	0.18772 (0.10)
<i>THEIL</i>	8.22950 (0.99)	31.2783 (2.17) ***	30.4641 (2.17) ***
<i>RGDP1</i>	-0.00042 (8.46) ***	-.00047 (6.85) ***	-.000460 (6.69) ***
<i>AITI</i>	0.17358 (10.59) **	0.21595 (7.55) ***	0.209845 (7.62) ***
<i>ARMF</i>	-0.0099 (0.56)	-0.02326 (0.90)	-.01675 (0.66)
<i>ASRAL</i>	0.002763 (3.11) ***	0.00228 (1.97) **	0.002088 (1.81) **
<i>GDPG</i>	----- -----	0.07387 (1.90) **	0.079181 (2.04) ***
<i>AITI * MAJ</i>	----- -----	----- -----	0.169899 (0.20)
<i>F - statistics</i>	170.73	94.00	91.25
<i>R - squared</i>	0.98	0.96	0.96
<i>Observation</i>	78	78	78

***, **, * indicate the *t* - value significance at the 1, 5, and 10 percent level respectively.

Table 2.6: Simultaneous Equation Estimation One-way Fixed Effect; the dependent variable is ACDA Military Expenditure

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	2.1270 (1.10)	1.8967 (1.00)	1.8799 (1.01)
<i>THEIL</i>	28.1066 (2.03) ***	29.4007 (2.12) ***	28.4350 (2.10) ***
<i>RGDP1</i>	-.00012 (2.29) ***	-.00016 (2.83) ***	-.00016 (2.83) ***
<i>AITI</i>	0.08337 (3.34) ***	0.09556 (3.45) ***	0.09386 (3.50) ***
<i>ARMF</i>	0.03251 (1.19)	0.05082 (2.06) ***	0.05184 (2.14) ***
<i>ASRAL</i>	-.00026 (0.23)	-0.00031 (0.28)	-.00030 (0.27)
<i>GDPG</i>	----- -----	0.074175 (1.98) **	0.07284 (1.93) **
<i>AITI * MAJ</i>	----- -----	----- -----	0.00272 (0.05)
<i>F - statistics</i>	120.73	115.65	110.24
<i>R - squared</i>	0.97	0.97	0.97
<i>Observation</i>	80	80	80

***, **, * indicate the *t* - value significance at the 1, 5, and 10 percent level respectively.

Table 2.7: Simultaneous Equation Estimation One-way Fixed Effect; the dependent variable is SIPRI Military Expenditures

0.173 percent in regression (1) to 0.20 percent in regression (3). In contrast to Table 2.7, as the arms imports increase, SIPRI military expenditures in regression (1) will increase to 0.08 percent and to 0.09 percent in regression 3.

Table 2.6 shows that the size of the armed forces is not statistically significant while it is positive and significant in its relation with SIPRI military expenditures in model (2) and (3) in Table 2.7. The findings of Table 2.6 on size of armed forces are consistent with our original hypothesis that the size of the armed forces in MENA countries remains stable with no significant changes through the decade. Therefore, we should not expect that the size of the armed forces has any impact on the variation of military expenditure that we observe here. However, the results from Table 2.7 regressions (2) and (3) have put some doubt on this hypothesis. We infer that the relationship between the armed forces and military expenditures is inconclusive.

The per capita income variable (RGDP1) in Tables 2.6 and 2.7 does not support the conventional wisdom that rich countries spend more on the military. On the contrary, for MENA countries, higher per capita income is associated with lower military spending. For example in regression (1) on Table 2.6, for every dollar increase in income, the ACDA military expenditures decline by \$0.0004. In Table 2.7 regression (1) for every dollar increase in income, the military spending falls by \$0.00012. On other hand, the GDP growth (GDPG) variable supports our hypothesis that as economy grows, more resources will be available for military spending, holding other factors constant. GDP growth across the model in Tables 2.6 and 2.7 shows a positive and statistically significant relation between

military expenditures and GDP growth in the MENA countries. Table 2.6 shows that Israel military spending positively affects military spending in the MENA countries, however that result is far from conclusive in Table 2.7.

The regressions in Tables 2.6 and 2.7 explain about 95 percent of variation in ACDA military expenditures, while regressions in Table 2.7 explain 80 percent of variation in SIPRI military expenditures. Overall we have a good and robust model estimating the demand for military expenditures.

2.5.4 One-way vs Two-way Fixed Effects Model

The appendix Table B.5 and B.6 show regression results for the inequality model controlling for time and country dummies. The coefficient of inequality in the model does not fluctuate in sign. However there is fluctuation in the significance level. As Table B.5 reports, military expenditure is significant across the model specifications except in model 3. Also the coefficient of arms imports, GDP growth and major conflict variables are statistically significant. Not surprisingly, the coefficient of oil price is insignificant because it works through the economic growth variable.

Similar findings have been reported in Table B.6, the coefficients for economic and military variables remains statistically significant except for coefficient of oil price and the interaction terms (AITI*MAJ). As far as the dependent variable is concerned, controlling for time dummies does not alter the model results compare to a one-way fixed effect model. Nevertheless, the one-way fixed effect

shows a superior results compared with the two-way fixed effect model, when ACDA military expenditure data is used.

Table B.7 and B.8 show the coefficient of inequality remained significant and robust across the model specification except in Table B.7, model 2. Overall inequality affects military expenditure regardless of type of data used. Likewise, Israel's military expenditure has a profound impact on the size of military spending by MENA countries.

2.6 Discussion

This chapter focuses on identifying a connection between military spending and inequality in the MENA countries. It shows that military spending does matter for inequality. Specifically, this chapter's finding is consistent with the first chapter's argument that established a positive relationship between military spending and inequality. This result can be explained by assuming that increases in military spending, for instance, could come at the expense of budgetary spending on social programs, such as education, health and housing. The military spending in essence crowding out spending on social entitlements. Moreover, oil price changes do not appear to affect the level of inequality directly. Also, our measure of the impact of major conflicts and arms import associated with major conflicts on inequality are not conclusive.

Second, the paper has empirically assessed the demand for military spending. The factors such as level of inequality, per capita income, GDP growth and

size of arms imports are important determinants of military spending. The level of inequality, GDP growth and size of arms imports also give a boost to military spending. The impact of Israeli's military spending on military spending in MENA countries is not conclusive. The policy implication of this study lends support to the conclusion that reductions in military spending are desirable, since they free resources for other social and economic development programs.

Chapter 3

War and the Relative Cost of Food

3.1 Introduction

In a state of war people are at risk of losing access to one of life most basic necessities – food. Millions may live in the shadow of famine and poverty. According to the International Food Policy Research Institute (IFPRI) 2002, at the end of 2000, violent conflict and its aftermath had left 24 million people in 28 countries with a shortfall of food. Armed conflict disrupts infrastructure, markets and human resources required for food production. A further study by Hoeffler and Reynal-Querol (2003) shows that infant mortality rates increase by 13 percent during wartime. A study by Guha-Sapir and Panhuis (2002) shows evidence that adult mortality rates are even higher than infant mortality. As levels of violence intensify majorities of populations are displaced or moved into urban centers or neighboring countries for protection and survival.

Alternative measures are needed to assess adequately failures in food supplies and the extent of human suffering during wartime. A fundamental and common problem of conflict is the collapse of purchasing power over food. This

may happen either because of a rise in the nominal price of the food (food cost inflation) or because of collapses in income outside the food-producing sector. The two causes have equivalent effects, but may be difficult to measure systematically from price data alone. Our approach is to define a “food-cost ratio” from data on the wage structure—essentially the relative wage paid to food producing versus other sectors. This ratio is the fundamental observable in this study. Much of the past analysis focuses on food aid, with no emphasis on the impact of war on food-cost ratio. Cost of inputs in the food industry – wages in particular – could be used as a reasonable indicator to explain why such a high fraction of the populations is malnourished in war-torn countries.

The unique circumstances of war create economic activities that respond to war: such as informal market, corruption and commodity speculation; we can call such an economy a ‘war-time economy’. In this war-time economy rent-seeking behavior is very rational for the following reason. On one hand, shortages of the food supply can fuel excessive demand and more speculation on the food commodity. On the other hand, individuals may take advantage of labor shortage during the conflict to demand high wages. According to Stewart, Huang and Wang (2001) survey data for 18 countries affected by civil war, in 13 countries food production had fallen drastically. Given the shortages of food there is an economic incentive to engage in rent seeking-behavior.

In regard to the political economy of wars, sometimes there are opportunities for self-enrichment over the course of the conflict. Warlords and other parties engaged in conflicts can enrich themselves from trading and speculating

with food, fuels and arms for enormous financial gains. Commercialization of food during war could be one of the reasons why wages in the food remains enormously high.

Assume that war is organized violence motivated by political and economic purposes. We distinguish between international¹ and civil wars² in terms of destructive capacity. In civil wars, we witness a severe destruction of prevailing economic, social and legal norms. In international wars, there is relatively less social and economic destruction. Micro-level analyses of the food-cost ratio during civil or international wars give us insight into governments' ability or inability to mobilize the resources to counter the danger of hunger and famine. Understanding the factors that makes food-cost ratio rise may help to formulate policy responses that mitigate human suffering in wartime environments. Therefore, this paper examines two questions: first, what is the effect of wars on food-cost ratio; second, what policies are likely to reduce food-cost ratio? To answer these research questions we use panel data for 50 countries from the 1960s to the 1990s.

The results of this paper will show that civil wars positively affect the food-cost ratio, while international wars might not affect the food-cost ratio. The policy implication of this analysis is that in the event of a civil war, policy

¹Singer and Small describe two types of international wars: Interstate wars, in which a nation that qualifies as an interstate system engages in a war with another member of interstate system. Extra-systemic wars, in which a nation that qualifies as an interstate system engages in a war with political entity that is not member of interstate system. Our definition of international war is so broad that we hardly distinguish between the two types of international wars.

²Singer and Small define civil war on three criteria: Military action within the boundary of the country, active participation of the national government, and effective resistance by both sides.

makers lack the resources to exert control on rising food-cost ratio. A rising food-cost ratio could be translated into higher food prices, which may have devastating impacts on social and economic well-being. In the event of an international war, as opposed to civil war, governments have a greater capacity to prioritize and mobilize resources. In international wars, there are no significant changes in food sector wages for the following reason: (1) international wars tend to be brief and levels of publicity and food aid curbs the rent-seeking behavior in the food industry. (2) Measures such as price controls and rationing could be activated to mitigate the devastating consequences of international wars. Food imports does remain an effective tool to reduce the increase in the food-cost ratio.

The paper is organized as follows: Section 2 presents a literature review. Section 3 discusses the data and the variables, and Section 4 sets the model of food wages. Section 5 presents the results. Section 6 provides discussion .

3.2 Literature Review

We divide the literature into two broad categories: one group focus on peace time food crisis and emphasizes on macroeconomic stability as way to resolve the food crisis. The other category of the literature focuses on the food crisis as result of social and political conflicts. This study draws from both categories of the literature but draws heavily on the second category. Singer (1989) argued that African food crises dated back 25 years, he attributed the reasons for the crisis to insufficient foreign exchange, which were caused by low

world food prices and other external shocks. Rao (1977) concluded that effort should be put toward not only increasing investment but also to establish new mechanisms to assure equitable distribution of food.

Singer and Rao discussed the food crisis on context of a normal and peaceful environment, contrary to our study which discusses the food crisis in context of the society that engaged in a bloody conflict. Williamson (2001) pointed out that food security has been treated as a broader aspect of global poverty, reflected in insufficient income to produce food available on global markets. Sen's (1981) theory of famines, eschews the focus on food availability in favor of examining exchange entitlements. During war people fail to establish command over food for many reasons: lack of social order and displacement, collapse of exchange entitlements due to job losses.

A study by the World Hunger Organization (WHO) (2000) supports the notion that food insecurity, or poverty-related hunger, follows from armed violence that disrupts markets and denies households the command entitlement to acquire food. Cramer (1998) elaborates the possible relationship between income distribution and conflict in LDCs. There is a complex and shady interlinking between distribution, conflict and economic growth.

Most of the literature emphasizes demand-side arguments over supply-side arguments. However, studying the food-cost ratio shifts the debate to supply-side arguments, since labor is an important input to food producing industries.

3.3 Data

Country level data available from the 1970's through the 1990's from the United Nations Industrial Development Organization (UNIDO), the World Bank, and the International Monetary Fund (IMF) are used to conduct this study.

3.3.1 Food-cost Ratio

We use industrial wages and employment data on the food sector collected by the United Nation Industrial Development Organization (UNIDO). The food-cost ratio is measured as a share of wages paid to the food sector versus total manufacturing wages. Most countries included in this study experienced intense and prolonged wars during the period under consideration. Table 3.1 shows food-cost ratio and dates for the beginning and end of wars for countries in our sample. Countries like Burundi, Ethiopia, Sudan, Angola, Colombia, Peru, and Uganda show the largest increases in food-cost ratio. In data for 37 countries, more than 26 countries experienced a rise in food-cost ratio. It is no surprise to learn that the common characteristic shared by these countries is conflict, hunger and starvation.

The legacy of war perpetuates through generations in terms of misery and malnutrition. WHO (2000) argued that conflicts that were linked with food shortages set the stages for years of food emergencies after fighting officially ceased. As wars end food-cost ratio remained high, except for few countries like Kuwait, Iraq, Iran and Sierra Leone. This result may further explain why the

food-cost ratio remains high after conflict end; demand pressures cause wages to remain high. This food gap might be overcome by national and international efforts.

3.3.2 Food-cost Ratio and conflict

Evidence in figure 3.1 shows that food-cost ratio rose sharply during conflict, particularly in Guatemala, Iraq, Nicaragua and Peru. Syria showed accelerating increases in food-cost ratio, especially after the insurrection in Hama in 1982. However, Iran managed to keep the food-cost ratio from accelerating during its war with Iraq. Prior to the Iranian revolution the food-cost ratio was extremely high compared to the period after the revolution.

To provide a comparison between conflict and movement of the food-cost ratio, figure C.1 in the appendix shows that countries like Afghanistan, Burundi, Colombia, Algeria and Ethiopia experienced a spike in food-cost ratio. In El Salvador in early 1960s, a problem of land distribution and tensions resulting from large-scale emigration to neighboring countries affected the food-cost ratio; despite an election in 1977, the level of violence and conflict persisted and as food-cost ratio showed a modest increase.

Figure C.2 in the appendix shows food-cost ratio rising persistently in South Africa during the apartheid period. We think that sanctions in South Africa in combination with conflict have an impact on the food-cost ratio. Also, figure C.2 shows that Zimbabwe and Yugoslavia experienced sharp rises in food-

Country	Years of War		Food-cost Ratio	
	Start	End	Start	End
Afghanistan	1987	1992	0.07	0.11
Algeria	1962	1992	0.49	0.57
Angola	1975	1991	0.20	0.27
Burundi	1965	1998	0.04	0.36
Colombia	1978	1994	0.26	0.44
Cyprus	1963	1964	0.16	0.15
Dominican	1955	1965	0.75	0.75
El Salvador	1978	1992	0.46	0.27
Ethiopia	1977	1991	0.13	0.22
Guatemala	1966	1994	0.51	0.68
Indonesia	1975	1986	0.20	0.15
Iran	1978	1990	0.22	0.11
Iraq	1961	1991	0.17	0.13
Israel	1950	1997	0.13	0.10
Kenya	1991	1993	0.20	0.22
Kuwait	1990	1991	0.07	0.05
Mexico	1992	1994	0.08	0.08
Morocco	1975	1989	0.10	0.17
Mozambique	1979	1992	0.35	0.32
Nicaragua	1978	1989	0.70	0.76
Nigeria	1967	1970	0.10	0.12
Pakistan	1971	1977	0.09	0.12
Papua NG	1988	1991	0.21	0.23
Peru	1980	1996	0.30	0.44
Philippines	1972	1996	0.20	0.17
Russia	1994	1996	0.13	0.13
Sierra Leone	1991	1996	0.51	0.42
South Africa	1976	1994	0.17	0.22

Table 3.1: The Food-cost Ratio before and after the War

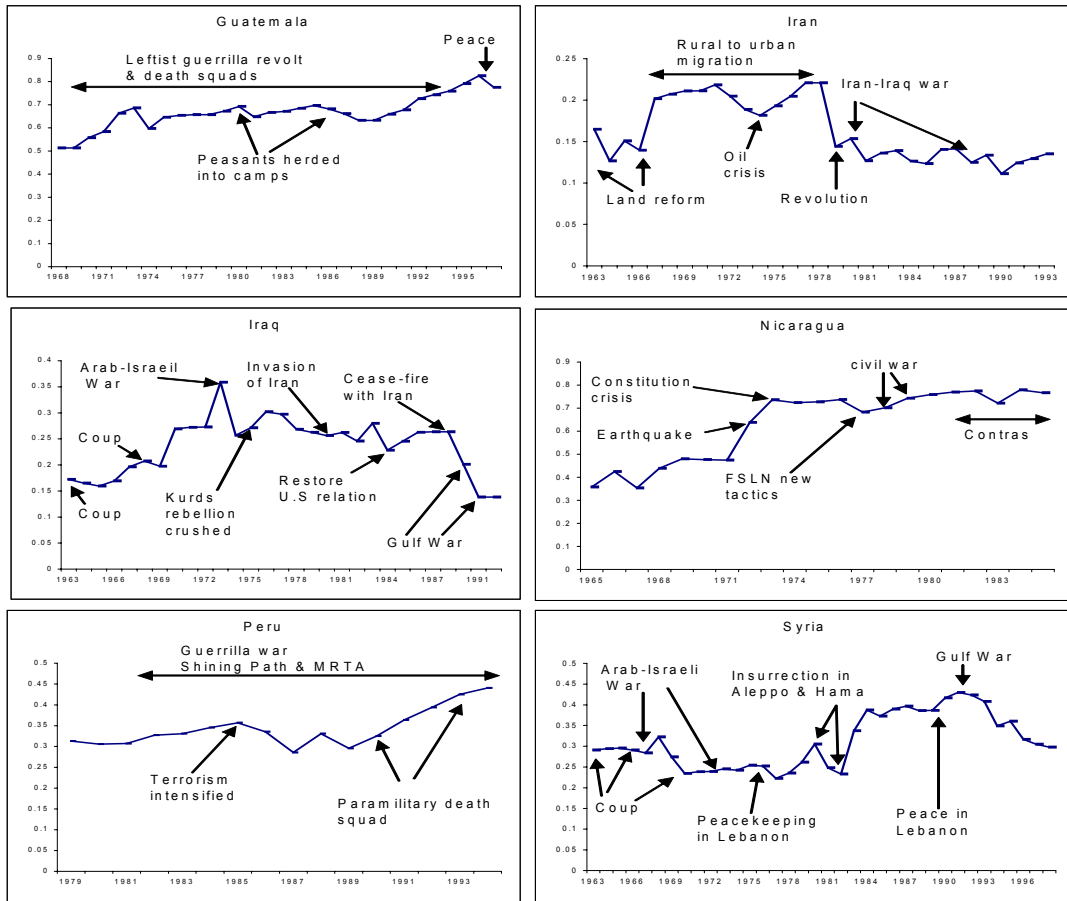


Figure 3.1: Food-cost Ratio

cost ratio during their conflicts. In the case of Uganda, given the poor data, especially during the wartime, those spikes on food-cost ratio should be treated with caution. The picture that emerges from comparing graphs from 16 countries in the appendix figures (C.1-C.2) and figure 3.1 show that the food-cost ratio move to a higher rates as levels of violent increase during conflicts. In section 4 we discuss the impact of wars on food-cost ratio.

3.3.3 Civil Wars (*civilwar*)

To quantify the impact of civil wars on the food-cost ratio, we create a dummy variable that has a value of one if there is a civil war in a particular year and zero otherwise. We used historical records and data from the Heidelberg Institute for International Conflict Research to determine the duration of wars. During civil wars governments lack effective mechanisms to mobilize resources. Also labor displacement due to war can contribute to a rising food-cost ratio. In the environment of civil war, rent-seeking behavior will accelerate, especially in the food sector. We expect that civil wars have a positive impact on food-cost ratio.

3.3.4 International Wars (*interwar*)

In defining international wars we use a broader definition that not only includes violent engagement between member states but also wars against colonial rule as defined by Singer and Small. A dummy variable is created to indicate if

an international war has occurred or not. Contrary to civil wars, in international wars governments have the capacity to control rent seeking behavior in food sectors. Also countries experience labor market stability. Women can step up and fill the gap of labor shortages and suppress rising food-cost ratio. Therefore, we expect that international wars negatively affect the food-cost ratio.

3.3.5 Arable Land (*landus_tl*)

Expanding the amount of arable land plays indispensable part in an overall strategy to expand the availability of food. There are two ways in which expanding agricultural land increases food-cost ratio: first, expanding arable land directly supports the farming community to an extent that reverses the migration to urban centers of individuals seeking a living wage. Increasing the amount of arable land increases the productivity of average farmers and the landless, and they contribute more to and become less of a burden to the society. This leads to an increase in the demand for labor in the food sector and consequently higher food-cost ratio. The only challenging to expand the arable land is the ability of the government to neutralize the conflict and offer protection to farmers.

Second, land, labor and capital are important factors in the production process. During war, land and capital are scarce; therefore the relative factor cost is expensive. We assume that food producers will adjust their employment of labor so that the rate at which one input can be traded with another input in production will be equal the rate at which one input cost can be substituted for

another input cost. In other words, to minimize cost, the producer should employ inputs in such a way that the marginal product per dollar spent is equal across all inputs. Producers expanding the size of planted arable land require more labor, results in relatively higher food-cost ratio. In both scenarios, increasing the amount of arable land positively affects food-cost ratio.

3.3.6 Foreign Aid (*aid_gni*)

Foreign aid is a flow of capital to LDC's that meets two criteria: (1) it is non-commercial from the point of view of the donor (2) it is in concessional terms, in other words the interest rates and repayment period are lower than general market rates for such financing. (Todaro, and Smith, 2002). Aid is closely associated with importing technology and capital-intensive goods. Conflict embroiled countries are likely to import agricultural equipment or technology to provide food for their soldiers and those under their protection. Availability of better technology in the food sector may make labor more productive and may put pressure on demand for labor and labor earnings rise. However, if labor is substituted for capital, a flow of capital reduces labor demand and as results in a decrease of food-cost ratio. Here we assume that foreign aid is not mismanaged or abused by recipient countries.

Aid-in-kind such as food, with availability of proper channels for food distribution, may expand the supply of food and lower prices. Therefore, high cost producers and speculators might exit from the market. The sign of the

coefficient for the foreign aid to war-torn countries should be indeterminate.

3.3.7 Food Imports (fim_{ti})

In a state of war, governments import essential commodities; food, fuel and arms. We assume that governments do not use food as an instrument to starve populations or for ethnic cleansing. Importing food increases the capacity of the government to serve the public and restore some trust in the government. Therefore, importing food will increase the food supply and put downward pressure on price levels and reduce speculation on food commodities. Governments can use the imported food to counter any excessive pricing of food; therefore input cost will fall, including labor wages.

3.3.8 Economic Variables

In this study we control for purchasing power parity, consumption expenditure, food value added and a food production index. We control for these economic variables to isolate their impact.

3.4 Model of Food-cost Ratio

The basic model of food-cost ratio:

$$\begin{aligned}
\log foodco_{it} = & \phi_1 + \phi_2 civilwar_{it} + \phi_3 interwar_{it} + \phi_4 landus_{it} \\
& + \phi_5 fprodi_{it} + \phi_6 ppp_{it} + \phi_7 cons_{it} + \phi_8 aid_gni_{it} \quad (3.1) \\
& + \phi_9 fvad_mf + \phi_{10} fim_ti_{it} + u_i + v_t + \varepsilon_{it},
\end{aligned}$$

where $\log foodco_{it}$ in equation (3.1) is denoted as $(\log foodco_{it})$. $civilwar_{it}$ and $interwar_{it}$ are the civil war and international war, $landus$ is land use as percentage of land area, $fprodi_{it}$ and ppp_{it} are food production index (1989-91=100) and purchasing power parity respectively. $cons_{it}$ is consumption as percentage of GDP, aid_gni_{it} is aid as percentage of GNI, $fvad_mf_{it}$ is food and beverage as value added in manufacturing, fim_ti_{it} is food imports, u_i is country dummy, v_t is time dummy. and ε_{it} is the error term. In this model we assume that increases in the food-cost ratio cannot influence the probability of war, but wars have an impact on food-cost ratio. i.e. wars are an exogenous shock to the food-cost ratio. The model should test the effect of civil and international wars on food-cost ratio, and policies likely reduce it.

3.5 Results

Variable	Description
foodcos	Food-cost Ratio (as share of total Manufacturing wages)
Civilwar	Civil War
Interwar	International War
Landus_tl	Land use, arable land (% land area)
fprodin_91	Food production index (1989-91=100)
PPP	Purchasing power parity conversion factor
cons_gdp	Final consumption expenditure (% of GDP)
aid_gni	Aid as % of GNI
fvad_mf	Food and Beverage (% of value added in manufacturing)
fim_ti	Food imports (% of merchandise imports)

Table 3.2: Description of Variables and their Data Units

Variable	N	Mean	Std. Dev	Minimum	Maximum
<i>foodco</i>	1214	0.30481	0.17822	0.01994	0.82496
<i>civilwar</i>	1258	0.24642	0.431099	0	1
<i>interwar</i>	1257	0.14001	0.347142	0	1
<i>landus_tl</i>	1179	15.2076	14.65292	0.033123	70.6153
<i>fprodin_91</i>	1175	79.8454	23.97113	19.000	169.4000
<i>ppp</i>		44.5198	117.267	4.5673	836.8484
<i>cons_gdp</i>	1050	83.5069	12.3031	22.10595	166.9532
<i>Aid_gni</i>	418	35.4355	44.4209	1.899	239.6960
<i>fvad_mf</i>	994	0.00004	.000005	-2.93846	0.0011
<i>fim_ti</i>	1055	15.8914	9.03238	0.86318	62.63169

Table 3.3: Simple Statistics

<i>Equations</i>	(1)	<i>t - value</i>	(2)	<i>t - value</i>	(3)	<i>t - val</i>
<i>Intercept</i>	-1.296	0.49	-1.301	0.50	-1.689	1.09
<i>civilwar</i>	0.5993	2.24	0.599	2.25	0.547	2.80
<i>interwar</i>	0.0919	0.24	0.0924	0.24	0.1456	0.48
<i>landus_tl</i>	0.3482	2.84	0.3487	2.85	0.3540	2.85
<i>fprodin_91</i>	-.0117	2.37	-0.0118	2.44	-.0116	2.96
<i>ppp</i>	-.0001	3.80	-.0001	3.80	-.0001	3.88
<i>cons_gdp</i>	-.05906	3.15	-.0591	3.15	-.0626	3.44
<i>Aid_gni</i>	0.0022	0.06	---	---	-.0013	2.22
<i>fvad_mf</i>	-.0228	1.46	-.0227	1.47	---	---
<i>fim_ti</i>	-.05324	1.92	-.0532	1.93	-.0578	2.34
<i>F - statistics</i>	186	---	191	---	190	---
<i>R - squared</i>	0.96	---	0.96	---	0.96	---
<i>Number</i>	331	---	330	---	330	---

Table 3.4: Country-effects Model the Dependent Variable is log Food-cost Ratio

3.5.1 One-way Fixed effects

Table 3.3 presents simple statistics for variables included in this study. Table 3.4 reports estimates of the linear specification of the log-food-cost ratio. Columns (1) through (3) report ordinary least squares (OLS) estimates with country fixed-effects. The coefficient for civil war remains positive and statistically significant at the .01 level of significance across the columns. Acts of warfare may seize the market supply of food and encourage speculation and rent seeking behavior. According to column (1) civil war has, on average, the effect of increasing food-cost ratio by 59 percent, while columns (2) and (3) show that food prices increased by 65 percent and 63 percent, respectively. Therefore we infer that civil war contributed enormously to the rise of the food-cost ratio.

The coefficient of international war in Table 3.4, remains statistically in-

significant across the columns, which is consistent with our hypothesis. International wars tend to be brief and humanitarian assistance curbs surges in wages. However the coefficient estimate for arable land in Table 3.4 is positive and statistically significant. Increasing the arable land helps food-cost ratio to grow by 32.3 percent, holding constant the other factors.

The variable foreign aid in columns (2) and (3) is significant, however it is insignificant in column (1) when we controlled for value added in the food industry. The impact of foreign aid on food-cost ratio is not conclusive. Also Table 3.4 shows the coefficient on food imports are negative and statistically significant. Importing more food heads-off the wage pressure in the food market. Overall R-squared is 96 percent – very high even though we excluded the time dummies for estimates on Table 3.4.

3.5.2 Two-way Fixed Effects

In Table 3.5, columns (1) to (3) show the coefficient of civil war is statistically significant and its sign remains unchanged. The incident of war increases food-cost ratio by 49 percent in column (1) and 46 to 43 percent in column (2) and (3). The range of wages movement is lower in Table 3.5 than Table 3.4 estimates, because we used a two-way fixed effects model instead of a one-way fixed effects model. Controlling for the time variable improved the model results overall.

The coefficient of international war remains insignificant in column (1).

However, when we exclude the variable foreign aid, international war regains its significance. The possible interpretation is that the impact of international war on food-cost ratio is mitigated by foreign aid.

<i>Equations</i>	(1)	<i>t – value</i>	(2)	<i>t – value</i>	(3)	<i>t – val</i>
<i>Intercept</i>	-2.961	1.12	-3.115	1.27	-4.145	1.75
<i>civilwar</i>	0.4989	1.84	0.4606	1.87	0.4394	1.93
<i>interwar</i>	0.5693	1.44	0.6004	1.77	0.6235	2.00
<i>landus_tl</i>	0.2939	2.36	0.3024	2.64	0.3052	2.75
<i>fprodin_91</i>	.01602	2.12	0.0137	1.99	0.0151	2.26
<i>ppp</i>	-0.0001	3.00	-0.0001	3.22	-0.0001	3.19
<i>cons_gdp</i>	-.0512	2.63	-.0492	2.71	-.0457	2.62
<i>Aid_gni</i>	0.0117	0.31	– – –	– – –	-0.0007	2.22
<i>fvad_mf</i>	-.0187	1.20	-.0179	1.22	– – –	– – –
<i>fim_ti</i>	-.0509	1.83	-.0516	1.97	-.0510	2.09
<i>F – statistics</i>	138	– –	154	– –	159	– –
<i>R – squared</i>	0.97	– –	0.97	– –	0.97	– –
<i>Number</i>	331	– –	360	– –	386	– –

Table 3.5: Fixed-effects Model the Dependent Variable is log Food-cost Ratio

In addition, we did find an interesting exception. Columns (1) and (2), show the coefficient of foreign aid is significant only when we drop the control variable manufacturing value added in the food sector. The impact of foreign aid on food-cost ratio is far from conclusive. A more extensive empirical analysis of relationships between food-cost ratio and foreign aid is left for future research.

Columns (1) to (3) indicate that the coefficient of food imports remains stable and significant. Importing foods lowers food-cost ratio since it mitigates speculation on the food commodity. Table 3.5 shows a high value for R-squared; 97 percent. Overall the results from Tables 3.4 and 3.5 are quite convincingly

point out that civil war has a positive impact on food-cost ratio. However, the impact of international war on food-cost ratio is inconclusive.

The results presented in Tables (3.4) and (3.5) are robust to a variety of alternative specifications. The magnitudes of the coefficient of the civil war variable rang from 59 to 65 percent in Table 3.4, and from 49 to 43 percent in Table 3.5, controlling for economic variables. When we added the time dummy variables, the model predictability is improved, as shown by Table 3.5.

3.5.3 Policy Alternative counteract rising wages

Having demonstrated in the previous section the relationship between food-cost ratio and wars in general. There should be alternative food policies to counteract the rising of food-cost ratio during conflicts. An easy solution is price control but it is not feasible to be enforcing with the absence of the rule of law, a common feature of civil wars. For any government that is concerned with general public welfare, importing food certainly reduces the intensity of rent seeking behavior in the food sector. The greatest impact to reduce food-cost ratio comes from food imports, not foreign aid. It will be wise to allocate some part if not all of foreign aid to import food.

The policy makers and the international community should be concerned about the price stability in the food sector. In addition to food distribution by different agencies, there should be an effort to supply means of production to displaced farmers to start producing food. It is possible that increasing demand

for labor increase the food-cost ratio in general, however, providing displaced people with means of production reduces the speculative activity in food markets and depresses food-cost ratio.

3.5.4 War Circumstances and Terms of Trade

In this section I have chosen three narrative accounts of the relationship between war and the terms of trade between food and non-food items. The ratio can change not only as a result of either the numerator or the denominator. So some change in the denominator during war will be useful for clarifying the concept and will shed light on terms of trade between food and non-food items.

Figure 3.2 shows the movement of the cost-ratio for food and non-food items in South Africa. The predominant industries in South Africa are food, iron, transportation equipment, and fabricated and metal products. The rest are small in size and less responsive to war shocks. The cost-ratio for fabricated metal products remained high from 1963 to 1998 as the level of violence between the perpetrators of apartheid and the National African Congress (ANC) persisted. However, the costs of fabricated metal products, iron, and transportation equipment reacted sharply after 1983 when the international sanction movement intensified. Sanctions crippled those industries, while the food industry boomed. The smaller-scale industries remained steady, seeing no drastic changes in their cost-ratios. The movement of the food-cost ratio far exceeded the falling of the relatively small industries, and reflects changes within the food industry. This is

reasonable proof that war creates term of trade favoring the food industry.

Figure 3.3 shows extreme cases where the food industry is dominating other manufacturing sectors. In Ethiopia, the food-cost ratio reached a global maximum in 1966 and 1975. Both pinnacle points are associated with series of bloody purges between the government and the Eritrean People's Liberation Front (EPLF). The food-cost ratio reacted strongly to conflict. Also the cost-ratio for beverages as a second industry after food grew steadily since 1975. The cost-ratios in the tobacco, wood product, etc industries remained flat except after Eritrean independence, they showed signs of a boom while the food-cost ratio started leveling-off. Again, war improved the terms of trade for the food and beverage industries in this agrarian society.

Figure 3.4 shows a case of a country that has a very weak industrial base and for which food is the essential production sector. The Soviet invasion of Afghanistan in 1979 and an increase in the general revolt led by the Mujahidin resulted in a higher food-cost ratio. From 1983 to 1986 there was an upswing in the industrial chemical product-cost ratio. It fell near to pre-war levels after the Soviet withdraw. The rest of the sectors remained stable as the war effort continued. Following these cases, I conclude that the food-cost ratio reacts sharply to events during wartime, and in ways that are uncharacteristic of other sectors. The movement of the numerator far exceeds the downfall of the denominator. Therefore, rising food-cost ratios reflect rising numerators (increased food costs) due to war activities.

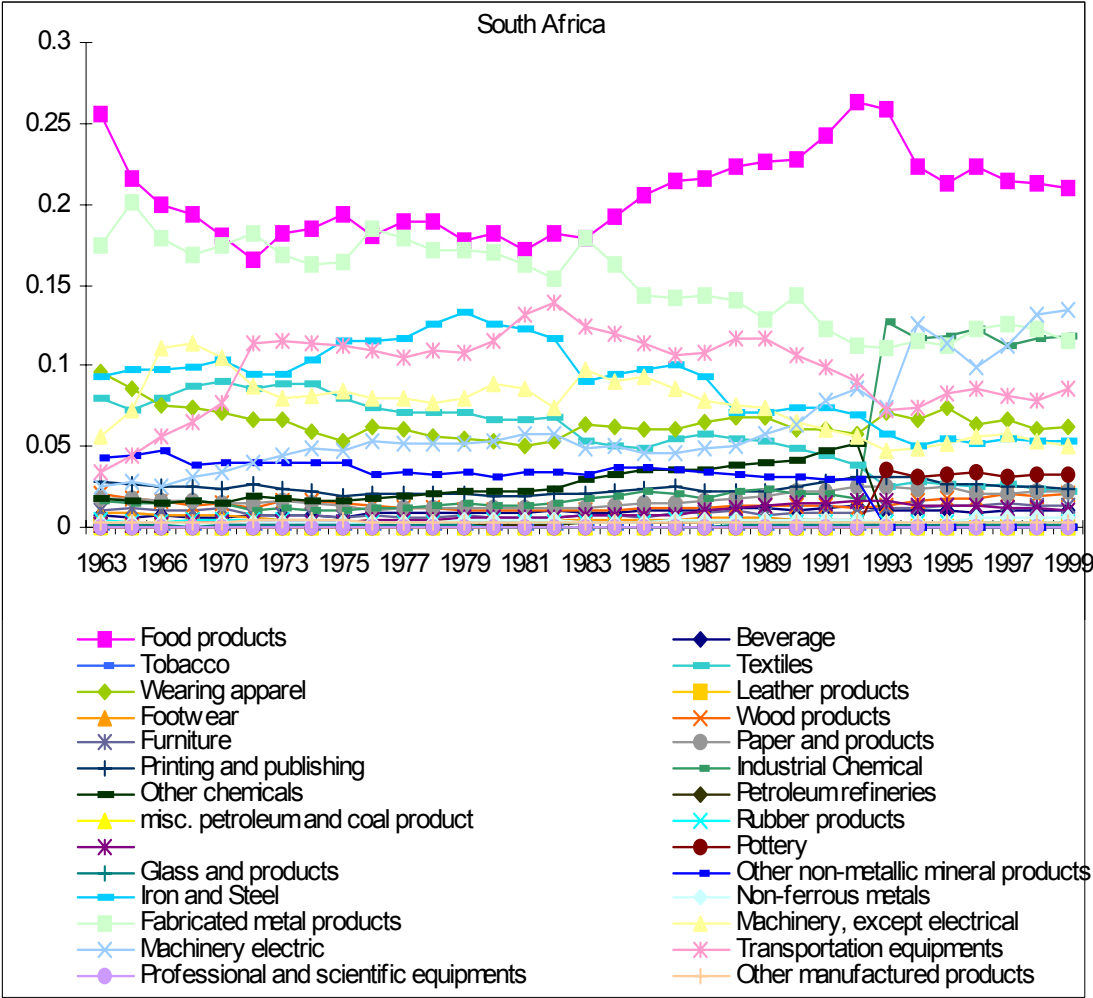


Figure 3.2: Cost-ratio for Food and non-food Products

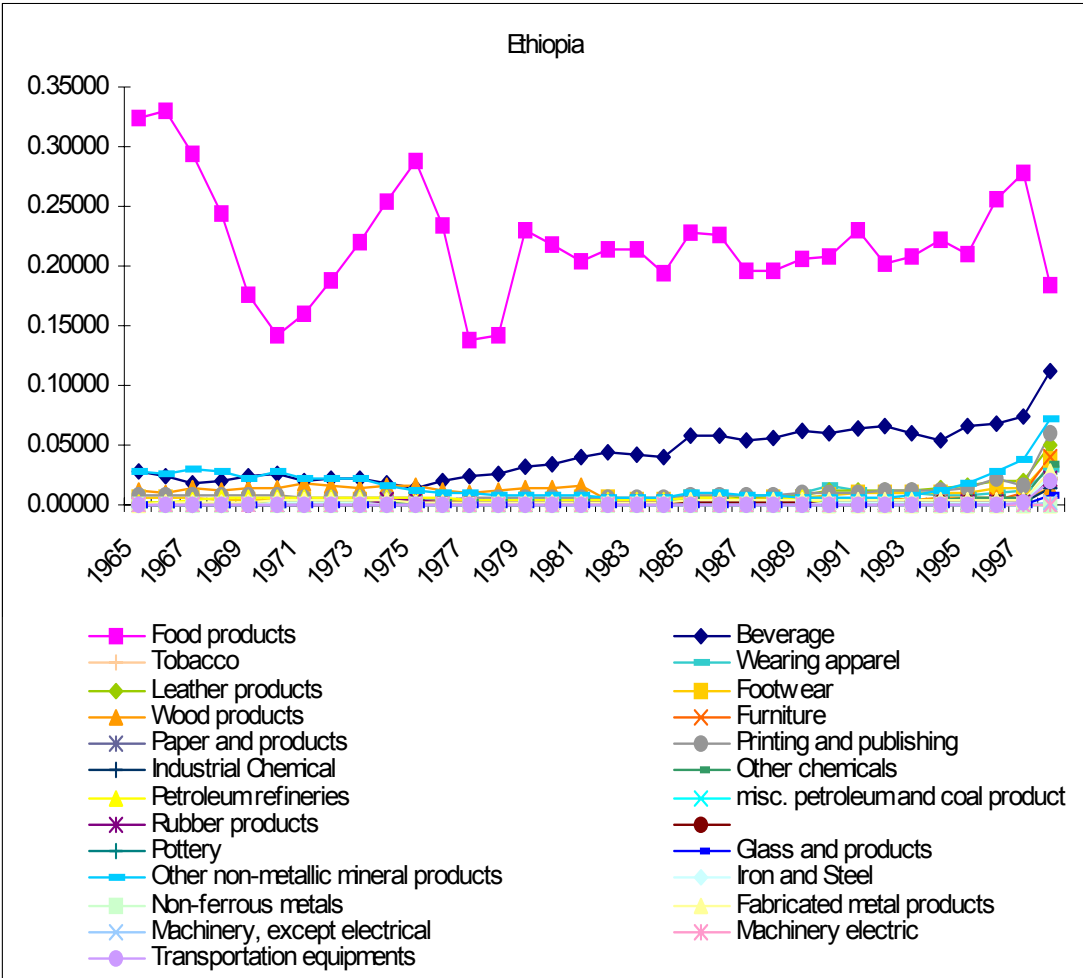


Figure 3.3: Cost-ratio for Food and non-food Products

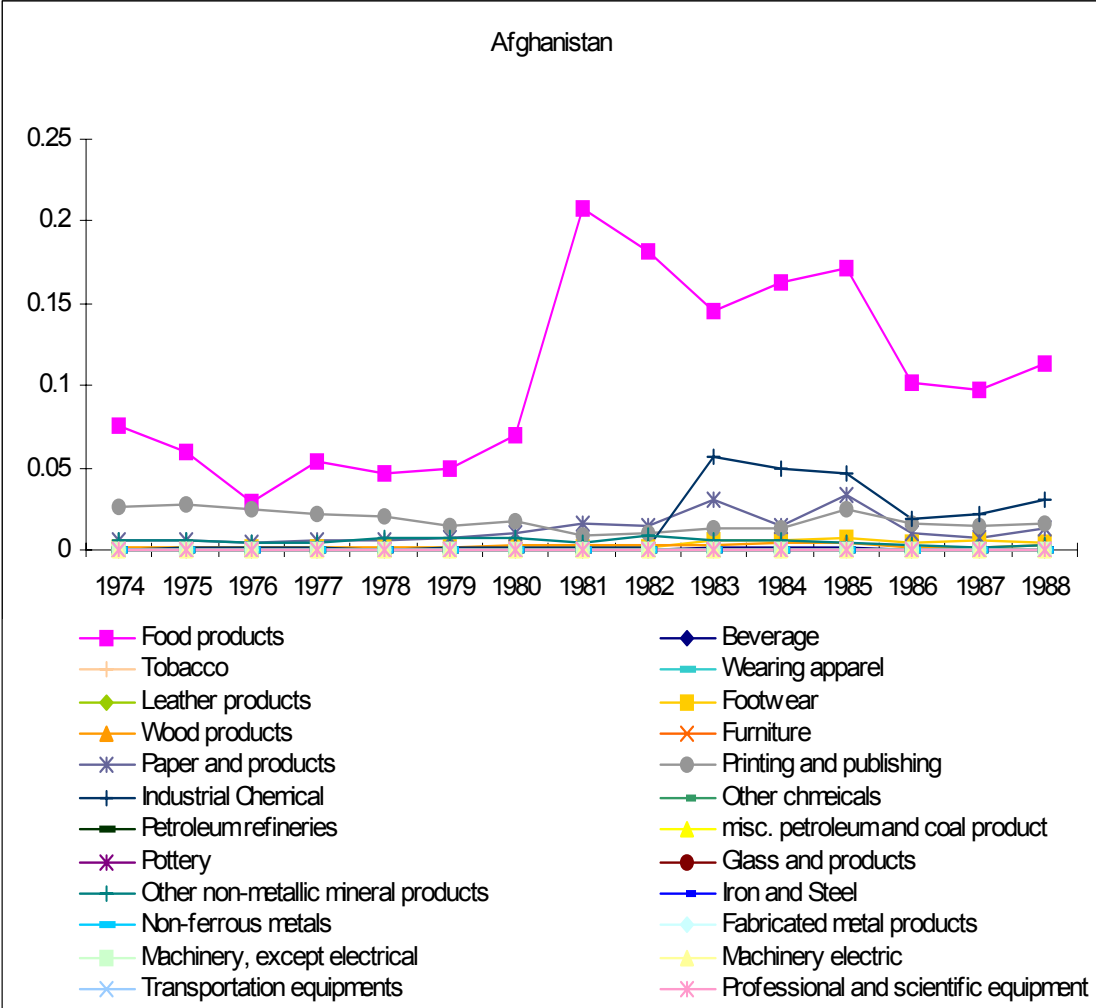


Figure 3.4: Cost-ratio for Food and non-food Products

3.6 Discussion

Studying the food-cost ratio not only helps us understand the causes of hunger and malnutrition but also sheds light on effective methods to deal with aiding those who are in need. In case of the civil war the human suffering is enormous than the international war because the food-cost ratio rising faster in the civil war. Urgent and sustainable assistance is needed in the case of the civil war than the international war. Responsible government and the international community should provide in kind-assistance food and means of producing foods to displaced population as effective mechanism to curb the excessive rent-seeking behavior in the food market and in particular the relative wages in the food sector.

Appendices

Appendix A

Chapter 1 Appendix

<i>Regressions</i>	<i>OLS</i>	<i>2SLS</i>	<i>OLS</i>	<i>2SLS</i>
	(1)	(2)	(3)	(4)
<i>Intercept</i>	0.0313 (.001) **	0.0601 (.000) **	0.035 (.000) **	0.057 (.000) **
<i>MILEN</i>	-.00001 (.017) **	-.00003 (.002) **	-.00001 (.007) **	-.00003 (.001) **
<i>GDPG</i>	0.00009 (.557)	-.00008 (.613)	-.002 (.003) **	-.0019 (.000) **
<i>RGDP1</i>	-.0000003 (.281)	-.000001 (.017) **	-.000005 (.064)	-.000001 (.011) **
<i>TIMN</i>	-.0382 (.006) **	-.1467 (.000) **	-.030 (.025) **	-.1465 (.000) **
<i>ARMF</i>	0.0006 (.011) **	0.0008 (.000) **	0.0007 (.004) **	0.0009 (.000) **
<i>G * TIMN</i>	.000001 (.016) **	.00001 (.000) **	.000001 (.088)*	.00001 (.000) **
<i>RGDPWG</i>	----- (-----)	----- (-----)	.0000001 (.0012) **	.0000001 (.0012) **
<i>INTSEC</i>	0.0177 0.006 **	0.0266 (.000) **	0.0171 (.006) **	0.0271 (.000) **
<i>EXTSEC</i>	0.0026 (.831)	0.0017 (.866)	0.0022 (.851)	0.0013 (.894)
<i>F – statistics</i>	102.95	121.45	105.53	128.13
<i>R – squared</i>	0.93	0.94	0.94	0.95
<i>Number</i>	154	151	154	151

*, ** indicate *p* values significance at the 10 and 5 percent level respectively.

Table A.1: Military Expenditure and Inequality in West Europe: Dependent Variable Theil

<i>Regressions</i>	<i>OLS</i>	<i>2SLS</i>	<i>OLS</i>	<i>2SLS</i>
	(1)	(2)	(3)	(4)
<i>Intercept</i>	0.187 (.000) **	0.829 (.085)*	0.185 (.000) **	0.939 (.102)*
<i>MILEN</i>	0.0001 (.797)	0.0056 (.127)*	0.0001 (.757)	0.0071 (.137)*
<i>GDPG</i>	-.0029 (.000) **	-.0925 (.017) **	-.0033 (.016) **	-.0137 (.049) **
<i>RGDP1</i>	-.00003 (.133)*	-.00033 (.131)*	-.00004 (.137)*	-.00038 (.144)
<i>TIMN</i>	-.0631 (.561)	-.5110 (.256)	-.057 (.603)	-.5132 (.292)
<i>ARMF</i>	-.0075 (.057) **	-.0182 (.025) **	-.0075 (.056) **	-.0197 (.037) **
<i>G * TIMN</i>	.00004 (.451)	.00030 (.193)	.00004 (.492)	.00030 (.193)
<i>RGDPWG</i>	--- (---)	--- (---)	.0000002 (.781)	.000002 (.227)
<i>INTSEC</i>	-.0422 (.016) **	-.0656 (.025) **	-.0420 (.017) **	-.0703 (.038) **
<i>EXTSEC</i>	-.0202 (.434)	-.0128 (.706)	-.0197 (.447)	-.0081 (.833)
<i>F – statistics</i>	15.52	6.87	14.84	5.14
<i>R – squared</i>	0.76	0.67	0.77	0.62
<i>Number</i>	148	111	148	111

*, ** indicate *p* values significance at the 10 and 5 percent level respectively.

Table A.2: Military Expenditure and Inequality in Sub-Saharan Africa: Dependent Variable Theil

Regressions	<i>OLS</i> (1)	<i>2SLS</i> (2)	<i>OLS</i> (3)	<i>2SLS</i> (4)
<i>Intercept</i>	0.289 (.000) **	0.371 (.000) **	0.289 (.000) **	0.368 (.000) **
<i>MILEN</i>	0.0003 (.127)*	0.0027 (.000) **	0.0003 (.108)*	0.0028 (.000) **
<i>GDPG</i>	−.0006 (.387)	−.0019 (.179)	−.0003 (.810)	−.0020 (.452)
<i>RGDP1</i>	−.00001 (.425)	−.00004 (.002) **	−.00001 (.408)	−.00004 (.000) **
<i>TIMN</i>	0.2485 (.053)	−.2065 (.376)	−.2579 (.046) **	−.1675 (.470)
<i>ARMF</i>	−.0369 (.000) **	−.0397 (.000) **	−.0369 (.046) **	−.0392 (.000) **
<i>G * TIMN</i>	−.00024 (.030) **	.00005 (.111)*	.00003 (.027) **	.00005 (.122)*
<i>RGDPWG</i>	− − − − − (− − − −)	− − − − − (− − − −)	−.0000001 (.454)	−.0000004 (.103)*
<i>INTSEC</i>	−.0167 0.442	−.0283 (.392)	−.0154 (.482)	−.0234 (.487)
<i>EXTSEC</i>	−.00024 (.990)	0.0442 (.317)	0.00003 (.998)	0.0485 (.280)
<i>F – statistics</i>	22.87	10.23	22.01	9.57
<i>R – squared</i>	0.79	0.64	0.79	0.64
<i>Number</i>	189	178	189	178

*, ** indicate *p* values significance at the 10 and 5 percent level respectively.

Table A.3: Military Expenditure and Inequality in Latin America: Dependent Variable Theil

<i>Regressions</i>	<i>OLS</i>	<i>2SLS</i>	<i>OLS</i>	<i>2SLS</i>
	(1)	(2)	(3)	(4)
<i>Intercept</i>	0.080 (.000) **	0.0412 (0.003) **	0.074 (.000) **	0.029 (0.07)*
<i>MILEN</i>	-.0001 (.007) **	-0.0002 (.005) **	-.0001 (.003) **	-0.0002 (.004) **
<i>GDPG</i>	0.0005 (.306)	0.0009 (.091)*	0.0002 (.740)	0.0010 (.351)
<i>RGDP1</i>	.0000002 (.804)	-.000003 (.036) **	.0000001 (.469)	-.000004 (.019) **
<i>TIMN</i>	0.0281 (.123)*	0.046 (.008) **	0.027 (.128)*	0.0548 (.004) **
<i>ARMF</i>	-.0035 (.000) **	-.0039 (.000) **	-.0036 (.000) **	-.0039 (.000) **
<i>G * TIMN</i>	.0000002 (.759)	-.000002 (.126)*	.000001 (.485)	-.000003 (.070)*
<i>RGDPWG</i>	----- (-----)	----- (-----)	-.0000001 (.211)	.0000001 (.051) **
<i>INTSEC</i>	-.0221 (.030) **	0.006 (.624)	-.020 (.042) **	0.004 (.732)
<i>EXTSEC</i>	-.005 (.751)	0.0203 (.298)	-.004 (.812)	0.0205 (.302)
<i>F - statistics</i>	14.12	13.10	13.57	11.98
<i>R - squared</i>	0.72	0.71	0.72	0.70
<i>Number</i>	121	121	121	121

*, ** indicate *p* values significance at the 10 and 5 percent level respectively.

Table A.4: Military Expenditure and Inequality in Asia: Dependent Variable Theil

Variable	Description
<i>Theil</i>	Theil Index
<i>MILEN</i>	Per capita Military Expenditure in (1997 dollars)
<i>GDPG</i>	GDP Growth Rate
<i>AITI</i>	Arms Imports as % Total Imports
<i>ARMF</i>	Armed Forces per 1000 People
<i>TIMN</i>	Total Imports as % of GNP
<i>RGDP1</i>	Real GDP per Capita (1997 price)
$G * TIMN$	Interaction term of GDP growth and TIMN
$RGDPWG$	Interaction term of GDP growth and RGDP1
<i>INTSEC</i>	Known internal security threats
<i>EXTSEC</i>	Known external security threats

Table A.5: Description of Variables and Data Unit

Appendix B

Chapter 2 Appendix

Variable	Description
THEIL	Theil index
MILEN	Military expenditure (% total output)
GDPG	Real GDP growth rate
RGDP1	Real per capita income (1997 price)
ARMF	Armed forces per 1000 people
MAJ	Major conflict defines as 1 if a country involves in a conflict and 0 otherwise
AITI*MAJ	Interaction term of AITI and MAJ

Table B.1: Description of Variables and their Data Units

Variable	N	Mean	Std. Dev	Minimum	Maximum
<i>THEIL</i>	142	0.13889	0.14609	0.00042	0.58934
<i>MILEN</i> (ACDA)	135	10.1733	12.2440	1.70000	101.900
<i>MILEN</i> (SIPRI)	130	8.3158	11.5328	1.23729	116.145
<i>GDPG</i>	142	3.87817	9.51422	-14.0000	77.4000
<i>AITI</i>	142	10.7422	14.5851	0	81.0000
<i>ARMF</i>	142	14.3915	10.0963	3.30000	61.9000
<i>OILPR</i>	142	16.5801	1.9352	13.2000	20.5000
<i>RGDP1</i>	84	5696	4855	1714	26997
<i>MAJ</i>	142	0.15493	0.36312	0	1

Table B.2: Middle East: Simple Statistics from 1987-1997

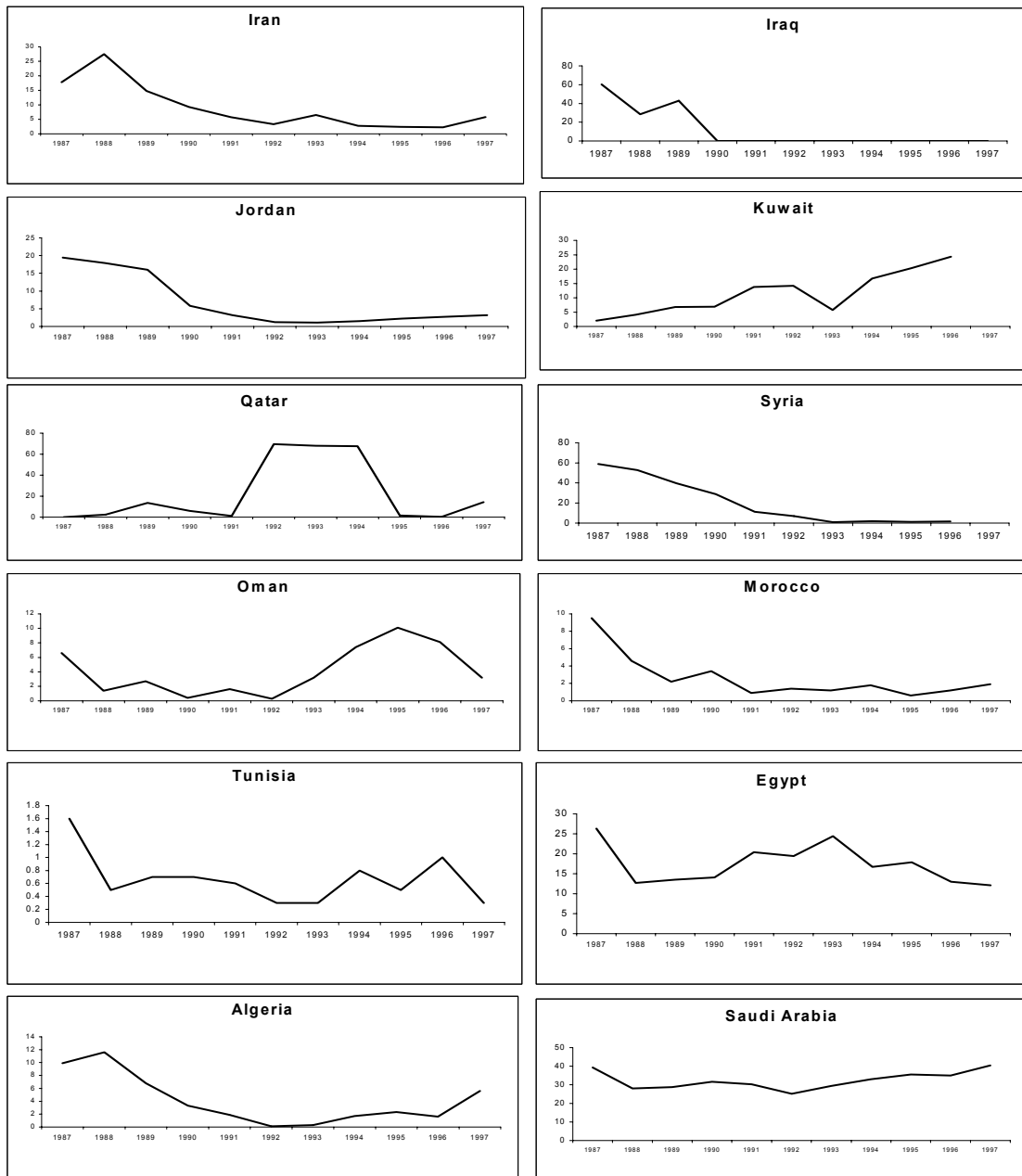


Figure B.1: Arms Imports in North Africa and the Middle East

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	0.04864 (1.13)	0.03955 (0.96)	0.03541 (0.83)
<i>MILEN</i>	0.00939 (2.32) ***	0.01041 (2.68) ***	0.01042 (2.67) ***
<i>OILPR</i>	-.00339 (1.58)	-.00276 (1.34)	-.00269 (1.29)
<i>RGDP1</i>	.000003 (1.34)	.000005 (2.19) ***	0.000005 (2.21) ***
<i>MAJ</i>	-.03654 (1.75)*	-.04367 (2.17) ***	-.05053 (1.89)*
<i>AITI</i>	-.00220 (2.62) ***	-.00301 (3.51) ***	-.00306 (3.51) ***
<i>GDPG</i>	----- -----	-.00022 (2.69) ***	-.00228 (2.66) ***
<i>AITI * MAJ</i>	----- -----	----- -----	.000778 (0.39)
<i>F – statistics</i>	14.67	15.56	14.46
<i>R – squared</i>	0.78	0.80	0.80
<i>Number</i>	78	78	78

***, **, * indicate the *t* – value significance at the 1, 5, and 10 percent level respectively.

Table B.3: Single Equation Using ACDA Military Expenditures: Econometrics estimates the dependent variable is Theil

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	0.05406 (1.36)	0.04836 (1.27)	0.03603 (0.89)
<i>MILEN</i>	0.00999 (2.88) ***	0.00968 (2.91) ***	0.01026 (3.03) ***
<i>OILPR</i>	-.000258 (1.30)	-.00019 (0.99)	-.00165 (0.85)
<i>RGDP1</i>	.00000008 (0.53)	.000002 (1.48)	0.000003 (1.66) **
<i>MAJ</i>	-.02788 (1.41)	-.03332 (1.74) **	-.04949 (1.92) **
<i>AITI</i>	-.00138 (2.81) ***	-.00187 (3.68) ***	-.00201 (3.79) ***
<i>GDPG</i>	----- -----	-.00204 (2.56) ***	-.00201 (2.52) ***
<i>AITI * MAJ</i>	----- -----	----- -----	.00183 (0.94)
<i>F - statistics</i>	16.32	17.02	16.04
<i>R - squared</i>	0.79	0.80	0.81
<i>Number</i>	80	80	80

***, **, * indicate the *t* - value significance at the 1, 5, and 10 percent level respectively.

Table B.4: Single Equation Using SIPRI Military Expenditures: Econometrics estimates the dependent variable is Theil

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	-.03529 (0.65)	-.0308 (0.63)	-.34778 (0.40)
<i>MILEN</i>	0.0114 (2.25) **	0.01281 (2.68) ***	0.01768 (1.21)
<i>OILPR</i>	0.0007 (0.28)	0.0007 (0.32)	0.0169 (0.38)
<i>RGDP1</i>	0.000003 (1.11)	0.00001 (1.78) **	0.00001 (1.12)
<i>MAJ</i>	-.0456 (1.94) **	-.04245 (2.55) ***	-.0367 (1.68) **
<i>AITI</i>	-.0021 (2.25) **	-.00282 (3.08) ***	-.0033 (1.87) **
<i>GDPG</i>	----- -----	-.00252 (3.23) ***	-.0024 (2.92) ***
<i>AITI * MAJ</i>	----- -----	----- -----	0.00089 (.05)
<i>F – statistics</i>	9.66	11.15	9.61
<i>R – squared</i>	0.81	0.83	0.83
<i>Observation</i>	78	78	78

***, **, * indicate the *t* – value significance at the 1, 5, and 10 percent level respectively.

Table B.5: Simultaneous Equation Estimation Using ACDA Military Expenditures: Two-way Fixed Effects the dependent variable is Theil

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	-.06352 (1.28)	-.01218 (0.28)	-.42156 (0.90)
<i>MILEN</i>	0.01976 (4.07) ***	0.01475 (3.40) ***	0.022486 (2.79) ***
<i>OILPR</i>	0.00146 (0.60)	0.0007 (0.32)	0.02147 (0.86)
<i>RGDP1</i>	0.000002 (1.48)	(0.0000002 (1.34)	0.0000003 (1.86) **
<i>MAJ</i>	-.05723 (2.49) ***	-.03093 (1.96) **	-.03682 (1.65)*
<i>AITI</i>	-.00193 (3.42) ***	-.00173 (3.49) ***	-.00205 (3.67) ***
<i>GDPG</i>	----- -----	-.00200 (2.68) ***	-.00155 (1.80) **
<i>AITI * MAJ</i>	----- -----	----- -----	.002425 (1.31)
<i>F – statistics</i>	10.80	12.14	9.82
<i>R – squared</i>	0.82	0.83	0.83
<i>Observation</i>	80	80	80

***, **, * indicate the *t* – value significance at the 1, 5, and 10 percent level respectively.

Table B.6: Simultaneous Equation Estimation Using SIPRI Military Expenditures: Two-way Fixed Effects the dependent variable is Theil

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	-14.5344 (5.10)	-14.7345 (5.00)	-12.5555 (3.04)
<i>THEIL</i>	13.3243 (1.90) **	11.6175 (1.57)	28.2225 (1.94) **
<i>RGDP1</i>	-.00038 (9.29) ***	-.00038 (9.38) ***	-.00037 (6.68) ***
<i>AITI</i>	0.13757 (9.98) ***	0.1357 (8.71) ***	0.1561 (6.13) ***
<i>ARMF</i>	-.03673 (2.16) **	-.03453 (2.15) **	-.05329 (1.88) **
<i>ASRAL</i>	0.01104 (7.07) ***	0.01123 (6.77) ***	0.00965 (3.97) ***
<i>GDPG</i>	----- -----	-.00152 (0.06)	0.03117 (0.79)
<i>AITI * MAJ</i>	--	----- -----	0.02036 (0.46)
<i>F - statistics</i>	175	171.58	85.37
<i>R - squared</i>	0.98	0.98	0.97
<i>Observation</i>	78	78	78

***, **, * indicate the *t* - value significance at the 1, 5, and 10 percent level respectively.

Table B.7: Simultaneous Equation Estimation: Two-way Fixed Effects the dependent variable is ACDA Military Expenditure

<i>Equations</i>	(1)	(2)	(3)
<i>Intercept</i>	-9.6922 (2.74)	-8.9979 (2.41)	-7.6771 (1.79)
<i>THEIL</i>	17.9561 (2.13) ***	19.1579 (2.04) ***	26.3129 (1.81) **
<i>RGDP1</i>	-.00011 (2.63) ***	-.00013 (2.84) ***	-.00013 (2.53) ***
<i>AITI</i>	0.04222 (2.55) ***	0.04816 (2.49) ***	0.05727 (2.18) ***
<i>ARMF</i>	0.03727 (1.80) **	0.04203 (2.09) ***	0.03685 (1.27)
<i>ASRAL</i>	0.00664 (3.14) ***	0.00619 (2.95) ***	0.00513 (2.20) ***
<i>GDPG</i>	--	0.02893 (0.94)	0.04116 (1.05)
<i>AITI * MAJ</i>	--	--	-.03092 (0.67)
<i>F - statistics</i>	129.59	120.37	88.82
<i>R - squared</i>	0.98	0.98	0.98
<i>Observation</i>	80	80	80

***, **, * indicate the *t* - value significance at the 1, 5, and 10 percent level respectively.

Table B.8: Simultaneous Equation Estimation: Two-way Fixed Effects the dependent variable is SIPRI Military Expenditures

Appendix C

Chapter 3 Appendix

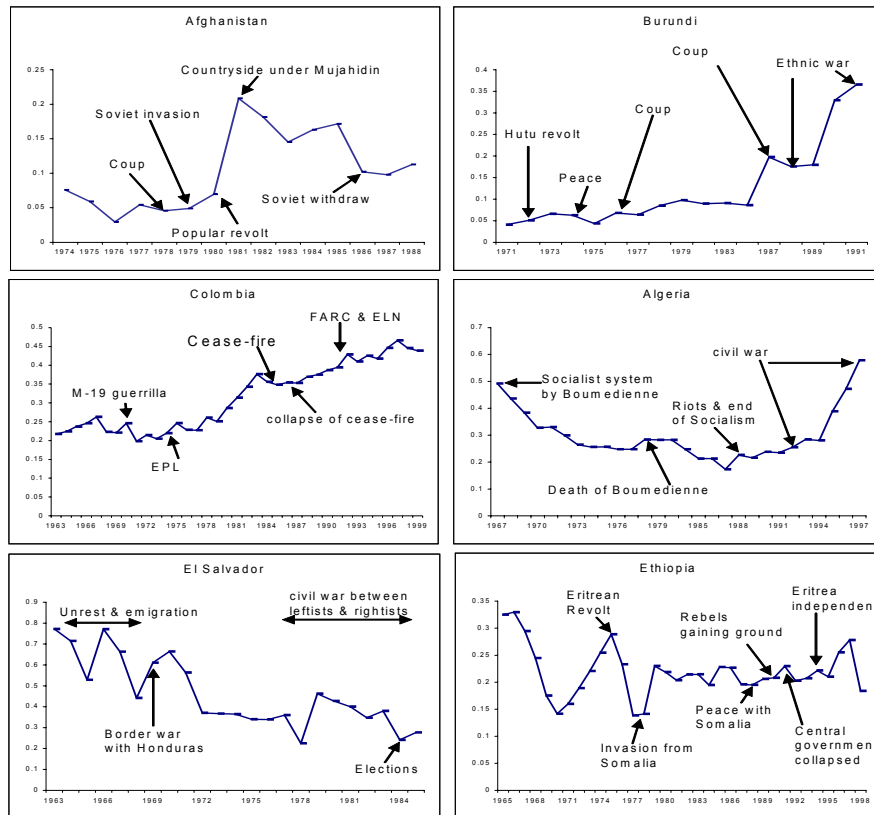


Figure C.1: Food-cost Ratio

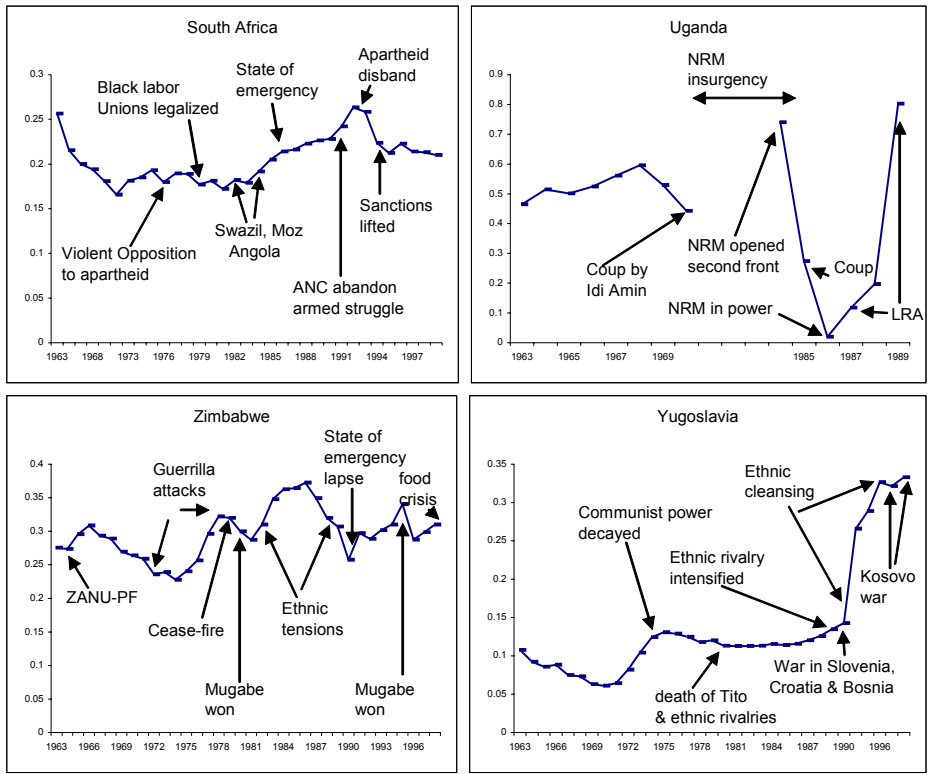


Figure C.2: Food-cost Ratio

Country	Year	Intsec	extsec	EHII	Millen	Theil	Armtr
Albania	1987	0	1	35.67	63.54839	....	0
Albania	1988	0	1	34.93	61.875	0.006319	0
Albania	1989	1	1	30.02	....	0.004462	0
Albania	1990	1	1	29.01	....	0.005888	0
Albania	1991	1	1	....	58.48485	....	0
Albania	1992	0	0	29.58	45.9375	....	0
Albania	1993	0	0	34.49	34.6875	0.008516	0
Albania	1994	0	0	48.33	30.3125	0.358762	0
Albania	1995	0	0	44.25	29.6875	0.114919	0
Albania	1996	0	0	41.37	22.42424	0.053488	0
Albania	1997	0	0	40.09	19.39394	0.036701	0
Algeria	1987	0	0	35.05	51.06383	0.010304	0
Algeria	1988	1	0	35.98	56.0166	0.013835	0
Algeria	1989	1	0	34.98	52.22672	0.009913	0
Algeria	1990	1	0	34.47	33.46457	0.008239	0
Algeria	1991	1	0	34.03	26.65385	0.007124	0
Algeria	1992	1	0	35.15	29.66165	0.010052	0
Algeria	1993	1	0	34.99	43.58974	0.009423	0
Algeria	1994	1	0	34.9	49.10394	0.009066	0
Algeria	1995	1	0	38.08	47.01754	0.06187	0
Algeria	1996	1	0	41.9	50	0.159884	0
Algeria	1997	1	0	37.22	58.72483	0.015442	0
Angola	1987	1	0	....	165.8228	....	0
Angola	1988	1	0	....	195.0617	....	0
Angola	1989	1	0	....	218.2927	....	0
Angola	1990	1	0	....	175	....	0
Angola	1991	1	0	....	126.4368	....	0
Angola	1992	1	0	47.61	174.4444	0.237951	0
Angola	1993	1	0	49.74	79.78261	0.38514	0
Angola	1994	1	0	....	126.3158	....	0
Angola	1995	0	0	....	116.1616	....	0

Table C.1: The Inequality and Military Expenditure Data

Angola	1996	0	0	....	134.3137	....	0
Angola	1997	1	0	....	147.619	....	0
Argentina	1987	0	1	38.79	194.2492	0.048672	1
Argentina	1988	0	1	39.39	184.5426	0.057889	1
Argentina	1989	0	1	40.34	165.8385	0.070855	1
Argentina	1990	0	1	39.93	120.5521	0.059883	1
Argentina	1991	0	1	....	93.65559	....	1
Argentina	1992	0	1	....	143.7681	....	1
Argentina	1993	0	1	39.64	134.4118	0.050455	1
Argentina	1994	0	1	39.73	145.3488	0.052444	1
Argentina	1995	0	1	39.76	136.9628	0.050862	1
Argentina	1996	0	1	40.14	129.4618	0.056051	1
Argentina	1997	0	1	....	103.352	....	0
Armenia	1992	1	0	....	....	....	0
Armenia	1993	1	0	....	....	....	0
Armenia	1994	1	0	41.93	76.57143	0.073131	0
Armenia	1995	1	0	46.53	82.57143	0.268216	0
Armenia	1996	1	0	47.81	110.8824	0.341856	0
Armenia	1997	1	0	47.89	100.5882	0.318585	0
Australia	1987	0	1	32.48	466.2577	0.012314	1
Australia	1988	0	0	32.17	415.1515	0.011361	1
Australia	1989	0	0	32.22	402.381	0.011381	1
Australia	1990	0	0	32.78	419.4118	0.012743	1
Australia	1991	0	0	33.3	453.7572	0.013955	1
Australia	1992	0	0	33.8	457.1429	0.015056	1
Australia	1993	0	0	35.23	498.8701	0.014623	1
Australia	1994	0	0	35.85	502.2346	0.01785	1
Australia	1995	0	0	35.78	483.4254	0.017441	1
Australia	1996	0	0	35.55	480.3279	0.015747	1
Australia	1997	0	0	35.64	459.7826	0.013896	1
Austria	1987	0	0	32.22	261.8421	0.018285	1
Austria	1988	0	0	32.03	248.6842	0.016619	1

Table C.2: The Inequality and Military Expenditure Data

Austria	1989	0	0	32.09	253.9474	0.017483	1
Austria	1990	0	0	32.15	250.6494	0.01799	1
Austria	1991	0	0	32.21	242.3077	0.017024	1
Austria	1992	0	0	32.3	229.1139	0.01589	1
Austria	1993	0	0	32.72	227.5	0.016117	1
Austria	1994	0	0	32.72	230.8642	0.015644	1
Austria	1995	0	0	32.59	225.9259	0.018666	1
Austria	1996	0	0	32.82	225.9259	0.019647	1
Austria	1997	0	0	33.33	220.9877	0.022529	1
Azerbaijan	1992	0	1	34.77	78.10811	0.047063	0
Azerbaijan	1993	0	1	35.06	93.46667	0.02829	0
Azerbaijan	1994	0	1	38.01	69.86842	0.076267	0
Azerbaijan	1995	0	1	36.7	28.18182	....	0
Azerbaijan	1996	0	1	40.24	28.83117	....	0
Azerbaijan	1997	0	1	....	28.84615	....	0
Bahrain	1987	0	1	....	428	0.36589	0
Bahrain	1988	0	1	....	474	0.065341	0
Bahrain	1989	0	1	....	476	0.38765	0
Bahrain	1990	0	1	....	506	0.39867	0
Bahrain	1991	0	1	....	630	0.29865	0
Bahrain	1992	0	0	44.64	1028	0.12789	0
Bahrain	1993	0	0	....	1010	0.025689	0
Bahrain	1994	0	0	....	846.6667	0.58934	0
Bahrain	1995	0	0	....	865	0.045721	0
Bahrain	1996	0	0	....	885	0.042312	0
Bahrain	1997	0	0	....	888.3333	0.045321	0
Bangladesh	1987	1	0	40.19	3.387873	0.035835	0
Bangladesh	1988	1	0	40.54	3.371105	0.03963	0
Bangladesh	1989	1	0	41.84	3.268519	0.063694	0
Bangladesh	1990	1	0	41.43	3.197094	0.057087	0
Bangladesh	1991	1	0	42.29	3.440572	0.07336	0
Bangladesh	1992	1	0	42.42	3.773087	0.076564	0

Table C.3: The Inequality and Military Expenditure Data

Bangladesh	1993	1	0	....	3.965368	....	0
Bangladesh	1994	1	0	....	3.947144	....	0
Bangladesh	1995	1	0	....	3.842282	....	0
Bangladesh	1996	1	0	....	4.327002	....	0
Bangladesh	1997	1	0	....	4.809098	....	0
Barbados	1987	0	0	38.41	33.33333	0.047922	0
Barbados	1988	0	0	38.68	43.33333	0.051206	0
Barbados	1989	0	0	39.3	40	0.050204	0
Barbados	1990	0	0	40.92	....	0.074146	0
Barbados	1991	0	0	40.72	....	0.098914	0
Barbados	1992	0	0	40.24	....	0.085526	0
Barbados	1993	0	0	40.32	43.33333	0.084216	0
Barbados	1994	0	0	39.09	46.66667	0.053938	0
Barbados	1995	0	0	39.3	46.66667	0.05893	0
Barbados	1996	0	0	39.42	46.66667	0.063526	0
Barbados	1997	0	0	39.3	....	0.063596	0
Belarus	1992	0	0	....	105.8252	....	0
Belarus	1993	0	0	....	97.11538	....	0
Belarus	1994	0	0	....	80.38462	....	1
Belarus	1995	0	0	....	60.57692	....	1
Belarus	1996	0	0	....	51.34615	....	1
Belarus	1997	0	0	....	80.86538	....	1
Belgium	1987	0	0	34.01	580.8081	0.207212	1
Belgium	1988	0	0	34.08	550.5051	0.20961	1
Belgium	1989	0	1	33.88	534.3434	0.208074	1
Belgium	1990	0	0	33.81	521	0.204363	1
Belgium	1991	0	0	33.98	513	0.20078	1
Belgium	1992	0	0	34.14	417	0.200972	1
Belgium	1993	0	0	....	386.1386	....	1
Belgium	1994	0	0	....	385.1485	....	1
Belgium	1995	0	0	....	376.2376	....	1
Belgium	1996	0	0	....	366.6667	....	1

Table C.4: The Inequality and Military Expenditure Data

Belgium	1997	0	0	....	361.7647	....	1
Belize	1987	0	1	....	....	....	0
Belize	1988	0	1	....	25	....	0
Belize	1989	0	1	....	30	....	0
Belize	1990	0	1	....	30	....	0
Belize	1991	0	1	41.5	30	0.112784	0
Belize	1992	0	1	40.97	35	0.099086	0
Belize	1993	0	1	....	40	....	0
Belize	1994	0	1	....	45	....	0
Belize	1995	0	1	....	45	....	0
Belize	1996	0	1	....	....	....	0
Belize	1997	0	1	....	....	....	0
Benin	1987	0	0	....	....	....	0
Benin	1988	0	0	....	8.181818	....	0
Benin	1989	0	0	....	7.555556	....	0
Benin	1990	0	0	....	6.595745	....	0
Benin	1991	0	0	....	....	....	0
Benin	1992	0	0	....	4.2	....	0
Benin	1993	0	0	....	5.192308	....	0
Benin	1994	0	0	....	7.924528	....	0
Benin	1995	0	0	....	4.181818	....	0
Benin	1996	0	0	....	4.385965	....	0
Benin	1997	0	0	....	4.576271	....	0
Bhutan	1987	0	0	....	....	....	0
Bhutan	1988	0	0	....	....	....	0
Bhutan	1989	0	0	....	....	0.095371	0
Bhutan	1990	0	0	....	....	....	0
Bhutan	1991	0	0	....	....	....	0
Bhutan	1992	0	0	....	....	....	0
Bhutan	1993	0	0	....	....	....	0
Bhutan	1994	0	0	....	....	....	0
Bhutan	1995	0	0	....	....	....	0

Table C.5: The Inequality and Military Expenditure Data

Bhutan	1996	0	0	....	....	....	0
Bhutan	1997	0	0	....	....	....	0
Bolivia	1987	0	1	42.74	37.41935	0.072202	0
Bolivia	1988	0	1	42.39	35.78125	0.067286	0
Bolivia	1989	0	1	42.42	30.46154	0.068118	0
Bolivia	1990	0	1	42.46	28.0303	0.06882	0
Bolivia	1991	0	1	43.39	21.47059	0.088853	0
Bolivia	1992	0	1	43.85	20	0.101041	0
Bolivia	1993	0	1	43.07	21.14286	0.082428	0
Bolivia	1994	0	1	44.1	21.25	0.108477	0
Bolivia	1995	0	1	43.84	19.45946	0.101285	0
Bolivia	1996	0	1	43.13	18.66667	0.085296	0
Bolivia	1997	0	1	43.08	19.48052	0.083996	0
BosniaH	1992	1	0	32.82	....	0.021726	0
BosniaH	1993	1	0	34.91	....	0.039259	0
BosniaH	1994	1	0	....	69.72973	....	0
BosniaH	1995	1	0	....	105.7576	....	0
BosniaH	1996	0	0	....	61.6129	....	0
BosniaH	1997	0	0	....	80.9375	....	0
Botswana	1987	0	0	40.88	98.33333	0.053014	0
Botswana	1988	0	0	41.02	108.3333	0.056552	0
Botswana	1989	0	0	....	93.07692	....	0
Botswana	1990	0	0	....	129.2308	....	0
Botswana	1991	0	0	....	140	....	0
Botswana	1992	0	0	41.19	140.7692	0.062815	0
Botswana	1993	0	0	40.83	167.8571	0.055286	0
Botswana	1994	0	0	40.85	165	0.056275	0
Botswana	1995	0	0	41.64	153.5714	0.072079	0
Botswana	1996	0	0	41.84	170.7143	0.074885	0
Botswana	1997	0	0	41.03	172.1429	0.059503	0
Brazil	1987	0	0	....	48.91075	....	1
Brazil	1988	0	0	....	65.7931	....	1

Table C.6: The Inequality and Military Expenditure Data

Brazil	1989	0	0	....	71.7671	....	1
Brazil	1990	0	0	40.05	74.61692	0.061015	1
Brazil	1991	0	0	....	55.57003	....	1
Brazil	1992	0	0	41.53	47.20975	0.084341	1
Brazil	1993	0	0	41.48	57.6753	0.080126	1
Brazil	1994	0	0	41.75	52.70691	0.084685	1
Brazil	1995	0	0	41.66	71.12201	0.07787	1
Brazil	1996	0	0	....	84.64329	....	1
Brazil	1997	0	0	....	84.07871	....	1
Brunei	1987	0	0	....	2260	....	0
Brunei	1988	0	0	....	2930	....	0
Brunei	1989	0	0	....	2415	....	0
Brunei	1990	0	0	....	1310	....	0
Brunei	1991	0	0	....	....	....	0
Brunei	1992	0	0	....	1546.667	....	0
Brunei	1993	0	0	....	920	....	0
Brunei	1994	0	0	....	950	....	0
Brunei	1995	0	0	....	920	....	0
Brunei	1996	0	0	....	1073.333	....	0
Brunei	1997	0	0	....	1246.667	....	0
Bulgaria	1987	0	0	28.15	936.6667	0.009669	1
Bulgaria	1988	0	0	27.71	824.4444	0.008109	1
Bulgaria	1989	0	0	26.12	795.5556	0.005999	1
Bulgaria	1990	0	0	26.61	505.5556	0.006356	1
Bulgaria	1991	0	0	30.96	186.5169	0.020781	1
Bulgaria	1992	0	0	33.79	138.2022	0.039545	1
Bulgaria	1993	0	0	34.77	125.8824	0.053382	1
Bulgaria	1994	0	0	36.1	125	0.067788	1
Bulgaria	1995	0	0	35.57	122.619	0.051007	1
Bulgaria	1996	0	0	36.56	101.8072	0.062738	1
Bulgaria	1997	0	0	38.08	114.3373	0.111736	1
Burkina	1987	0	0	....	4.819277	....	0

Table C.7: The Inequality and Military Expenditure Data

Burkina	1988	0	0	....	5.176471	....	0
Burkina	1989	0	0	....	5.909091	....	0
Burkina	1990	0	0	....	6.222222	....	0
Burkina	1991	0	0	....	5.376344	....	0
Burkina	1992	0	0	....	5.157895	....	0
Burkina	1993	0	0	....	4.489796	....	0
Burkina	1994	0	0	....	5.688073	....	0
Burkina	1995	0	0	....	5.961538	....	0
Burkina	1996	0	0	....	5.514019	....	0
Burkina	1997	0	0	....	6.090909	....	0
Burma	1987	0	0	....	....	....	0
Burma	1988	1	0	....	....	....	0
Burma	1989	1	0	41.97	....	0.05435	0
Burma	1990	1	0	41.44	....	0.046905	0
Burma	1991	1	0	40.94	63.15789	0.040697	0
Burma	1992	1	0	40.39	78.87324	0.034832	0
Burma	1993	1	0	36.79	86.86636	0.01179	0
Burma	1994	1	0	41.52	79.63801	0.047627	0
Burma	1995	1	0	38.53	99.77778	0.020182	0
Burma	1996	1	0	39.21	88.18381	0.024709	0
Burma	1997	1	0	44.01	0	0.093543	0
Burundi	1987	0	0	42.31	6.666667	0.059611	0
Burundi	1988	1	0	43.11	6.415094	0.07407	0
Burundi	1989	0	0	45.05	5.090909	0.12361	0
Burundi	1990	0	0	44.84	5	0.117308	0
Burundi	1991	0	0	45.23	5.37037	0.129668	0
Burundi	1992	0	0	....	6	....	0
Burundi	1993	1	0	....	5.535714	....	0
Burundi	1994	1	0	....	6.842105	....	0
Burundi	1995	1	0	....	9.056604	....	0
Burundi	1996	1	0	....	10.18868	....	0
Burundi	1997	1	0	....	10.55556	....	0

Table C.8: The Inequality and Military Expenditure Data

Cambodia	1987	0	1	....	....	....	0
Cambodia	1988	0	1	....	....	....	0
Cambodia	1989	0	1	....	....	....	0
Cambodia	1990	0	1	....	....	....	0
Cambodia	1991	0	1	....	8.888889	....	0
Cambodia	1992	0	0	....	12.76596	....	0
Cambodia	1993	0	0	....	8.686869	....	0
Cambodia	1994	0	0	....	....	....	0
Cambodia	1995	0	0	....	8.380952	....	0
Cambodia	1996	0	0	....	10.18519	....	0
Cambodia	1997	0	0	....	11.35135	....	0
Cameroon	1987	0	0	....	17.24771	....	0
Cameroon	1988	0	0	....	12.94643	....	0
Cameroon	1989	0	0	46.29	10.43103	0.191987	0
Cameroon	1990	0	0	45.29	11.09244	0.142118	0
Cameroon	1991	0	0	46.86	9.349593	0.216282	0
Cameroon	1992	0	0	46.99	9.444444	0.220933	0
Cameroon	1993	0	0	47.87	9.615385	0.271036	0
Cameroon	1994	0	0	47.67	9.179104	0.255178	0
Cameroon	1995	0	0	48.04	14.13534	0.278239	0
Cameroon	1996	0	0	47.5	14.15493	0.244128	0
Cameroon	1997	0	0	47.26	16.43836	0.229767	0
Canada	1987	0	1	33.68	414.0625	0.02249	1
Canada	1988	0	1	33.4	413.1274	0.02155	1
Canada	1989	0	1	33.37	403.0418	0.021213	1
Canada	1990	1	1	33.55	406.015	0.020017	1
Canada	1991	1	1	34.09	355.8719	0.021114	1
Canada	1992	1	1	34.08	354.386	0.019622	1
Canada	1993	1	0	34.33	352.9412	0.020503	1
Canada	1994	1	0	34.51	334.8123	0.021911	1
Canada	1995	1	0	34.54	309.1216	0.022423	1
Canada	1996	1	0	34.57	278	0.022245	1

Table C.9: The Inequality and Military Expenditure Data

Canada	1997	1	0	34.6	257.4257	0.022748	1
CapeVerde	1987	0	0	....	....	....	0
CapeVerde	1988	0	0	....	....	....	0
CapeVerde	1989	0	0	....	....	....	0
CapeVerde	1990	0	0	....	....	....	0
CapeVerde	1991	0	0	....	10	....	0
CapeVerde	1992	0	0	32.24	7.5	....	0
CapeVerde	1993	0	0	35.54	7.5	0.007867	0
CapeVerde	1994	0	0	....	10	....	0
CapeVerde	1995	0	0	....	10	....	0
CapeVerde	1996	0	0	....	10	....	0
CapeVerde	1997	1	0	....	10	....	0
CentralAfr	1987	0	0	41.91	5.384615	0.054359	0
CentralAfr	1988	0	0	42.4	....	0.062072	0
CentralAfr	1989	0	0	43.17	5.185185	0.076134	0
CentralAfr	1990	0	0	43.03	4.642857	0.073909	0
CentralAfr	1991	0	0	43.92	4.827586	0.093048	0
CentralAfr	1992	0	0	44.23	5.862069	0.100733	0
CentralAfr	1993	0	0	44.83	7	0.117194	0
CentralAfr	1994	0	0	....	7.096774	....	0
CentralAfr	1995	0	0	....	6.5625	....	0
CentralAfr	1996	0	0	....	8.125	....	0
CentralAfr	1997	0	0	....	11.81818	....	0
Chad	1987	1	1	....	5.555556	....	0
Chad	1988	1	1	....	5.535714	....	0
Chad	1989	1	1	....	8.947368	....	0
Chad	1990	1	1	....	7.118644	....	0
Chad	1991	0	1	....	8.166667	....	0
Chad	1992	0	1	....	9.193548	....	0
Chad	1993	0	1	....	0	....	0
Chad	1994	0	1	....	5.30303	....	0
Chad	1995	0	0	....	5	....	0

Table C.10: The Inequality and Military Expenditure Data

Chad	1996	0	0	....	5.142857	....	0
Chad	1997	0	0	....	5.972222	....	0
Chile	1987	0	1	42.41	139.2	0.093704	1
Chile	1988	0	1	41.81	113.3858	0.083259	1
Chile	1989	0	1	41.2	97.67442	0.073915	1
Chile	1990	0	1	41.12	106.1069	0.072321	1
Chile	1991	0	1	41.08	106.7669	0.072223	1
Chile	1992	0	1	40.65	97.79412	0.065464	1
Chile	1993	0	1	40.51	148.5507	0.062988	1
Chile	1994	0	1	40.42	148.5714	0.061083	0
Chile	1995	0	0	40.63	162.6761	0.064496	0
Chile	1996	0	0	40.86	167.3611	0.067913	0
Chile	1997	0	0	41.05	195.8904	0.070393	0
China	1987	0	0	....	49.07407	....	1
China	1988	0	0	....	48.72727	....	1
China	1989	1	0	....	47.41071	....	1
China	1990	0	0	....	50.0885	....	1
China	1991	0	0	....	47.04348	....	1
China	1992	0	0	....	48.37607	....	1
China	1993	0	0	....	48.55932	....	1
China	1994	0	0	....	48.7395	....	1
China	1995	0	0	....	51.83333	....	1
China	1996	0	0	....	55.53719	....	1
China	1997	0	0	....	60.89431	....	1
Colombia	1987	1	0	39.76	48.70968	0.039946	0
Colombia	1988	1	0	39.33	44.79495	0.035129	0
Colombia	1989	1	0	39.6	47.36842	0.037981	0
Colombia	1990	1	0	39.83	46.06061	0.04046	0
Colombia	1991	1	0	39.78	44.34524	0.039696	0
Colombia	1992	1	0	40.42	51.6035	0.05042	0
Colombia	1993	1	0	40.08	67.42857	0.045504	0
Colombia	1994	1	0	40.14	62.7451	0.045905	0

Table C.11: The Inequality and Military Expenditure Data

Colombia	1995	1	0	40.14	70.05495	0.045258	0
Colombia	1996	1	0	40.07	85.44474	0.043502	0
Colombia	1997	1	0	40.08	91.29288	0.043113	0
CostaRica	1987	0	0	38	13.92857	0.046066	0
CostaRica	1988	0	0	36.88	16.55172	0.032581	0
CostaRica	1989	0	0	36.67	26.89655	0.032908	0
CostaRica	1990	0	0	36.46	29	0.030707	0
CostaRica	1991	0	0	37.33	23.87097	0.039398	0
CostaRica	1992	0	0	36.98	33.4375	0.037392	0
CostaRica	1993	0	0	36.3	34.375	0.031038	0
CostaRica	1994	0	0	37.59	30.60606	0.046267	0
CostaRica	1995	0	0	35.56	16.17647	0.024055	0
CostaRica	1996	0	0	37.6	14.28571	0.042612	0
CostaRica	1997	0	0	35.98	16.57143	0.025791	0
Croatia	1992	1	0	29.07	336.1702	0.035263	0
Croatia	1993	1	0	30.42	351.0638	0.005388	0
Croatia	1994	1	0	32.42	380.8511	0.008277	0
Croatia	1995	1	0	33.15	459.5745	0.015906	5
Croatia	1996	0	0	34.07	365.9574	0.019796	0
Croatia	1997	0	0	....	317.0213	0.024641	0
Cuba	1987	0	0	29.03	167.6471	0.003484	0
Cuba	1988	0	0	28.76	166.0194	0.003168	1
Cuba	1989	0	0	29.34	161.5385	0.00414	1
Cuba	1990	0	0	....	154.2857	....	0
Cuba	1991	0	0	....	123.5849	....	0
Cuba	1992	0	0	....	0	....	0
Cuba	1993	0	0	....	60	....	0
Cuba	1994	0	0	....	58.7963	....	0
Cuba	1995	0	0	....	56.97248	....	0
Cuba	1996	0	0	....	64.72727	....	0
Cuba	1997	0	0	....	65.45455	....	0
Cyprus	1987	0	0	35.59	190	0.033091	0

Table C.12: The Inequality and Military Expenditure Data

Cyprus	1988	0	0	35.55	184.2857	0.034909	0
Cyprus	1989	0	0	35.08	231.4286	0.030702	0
Cyprus	1990	0	0	35.14	274.2857	0.031454	0
Cyprus	1991	0	0	35.25	524.2857	0.031102	0
Cyprus	1992	0	0	35.24	0	0.030851	0
Cyprus	1993	0	0	35.76	294.2857	0.032965	0
Cyprus	1994	0	0	35.42	405.7143	0.027673	0
Cyprus	1995	0	0	35.89	557.1429	0.031658	0
Cyprus	1996	0	0	36.19	652.8571	0.032351	0
Cyprus	1997	0	0	36.37	722.8571	0.032506	0
CzechRepublic	1993	0	0	20.25	743.5897	0.00839	1
CzechRepublic	1994	0	0	20.27	737.1795	....	1
CzechRepublic	1995	0	0	20.26	653.8462	....	1
CzechRepublic	1996	0	0	20.42	330.5732	....	1
CzechRepublic	1997	0	0	23.53	202.5478	0.015665	1
Czechoslovakia	1987	0	0	....	0	0.004895	1
Czechoslovakia	1988	0	0	....	244.6602	0.004185	1
Czechoslovakia	1989	0	0	....	226.2136	0.003783	1
Czechoslovakia	1990	0	0	....	211.6505	0.003791	1
Czechoslovakia	1991	1	0	....	208.7379	0.005784	1
Czechoslovakia	1992	1	0	....	193.2039	0.007115	1
Zaire	1987	0	0	45.24	....	....	0
Zaire	1988	0	0	45.22	7.239437	....	0
Zaire	1989	0	0	....	....	....	0
Zaire	1990	0	0	....	....	....	0
Zaire	1991	1	0	....	....	....	0
Zaire	1992	1	0	....	4.876847	....	0
Zaire	1993	1	0	....	7.040573	....	0
Zaire	1994	1	0	....	....	....	0
Zaire	1995	1	0	....	....	....	0
Zaire	1996	1	0	....	....	....	0
Zaire	1997	1	0	....	5.294118	....	0

Table C.13: The Inequality and Military Expenditure Data

Denmark	1987	0	0	29.21	556.8627	0.005315	1
Denmark	1988	0	0	29.36	574.5098	0.00532	1
Denmark	1989	0	0	29.22	558.8235	0.005017	1
Denmark	1990	0	0	28.75	554.902	0.007279	1
Denmark	1991	0	0	29.01	553.8462	0.007535	1
Denmark	1992	0	0	29.13	542.3077	0.007371	1
Denmark	1993	0	0	29.51	546.1538	0.007722	1
Denmark	1994	0	0	28.74	530.7692	0.006242	1
Denmark	1995	0	0	28.88	525	0.006683	1
Denmark	1996	0	0	29.69	518.8679	0.008385	1
Denmark	1997	0	0	29.57	528.3019	0.008142	1
Djibouti	1987	0	0	....	143.3333	....	0
Djibouti	1988	0	0	....	150	....	0
Djibouti	1989	0	0	....	77.5	....	0
Djibouti	1990	0	0	....	87.5	....	0
Djibouti	1991	0	0	....	100	....	0
Djibouti	1992	0	0	....	97.5	....	0
Djibouti	1993	0	0	....	67.5	....	0
Djibouti	1994	0	0	....	57.5	....	0
Djibouti	1995	0	0	....	52.5	....	0
Djibouti	1996	0	0	....	52.5	....	0
Djibouti	1997	0	0	....	50	....	0
DominicanR	1987	0	0	....	17.5	....	0
DominicanR	1988	0	0	....	13.18841	....	0
DominicanR	1989	0	0	....	13.09859	....	0
DominicanR	1990	0	0	....	14.58333	....	0
DominicanR	1991	0	0	....	10.56338	....	0
DominicanR	1992	0	0	....	13.42466	....	0
DominicanR	1993	0	0	....	18.10811	....	0
DominicanR	1994	0	0	....	18.13333	....	0
DominicanR	1995	0	0	....	22.10526	....	0
DominicanR	1996	0	0	....	21.68831	....	0

Table C.14: The Inequality and Military Expenditure Data

DominicanR	1997	0	0	....	21.26582	....	0
Ecuador	1987	0	0	40.11	36.91489	0.041143	0
Ecuador	1988	0	0	40.77	40.41667	0.049521	0
Ecuador	1989	0	0	40.64	36.16162	0.047472	0
Ecuador	1990	0	0	40.72	46.13861	0.048533	0
Ecuador	1991	0	0	41.41	52.71845	0.060328	0
Ecuador	1992	0	0	41.78	52.47706	0.066622	0
Ecuador	1993	0	0	42.12	45.4955	0.072055	0
Ecuador	1994	0	0	42.86	53.33333	0.088082	0
Ecuador	1995	0	1	41.43	54.13793	0.058323	0
Ecuador	1996	0	0	43.05	44.95798	0.090293	0
Ecuador	1997	0	0	43.01	61.65289	0.090465	0
Egypt	1987	0	0	37.42	83.74761	0.022684	1
Egypt	1988	1	0	38.24	67.28972	0.029461	1
Egypt	1989	1	0	39.05	39.48812	0.037651	1
Egypt	1990	1	0	39.19	32.79857	0.039304	1
Egypt	1991	1	0	40.26	36	0.054444	1
Egypt	1992	1	1	40.02	36.62692	0.049115	1
Egypt	1993	1	1	40.64	37.22871	0.057478	1
Egypt	1994	1	1	40.97	35.84288	0.064247	1
Egypt	1995	1	1	41.09	34.9359	0.067176	0
Egypt	1996	1	1	41.53	34.1195	0.074601	1
Egypt	1997	1	1	42.04	33.64198	0.084251	1
ELSalvador	1987	1	0	....	76.66667	....	0
ELSalvador	1988	1	0	....	65.91837	....	0
ELSalvador	1989	1	0	....	66.6	....	0
ELSalvador	1990	1	0	....	57.2	....	0
ELSalvador	1991	1	0	....	51.37255	....	0
ELSalvador	1992	1	0	....	34.42308	....	0
ELSalvador	1993	0	0	44.59	27.16981	0.130741	0
ELSalvador	1994	0	0	42.52	22.59259	0.076748	0
ELSalvador	1995	0	0	44.54	20.54545	0.132109	0

Table C.15: The Inequality and Military Expenditure Data

ELSalvador	1996	0	0	41.61	18.75	0.068827	0
ELSalvador	1997	0	0	39.9	17.7193	0.047637	0
EquatorialG	1987	0	0	44.36	....	0.10179	0
EquatorialG	1988	0	0	43.23	....	....	0
EquatorialG	1989	0	0	....	....	....	0
EquatorialG	1990	0	0	....	....	0.076666	0
EquatorialG	1991	0	0	....	....	....	0
EquatorialG	1992	0	0	....	....	....	0
EquatorialG	1993	0	0	....	....	....	0
EquatorialG	1994	0	0	....	10	....	0
EquatorialG	1995	0	0	....	7.5	....	0
EquatorialG	1996	0	0	....	10	....	0
EquatorialG	1997	0	0	....	....	....	0
Eriteria	1993	0	0	38.58	....	0.10179	0
Eriteria	1994	0	1	38.75	....	....	0
Eriteria	1995	0	1	39.08	....	....	0
Eriteria	1996	0	1	....	15.83333	0.076666	0
Eriteria	1997	0	1	....	17.56757	....	0
Estonia	1992	0	0	....	24.66667	....	0
Estonia	1993	0	0	....	34	....	0
Estonia	1994	0	0	....	45.33333	....	5
Estonia	1995	0	0	....	68	....	0
Estonia	1996	0	0	....	74	....	0
Estonia	1997	0	0	....	79.28571	....	0
Ethiopia	1987	1	0	38.58	7.139535	....	0
Ethiopia	1988	1	0	38.75	8.901345	....	0
Ethiopia	1989	1	0	39.08	10.08621	....	0
Ethiopia	1990	1	0	37.58	11.07884	0.015287	0
Ethiopia	1991	1	0	39.72	8.218623	0.029028	0
Ethiopia	1992	0	0	40.01	3.148515	0.031501	0
Ethiopia	1993	0	0	39.2	2.688588	0.024906	0
Ethiopia	1994	0	0	38.81	2.335217	0.022243	0

Table C.16: The Inequality and Military Expenditure Data

Ethiopia	1995	0	0	40.29	2.073394	0.0343	0
Ethiopia	1996	0	0	40.49	2.114695	0.036237	0
Ethiopia	1997	0	0	41.15	2.049037	0.043696	0
Fiji	1987	0	0	40.71	47.14286	0.058575	0
Fiji	1988	0	0	41.83	50	0.084786	0
Fiji	1989	0	0	41.99	58.57143	0.09975	0
Fiji	1990	0	0	41.48	58.57143	0.09129	0
Fiji	1991	0	0	42.85	58.57143	0.12565	0
Fiji	1992	0	0	....	52.85714	0.088532	0
Fiji	1993	0	0	....	47.5	....	0
Fiji	1994	0	0	....	47.5	....	0
Fiji	1995	0	0	41.27	63.75	....	0
Fiji	1996	0	0	37.09	61.25	0.027252	0
Fiji	1997	0	0	35.57	60	0.017356	0
Finland	1987	0	0	29.92	342.8571	0.01029	0
Finland	1988	0	0	29.86	355.102	0.009391	1
Finland	1989	0	0	30.05	356	0.009706	0
Finland	1990	0	0	30.23	358	0.009611	1
Finland	1991	0	0	30.74	426	0.00996	1
Finland	1992	0	0	31.21	430	0.009771	0
Finland	1993	0	0	31.41	398.0392	0.009366	1
Finland	1994	0	0	31.06	413.7255	0.008269	1
Finland	1995	0	0	32.43	407.8431	0.011186	1
Finland	1996	0	0	32.26	390.1961	0.010435	1
Finland	1997	0	0	32.34	384.3137	0.011013	1
France	1987	0	0	32.24	802.1583	0.016447	1
France	1988	0	0	32.35	796.0644	0.01654	1
France	1989	0	0	32.33	803.1915	0.016366	1
France	1990	0	0	32.09	797.1781	0.015067	1
France	1991	0	0	32.25	796.8476	0.01534	1
France	1992	0	0	32.24	770.0348	0.014264	1
France	1993	0	0	....	753.8995	....	1

Table C.17: The Inequality and Military Expenditure Data

France	1994	0	0	....	756.4767	....	1
France	1995	0	0	....	717.7281	....	1
France	1996	0	0	....	703.7671	....	1
France	1997	0	0	....	708.1911	....	1
Gabon	1987	0	0	....	141	....	0
Gabon	1988	0	0	....	143.6364	....	0
Gabon	1989	0	0	....	119.0909	....	0
Gabon	1990	0	0	....	102.7273	....	0
Gabon	1991	0	0	43.59	104.5455	0.09955	0
Gabon	1992	0	0	44.89	105.4545	0.136765	0
Gabon	1993	0	0	44.8	113.6364	0.13291	0
Gabon	1994	0	0	45.45	75.45455	0.156312	0
Gabon	1995	0	0	45.79	85	0.170442	0
Gabon	1996	0	0	....	73.33333	....	0
Gabon	1997	0	0	....	75.83333	....	0
Gambia	1987	0	0	....	0	....	0
Gambia	1988	0	0	....	3.333333	....	0
Gambia	1989	0	0	....	....	....	0
Gambia	1990	0	0	....	3	....	0
Gambia	1991	0	0	....	....	....	0
Gambia	1992	0	0	....	13	....	0
Gambia	1993	0	0	....	11.81818	....	0
Gambia	1994	0	0	....	12.72727	....	0
Gambia	1995	0	0	....	11.66667	....	0
Gambia	1996	0	0	....	11.66667	....	0
Gambia	1997	0	0	....	12.5	....	0
Georgia	1992	1	0	....	61.27273	....	0
Georgia	1993	1	0	....	23.33333	....	0
Georgia	1994	1	0	....	48.7037	....	0
Georgia	1995	1	0	....	26.03774	....	0
Georgia	1996	1	0	....	26.34615	....	1
Georgia	1997	1	0	....	30.38462	....	0

Table C.18: The Inequality and Military Expenditure Data

German	1987	0	0	20.54	754.5008	0.010921	1
German	1988	0	0	30.57	744.2997	0.010925	1
German	1989	0	0	30.6	735.9098	0.011151	1
German	1990	0	0	30.55	603.2746	0.01094	1
German	1991	0	0	30.38	551.8102	0.010916	1
German	1992	0	0	30.33	519.2069	0.011093	1
German	1993	0	0	30.65	464.9446	....	1
German	1994	0	0	30.2	433.8235	....	1
German	1995	0	0	30.72	423.6874	....	1
German	1996	0	0	....	415.8537	....	1
German	1997	0	0	....	400.7308	....	1
GermanE	1987	0	0	20.67	951.8072	....	1
GermanE	1988	0	0	20.54	964.0719	....	1
GermanE	1989	0	0	....	1030.303	....	1
GermanE	1990	0	0	....	....	....	1
Ghana	1987	0	0	45.19	2.857143	0.144684	0
Ghana	1988	0	0	....	1.458333	....	0
Ghana	1989	0	0	....	1.418919	....	0
Ghana	1990	0	0	....	1.578947	....	0
Ghana	1991	0	0	....	2.179487	....	0
Ghana	1992	0	0	....	2.9375	....	0
Ghana	1993	0	0	45.51	3.636364	0.222321	0
Ghana	1994	1	0	45.51	2.485207	0.222368	0
Ghana	1995	1	0	45.51	2.774566	0.222249	0
Ghana	1996	1	0	....	2.372881	....	0
Ghana	1997	1	0	....	2.596685	....	0
Greece	1987	0	0	36.71	507	0.026072	1
Greece	1988	0	0	36.84	527	0.027161	1
Greece	1989	0	0	37.36	491	0.031877	0
Greece	1990	0	0	37.71	491.0891	0.034952	1
Greece	1991	0	0	38.11	454.3689	0.037385	0
Greece	1992	0	0	38.23	475.7282	0.037727	1

Table C.19: The Inequality and Military Expenditure Data

Greece	1993	0	0	38.13	468.2692	0.035918	1
Greece	1994	0	0	38.69	472.381	0.042028	1
Greece	1995	0	0	39.11	482.8571	0.047111	1
Greece	1996	0	0	39.64	505.6604	0.054596	1
Greece	1997	0	0	39.91	521.6981	0.058752	1
Guatemala	1987	1	0	42.87	23.97727	0.082017	0
Guatemala	1988	1	0	42.24	22.63736	0.07458	0
Guatemala	1989	1	0	....	21.59574	....	0
Guatemala	1990	1	0	....	20.52083	....	0
Guatemala	1991	1	0	47.53	19.69697	0.262809	0
Guatemala	1992	1	0	47.32	20.78431	0.250284	0
Guatemala	1993	1	0	47.52	19.52381	0.262461	0
Guatemala	1994	1	0	46.55	19.72222	0.206434	0
Guatemala	1995	1	0	47.3	18.46847	0.249946	0
Guatemala	1996	1	0	....	21.05263	0.071455	0
Guatemala	1997	1	0	42.54	....	0.10488	0
Guinea	1987	0	0	....	....	....	0
Guinea	1988	0	0	....	5.272727	....	0
Guinea	1989	0	0	....	....	....	0
Guinea	1990	0	0	....	5.423729	....	0
Guinea	1991	0	0	....	5.238095	....	0
Guinea	1992	0	0	....	6.060606	....	0
Guinea	1993	0	0	....	6.086957	....	0
Guinea	1994	0	0	....	7.142857	....	0
Guinea	1995	0	0	....	6.944444	....	0
Guinea	1996	0	0	....	7.260274	....	0
Guinea	1997	0	0	....	7.297297	....	0
GuineaBissau	1987	0	0	....	4.444444	....	0
GuineaBissau	1988	0	0	....	....	....	0
GuineaBissau	1989	0	0	....	4	....	0
GuineaBissau	1990	0	0	....	....	....	0
GuineaBissau	1991	0	0	....	....	....	0

Table C.20: The Inequality and Military Expenditure Data

GuineaBissau	1992	0	0	....	7	....	0
GuineaBissau	1993	0	0	....	7.272727	....	0
GuineaBissau	1994	0	0	....	7.272727	....	0
GuineaBissau	1995	0	0	....	6.363636	....	0
GuineaBissau	1996	0	0	....	8.333333	....	0
GuineaBissau	1997	0	0	....	6.666667	....	0
Guyana	1987	0	0	....	0	....	0
Guyana	1988	0	0	....	20	....	0
Guyana	1989	0	0	....	8.75	....	0
Guyana	1990	0	0	....	7.142857	....	0
Guyana	1991	0	0	....	5.714286	....	0
Guyana	1992	0	0	....	10	....	0
Guyana	1993	0	0	....	10	....	0
Guyana	1994	0	0	....	11.42857	....	0
Guyana	1995	0	0	....	10	....	0
Guyana	1996	0	0	....	10	....	0
Guyana	1997	0	0	....	11.42857	....	0
Haiti	1987	0	0	40.05	13.333333	0.034541	0
Haiti	1988	0	0	40.41	12.58621	0.038051	0
Haiti	1989	0	0	....	11.52542	0.039	0
Haiti	1990	0	0	....	10.66667	0.0359	0
Haiti	1991	1	0	....	9.836066	0.0452	0
Haiti	1992	1	0	....	8.548387	0.0475	0
Haiti	1993	1	0	....	8.571429	0.0492	0
Haiti	1994	1	0	....	....	0.0562	0
Haiti	1995	0	0	....	....	0.0667	0
Haiti	1996	0	0	....	....	0.0781	0
Haiti	1997	0	0	....	....	0.088	0
Honduras	1987	0	0	38.58	24.54545	0.147279	0
Honduras	1988	0	0	39.55	20.44444	0.158987	0
Honduras	1989	0	0	39.15	23.26087	0.161448	0
Honduras	1990	0	0	42.19	15.95745	0.083111	0

Table C.21: The Inequality and Military Expenditure Data

Honduras	1991	0	0	42.86	11.63265	0.112704	0
Honduras	1992	0	0	41.96	10.4	0.091346	0
Honduras	1993	0	0	42.77	11.53846	0.118198	0
Honduras	1994	0	0	43.13	10.18868	0.138629	0
Honduras	1995	0	0	41.35	10	0.093456	0
Honduras	1996	0	0	....	....	0.0056	0
Honduras	1997	0	0	....	....	0.0066	0
Hungary	1987	0	0	27.65	500	0.007376	1
Hungary	1988	0	0	28.88	534.6154	0.011421	1
Hungary	1989	0	0	29.41	475.9615	0.013087	1
Hungary	1990	0	0	29.84	144.2308	0.013737	1
Hungary	1991	0	0	30.79	137.5	0.015322	1
Hungary	1992	0	0	32.79	133.0097	0.02273	1
Hungary	1993	0	0	34.45	119.4175	0.031066	1
Hungary	1994	0	0	34.7	120.3883	0.036035	0
Hungary	1995	0	0	35.32	93.98058	0.044438	1
Hungary	1996	0	0	35.95	107.767	0.054246	1
Hungary	1997	0	0	35.48	129.4118	0.049321	1
Iceland	1987	0	0	32.25	....	0.047209	0
Iceland	1988	0	0	33.06	....	0.045856	0
Iceland	1989	0	0	30.73	....	0.013551	0
Iceland	1990	0	0	32.22	....	0.020855	0
Iceland	1991	0	0	31.34	....	0.014269	0
Iceland	1992	0	0	30.86	....	0.009988	0
Iceland	1993	0	0	31.28	....	0.01075	0
Iceland	1994	0	0	31.66	....	0.012297	0
Iceland	1995	0	0	31.31	....	0.011205	0
Iceland	1996	0	0	31.69	....	0.013828	0
Iceland	1997	0	0	....	....	....	0
India	1987	0	0	42.7	9.556356	0.079239	1
India	1988	0	1	42.52	9.651899	0.07511	0
India	1989	0	1	42.79	9.445438	0.081442	0

Table C.22: The Inequality and Military Expenditure Data

India	1990	0	1	42.6	8.941094	0.077163	1
India	1991	0	1	42.43	8.167032	0.073507	1
India	1992	0	1	42.77	7.937946	0.08146	0
India	1993	0	1	42.54	8.793774	0.076065	1
India	1994	0	1	42.89	9.374659	0.084082	1
India	1995	0	1	43.06	8.753884	0.089471	1
India	1996	0	1	42.72	10.83982	0.081074	1
India	1997	0	1	43.1	11.27081	0.089705	1
Indonesia	1987	0	0	43.46	10.49383	0.102278	0
Indonesia	1988	0	0	42.8	9.702315	0.088689	1
Indonesia	1989	0	0	42.55	9.750813	0.084541	10
Indonesia	1990	0	1	41.01	10.01598	0.058049	1
Indonesia	1991	0	1	40.79	10.37192	0.05655	1
Indonesia	1992	0	1	41.06	10.46392	0.063257	1
Indonesia	1993	0	1	39.85	10.6998	0.045924	1
Indonesia	1994	0	1	40.25	12.18173	0.052662	1
Indonesia	1995	0	1	41.87	20.54054	0.086412	1
Indonesia	1996	0	1	40.75	20.57115	0.062984	1
Indonesia	1997	0	1	40.08	22.9266	0.045638	1
Iran	1987	0	1	35.2	182.6172	0.009526	0
Iran	1988	0	1	33.94	157.1698	0.006071	0
Iran	1989	0	0	34.88	124.2259	0.008378	0
Iran	1990	0	0	35.89	125.8348	0.011538	0
Iran	1991	0	0	36.08	116.6957	0.011995	1
Iran	1992	1	0	38.13	70.79796	0.022827	1
Iran	1993	1	0	38.96	82.91457	0.028936	1
Iran	1994	1	0	....	78.97351	0.029936	1
Iran	1995	1	0	....	59.18699	0.035936	1
Iran	1996	1	0	....	62.9393	0.038936	1
Iran	1997	1	0	....	74.48819	0.039936	1
Iraq	1987	0	1	37.36	2121.212	0.016859	1
Iraq	1988	0	1	....	1941.52	....	1

Table C.23: The Inequality and Military Expenditure Data

Iraq	1989	0	0	....	1440.678	....	1
Iraq	1990	0	1	....	1434.783	....	1
Iraq	1991	0	1	40.15	114.2857	0.037254	0
Iraq	1992	0	1	41.92	111.7318	0.06119	0
Iraq	1993	0	1	....	108.1081	0.0751	0
Iraq	1994	0	1	....	78.53403	0.0926	0
Iraq	1995	0	0	....	65.98985	0.0997	0
Iraq	1996	0	0	....	61.27451	0.189	0
Iraq	1997	0	0	....	59.52381	0.2	0
Ireland	1987	1	0	35.63	155.1429	0.027552	0
Ireland	1988	1	0	35.58	152.2857	0.027634	0
Ireland	1989	1	0	35.33	148.2857	0.026489	0
Ireland	1990	1	0	35.19	174.5714	0.026166	0
Ireland	1991	1	0	34.97	185.4286	0.024233	1
Ireland	1992	1	0	35.31	185.7143	0.027438	0
Ireland	1993	1	0	35.57	176.9444	0.029993	0
Ireland	1994	1	0	36.1	186.3889	0.03674	0
Ireland	1995	1	0	36.43	188.3333	0.044654	0
Ireland	1996	1	0	36.95	198.3333	0.054106	0
Ireland	1997	1	0	37.66	206.6667	0.072965	0
Israel	1987	1	0	36.72	2000	0.060058	1
Israel	1988	1	0	37.06	1925.581	0.061712	1
Israel	1989	1	0	36.86	1874.419	0.05734	1
Israel	1990	1	0	37.47	1915.556	0.064743	1
Israel	1991	1	0	38.03	1466.667	0.075072	1
Israel	1992	1	0	38.13	1781.633	0.076877	1
Israel	1993	1	1	37.85	1741.176	0.072538	1
Israel	1994	0	1	37.33	1601.923	0.06344	1
Israel	1995	0	1	37.78	1781.132	0.07031	1
Israel	1996	0	1	37.91	1757.407	0.070308	1
Israel	1997	0	1	....	1698.182	0.073453	1
Italy	1987	0	0	34.21	410.1222	0.016922	1

Table C.24: The Inequality and Military Expenditure Data

Italy	1988	0	0	36.43	412.892	0.033404	1
Italy	1989	0	0	33.9	413.913	0.014662	1
Italy	1990	0	0	33.44	393.4142	0.012328	1
Italy	1991	0	0	33.98	399.6479	0.014802	1
Italy	1992	0	0	34.22	388.4007	0.01763	1
Italy	1993	0	0	34.51	391.2281	0.018372	1
Italy	1994	0	0	34.4	382.8671	0.017447	1
Italy	1995	0	0	34.41	349.0401	0.017312	1
Italy	1996	0	0	34.58	379.7909	0.018138	1
Italy	1997	0	0	35.11	394.7826	0.021637	1
IvoryCoast	1987	0	0	....	13.30189	....	0
IvoryCoast	1988	0	0	....	14.36364	....	0
IvoryCoast	1989	0	0	....	9.912281	....	0
IvoryCoast	1990	0	0	....	9.495798	....	0
IvoryCoast	1991	0	0	....	8.467742	....	0
IvoryCoast	1992	0	0	....	8.671875	....	0
IvoryCoast	1993	0	0	....	8.560606	....	0
IvoryCoast	1994	0	0	42.91	6.940299	0.073056	0
IvoryCoast	1995	0	0	42.87	6.338028	0.073645	0
IvoryCoast	1996	0	0	43.82	5.782313	0.093458	0
IvoryCoast	1997	0	0	43.62	6.688742	0.09035	0
Jamaica	1987	0	0	45.98	18.75	0.261709	0
Jamaica	1988	0	0	46.37	20.41667	0.257952	0
Jamaica	1989	0	0	46.38	21.25	0.311556	0
Jamaica	1990	0	0	46.35	25.6	0.290792	0
Jamaica	1991	0	0	46.02	27.2	0.268348	0
Jamaica	1992	0	0	46.46	22.4	0.302519	0
Jamaica	1993	0	0	....	18.4	....	0
Jamaica	1994	0	0	....	16.92308	....	0
Jamaica	1995	0	0	....	14.23077	....	0
Jamaica	1996	0	0	....	11.92308	....	0
Jamaica	1997	0	0	....	20.38462	....	0

Table C.25: The Inequality and Military Expenditure Data

Japan	1987	0	0	33.04	260.4423	0.026628	1
Japan	1988	0	0	33.02	270.7993	0.027039	1
Japan	1989	0	0	33.03	280.26	0.027364	1
Japan	1990	0	0	33.01	289.0688	0.029093	1
Japan	1991	0	0	32.77	295.9677	0.027578	1
Japan	1992	0	0	32.74	301.4469	0.02614	1
Japan	1993	0	0	32.88	303.9294	0.025842	1
Japan	1994	0	0	35.82	305.6	0.066	1
Japan	1995	0	0	35.85	309.9042	0.063338	1
Japan	1996	0	0	36	318.9793	0.063527	1
Japan	1997	0	0	36.12	324.5823	0.063637	1
Jordan	1987	0	0	43.15	280.3448	0.106126	1
Jordan	1988	0	0	43.06	208.6667	0.102617	1
Jordan	1989	0	0	42.58	168.7097	0.088293	1
Jordan	1990	0	0	40.89	142.7273	0.054923	0
Jordan	1991	0	0	40.78	132.7778	0.053819	0
Jordan	1992	0	0	40.53	123.6842	0.053515	0
Jordan	1993	0	0	40.87	122.3077	0.059058	0
Jordan	1994	0	0	40.27	133.75	0.053286	1
Jordan	1995	0	0	40.37	141.7073	0.054755	0
Jordan	1996	0	0	40.91	145	0.063501	0
Jordan	1997	0	0	40.97	145.5814	0.064557	0
Kazakstan	1992	1	0	....	127.0588	....	0
Kazakstan	1993	1	0	....	101.7647	....	0
Kazakstan	1994	1	0	....	130	....	0
Kazakstan	1995	1	0	....	60.58824	....	1
Kazakstan	1996	1	0	....	....	....	1
Kazakstan	1997	1	0	....	41.36095	....	0
Kenya	1987	0	1	42.92	9.032258	0.083439	0
Kenya	1988	0	0	42.52	11.78571	0.074973	0
Kenya	1989	0	0	42.93	8.663793	0.083398	0
Kenya	1990	0	0	42.59	10.29289	0.076032	0

Table C.26: The Inequality and Military Expenditure Data

Kenya	1991	1	0	42.69	9.877551	0.083	0
Kenya	1992	1	0	42.4	10.19685	0.077019	0
Kenya	1993	1	0	41.94	8.122605	0.068283	0
Kenya	1994	1	0	41.71	6.641509	0.059015	0
Kenya	1995	1	0	42.03	6.840149	0.064614	0
Kenya	1996	0	0	41.2	7.142857	0.050614	0
Kenya	1997	0	0	41.03	7.410072	0.048153	0
KoreaN	1987	0	0	....	363.0542	0.023112	1
KoreaN	1988	0	0	....	358.2524	0.023122	1
KoreaN	1989	0	0	....	347.619	0.023562	1
KoreaN	1990	0	0	....	325.2336	0.024728	1
KoreaN	1991	0	0	....	277.451	0.019021	1
KoreaN	1992	0	0	....	294.686	0.02038	1
KoreaN	1993	0	0	....	271.09	0.01839	1
KoreaN	1994	0	0	....	271.9626	0.020022	1
KoreaN	1995	0	0	....	287.5	0.01712	1
KoreaN	1996	0	0	....	283.7209	0.019579	1
KoreaS	1987	0	0	33.7	....	....	....
KoreaS	1988	0	0	33.55	209.5465	....	1
KoreaS	1989	0	0	33.71	220.5189	....	1
KoreaS	1990	0	0	34.03	240.6542	....	1
KoreaS	1991	0	0	33.54	265.7343	....	1
KoreaS	1992	0	0	33.92	254.6296	....	1
KoreaS	1993	0	0	33.55	267.7346	....	1
KoreaS	1994	0	0	33.77	269.8413	....	1
KoreaS	1995	0	0	33.34	278.0269	....	1
KoreaS	1996	0	0	33.87	275.5556	....	1
KoreaS	1997	0	0	33.92	314.2857	....	1
Kuwait	1987	0	0	44.85	....	0.229099	1
Kuwait	1988	0	0	45.09	857.8947	0.248943	1
Kuwait	1989	0	0	45.13	780	0.239025	0
Kuwait	1990	0	1	48.5	1155	0.533369	0

Table C.27: The Inequality and Military Expenditure Data

Kuwait	1991	0	1	48.66	7238.095	0.583791	0
Kuwait	1992	0	1	45.56	17800	0.345113	1
Kuwait	1993	0	1	45.21	14785.71	0.332662	0
Kuwait	1994	0	1	45.3	2540	0.328071	0
Kuwait	1995	0	0	45.41	1993.75	0.339792	0
Kuwait	1996	0	0	45.17	2088.235	0.305069	0
Kyrgyzstan	1992	1	0	45.35	2166.667	0.078629	0
Kyrgyzstan	1993	1	0	38.37	....	0.128383	....
Kyrgyzstan	1994	1	0	40.17	....	0.077791	0
Kyrgyzstan	1995	1	0	38.79	18.47826	0.084241	1
Kyrgyzstan	1996	1	0	39.71	18.44444	0.056408	1
Kyrgyzstan	1997	1	0	38.86	29.33333	0.085332	1
Laos	1987	0	0	....	26.08696	....	0
Laos	1988	0	0	....	34.56522	....	0
Laos	1989	0	0	....	....	0.078629	0
Laos	1990	0	0	....	....	0.128383	0
Laos	1991	0	0	....	....	0.077791	0
Laos	1992	0	0	....	....	0.084241	0
Laos	1993	0	0	....	....	0.056408	0
Laos	1994	0	0	....	27.72727	0.085332	0
Laos	1995	0	0	....	25.86957	....	0
Laos	1996	0	0	....	17.44681	....	0
Laos	1997	0	0	....	15.625	....	0
Latvia	1992	0	0	....	13.6	0.003166	0
Latvia	1993	0	0	23.89	11.76471	0.002533	0
Latvia	1994	0	0	23.89	68.07692	0.00264	0
Latvia	1995	0	0	23.75	33.84615	....	0
Latvia	1996	0	0	24.22	50	....	0
Latvia	1997	0	0	35.63	34.8	0.024113	0
Lebanon	1987	0	1	....	35.2	0.025679	0
Lebanon	1988	0	1	....	40.41667	0.03589	0
Lebanon	1989	0	1	....	....	0.045678	0

Table C.28: The Inequality and Military Expenditure Data

Lebanon	1990	0	1	....	....	0.056879	0
Lebanon	1991	0	0	....	....	0.06789	0
Lebanon	1992	0	0	....	108.8235	0.21564	0
Lebanon	1993	1	0	....	125	0.19653	0
Lebanon	1994	1	0	....	147.1875	0.201234	0
Lebanon	1995	1	0	....	133.75	0.23679	0
Lebanon	1996	1	0	....	163.9394	0.213546	0
Lebanon	1997	1	0	....	168.4848	0.24098	0
Lesotho	1987	0	0	....	165	....	0
Lesotho	1988	0	0	....	136.7647	....	0
Lesotho	1989	0	0	....	....	....	0
Lesotho	1990	0	0	....	....	....	0
Lesotho	1991	0	0	....	20.58824	....	0
Lesotho	1992	0	0	44.58	30	0.125352	0
Lesotho	1993	0	0	44.49	....	0.123041	0
Lesotho	1994	0	0	44.98	18.88889	0.144213	0
Lesotho	1995	0	0	....	14.21053	....	0
Lesotho	1996	0	0	....	12.10526	....	0
Lesotho	1997	0	0	....	12	....	0
Liberia	1987	1	0	....	14	....	0
Liberia	1988	1	0	....	16	....	0
Liberia	1989	1	0	....	20	....	0
Liberia	1990	1	0	....	....	....	0
Liberia	1991	1	0	....	....	....	0
Liberia	1992	1	0	....	....	....	0
Liberia	1993	1	0	....	....	....	0
Liberia	1994	1	0	....	....	....	0
Liberia	1995	1	0	....	....	....	0
Liberia	1996	0	0	....	....	....	0
Liberia	1997	0	0	....	....	....	0
Libya	1987	0	1	....	....	0.09864	0
Libya	1988	0	1	....	....	0.14532	0

Table C.29: The Inequality and Military Expenditure Data

Libya	1989	0	1	....	743.5897	0.045621	1
Libya	1990	0	0	....	....	0.007654	1
Libya	1991	0	0	....	645.2381	0.012389	1
Libya	1992	0	0	....	....	0.014567	1
Libya	1993	0	0	....	500	0.325432	1
Libya	1994	0	0	....	456.8182	0.312456	1
Libya	1995	0	0	....	306.6667	0.25698	0
Libya	1996	0	0	....	269.5652	0.24398	0
Libya	1997	0	0	....	187.234	0.433398	0
Lithuania	1992	0	0	36.27	....	0.128935	0
Lithuania	1993	0	0	37.21	....	0.127831	0
Lithuania	1994	0	0	33.3	....	0.028292	0
Lithuania	1995	0	0	35.75	30.81081	....	0
Lithuania	1996	0	0	....	27.56757	....	0
Lithuania	1997	0	0	....	20.54054	0.035258	0
Luxembourg	1987	0	0	30.36	22.5	0.013326	0
Luxembourg	1988	0	0	31.24	35.27778	0.017272	0
Luxembourg	1989	0	0	31.66	240	0.020289	0
Luxembourg	1990	0	0	31.6	275	0.019125	0
Luxembourg	1991	0	0	31.06	250	0.015516	5
Luxembourg	1992	0	0	31.27	260	0.015614	0
Luxembourg	1993	0	0	32.19	292.5	0.019508	0
Luxembourg	1994	0	0	....	302.5	0.016367	0
Luxembourg	1995	0	0	....	285	....	0
Luxembourg	1996	0	0	....	305	....	0
Luxembourg	1997	0	0	....	300	....	0
Macedonia	1993	0	0	34.44	315	0.032409	0
Macedonia	1994	0	0	35.22	....	0.037	0
Macedonia	1995	0	0	36.26	....	0.042058	0
Macedonia	1996	0	0	37.19	36.84211	0.051267	0
Macedonia	1997	0	0	....	46.5	0.06457	0
Madagascar	1987	0	0	39.03	54.5	0.025028	0

Table C.30: The Inequality and Military Expenditure Data

Madagascar	1988	0	0	39.04	41.5	0.025018	0
Madagascar	1989	0	0	....	5	0.027	0
Madagascar	1990	0	0	....	4.12844	0.029	0
Madagascar	1991	0	0	....	3.75	0.321	0
Madagascar	1992	0	0	....	3.478261	0.351	0
Madagascar	1993	0	0	....	3.02521	0.377	0
Madagascar	1994	0	0	....	2.868852	0.379	0
Madagascar	1995	0	0	....	3.253968	0.389	0
Madagascar	1996	0	0	....	2.55814	0.392	0
Madagascar	1997	0	0	....	2.255639	0.399	0
Malawi	1987	0	0	45.7	3.065693	0.240912	0
Malawi	1988	0	0	46.87	3.758865	0.252409	0
Malawi	1989	0	0	44.81	4.102564	0.254932	0
Malawi	1990	0	0	44.22	3.373494	0.158224	0
Malawi	1991	0	0	44.46	3.333333	0.112221	0
Malawi	1992	0	0	45.67	2.637363	0.153587	0
Malawi	1993	0	0	45.6	2.446809	0.149998	0
Malawi	1994	0	0	44.55	2.44186	0.11539	0
Malawi	1995	0	0	45.49	2.142857	0.146878	0
Malawi	1996	0	0	45.01	3.258427	0.130736	0
Malawi	1997	0	0	46.46	1.808511	0.187195	0
Malaysia	1987	0	0	38.9	2.421053	0.046439	0
Malaysia	1988	0	0	38.69	2.680412	0.047788	0
Malaysia	1989	0	0	37.65	111.6564	0.038661	0
Malaysia	1990	0	0	36.77	69.46108	0.034435	0
Malaysia	1991	0	0	36.14	80.70175	0.032674	0
Malaysia	1992	0	0	35.6	84.57143	0.028652	0
Malaysia	1993	0	0	35.04	113.4078	0.026651	0
Malaysia	1994	0	0	35.03	108.1967	0.027928	0
Malaysia	1995	0	0	34.67	112.766	0.028774	0
Malaysia	1996	0	0	35.14	117.7083	0.034097	1
Malaysia	1997	0	0	35.03	120.4082	0.028855	1

Table C.31: The Inequality and Military Expenditure Data

Mali	1987	0	0	....	110.9453	....	1
Mali	1988	0	0	....	101.9512	....	1
Mali	1989	0	0	....	5.194805	....	0
Mali	1990	1	0	....	5.316456	....	0
Mali	1991	1	0	....	5.308642	....	1
Mali	1992	1	0	....	....	....	0
Mali	1993	1	0	....	....	....	0
Mali	1994	1	0	....	5.051546	....	0
Mali	1995	1	0	....	5.172414	....	0
Mali	1996	1	0	....	4.105263	....	0
Mali	1997	1	0	....	4.23913	....	0
Malta	1987	0	0	30.08	4.631579	0.007657	0
Malta	1988	0	0	30.59	4.387755	0.009023	0
Malta	1989	0	0	31.59	83.333333	0.013807	0
Malta	1990	0	0	31.53	76.66667	0.011991	0
Malta	1991	0	0	31.42	65	0.011219	0
Malta	1992	0	0	31.67	52.5	0.011943	0
Malta	1993	0	0	32.05	55	0.013231	0
Malta	1994	0	0	31.73	67.5	0.01177	0
Malta	1995	0	0	33.06	65	0.018907	0
Malta	1996	0	0	32.29	82.5	0.013346	0
Malta	1997	0	0	....	77.5	....	0
Mauritania	1987	0	0	....	80	....	0
Mauritania	1988	0	0	....	77.5	....	0
Mauritania	1989	0	1	....	17.77778	....	0
Mauritania	1990	0	1	....	0	....	0
Mauritania	1991	0	0	....	18.42105	....	0
Mauritania	1992	0	0	....	17.36842	....	0
Mauritania	1993	0	0	....	15	....	0
Mauritania	1994	0	0	....	13.80952	....	0
Mauritania	1995	0	0	....	13.18182	....	0
Mauritania	1996	0	0	....	11.73913	....	0

Table C.32: The Inequality and Military Expenditure Data

Mauritania	1997	0	0	....	11.73913	....	0
Mauritius	1987	0	0	34.77	10.83333	0.073232	0
Mauritius	1988	0	0	33.77	10	0.058649	0
Mauritius	1989	0	0	33.86	5	0.062091	0
Mauritius	1990	0	0	33.52	5.454545	0.053985	0
Mauritius	1991	0	0	34.15	7.272727	0.069473	0
Mauritius	1992	0	0	33.42	9.090909	0.053613	0
Mauritius	1993	0	0	33.66	10	0.05157	0
Mauritius	1994	0	0	33.89	10.90909	0.050669	0
Mauritius	1995	0	0	34.01	10.90909	0.050033	0
Mauritius	1996	0	0	34.18	11.81818	0.048335	0
Mauritius	1997	0	0	34.39	12.72727	0.047392	0
Mexico	1987	0	0	38.23	11.81818	0.023995	0
Mexico	1988	0	0	38.72	10	0.027684	0
Mexico	1989	0	0	38.56	27.15895	0.026383	1
Mexico	1990	0	0	38.76	19.70624	0.027887	1
Mexico	1991	0	0	38.8	19.54436	0.027919	1
Mexico	1992	0	0	39.59	18.33137	0.034772	1
Mexico	1993	0	0	39.81	19.79167	0.035882	1
Mexico	1994	1	0	40.43	21.67991	0.042288	1
Mexico	1995	1	0	41.12	23.35929	0.050983	1
Mexico	1996	1	0	40.63	28.16594	0.044843	1
Mexico	1997	1	0	40.45	24.00857	0.043069	1
Moldova	1992	0	0	29.57	22.39748	0.00827	1
Moldova	1993	0	0	29.49	44.31818	0.075093	1
Moldova	1994	0	0	30.55	....	0.075311	0
Moldova	1995	0	0	40.63	12.44444	0.08984	0
Moldova	1996	0	0	40.67	12.44444	....	0
Moldova	1997	0	0	41.47	14.88889	....	0
Mongolia	1987	0	0	....	13.55556	....	0
Mongolia	1988	0	0	....	13.77778	....	0
Mongolia	1989	0	0	....	44	....	0

Table C.33: The Inequality and Military Expenditure Data

Mongolia	1990	0	0	45.13	44.7619	0.227617	0
Mongolia	1991	0	0	44.46	40.45455	0.187362	0
Mongolia	1992	0	0	45.89	38.18182	0.228852	0
Mongolia	1993	0	0	52.46	20.43478	1.025714	0
Mongolia	1994	0	0	51.37	9.565217	0.879758	0
Mongolia	1995	0	0	42.85	10.41667	0.104713	0
Mongolia	1996	0	0	....	9.166667	....	0
Mongolia	1997	0	0	....	8.4	....	0
Morocco	1987	0	1	41.82	8.8	0.067571	0
Morocco	1988	0	1	42.07	7.6	0.074276	0
Morocco	1989	0	1	42.49	60.65574	0.085537	0
Morocco	1990	0	1	43.32	56.4	0.103924	0
Morocco	1991	0	1	42.71	57.8125	0.095464	0
Morocco	1992	0	0	41.64	57.63359	0.073723	0
Morocco	1993	0	0	42.08	51.19048	0.083226	0
Morocco	1994	0	0	41.9	50.3876	0.078718	0
Morocco	1995	0	0	41.48	50	0.069926	0
Morocco	1996	0	0	41.72	49.81413	0.074863	0
Morocco	1997	0	0	42.11	46.54545	0.083751	0
Mozambique	1987	1	0	....	46.78571	....	0
Mozambique	1988	1	0	....	48.6014	....	0
Mozambique	1989	1	0	....	8.93617	....	0
Mozambique	1990	1	0	43.79	8.489209	0.098626	0
Mozambique	1991	1	0	44.32	10.14388	0.112097	0
Mozambique	1992	1	0	42.77	9.929078	0.071798	1
Mozambique	1993	1	0	43.52	8.741259	0.087329	0
Mozambique	1994	1	0	45.7	8.689655	0.152744	0
Mozambique	1995	0	0	49.22	8.933333	0.358033	0
Mozambique	1996	0	0	49.12	9.506173	0.345609	0
Mozambique	1997	0	0	....	4.011628	....	0
Namibia	1990	0	1	....	3.728814	....	0
Namibia	1991	0	0	....	4.010989	....	0

Table C.34: The Inequality and Military Expenditure Data

Namibia	1992	0	0	....	34.28571	....	0
Namibia	1993	0	0	....	50	....	0
Namibia	1994	0	0	38.97	43.33333	0.031425	0
Namibia	1995	0	0	....	38	....	0
Namibia	1996	0	0	....	36.66667	....	0
Namibia	1997	0	0	....	40	....	0
Nepal	1987	0	0	43.24	43.125	0.090719	0
Nepal	1988	0	0	42.97	56.25	0.084107	0
Nepal	1989	0	0	42.88	1.910112	0.081144	0
Nepal	1990	0	0	44.18	1.813187	0.117403	0
Nepal	1991	0	0	42.09	1.818182	0.071623	0
Nepal	1992	0	0	....	1.937173	....	0
Nepal	1993	0	0	41.01	1.818182	0.052486	0
Nepal	1994	0	0	39.18	1.921182	0.031206	0
Nepal	1995	0	0	....	1.961722	0.033	0
Nepal	1996	0	0	39.76	1.962617	0.034734	0
Nepal	1997	0	0	....	1.909091	0.0357	0
Netherlands	1987	0	0	31.84	1.822222	0.008223	0
Netherlands	1988	0	0	32.2	1.818182	0.008458	0
Netherlands	1989	0	0	32.38	556.4626	0.009159	1
Netherlands	1990	0	0	32.35	548.6486	0.009149	1
Netherlands	1991	0	0	32.31	552.7027	0.008972	1
Netherlands	1992	0	0	32.24	530.6667	0.008541	1
Netherlands	1993	0	0	32.67	514.5695	0.009076	1
Netherlands	1994	0	0	33.02	513.1579	0.00979	1
Netherlands	1995	0	0	33.53	471.2418	0.011398	1
Netherlands	1996	0	0	33.72	453.8961	0.011849	1
Netherlands	1997	0	0	33.9	439.3548	0.012406	1
NewZealand	1987	0	0	33.04	441.6667	0.024273	1
NewZealand	1988	0	0	33.46	438.4615	0.02353	1
NewZealand	1989	0	0	33.45	315.1515	0.020313	0
NewZealand	1990	0	0	34.32	336.3636	0.093514	1

Table C.35: The Inequality and Military Expenditure Data

NewZealand	1991	0	0	33.58	324.2424	0.091842	0
NewZealand	1992	0	0	33.72	315.1515	0.086824	0
NewZealand	1993	0	0	34.55	283.9394	0.050161	0
NewZealand	1994	0	0	38.84	235.2941	0.054624	0
NewZealand	1995	0	0	38.93	246.7647	0.056951	0
NewZealand	1996	0	0	38.56	202.5714	0.051296	0
NewZealand	1997	0	0	....	216	....	1
Nicaragua	1987	1	0	....	208.2857	....	1
Nicaragua	1988	1	0	....	212.7778	....	0
Nicaragua	1989	1	0	....	....	....	0
Nicaragua	1990	1	0	....	....	....	0
Nicaragua	1991	1	0	....	....	....	0
Nicaragua	1992	1	0	....	82.77778	....	0
Nicaragua	1993	1	0	....	12.7027	....	0
Nicaragua	1994	1	0	....	10.52632	....	1
Nicaragua	1995	0	0	....	8.974359	....	0
Nicaragua	1996	0	0	....	8.292683	....	0
Nicaragua	1997	0	0	....	8.095238	....	1
Niger	1987	0	0	....	6.511628	....	0
Niger	1988	0	0	....	6.136364	....	0
Niger	1989	0	0	....	0	....	0
Niger	1990	0	0	....	2.222222	....	0
Niger	1991	0	0	....	2.837838	....	0
Niger	1992	0	0	....	0	....	0
Niger	1993	1	0	....	2.78481	....	0
Niger	1994	1	0	....	2.592593	....	0
Niger	1995	1	0	....	2.771084	....	0
Niger	1996	1	0	....	2.325581	....	0
Niger	1997	1	0	....	2.272727	....	0
Nigeria	1987	0	0	....	2.087912	....	0
Nigeria	1988	0	0	....	2.12766	....	0
Nigeria	1989	0	0	....	17.36375	....	0

Table C.36: The Inequality and Military Expenditure Data

Nigeria	1990	0	0	....	27.55228	....	0
Nigeria	1991	0	0	41.22	25.86412	0.045396	1
Nigeria	1992	0	0	42.24	29.71098	0.06041	0
Nigeria	1993	1	0	42.46	37.73796	0.065732	0
Nigeria	1994	1	0	42.93	32.57329	0.073642	0
Nigeria	1995	1	0	....	28.40426	....	0
Nigeria	1996	1	0	....	28.90705	....	0
Nigeria	1997	1	0	....	23.06931	....	0
Norway	1987	0	0	30.8	20.07685	0.008992	0
Norway	1988	0	0	31.14	18.63933	0.009005	0
Norway	1989	0	0	31.52	828.5714	0.009295	1
Norway	1990	0	0	31.53	802.381	0.009014	1
Norway	1991	0	0	32.04	814.2857	0.010449	1
Norway	1992	0	0	33	823.8095	0.012647	1
Norway	1993	0	0	33.69	786.0465	0.012524	1
Norway	1994	0	0	32.22	876.7442	0.008768	1
Norway	1995	0	0	32.29	818.6047	0.009221	1
Norway	1996	0	0	32.09	874.4186	0.008877	1
Norway	1997	0	0	31.97	765.9091	0.008881	1
Oman	1987	0	0	....	754.5455	0.053476	1
Oman	1988	0	0	....	738.6364	0.05679	1
Oman	1989	0	0	....	1262.5	0.06784	0
Oman	1990	0	0	....	1068.75	0.068982	0
Oman	1991	0	0	....	1111.765	0.078954	0
Oman	1992	0	0	....	1238.889	0.089754	0
Oman	1993	0	0	43.08	1050	0.096892	0
Oman	1994	0	0	43.65	1173.684	0.113538	0
Oman	1995	0	0	43.8	1030	0.117735	0
Oman	1996	0	0	44.35	1014.286	0.130877	0
Oman	1997	0	0	43.56	990.4762	0.109577	0
Pakistan	1987	0	1	41.83	881.8182	0.057835	0
Pakistan	1988	0	1	41.58	791.3043	0.053575	0

Table C.37: The Inequality and Military Expenditure Data

Pakistan	1989	0	1	41.87	27.64538	0.058429	1
Pakistan	1990	0	1	42.2	27.27273	0.064258	1
Pakistan	1991	0	1	42.55	26.44404	0.071088	1
Pakistan	1992	0	1	....	28.88499	....	1
Pakistan	1993	0	1	....	27.88708	....	1
Pakistan	1994	0	1	....	31.20269	....	1
Pakistan	1995	0	1	....	29.77667	....	1
Pakistan	1996	0	1	43.15	29.66855	0.08132	1
Pakistan	1997	0	1	....	27.13608	....	1
Panama	1987	0	0	41.33	27.06883	0.065572	0
Panama	1988	0	0	42.33	25.56732	0.081893	0
Panama	1989	1	0	41.97	52.17391	0.073007	0
Panama	1990	1	0	42.36	52.17391	0.085327	0
Panama	1991	0	0	42.03	52.6087	0.078167	0
Panama	1992	0	0	42.98	36.25	0.096789	0
Panama	1993	0	0	42.45	38.75	0.084432	0
Panama	1994	0	0	42.75	35.6	0.091987	1
Panama	1995	0	0	....	41.2	....	1
Panama	1996	0	0	43.52	40.38462	0.111849	0
Panama	1997	0	0	43.06	38.46154	0.100173	0
PapuaNewG	1987	0	0	44.92	38.14815	0.127663	0
PapuaNewG	1988	0	0	44.78	42.22222	0.124204	0
PapuaNewG	1989	0	0	44.78	12.22222	0.124198	0
PapuaNewG	1990	0	0	....	11.94444	....	0
PapuaNewG	1991	0	0	....	13.51351	....	0
PapuaNewG	1992	0	0	....	18.15789	....	0
PapuaNewG	1993	0	0	....	12.5641	....	0
PapuaNewG	1994	0	0	....	13.5	....	0
PapuaNewG	1995	0	0	....	19.02439	....	0
PapuaNewG	1996	0	0	....	19.7619	....	0
PapuaNewG	1997	0	0	....	14.18605	....	0
Paraguay	1987	0	0	....	16.59091	....	0

Table C.38: The Inequality and Military Expenditure Data

Paraguay	1988	0	0	....	14	....	0
Paraguay	1989	0	0	....	17.38095	....	0
Paraguay	1990	0	0	....	23.63636	....	0
Paraguay	1991	0	0	37.05	24	0.893	0
Paraguay	1992	0	0	....	22.34043	....	0
Paraguay	1993	0	0	....	31.13636	....	0
Paraguay	1994	0	0	....	33.11111	....	0
Paraguay	1995	0	0	....	25.65217	....	0
Paraguay	1996	0	0	....	22.76596	....	0
Paraguay	1997	0	0	....	24.69388	....	0
Peru	1987	1	0	40.58	24.2	0.051385	0
Peru	1988	1	0	40.79	24.42308	0.054804	0
Peru	1989	1	0	44.19	140.9756	0.134028	0
Peru	1990	1	0	44.88	....	0.158326	0
Peru	1991	1	0	42.33	....	0.077412	0
Peru	1992	1	0	42.56	33.48624	0.080499	0
Peru	1993	1	0	43.84	27.33333	....	0
Peru	1994	1	0	....	35.86957	0.11347	0
Peru	1995	1	1	....	35.61702	....	0
Peru	1996	1	0	....	37.58333	....	0
Peru	1997	1	0	....	40.65041	....	0
Philippines	1987	1	0	41.91	39.04382	0.068882	0
Philippines	1988	1	0	41.99	52.73438	0.075132	0
Philippines	1989	1	0	41.69	17.16172	0.071046	0
Philippines	1990	1	0	42.16	20.48387	0.085568	0
Philippines	1991	0	0	42.15	22.51969	0.084369	0
Philippines	1992	1	0	42.04	22.15385	0.076757	0
Philippines	1993	1	0	42.46	20.72072	0.08373	0
Philippines	1994	1	0	42.51	18.94273	0.083767	0
Philippines	1995	1	0	42.09	21.37733	0.074722	0
Philippines	1996	1	0	42.15	19.63534	0.079458	0
Philippines	1997	1	0	42.12	14.81481	0.079455	0

Table C.39: The Inequality and Military Expenditure Data

Poland	1987	0	0	28.19	17.18121	0.00506	0
Poland	1988	0	0	27.93	16.68857	0.004307	0
Poland	1989	0	0	28.42	535.809	0.004808	1
Poland	1990	0	0	31.04	513.2275	0.010855	1
Poland	1991	0	0	30.73	494.7368	0.007736	1
Poland	1992	0	0	32.1	267.7165	0.010218	1
Poland	1993	0	0	32.9	218.3246	0.012297	1
Poland	1994	0	0	32.61	110.1563	0.01531	1
Poland	1995	0	0	33.66	127.2727	0.023787	1
Poland	1996	0	0	34.47	128.0519	0.031107	1
Poland	1997	0	0	35.99	162.4352	0.051381	1
Portugal	1987	0	0	35.53	162.1762	0.034577	1
Portugal	1988	0	0	36.36	145.0777	0.044363	1
Portugal	1989	0	0	36.47	201.0101	0.045921	1
Portugal	1990	0	0	....	220.202	....	1
Portugal	1991	0	0	....	231.3131	....	1
Portugal	1992	0	0	....	238.3838	....	1
Portugal	1993	0	0	....	243.4343	....	1
Portugal	1994	0	0	....	247.4747	....	1
Portugal	1995	0	0	....	239.3939	....	1
Portugal	1996	0	0	....	230.303	....	1
Portugal	1997	0	0	....	244.4444	....	1
Qatar	1987	0	0	44.5	236.3636	0.29626	1
Qatar	1988	0	0	46.09	241.4141	0.412732	1
Qatar	1989	0	0	47.2	....	0.453421	0
Qatar	1990	0	0	45.99	....	0.484937	0
Qatar	1991	0	0	45.55	....	0.363012	0
Qatar	1992	0	0	47.23	....	0.419541	0
Qatar	1993	0	0	46.14	2120	0.551744	0
Qatar	1994	0	0	....	1788	0.427171	0
Qatar	1995	0	0	....	1441.667	0.356431	1
Qatar	1996	0	0	....	1491.667	0.289012	1

Table C.40: The Inequality and Military Expenditure Data

Qatar	1997	0	0	....	1508.333	0.26789	0
Congo	1987	0	0	....	1653.333	0.13786	0
Congo	1988	0	0	....	....	0.137057	0
Congo	1989	0	0	....	48.5	0.147	0
Congo	1990	0	0	....	....	0.149	0
Congo	1991	0	0	....	....	0.153	0
Congo	1992	0	0	....	38.63636	0.159	0
Congo	1993	1	0	....	58.26087	0.166	0
Congo	1994	1	0	....	50.43478	0.1629	0
Congo	1995	1	0	....	40	0.1666	0
Congo	1996	0	0	....	20	0.1753	0
Congo	1997	1	0	....	21.2	0.1888	0
Romania	1987	0	0	....	20.8	....	0
Romania	1988	0	0	....	28.46154	....	0
Romania	1989	1	0	....	432.7434	....	1
Romania	1990	0	0	24.58	389.8678	....	1
Romania	1991	0	0	26.31	369.2982	....	1
Romania	1992	0	0	28.86	198.6842	....	0
Romania	1993	0	0	29.06	186.7841	....	0
Romania	1994	0	0	30.23	125.9912	....	1
Romania	1995	0	0	....	82.37885	....	1
Romania	1996	0	0	....	103.5398	....	1
Romania	1997	0	0	....	108.4071	....	1
Russia	1992	1	1	....	87.55556	....	1
Russia	1993	1	1	33.59	101.3333	0.041924	1
Russia	1994	0	1	35.17	531.6285	0.054784	1
Russia	1995	0	1	36.26	453.8721	0.066814	1
Russia	1996	0	1	36.63	439.6494	0.06559	1
Russia	1997	0	1	36.75	286.293	0.059879	1
Rwanda	1987	0	0	....	259.3094	....	1
Rwanda	1988	0	0	....	283.0957	....	1
Rwanda	1989	0	0	....	7.076923	....	1

Table C.41: The Inequality and Military Expenditure Data

Rwanda	1990	1	0	....	5.294118	....	0
Rwanda	1991	1	0	....	5.857143	....	0
Rwanda	1992	1	0	....	11.97183	....	0
Rwanda	1993	1	0	....	16.62162	....	0
Rwanda	1994	1	0	....	13.73333	....	0
Rwanda	1995	1	0	....	12.85714	....	0
Rwanda	1996	1	0	....	5.671642	....	0
Rwanda	1997	1	0	....	10.5	....	0
SaoTome	1987	0	0	....	14.12698	....	0
SaoTome	1988	0	0	....	10.51948	....	0
SaoTome	1989	0	0	....	....	....	0
SaoTome	1990	0	0	....	....	....	0
SaoTome	1991	0	0	....	....	....	0
SaoTome	1992	0	0	....	....	....	0
SaoTome	1993	0	0	....	....	....	0
SaoTome	1994	0	0	....	....	....	0
SaoTome	1995	0	0	....	....	....	0
SaoTome	1996	0	0	....	....	....	0
SaoTome	1997	0	0	....	....	....	0
SaudiArabia	1987	0	1	....	10	....	0
SaudiArabia	1988	0	0	....	....	0.181	0
SaudiArabia	1989	0	0	45.77	1489.655	0.184693	1
SaudiArabia	1990	0	0	....	1139.073	0.1944	1
SaudiArabia	1991	0	0	....	1147.436	0.3419	1
SaudiArabia	1992	0	0	....	1704.403	0.245	0
SaudiArabia	1993	0	0	....	2496.894	0.255	0
SaudiArabia	1994	0	0	....	2323.353	0.355	1
SaudiArabia	1995	0	0	....	1270.115	0.375	0
SaudiArabia	1996	0	0	....	1022.222	0.385	1
SaudiArabia	1997	0	0	....	1021.39	0.398	1
Senegal	1987	0	0	37.37	969.0722	0.015184	0
Senegal	1988	0	0	40.7	1049.751	0.040468	1

Table C.42: The Inequality and Military Expenditure Data

Senegal	1989	0	1	41.01	11.04478	0.04574	0
Senegal	1990	0	1	40.79	10.57971	0.042369	0
Senegal	1991	0	0	42.87	9.861111	0.074631	0
Senegal	1992	0	0	42.21	10.13514	0.06113	0
Senegal	1993	0	0	41.2	9.61039	0.045853	0
Senegal	1994	0	0	44.06	13.41772	0.10107	0
Senegal	1995	0	0	42.62	11.46341	0.069388	0
Senegal	1996	0	0	43.62	8.235294	0.092246	0
Senegal	1997	0	0	43.27	7.613636	0.083159	0
SerbiaM	1992	0	0	....	7.692308	....	0
SerbiaM	1993	0	0	....	7.340426	....	0
SerbiaM	1994	0	0	....	....	....	0
SerbiaM	1995	0	0	....	....	....	0
SerbiaM	1996	0	0	....	....	....	0
SerbiaM	1997	1	0	....	100	....	0
SierraLeone	1987	0	0	....	....	....	0
SierraLeone	1988	0	0	....	114.2857	....	0
SierraLeone	1989	0	0	....	1.794872	....	0
SierraLeone	1990	0	0	....	1.75	....	0
SierraLeone	1991	1	0	....	2.439024	....	0
SierraLeone	1992	1	0	....	3.72093	....	0
SierraLeone	1993	1	0	48.19	5.454545	....	0
SierraLeone	1994	1	0	....	7.209302	....	0
SierraLeone	1995	1	0	....	7.44186	....	0
SierraLeone	1996	1	0	....	9.090909	....	0
SierraLeone	1997	1	0	....	8.695652	....	0
Singapore	1987	0	0	32.9	12.34043	0.043129	0
Singapore	1988	0	0	31.66	9.795918	0.041465	0
Singapore	1989	0	0	31.34	757.1429	0.039144	1
Singapore	1990	0	0	31.03	820.6897	0.037038	1
Singapore	1991	0	0	31.01	820	0.03642	1
Singapore	1992	0	0	30.93	926.6667	0.033286	1

Table C.43: The Inequality and Military Expenditure Data

Singapore	1993	0	0	31.24	893.5484	0.034328	1
Singapore	1994	0	0	30.77	1046.875	0.029661	1
Singapore	1995	0	0	30.45	1243.75	0.025702	1
Singapore	1996	0	0	30.61	1096.97	0.025674	1
Singapore	1997	0	0	30.9	1333.333	0.026751	1
Slovakia	1993	0	0	28.33	1411.765	0.00863	1
Slovakia	1994	0	0	29.97	1664.706	0.011585	1
Slovakia	1995	0	0	31.32	139.8113	0.015008	1
Slovakia	1996	0	0	32.2	141.4815	0.018359	1
Slovakia	1997	0	0	33.32	173.3333	....	1
Slovenia	1992	0	0	28.22	172.037	0.020926	1
Slovenia	1993	0	0	28.54	167.2222	0.018884	1
Slovenia	1994	0	0	29	218.5	0.018287	0
Slovenia	1995	0	0	29.58	170	0.020936	0
Slovenia	1996	0	0	29.96	231.5	0.020702	1
Slovenia	1997	0	0	30.36	252	0.020538	1
Somalia	1987	0	0	....	455.5	....	1
Somalia	1988	1	0	....	610	....	0
Somalia	1989	1	0	....	....	....	0
Somalia	1990	1	0	....	....	....	0
Somalia	1991	1	0	....	4.390244	....	0
Somalia	1992	1	0	....	2.771084	....	0
Somalia	1993	1	0	....	....	....	0
Somalia	1994	1	0	....	....	....	0
Somalia	1995	1	0	....	....	....	0
Somalia	1996	1	0	....	....	....	0
Somalia	1997	1	0	....	....	....	0
SouthAfrica	1987	1	0	38.77	....	0.062598	0
SouthAfrica	1988	1	0	38.71	....	0.062145	0
SouthAfrica	1989	1	0	38.84	132.6648	0.063122	1
SouthAfrica	1990	1	0	38.94	132.5843	0.063282	1
SouthAfrica	1991	1	0	39.03	133.7912	0.06194	1

Table C.44: The Inequality and Military Expenditure Data

SouthAfrica	1992	1	0	39.15	128.2258	0.061014	1
SouthAfrica	1993	1	0	39.15	104.4737	0.058478	1
SouthAfrica	1994	1	0	39.52	92.24806	0.063724	1
SouthAfrica	1995	0	0	39.64	81.26582	0.066675	1
SouthAfrica	1996	0	0	39.84	88.55721	0.069163	1
SouthAfrica	1997	0	0	39.9	73.10513	0.069662	1
Soviet	1987	0	1	....	72.35577	....	1
Soviet	1988	0	1	....	54.9763	....	1
Soviet	1989	0	0	....	....	....	1
Soviet	1990	0	0	....	....	....	1
Soviet	1991	0	0	....	....	....	1
Spain	1987	0	0	35.68	....	0.024917	1
Spain	1988	0	0	35.9	....	0.027324	1
Spain	1989	0	0	36.04	252.3316	0.029328	1
Spain	1990	0	0	35.99	233.3333	0.029204	1
Spain	1991	0	0	35.97	240.8269	0.02872	1
Spain	1992	0	0	36.2	223.7113	0.029534	1
Spain	1993	0	0	36.04	214.433	0.033353	1
Spain	1994	0	0	36.14	195.8869	0.033631	1
Spain	1995	0	0	36.01	213.0769	0.032135	1
Spain	1996	0	0	36.09	193.0769	0.034038	1
Spain	1997	0	0	35.9	199.2327	0.03272	1
SriLanka	1987	1	0	41.6	195.6522	0.065359	1
SriLanka	1988	1	0	41.11	196.1637	0.057276	1
SriLanka	1989	1	0	40.23	17.57576	0.046034	0
SriLanka	1990	1	0	40.72	26.82635	0.05567	0
SriLanka	1991	1	0	39.65	25.29412	0.040917	0
SriLanka	1992	1	0	38.37	29.47674	0.027895	0
SriLanka	1993	1	0	38.95	30.22989	0.042989	0
SriLanka	1994	1	0	38.79	24.31818	0.041921	0
SriLanka	1995	1	0	39.57	28.14607	0.051855	0
SriLanka	1996	1	0	....	33.31492	0.0534	0

Table C.45: The Inequality and Military Expenditure Data

SriLanka	1997	1	0	....	47.26776	0.0591	0
Sudan	1987	1	0	....	44.64865	0.0365	0
Sudan	1988	1	0	....	40.74866	0.0375	0
Sudan	1989	1	0	....	7.449393	0.0385	0
Sudan	1990	1	0	....	8.537549	0.095	0
Sudan	1991	1	0	....	9.147287	0.1001	0
Sudan	1992	1	0	....	6.428571	0.136	0
Sudan	1993	1	0	....	15.87591	0.152	0
Sudan	1994	1	0	....	0	0.163	0
Sudan	1995	1	0	....	17.50865	0.1982	0
Sudan	1996	1	0	....	12.92929	0.2012	0
Sudan	1997	1	0	....	13.88889	0.2012	0
Suriname	1987	0	0	40.31	14.98413	0.051396	0
Suriname	1988	0	0	40.85	12.63804	0.058519	0
Suriname	1989	0	0	40.85	0	0.058863	0
Suriname	1990	0	0	40.53	100	0.051589	0
Suriname	1991	0	0	41.77	90	0.073541	0
Suriname	1992	0	0	41.02	137.5	0.059861	0
Suriname	1993	0	0	41.37	135	0.063469	0
Suriname	1994	0	0	....	80	0.075	0
Suriname	1995	0	0	....	47.5	0.085	0
Suriname	1996	0	0	....	22.5	0.0921	0
Suriname	1997	0	0	....	32.5	0.0952	0
Swaziland	1987	0	0	43.65	32.5	0.13131	0
Swaziland	1988	0	0	44.73	42.5	0.178619	0
Swaziland	1989	0	0	44.34	13.75	0.179339	0
Swaziland	1990	0	0	43.43	13.75	0.147438	0
Swaziland	1991	0	0	40.13	15	0.039293	0
Swaziland	1992	0	0	41.91	21.11111	0.065652	0
Swaziland	1993	0	0	42.41	21.11111	0.074574	0
Swaziland	1994	0	0	43.85	26.66667	0.111877	0
Swaziland	1995	0	0	40.25	31.11111	0.040681	0

Table C.46: The Inequality and Military Expenditure Data

Swaziland	1996	0	0	....	28.88889	0.052	0
Swaziland	1997	0	0	....	30	0.055	0
Sweden	1987	0	0	27.81	33.33333	0.004082	0
Sweden	1988	0	0	28.02	35.55556	0.004301	10
Sweden	1989	0	0	28.03	669.0476	0.004171	1
Sweden	1990	0	0	28.14	682.1429	0.003925	1
Sweden	1991	0	0	27.93	642.3529	0.003534	1
Sweden	1992	0	0	28.53	654.6512	0.003802	1
Sweden	1993	0	0	28.96	670.9302	0.003604	1
Sweden	1994	0	0	28.33	614.9425	0.002855	1
Sweden	1995	0	0	31.13	652.8736	0.008239	1
Sweden	1996	0	0	32.49	651.1364	0.013267	1
Sweden	1997	0	0	33.91	667.0455	0.021972	1
Switzerland	1987	0	0	....	621.5909	....	1
Switzerland	1988	0	0	....	623.5955	....	1
Switzerland	1989	0	0	....	737.8788	....	1
Switzerland	1990	0	0	....	723.8806	....	1
Switzerland	1991	0	0	....	767.1642	....	1
Switzerland	1992	0	0	....	791.1765	....	1
Switzerland	1993	0	0	....	672.4638	....	1
Switzerland	1994	0	0	....	650	....	1
Switzerland	1995	0	0	....	574.6479	....	1
Switzerland	1996	0	0	....	583.0986	....	1
Switzerland	1997	0	0	....	561.1111	....	1
Syria	1987	0	0	35.02	533.3333	0.008111	1
Syria	1988	0	0	36.67	536.1111	0.01376	1
Syria	1989	0	0	36.83	378.7611	0.014418	0
Syria	1990	0	0	36.28	0	0.011971	0
Syria	1991	0	0	35.14	433.0579	0.008253	0
Syria	1992	0	0	35.72	0	0.009892	0
Syria	1993	0	0	42.71	360.3053	0.139435	0
Syria	1994	0	0	46.81	330.8824	0.164762	1

Table C.47: The Inequality and Military Expenditure Data

Syria	1995	0	0	46.39	274.4681	0.156343	0
Syria	1996	0	0	42.86	291.7808	0.00833	0
Syria	1997	0	0	42.73	278.8079	0.009293	0
Taiwan	1987	0	0	27.64	251.2821	0.011722	0
Taiwan	1988	0	0	28.05	211.1801	0.013515	0
Taiwan	1989	0	0	28.97	348.4848	0.016964	1
Taiwan	1990	0	0	29.66	402	0.01757	1
Taiwan	1991	0	0	29.92	465.8416	0.01785	1
Taiwan	1992	0	0	30.03	489.6552	0.018335	1
Taiwan	1993	0	0	29.71	502.439	0.015549	1
Taiwan	1994	0	0	29.46	516.9082	0.014444	1
Taiwan	1995	0	0	29.65	578.9474	0.014511	1
Taiwan	1996	0	0	29.9	540.2844	0.014804	1
Taiwan	1997	0	0	29.82	600.939	0.014404	1
Tajikistan	1992	1	0	....	595.3488	....	1
Tajikistan	1993	1	0	....	603.6866	....	1
Tajikistan	1994	1	0	....	6.785714	....	0
Tajikistan	1995	1	0	....	61.57895	....	0
Tajikistan	1996	1	0	....	25.26316	....	0
Tajikistan	1997	1	0	....	12.93103	....	0
Tanzania	1987	0	0	43.84	14.23729	0.098652	0
Tanzania	1988	0	0	44.08	19.15254	0.104264	0
Tanzania	1989	0	0	....	5.80786	0.155	0
Tanzania	1990	0	0	41.65	4.788136	0.054668	0
Tanzania	1991	0	0	43.63	4.338843	0.093187	0
Tanzania	1992	0	0	....	3.91129	0.095	0
Tanzania	1993	0	0	....	3.984375	0.1121	0
Tanzania	1994	0	0	....	4.448669	0.1323	0
Tanzania	1995	0	0	....	3.726937	0.1534	0
Tanzania	1996	0	0	....	....	0.1721	0
Tanzania	1997	0	0	....	3.020833	0.141	0
Thailand	1987	0	0	....	3.515358	0.215	0

Table C.48: The Inequality and Military Expenditure Data

Thailand	1988	0	0	41.5	2.909699	0.073723	0
Thailand	1989	0	0	43.06	42.42424	0.130622	0
Thailand	1990	0	0	41.92	41.04478	0.111118	1
Thailand	1991	0	0	41.09	41.06814	0.082056	1
Thailand	1992	0	0	39.98	43.0127	0.074276	0
Thailand	1993	0	0	37.64	47.0377	0.05	0
Thailand	1994	0	0	....	52.39787	0.038381	0
Thailand	1995	0	0	....	60.87719	....	0
Thailand	1996	0	0	....	61.11111	....	0
Thailand	1997	0	0	....	60.13746	....	0
Togo	1987	0	0	43.51	62.13922	....	0
Togo	1988	0	0	42.13	56.80672	....	0
Togo	1989	0	0	42.25	12.42424	....	0
Togo	1990	0	0	42.57	....	....	0
Togo	1991	1	0	37.02	11.42857	....	0
Togo	1992	1	0	40.23	10.81081	....	0
Togo	1993	1	0	39.57	10	....	0
Togo	1994	1	0	42.05	9	....	0
Togo	1995	0	0	....	10.2439	....	0
Togo	1996	0	0	....	7.209302	....	0
Togo	1997	0	0	....	6.818182	....	0
TrinidadT	1987	0	0	42.78	5.652174	0.119031	0
TrinidadT	1988	0	0	49.07	6.170213	0.381669	0
TrinidadT	1989	0	0	44.28	....	0.198092	0
TrinidadT	1990	0	0	46.14	....	0.336877	0
TrinidadT	1991	0	0	43.6	56.66667	0.179942	0
TrinidadT	1992	0	0	43.37	....	0.167777	0
TrinidadT	1993	0	0	44.09	....	0.209345	0
TrinidadT	1994	0	0	43.5	58.33333	0.179699	0
TrinidadT	1995	0	0	45	59.16667	0.265186	0
TrinidadT	1996	0	0	....	67.5	0.3124	0
TrinidadT	1997	0	0	....	55.83333	0.35548	0

Table C.49: The Inequality and Military Expenditure Data

Tunisia	1987	1	0	....	60	0.1231	0
Tunisia	1988	0	0	....	75.45455	0.1354	0
Tunisia	1989	0	0	....	33.28947	0.15671	0
Tunisia	1990	0	0	....	44.54545	0.16239	0
Tunisia	1991	0	0	....	45.6962	0.17431	0
Tunisia	1992	0	0	....	46.125	0.18891	0
Tunisia	1993	0	0	43.2	45	0.197507	0
Tunisia	1994	0	0	44.09	42.58824	0.238643	0
Tunisia	1995	0	0	42.46	43.33333	0.179032	0
Tunisia	1996	0	0	42.55	43.06818	0.194423	0
Tunisia	1997	0	0	42.55	35.77778	0.199454	0
Turkey	1987	1	0	38.8	38.35165	0.032377	0
Turkey	1988	1	0	38.87	39.02174	0.033432	0
Turkey	1989	1	0	40.25	79.01701	0.049798	1
Turkey	1990	1	0	40.73	69.62963	0.056862	0
Turkey	1991	1	0	41.13	73.50272	0.061361	1
Turkey	1992	1	0	42.09	88.77005	0.082226	1
Turkey	1993	1	0	41.5	93.35664	0.069337	1
Turkey	1994	1	0	41.54	100	0.068577	1
Turkey	1995	1	0	42.03	108.2631	0.07922	1
Turkey	1996	1	0	41.26	102.9801	0.065268	1
Turkey	1997	1	0	40.92	104.7231	0.061097	1
Turkmenistan	1992	0	0	....	116.48	....	1
Turkmenistan	1993	0	0	....	122.6772	....	1
Turkmenistan	1994	0	0	....	....	....	0
Turkmenistan	1995	0	0	....	....	....	0
Turkmenistan	1996	0	0	....	....	....	0
Turkmenistan	1997	0	0	....	32.19512	....	0
Uganda	1987	0	1	44.15	42.61905	0.097755	0
Uganda	1988	0	0	47.02	71.19048	0.203165	0
Uganda	1989	0	0	44.39	12.22222	0.110486	0
Uganda	1990	0	0	....	6.540881	0.11	0

Table C.50: The Inequality and Military Expenditure Data

Uganda	1991	0	0	....	7.878788	0.0921	0
Uganda	1992	0	1	....	7.764706	0.0889	0
Uganda	1993	0	1	....	7.359551	0.0789	0
Uganda	1994	0	1	....	5.459459	0.06999	0
Uganda	1995	0	1	....	4.739583	0.05789	0
Uganda	1996	0	1	....	7.878788	0.04213	0
Uganda	1997	0	1	....	9.852941	0.03789	0
Ukraine	1992	0	0	33.28	11.72249	0.033419	0
Ukraine	1993	0	0	31.49	12.46512	0.014762	0
Ukraine	1994	0	0	31.65	86.0735	0.012703	0
Ukraine	1995	0	0	35.42	66.86047	0.0405	1
Ukraine	1996	0	0	37.19	82.49027	0.06463	1
Ukraine	1997	0	0	37.67	79.64775	0.066968	1
Emirates	1987	0	0	....	81.88976	0.032146	1
Emirates	1988	0	0	....	84.92063	0.078038	1
Emirates	1989	0	0	....	1177.778	0.007894	0
Emirates	1990	0	0	....	1005	0.005832	0
Emirates	1991	0	0	....	919.0476	0.006793	1
Emirates	1992	0	0	....	1317.391	0.006989	1
Emirates	1993	0	0	....	2775	0.007123	0
Emirates	1994	0	0	....	1109.524	0.002487	0
Emirates	1995	0	0	....	1090.476	0.002	0
Emirates	1996	0	0	....	1080.952	0.002398	0
Emirates	1997	0	0	....	1022.727	0.00131	1
uk	1987	0	0	32.01	1022.727	0.017771	1
uk	1988	0	0	31.96	1004.348	0.017729	1
uk	1989	0	0	31.93	845.3427	0.017453	1
uk	1990	0	0	32.2	795.0963	0.01843	1
uk	1991	0	0	32.48	800.6993	0.017718	1
uk	1992	0	0	32.71	801.3937	0.017708	1
uk	1993	0	0	33.14	818.0243	0.019352	1
uk	1994	0	0	32.79	730.5699	0.018383	1

Table C.51: The Inequality and Military Expenditure Data

uk	1995	0	0	32.74	701.7241	0.018341	1
uk	1996	0	0	32.74	680.9605	0.0166	1
uk	1997	0	0	32.73	630.7692	0.016129	1
US	1987	0	1	34.07	637.138	0.027309	1
US	1988	0	1	34.07	600.3401	0.027455	1
US	1989	0	1	34.11	1548.6	0.027057	1
US	1990	0	1	34.26	1510.204	0.027407	1
US	1991	0	1	34.6	1496.159	0.027874	1
US	1992	0	0	34.49	1436.575	0.026683	1
US	1993	0	0	34.55	1254.949	0.026698	1
US	1994	0	0	34.72	1323.414	0.027977	1
US	1995	0	0	34.69	1243.704	0.028114	1
US	1996	0	0	35.02	1170.376	0.030729	1
US	1997	0	0	35.73	1098.859	0.03897	1
Uruguay	1987	0	0	37.44	1039.548	0.039715	1
Uruguay	1988	0	0	37.61	1030.235	0.040401	1
Uruguay	1989	0	1	36.09	95	0.036159	0
Uruguay	1990	0	0	36.77	103.2258	0.042619	0
Uruguay	1991	0	0	37.42	112.9032	0.048636	0
Uruguay	1992	1	0	37.91	115.8065	0.050871	0
Uruguay	1993	0	0	38.73	108.0645	0.058455	0
Uruguay	1994	0	0	39.1	123.2258	0.05952	0
Uruguay	1995	0	0	39.9	100.3125	0.069363	0
Uruguay	1996	0	0	40.28	145.3125	0.071218	0
Uruguay	1997	0	0	40.76	102.8125	0.081281	0
Uzbekistan	1992	0	0	....	86.875	....	0
Uzbekistan	1993	0	0	....	84.54545	....	0
Uzbekistan	1994	0	0	....	78.24074	....	0
Uzbekistan	1995	0	0	....	91.36364	....	0
Uzbekistan	1996	0	0	....	40.625	....	1
Uzbekistan	1997	0	0	....	28.72807	....	1
Venezuela	1987	0	0	39.21	63.20346	0.045174	1

Table C.52: The Inequality and Military Expenditure Data

Venezuela	1988	0	0	38.94	....	0.042416	1
Venezuela	1989	0	0	39.1	106.1453	0.042294	1
Venezuela	1990	0	0	40.05	77.17391	0.054692	0
Venezuela	1991	0	0	41.74	74.07407	0.090678	0
Venezuela	1992	0	0	40.66	73.57513	0.065726	5
Venezuela	1993	0	0	41.92	143.9394	0.088692	0
Venezuela	1994	0	0	41	102.4631	0.066066	0
Venezuela	1995	0	0	42.03	68.11594	0.085707	0
Venezuela	1996	0	0	43.12	59.71564	0.116565	0
Venezuela	1997	0	0	....	68.98148	....	0
Vietnam	1987	0	0	....	48.63636	....	0
Vietnam	1988	0	0	....	83.03571	....	0
Vietnam	1989	0	0	....	36.47799	....	1
Vietnam	1990	0	0	....	53.69231	....	1
Vietnam	1991	0	0	....	76.1171	....	0
Vietnam	1992	0	0	....	85.06787	....	0
Vietnam	1993	0	0	....	62.33383	....	0
Vietnam	1994	0	0	....	40.14493	....	1
Vietnam	1995	0	0	....	29.30299	....	0
Vietnam	1996	0	0	....	37.43017	....	0
Vietnam	1997	0	0	....	40.7967	....	0
YemanA	1987	0	0	....	0	0.01235	0
YemanA	1988	0	0	....	45.13981	0.03456	0
YemanA	1989	0	0	....	116.6667	0.089234	0
Yemans	1987	0	0	....	118.3333	0.067123	0
Yemans	1988	0	0	....	116.4	0.059213	0
Yemans	1989	0	0	....	13.69231	0.079356	0
Yemans	1990	0	0	....	24.02985	0.081435	0
Yemans	1991	1	0	....	26.52174	0.12569	0
Yemans	1992	0	0	....	32.06897	0.054321	0
Yemans	1993	0	0	....	31.24031	0.068973	0
Yemans	1994	1	0	....	32.08955	0.23689	0

Table C.53: The Inequality and Military Expenditure Data

Yemens	1995	0	0	....	31.00719	0.004321	0
Yemens	1996	0	0	....	37.22222	0.00543	1
Yemens	1997	0	0	....	28.12081	0.03458	0
Yugoslavia	1987	0	0	35.32	24.77124	0.047718	0
Yugoslavia	1988	0	0	36.27	25.84906	0.062042	0
Yugoslavia	1989	0	0	37.73	217.5214	0.093604	1
Yugoslavia	1990	0	0	38.26	183.0508	0.10182	1
Yugoslavia	1991	0	0	....	136.2869	....	1
Zambia	1987	0	1	43.47	184.4538	....	1
Zambia	1988	0	0	43.12	172.8033	....	1
Zambia	1989	0	0	....	13.15068	....	0
Zambia	1990	0	0	....	13.28947	....	0
Zambia	1991	0	0	....	19.10256	....	0
Zambia	1992	0	0	....	16.375	....	0
Zambia	1993	0	0	....	10.97561	....	0
Zambia	1994	0	0	....	12.38095	....	0
Zambia	1995	0	0	....	6.744186	....	0
Zambia	1996	0	0	....	7.727273	....	0
Zambia	1997	0	0	....	6.292135	....	0
Zimbabwe	1987	0	0	39.06	4.725275	0.036678	0
Zimbabwe	1988	0	0	39.75	4.408602	0.045612	0
Zimbabwe	1989	0	0	39.53	39.8913	0.042478	0
Zimbabwe	1990	0	0	40.04	35.10417	0.048488	0
Zimbabwe	1991	0	0	39.78	33.83838	0.044747	0
Zimbabwe	1992	0	0	44.69	33.66337	0.183827	0
Zimbabwe	1993	0	0	40.14	29.70588	0.046899	0
Zimbabwe	1994	0	0	41.13	25.86538	0.060959	1
Zimbabwe	1995	0	0	41.3	23.67925	0.063481	0
Zimbabwe	1996	0	0	41.51	24.24528	0.067338	1
Zimbabwe	1997	0	0	42.06	26.69811	0.077741	0

Table C.54: The Inequality and Military Expenditure Data

Country	year	Food Cost	civilwar	interwar	fim_ti	aid_gni
Afghanistan	1974	0.08	0	0	22.88	2.28
Afghanistan	1975	0.06	0	0	24.42	2.98
Afghanistan	1976	0.03	0	0	16.32	2.85
Afghanistan	1977	0.05	0	0	15.35	2.91
Afghanistan	1978	0.05	1	0	...	2.52
Afghanistan	1979	0.05	1	0	15.15	2.85
Afghanistan	1980	0.07	1	0	14.63	0.87
Afghanistan	1981	0.21	1	0	16.30	0.65
Afghanistan	1982	0.18	1	0	14.41	...
Afghanistan	1983	0.15	1	0	10.39	...
Afghanistan	1984	0.16	1	0	...	...
Afghanistan	1985	0.17	1	0	...	...
Afghanistan	1986	0.10	1	0	...	...
Afghanistan	1987	0.10	1	0	...	...
Afghanistan	1988	0.11	1	0	...	...
Algeria	1967	0.49	0	1	29.42	3.19
Algeria	1968	0.44	0	1	19.30	3.15
Algeria	1969	0.38	0	0	15.71	3.09
Algeria	1970	0.33	0	0	12.74	2.58
Algeria	1971	0.33	0	0	15.63	2.40
Algeria	1972	0.30	0	0	19.10	1.64
Algeria	1973	0.26	0	0	16.09	1.36
Algeria	1974	0.26	0	0	19.82	0.92
Algeria	1975	0.26	0	0	21.70	1.14
Algeria	1976	0.25	0	1	17.64	0.79
Algeria	1977	0.25	0	1	17.18	0.60
Algeria	1978	0.28	0	0	16.61	0.51
Algeria	1979	0.28	0	0	18.52	0.32
Algeria	1980	0.28	0	0	20.96	0.43
Algeria	1981		0	0	20.74	0.39
Algeria	1982		0	0	20.69	0.31

Table C.55: The Food Cost Data

Algeria	1983		0	0	21.22	0.20
Algeria	1984	0.25	0	0	19.20	0.23
Algeria	1985	0.21	0	0	25.42	0.31
Algeria	1986	0.21	0	0	21.95	0.27
Algeria	1987	0.17	0	0	27.35	0.33
Algeria	1988	0.23	1	0	27.50	0.30
Algeria	1989	0.22	1	0	35.24	0.29
Algeria	1990	0.24	1	0	23.69	0.44
Algeria	1991	0.23	1	0	26.07	0.78
Algeria	1992	0.25	1	0	28.51	0.89
Algeria	1993	0.28	1	0	27.36	0.72
Algeria	1994	0.28	1	0	33.04	1.03
Algeria	1995	0.39	1	0	29.45	0.79
Algeria	1996	0.47	1	0	31.27	0.69
Algeria	1997	0.58	1	0	31.82	0.55
Angola	1960	0.22	0	0	...	...
Angola	1961	0.22	0	0	...	...
Angola	1962	0.21	0	0	19.34	...
Angola	1963	0.21	0	0	19.21	...
Angola	1964	0.21	0	0	19.58	...
Angola	1965	0.27	0	0	17.97	...
Angola	1992	0.21	1	0	...	9.86
Angola	1993	0.27	1	0	...	8.99
Bangladesh	1967	0.00	0	0	...	...
Bangladesh	1968	0.00	0	0	...	...
Bangladesh	1969	0.00	0	0	...	...
Bangladesh	1970	0.00	0	1	...	...
Bangladesh	1971	0.00	0	1	...	...
Bangladesh	1972	0.00	0	0	...	...
Bangladesh	1973	0.00	1	0	...	5.21
Bangladesh	1974	0.00	1	0	50.92	4.20
Bangladesh	1975	0.00	1	0	52.55	5.31

Table C.56: The Food Cost Data

Bangladesh	1976	0.00	1	0	41.91	5.23
Bangladesh	1977	0.00	1	0	17.61	7.98
Bangladesh	1978	0.00	1	0	20.59	7.47
Bangladesh	1979	0.00	1	0	25.31	7.49
Bangladesh	1980	0.00	1	0	23.63	7.27
Bangladesh	1981	0.00	1	0	20.19	5.66
Bangladesh	1982	0.00	1	0	25.97	7.63
Bangladesh	1983	0.00	1	0	19.96	6.29
Bangladesh	1984	0.00	1	0	28.99	6.21
Bangladesh	1985	0.00	1	0	24.25	5.34
Bangladesh	1986	0.00	1	0	19.36	6.78
Bangladesh	1987	0.00	1	0	29.92	7.52
Bangladesh	1988	0.00	1	0	27.19	6.25
Bangladesh	1989	0.00	1	0	24.14	6.72
Bangladesh	1990	0.00	1	0	18.95	6.98
Bangladesh	1991	0.00	1	0	17.34	6.10
Bangladesh	1992	0.00	1	0	18.27	5.76
Burundi	1971	0.04	1	0	20.68	8.93
Burundi	1972	0.05	1	0	16.05	10.99
Burundi	1973	0.07	1	0	21.41	9.09
Burundi	1974	0.06	0	0	18.48	11.15
Burundi	1975	0.04	0	0	21.57	11.67
Burundi	1976	0.07	1	0	16.19	10.18
Burundi	1977	0.06	1	0	19.04	8.98
Burundi	1978	0.09	0	0	17.07	12.51
Burundi	1979	0.10	0	0	...	12.32
Burundi	1980	0.09	0	1	13.21	12.73
Burundi	1983	0.09	0	1	11.08	12.99
Burundi	1986	0.09	0	0	...	16.36
Burundi	1987	0.20	1	0	...	17.91
Burundi	1988	0.18	1	0	...	19.05
Burundi	1989	0.18	0	0	...	18.91

Table C.57: The Food Cost Data

Burundi	1990	0.33	0	0	...	23.64
Burundi	1991	0.37	0	0	...	22.30
Chad	1975	0.18	1	0	14.52	8.04
Chile	1963	0.15	0	0	21.44	2.69
Chile	1964	0.14	0	0	20.71	2.34
Chile	1965	0.14	0	0	20.07	1.92
Chile	1966	0.14	0	0	18.53	1.98
Chile	1967	0.14	0	0	16.77	1.52
Chile	1968	0.12	0	0	17.21	1.27
Chile	1969	0.12	0	1	16.97	1.24
Chile	1970	0.12	0	0	14.64	0.86
Chile	1971	0.12	0	0	17.73	0.47
Chile	1972	0.13	0	0	23.42	0.45
Chile	1973	0.13	1	0	25.82	0.31
Chile	1974	0.14	1	0	32.66	0.16
Chile	1975	0.16	0	0	18.53	1.85
Chile	1976	0.16	0	0	25.57	0.09
Chile	1977	0.19	0	0	12.42	0.08
Chile	1978	0.17	0	0	16.67	0.05
Chile	1979	0.18	0	0	12.70	-0.14
Chile	1980	0.18	0	0	15.03	-0.04
Chile	1981	0.18	0	0	11.97	-0.02
Chile	1982	0.19	0	0	16.21	-0.04
Chile	1983	0.20	0	0	17.98	0.00
Chile	1984	0.20	0	0	13.54	0.01
Chile	1985	0.19	0	0	8.31	0.28
Chile	1986	0.20	0	0	5.08	-0.03
Chile	1987	0.20	0	0	4.81	0.11
Chile	1988	0.21	0	0	5.29	0.20
Chile	1989	0.21	0	0	3.58	0.24
Chile	1990	0.21	0	0	4.38	0.36
Chile	1991	0.21	0	0	5.79	0.37

Table C.58: The Food Cost Data

Chile	1992	0.21	0	0	6.31	0.33
Chile	1993	0.20	0	0	5.99	0.41
Chile	1994	0.21	0	0	6.94	0.31
Chile	1995	0.21	0	0	6.72	0.25
Chile	1996	0.21	0	0	7.16	0.30
Chile	1997	0.21	0	0	6.73	0.18
Chile	1998	0.20	0	1	...	0.15
China	1977	0.06	0	1	...	...
China	1978	0.06	0	1	...	...
China	1979	0.06	0	1	...	0.01
China	1980	0.06	0	0	...	0.03
China	1981	0.06	0	0	...	0.25
China	1982	0.07	0	0	...	0.26
China	1983	0.07	0	0	...	0.29
China	1984	0.07	0	0	9.03	0.31
China	1985	0.07	0	0	...	0.31
China	1986	0.07	0	0	...	0.37
Colombia	1963	0.22	0	0	5.50	1.52
Colombia	1964	0.22	0	0	9.05	0.88
Colombia	1965	0.24	0	0	8.35	0.61
Colombia	1966	0.25	0	0	10.72	1.68
Colombia	1967	0.26	0	0	7.35	1.90
Colombia	1968	0.22	0	0	7.70	3.27
Colombia	1969	0.22	0	0	7.96	1.92
Colombia	1970	0.25	1	0	7.69	2.29
Colombia	1971	0.20	1	0	10.31	1.72
Colombia	1972	0.21	1	0	8.65	1.42
Colombia	1973	0.20	1	0	12.09	1.48
Colombia	1974	0.22	1	0	13.32	0.90
Colombia	1975	0.25	1	0	9.42	0.67
Colombia	1976	0.23	1	0	12.21	0.51
Colombia	1977	0.23	1	0	12.44	0.26

Table C.59: The Food Cost Data

Colombia	1978	0.26	1	0	10.73	0.31
Colombia	1979	0.25	1	0	10.54	0.20
Colombia	1980	0.29	1	0	11.71	0.27
Colombia	1981	0.31	1	0	10.21	0.28
Colombia	1982	0.34	1	0	10.72	0.26
Colombia	1983	0.38	1	0	10.91	0.23
Colombia	1984	0.36	1	0	10.23	0.24
Colombia	1985	0.35	1	0	9.49	0.19
Colombia	1986	0.35	1	0	8.70	0.19
Colombia	1987	0.35	1	0	7.95	0.22
Colombia	1988	0.37	1	0	8.69	0.17
Colombia	1989	0.38	1	0	6.92	0.18
Colombia	1990	0.39	1	0	7.07	0.23
Colombia	1991	0.39	1	0	6.69	0.29
Colombia	1992	0.43	1	0	9.31	0.49
Colombia	1993	0.41	1	1	7.61	0.16
Colombia	1994	0.43	1	1	8.84	0.10
Colombia	1995	0.42	1	0	9.39	0.19
Colombia	1996	0.45	1	0	12.57	0.20
Colombia	1997	0.47	1	0	11.13	0.19
Colombia	1998	0.45	1	0	...	0.17
Congo, Rep.	1968	0.94	0	0	14.74	8.61
Congo, Rep.	1969	0.90	0	0	17.09	6.62
Congo, Rep.	1970	0.92	0	0	20.11	6.16
Congo, Rep.	1971	0.87	0	0	16.27	5.51
Congo, Rep.	1972	0.82	0	0	18.08	5.74
Congo, Rep.	1973		0	0	14.54	5.13
Congo, Rep.	1974		0	0	16.97	6.68
Congo, Rep.	1975	0.81	0	0	16.39	7.64
Congo, Rep.	1976	0.42	0	0	16.51	10.18
Congo, Rep.	1981	0.59	0	0	11.01	4.30
Congo, Rep.	1982	0.37	0	0	9.65	4.60

Table C.60: The Food Cost Data

Congo, Rep.	1983	0.26	0	0	14.22	5.62
Congo, Rep.	1984	0.39	0	0	19.03	4.68
Congo, Rep.	1985	0.35	0	1	19.13	3.41
Congo, Rep.	1986	0.53	0	1	18.51	5.70
Congo, Rep.	1987	0.53	0	1	...	6.36
Congo, Rep.	1988	0.52	0	1	...	4.55
Cyprus	1963	0.17	1	0	18.47	...
Cyprus	1964	0.16	0	0	26.16	...
Cyprus	1965	0.16	0	0	20.58	...
Cyprus	1966	0.15	0	0	19.89	...
Cyprus	1967	0.16	0	0	19.22	...
Cyprus	1968	0.16	0	0	15.73	...
Cyprus	1969	0.16	0	0	16.76	...
Cyprus	1970	0.16	0	0	16.85	...
Cyprus	1971	0.17	0	0	15.80	...
Cyprus	1972	0.15	0	0	17.13	...
Cyprus	1973	0.14	0	0	23.58	...
Cyprus	1974	0.14	1	0	19.64	...
Cyprus	1975	0.14	0	0	26.18	4.49
Cyprus	1976	0.13	0	0	24.30	6.91
Cyprus	1977	0.12	0	0	17.63	9.07
Cyprus	1978	0.12	0	0	17.19	3.53
Cyprus	1979	0.11	0	0	15.45	1.69
Cyprus	1980	0.11	0	0	14.78	2.43
Cyprus	1981	0.11	0	0	16.27	2.10
Cyprus	1982	0.11	0	0	15.25	1.43
Cyprus	1983	0.11	0	0	17.27	0.88
Cyprus	1984	0.12	0	0	15.15	0.76
Cyprus	1985	0.12	0	1	15.13	1.54
Cyprus	1986	0.13	0	1	15.92	1.14
Cyprus	1987	0.12	0	1	14.02	1.10
Cyprus	1988	0.13	0	0	13.61	1.02

Table C.61: The Food Cost Data

Cyprus	1989	0.13	0	0	12.96	0.87
Cyprus	1990	0.13	0	0	14.51	0.68
Cyprus	1991	0.13	0	0	16.71	0.68
Cyprus	1992	0.14	0	0	16.38	0.38
Cyprus	1993	0.15	0	0	17.59	0.51
Cyprus	1994	0.16	0	0	18.36	0.59
Cyprus	1995	0.18	0	0	20.53	0.24
Cyprus	1996	0.20	0	0	24.64	0.25
Cyprus	1997	0.20	0	0	27.14	0.49
Cyprus	1998	0.21	0	0	...	0.38
Dominica	1963	0.76	0	0	...	...
Dominica	1964	0.79	0	0	...	...
Dominica	1965	0.76	1	0	...	...
Dominica	1966	0.74	0	0	...	...
Dominica	1967	0.71	0	0	...	...
Dominica	1968	0.71	0	0	...	...
Dominica	1969	0.70	0	0	...	...
Dominica	1970	0.71	0	0	28.43	...
Dominican R	1971	0.70	0	0	28.83	...
Dominican R	1972	0.68	1	0	33.45	...
Dominican R	1973	0.63	1	0	33.07	0.36
Dominican R	1974	0.63	0	0	35.47	12.92
Dominican R	1975	0.66	0	0	35.26	26.84
Dominican R	1976	0.62	0	0	37.60	15.36
Dominican R	1977	0.59	0	0	35.07	13.64
Dominican R	1978	0.57	0	0	34.73	15.88
Dominican R	1979	0.55	0	0	32.67	20.66
Dominican R	1980	0.54	0	1	27.34	29.80
Dominican R	1981	0.56	0	0	31.03	22.92
Dominican R	1982	0.58	0	0	25.46	23.90
Dominican R	1983	0.55	0	0	29.12	12.86
Dominican R	1984	0.53	0	0	...	18.89

Table C.62: The Food Cost Data

Dominican R	1985	0.51	0	0	26.36	18.06
Egypt	1964	0.10	0	0	30.47	4.74
Egypt	1965	0.12	0	0	28.48	2.23
Egypt	1966	0.11	0	1	28.58	1.35
Egypt	1967	0.12	0	1	41.99	0.54
Egypt	1968	0.12	0	1	33.96	0.42
Egypt	1969	0.13	0	0	26.14	0.17
Egypt	1970	0.14	0	0	23.22	2.26
Egypt	1971	0.14	0	0	29.57	1.55
Egypt	1972	0.13	0	0	28.67	1.48
Egypt	1973	0.13	0	1	31.67	7.96
Egypt	1974	0.13	0	0	44.27	14.06
Egypt	1975	0.13	0	0	35.92	19.70
Egypt	1976	0.13	0	0	28.32	15.48
Egypt	1977	0.13	0	1	23.12	16.54
Egypt	1978	0.14	0	0	25.85	16.72
Egypt	1979	0.14	1	0	26.16	8.49
Egypt	1980	0.14	1	0	32.39	6.46
Egypt	1981	0.14	1	0	34.20	5.94
Egypt	1982	0.14	1	0	30.77	6.05
Egypt	1983	0.14	1	0	25.54	5.55
Egypt	1984	0.15	1	0	27.68	6.21
Egypt	1985	0.15	1	0	27.08	5.60
Egypt	1986	0.15	1	0	30.02	5.22
Egypt	1987	0.15	1	0	27.33	4.32
Egypt	1988	0.15	1	0	26.52	4.30
Egypt	1989	0.15	1	0	31.80	3.95
Egypt	1990	0.15	1	0	31.54	12.94
Egypt	1991	0.16	0	1	25.26	13.72
Egypt	1992	0.13	0	0	29.39	8.67
Egypt	1993	0.13	0	0	23.90	5.14
Egypt	1994	0.13	0	0	27.50	5.20

Table C.63: The Food Cost Data

Egypt	1995	0.13	0	0	28.38	3.34
Egypt	1996	0.13	0	0	29.47	3.23
Egypt	1997	0.14	0	0	26.42	2.59
Egypt	1998	0.13	0	0	...	2.33
El Salvador	1960		1	0	...	0.06
El Salvador	1961		0	0	...	1.10
El Salvador	1962		0	0	19.76	0.79
El Salvador	1963	0.77	0	0	17.14	1.72
El Salvador	1964	0.71	0	0	14.79	1.55
El Salvador	1965	0.53	0	0	15.66	1.62
El Salvador	1966	0.77	1	0	16.32	2.15
El Salvador	1967	0.66	1	0	14.76	1.46
El Salvador	1968	0.44	0	1	17.63	1.36
El Salvador	1969	0.61	0	1	15.45	1.23
El Salvador	1970	0.66	0	1	13.91	1.33
El Salvador	1971	0.56	0	0	12.57	1.09
El Salvador	1972	0.37	0	0	10.64	1.46
El Salvador	1973	0.37	0	0	12.15	1.61
El Salvador	1974	0.37	0	0	10.34	1.82
El Salvador	1975	0.34	0	0	12.18	2.26
El Salvador	1976	0.34	0	0	11.19	1.30
El Salvador	1977	0.36	1	0	10.31	1.55
El Salvador	1978	0.23	1	0	11.52	1.80
El Salvador	1979	0.46	1	0	12.80	1.74
El Salvador	1980	0.43	0	0	17.73	2.76
El Salvador	1981	0.40	0	0	16.48	5.02
El Salvador	1982	0.35	0	0	17.89	6.67
El Salvador	1983	0.38	0	0	17.00	8.60
El Salvador	1984	0.24	0	0	12.97	7.40
El Salvador	1985	0.28	0	0	15.51	9.37
Ethiopia	1965	0.32	0	0	...	...
Ethiopia	1966	0.33	0	0	...	...

Table C.64: The Food Cost Data

Ethiopia	1967	0.29	0	0	...	...
Ethiopia	1968	0.24	0	0	...	...
Ethiopia	1969	0.18	0	0	...	...
Ethiopia	1970	0.14	0	0	...	...
Ethiopia	1971	0.16	0	0	...	...
Ethiopia	1972	0.19	0	0	...	...
Ethiopia	1973	0.22	0	0	...	...
Ethiopia	1974	0.25	0	1	...	...
Ethiopia	1975	0.29	0	1	...	...
Ethiopia	1976	0.23	0	1	...	...
Ethiopia	1977	0.14	0	1	...	...
Ethiopia	1978	0.14	0	1	...	...
Ethiopia	1979	0.23	0	1	...	...
Ethiopia	1980	0.22	0	1	...	...
Ethiopia	1981	0.20	0	1	...	4.74
Ethiopia	1982	0.21	0	1	...	3.67
Ethiopia	1983	0.21	0	1	...	5.61
Ethiopia	1984	0.19	0	1	...	6.33
Ethiopia	1985	0.23	0	1	...	10.65
Ethiopia	1986	0.23	0	1	...	9.08
Ethiopia	1987	0.20	0	1	...	8.47
Ethiopia	1988	0.20	0	1	...	12.64
Ethiopia	1989	0.21	0	1	...	9.47
Ethiopia	1990	0.21	0	1	...	14.96
Ethiopia	1991	0.23	0	1	...	20.74
Ethiopia	1992	0.20	0	0	...	21.33
Ethiopia	1993	0.21	0	0	16.04	17.71
Ethiopia	1994	0.22	0	0	...	22.21
Ethiopia	1995	0.21	0	0	13.83	15.44
Ethiopia	1996	0.26	0	0	...	13.71
Ethiopia	1997	0.28	0	0	2.43	9.20
Ethiopia	1998	0.18	0	0	...	10.24

Table C.65: The Food Cost Data

Georgia	1990		0	0	...	78.35
Georgia	1991		1	0	...	82.27
Georgia	1992		1	0	...	86.38
Georgia	1993		1	0	...	90.70
Georgia	1994		1	0	...	95.24
Georgia	1995		0	0	...	100.00
Georgia	1996		0	0	...	104.21
Georgia	1997		0	0	...	109.07
Georgia	1998		0	0	...	113.30
Guatemala	1968	0.51	0	0	12.69	1.05
Guatemala	1969	0.51	0	0	11.01	1.04
Guatemala	1970	0.56	0	0	9.73	1.18
Guatemala	1971	0.58	0	0	10.98	1.01
Guatemala	1972	0.66	0	0	10.11	1.32
Guatemala	1973	0.69	0	0	9.01	1.06
Guatemala	1974	0.60	0	0	8.46	0.86
Guatemala	1975	0.65	0	0	8.30	1.12
Guatemala	1976	0.65	0	0	9.49	1.51
Guatemala	1977	0.66	0	0	5.87	1.13
Guatemala	1978	0.66	0	...	6.18	1.18
Guatemala	1979	0.67	0	0	6.93	0.97
Guatemala	1980	0.69	0	0	7.01	0.93
Guatemala	1981	0.65	0	0	7.57	0.88
Guatemala	1982	0.67	1	0	6.24	0.74
Guatemala	1983	0.67	1	0	8.63	0.85
Guatemala	1984	0.68	1	0	8.59	0.71
Guatemala	1985	0.70	1	0	7.28	0.87
Guatemala	1986	0.68	1	0	9.17	1.92
Guatemala	1987	0.66	1	0	12.11	3.49
Guatemala	1988	0.63	1	0	10.58	3.07
Guatemala	1989	0.63	1	0	11.67	3.19
Guatemala	1990	0.66	1	0	12.88	2.68

Table C.66: The Food Cost Data

Guatemala	1991	0.68	1	0	10.22	2.09
Guatemala	1992	0.73	1	0	11.98	1.89
Guatemala	1993	0.74	1	0	11.11	1.87
Guatemala	1994	0.76	1	0	11.10	1.71
Guatemala	1995	0.79	1	0	13.30	1.45
Guatemala	1996	0.82	0	0	11.85	1.25
Guatemala	1997	0.77	0	0	14.28	1.51
Haiti	1968	0.41	0	0	24.93	1.65
Haiti	1969	0.44	0	0	27.89	1.40
Haiti	1970	0.45	0	0	20.81	2.02
Haiti	1971	0.45	0	0	24.11	1.42
Haiti	1972	0.42	0	0	25.56	1.45
Haiti	1973	0.38	0	0	24.94	1.45
Haiti	1974	0.35	0	0	24.02	2.06
Haiti	1975	0.30	0	0	28.72	8.30
Haiti	1976	0.24	0	0	30.90	8.23
Haiti	1977	0.22	0	0	27.84	8.98
Haiti	1978	0.22	0	0	25.63	9.42
Haiti	1979	0.26	0	0	23.57	8.37
Haiti	1980	0.25	0	1	21.54	7.27
Haiti	1981	0.23	0	1	26.10	7.35
Haiti	1982	0.22	0	0	22.71	8.68
Haiti	1983	0.22	0	0	19.26	8.29
Haiti	1984	0.25	0	0	...	7.40
Haiti	1985	0.25	0	0	...	7.53
Haiti	1986	0.27	0	0	...	8.16
Haiti	1987	0.22	0	0	...	9.97
Haiti	1988	0.22	0	0	...	6.49
India	1963	0.07	0	0	15.20	2.34
India	1964	0.07	0	0	16.86	2.49
India	1965	0.08	0	1	22.01	2.15
India	1966	0.08	0	0	34.15	2.61

Table C.67: The Food Cost Data

India	1967	0.08	0	0	32.09	2.73
India	1968	0.08	0	0	25.04	1.75
India	1969	0.09	0	0	23.30	1.55
India	1970	0.09	0	0	20.92	1.36
India	1971	0.09	0	1	14.58	1.53
India	1972	0.09	0	1	9.60	0.88
India	1973	0.09	0	0	20.07	0.93
India	1974	0.10	0	0	19.69	1.27
India	1975	0.12	0	0	25.78	1.64
India	1976	0.13	0	0	27.48	1.40
India	1977	0.13	0	0	16.43	0.83
India	1978	0.13	0	0	13.85	0.84
India	1979	0.12	0	0	8.92	0.91
India	1980	0.14	0	0	8.99	1.20
India	1981	0.15	0	0	8.54	1.04
India	1982	0.15	0	0	...	0.84
India	1983	0.12	0	0	11.66	0.87
India	1984	0.12	0	0	10.18	0.81
India	1985	0.13	0	0	8.41	0.70
India	1986	0.12	0	0	7.04	0.82
India	1987	0.14	0	0	8.44	0.62
India	1988	0.15	0	0	8.05	0.67
India	1989	0.16	1	0	3.51	0.61
India	1990	0.17	1	0	3.24	0.45
India	1991	0.18	1	0	2.70	1.04
India	1992	0.18	1	0	3.82	0.95
India	1993	0.18	1	0	3.13	0.54
India	1994	0.18	1	0	6.03	0.73
India	1995	0.17	0	0	4.31	0.50
India	1996	0.18	0	0	4.71	0.50
India	1997	0.18	0	0	5.62	0.41
India	1998	0.18	0	0	...	0.39

Table C.68: The Food Cost Data

Indonesia	1970	0.31	0	0	15.37	4.80
Indonesia	1971	0.35	0	0	9.42	5.98
Indonesia	1972	0.27	0	1	9.94	4.39
Indonesia	1973	0.25	0	1	10.32	3.65
Indonesia	1974	0.25	0	0	14.97	2.51
Indonesia	1975	0.20	1	0	12.50	2.21
Indonesia	1976	0.17	1	0	14.57	1.72
Indonesia	1977	0.17	1	0	16.34	1.08
Indonesia	1978	0.16	1	0	17.64	1.19
Indonesia	1979	0.16	1	0	16.00	1.37
Indonesia	1980	0.16	1	0	12.68	1.27
Indonesia	1981	0.15	1	0	11.05	1.09
Indonesia	1982	0.14	1	0	7.16	1.01
Indonesia	1983	0.14	0	0	7.73	0.91
Indonesia	1984	0.14	0	0	6.50	0.82
Indonesia	1985	0.16	0	0	6.91	0.73
Indonesia	1986	0.16	1	0	7.17	0.94
Indonesia	1987	0.17	0	0	7.00	1.73
Indonesia	1988	0.15	0	0	7.66	1.93
Indonesia	1989	0.16	0	0	7.60	1.90
Indonesia	1990	0.12	0	0	5.05	1.59
Indonesia	1991	0.12	0	0	5.47	1.53
Indonesia	1992	0.10	0	0	6.36	1.56
Indonesia	1993	0.12	0	0	6.46	1.32
Indonesia	1994	0.10	0	0	7.76	0.95
Indonesia	1995	0.13	0	0	8.84	0.71
Indonesia	1996	0.11	0	0	10.79	0.51
Iran	1963	0.16	0	0	13.49	...
Iran	1964	0.13	0	0	16.19	...
Iran	1965	0.15	0	0	16.11	...
Iran	1966	0.14	0	0	9.91	...
Iran	1967	0.20	0	0	7.46	...

Table C.69: The Food Cost Data

Iran	1968	0.21	0	0	8.04	...
Iran	1969	0.21	0	0	4.92	...
Iran	1970	0.21	0	0	6.55	...
Iran	1971	0.22	0	0	10.65	...
Iran	1972	0.20	0	0	10.55	...
Iran	1973	0.19	0	0	10.49	...
Iran	1974	0.18	0	0	18.38	0.02
Iran	1975	0.19	0	0	16.26	-0.01
Iran	1976	0.20	0	0	11.10	-0.02
Iran	1977	0.22	0	0	12.70	0.05
Iran	1978	0.22	1	0	...	0.17
Iran	1979	0.14	1	0	16.13	0.01
Iran	1980	0.15	0	1	20.85	0.03
Iran	1981	0.13	0	1	23.83	0.01
Iran	1982	0.14	0	1	18.05	0.00
Iran	1983	0.14	0	1	12.10	0.03
Iran	1984	0.13	0	1	...	0.01
Iran	1985	0.12	0	1	...	0.01
Iran	1986	0.14	0	1	...	0.01
Iran	1987	0.14	0	1	...	0.05
Iran	1988	0.12	0	1	...	0.06
Iran	1989	0.13	0	0	...	0.08
Iran	1990	0.11	0	0	...	0.09
Iran	1991	0.12	0	0	...	...
Iran	1992	0.13	0	0	...	...
Iran	1993	0.14	0	0	...	0.25
Iraq	1963	0.17	0	0	23.48	0.20
Iraq	1964	0.17	0	0	22.20	0.50
Iraq	1965	0.16	0	0	28.93	0.35
Iraq	1966	0.17	0	0	24.34	0.06
Iraq	1967	0.20	0	0	18.58	0.05
Iraq	1968	0.21	0	0	22.11	0.07

Table C.70: The Food Cost Data

Iraq	1969	0.20	0	0	23.66	0.13
Iraq	1970	0.27	0	0	20.38	0.23
Iraq	1971	0.27	0	0	17.71	0.40
Iraq	1972	0.27	0	0	31.26	0.43
Iraq	1973	0.36	0	1	19.62	0.21
Iraq	1974	0.26	0	0	23.96	0.04
Iraq	1975	0.27	1	0	28.68	0.41
Iraq	1976	0.30	0	0	17.51	0.04
Iraq	1977	0.30	0	0	14.94	0.31
Iraq	1978	0.27	0	0	14.55	0.19
Iraq	1979	0.26	0	0	12.58	0.04
Iraq	1980	0.26	0	1	11.73	0.02
Iraq	1981	0.26	0	1	13.30	0.03
Iraq	1982	0.25	0	1	9.11	0.02
Iraq	1983	0.28	0	1	10.09	0.03
Iraq	1984	0.23	0	1	15.83	0.01
Iraq	1985	0.25	0	1	...	0.06
Iraq	1986	0.26	0	1	...	0.08
Iraq	1987	0.26	0	1	...	0.21
Iraq	1988		0	1	...	0.02
Iraq	1989	0.26	0	0	...	0.02
Iraq	1990	0.20	0	0	...	0.13
Iraq	1991	0.14	0	0	...	...
Iraq	1992	0.14	0	1	...	...
Israel	1963	0.13	0	1	18.22	3.79
Israel	1964	0.14	0	1	15.79	2.80
Israel	1965	0.13	0	1	16.48	3.35
Israel	1966	0.14	0	1	20.00	2.61
Israel	1967	0.14	0	1	18.99	1.61
Israel	1968	0.13	0	1	14.81	1.58
Israel	1969	0.12	0	1	12.92	1.22
Israel	1970	0.11	0	1	14.03	1.20

Table C.71: The Food Cost Data

Israel	1971	0.11	0	1	13.68	1.32
Israel	1972	0.11	0	1	12.73	1.21
Israel	1973	0.11	0	1	13.35	2.07
Israel	1974	0.11	0	1	13.49	0.96
Israel	1975	0.10	0	1	15.53	3.93
Israel	1976	0.10	0	1	14.15	5.35
Israel	1977	0.11	0	1	13.13	5.94
Israel	1978	0.10	0	1	10.71	6.81
Israel	1979	0.09	0	1	11.37	7.04
Israel	1980	0.09	0	1	10.70	4.24
Israel	1981	0.10	0	1	12.44	3.41
Israel	1982	0.11	0	1	11.04	3.60
Israel	1983	0.11	0	1	10.09	5.06
Israel	1984	0.10	0	1	10.68	5.04
Israel	1985	0.09	0	1	9.58	8.54
Israel	1986	0.10	0	1	9.22	6.76
Israel	1987	0.11	0	1	7.89	3.64
Israel	1988	0.12	0	1	8.82	2.90
Israel	1989	0.11	0	1	9.10	2.74
Israel	1990	0.11	0	1	7.85	2.68
Israel	1991	0.10	0	1	7.43	3.01
Israel	1992	0.10	0	1	7.16	3.20
Israel	1993	0.10	0	1	6.82	1.95
Israel	1994	0.10	0	1	6.88	1.68
Israel	1995	0.10	0	1	6.61	0.39
Israel	1996	0.10	0	1	6.88	2.33
Jordan	1963	0.16	0	0	33.76	...
Jordan	1964	0.16	0	0	29.43	...
Jordan	1965	0.16	0	0	29.75	8.15
Jordan	1966	0.16	0	0	30.00	8.04
Jordan	1967	0.16	0	0	29.93	5.21
Jordan	1968	0.13	0	0	31.20	7.94

Table C.72: The Food Cost Data

Jordan	1969	0.14	0	0	29.42	6.78
Jordan	1970	0.17	0	0	31.04	12.18
Jordan	1971	0.09	1	0	30.19	8.28
Jordan	1972		0	0	31.47	12.89
Jordan	1973		0	0	31.46	19.60
Jordan	1974	0.11	0	1	29.17	22.33
Jordan	1975	0.12	0	0	22.40	30.20
Jordan	1976	0.12	0	0	25.83	28.13
Jordan	1977	0.11	0	0	18.27	17.40
Jordan	1978	0.13	0	0	21.35	16.80
Jordan	1979	0.09	0	0	20.16	39.38
Jordan	1980	0.09	0	0	18.16	31.82
Jordan	1981	0.09	0	0	17.08	23.49
Jordan	1982	0.08	0	0	18.22	16.24
Jordan	1983	0.08	0	0	17.71	15.49
Jordan	1984	0.09	0	0	19.73	13.49
Jordan	1985	0.10	0	0	18.81	10.69
Jordan	1986	0.11	0	0	21.78	9.34
Jordan	1987	0.10	0	0	18.99	9.16
Jordan	1988	0.10	0	0	19.24	7.26
Jordan	1989	0.12	0	0	16.99	7.03
Jordan	1990	0.13	0	0	26.10	23.33
Jordan	1991	0.14	0	0	26.95	24.03
Jordan	1992	0.13	0	0	21.23	8.47
Jordan	1993	0.13	0	0	20.15	5.75
Jordan	1994	0.13	0	0	21.73	6.22
Jordan	1995	0.13	0	0	20.77	8.27
Jordan	1996	0.12	0	0	...	7.54
Jordan	1997	0.13	0	0	23.91	6.50
Jordan	1998		0	0	...	5.26
Kenya	1960		0	0	...	2.70
Kenya	1961		0	0	...	8.17

Table C.73: The Food Cost Data

Kenya	1962		0	0	...	5.71
Kenya	1963	0.19	0	1	...	6.08
Kenya	1964	0.19	0	1	...	5.62
Kenya	1965	0.20	0	0	...	7.21
Kenya	1966	0.21	0	0	12.83	4.66
Kenya	1967	0.19	0	0	5.73	2.84
Kenya	1968	0.19	0	0	6.17	4.71
Kenya	1969	0.19	0	0	5.46	3.98
Kenya	1970	0.19	0	0	5.92	3.73
Kenya	1971	0.18	0	0	8.75	3.91
Kenya	1972	0.20	0	0	9.75	3.53
Kenya	1973	0.20	0	0	9.81	4.02
Kenya	1974	0.20	0	0	6.98	4.13
Kenya	1975	0.21	0	0	6.04	4.11
Kenya	1976	0.22	0	0	7.87	4.88
Kenya	1977	0.21	0	0	5.84	3.78
Kenya	1978	0.22	0	0	6.86	4.89
Kenya	1979	0.20	0	0	6.32	5.99
Kenya	1980	0.20	0	0	7.73	5.63
Kenya	1981	0.19	0	0	6.13	6.77
Kenya	1982	0.21	0	0	7.71	7.84
Kenya	1983	0.21	0	0	9.45	6.89
Kenya	1984	0.25	0	0	12.20	6.79
Kenya	1985	0.23	0	0	9.70	7.27
Kenya	1986	0.24	0	0	9.27	6.37
Kenya	1987	0.19	0	0	7.19	7.31
Kenya	1988	0.20	0	0	6.24	10.25
Kenya	1989	0.19	0	0	...	13.31
Kenya	1990	0.19	0	0	9.33	14.66
Kenya	1991	0.20	1	0	9.77	12.13
Kenya	1992	0.21	1	0	16.98	11.63
Kenya	1993	0.22	1	0	13.61	19.94

Table C.74: The Food Cost Data

Kenya	1994	0.23	0	0	19.78	10.03
Kenya	1995	0.23	0	0	10.09	8.45
Kenya	1996	0.24	0	0	12.03	6.60
Kenya	1997	0.24	0	0	16.69	4.31
Kenya	1998	0.24	0	0	...	4.23
Kuwait	1967	0.06	0	0	17.34	-0.05
Kuwait	1968	0.06	0	0	19.85	0.00
Kuwait	1969	0.06	0	0	17.62	0.04
Kuwait	1970	0.08	0	0	19.79	0.04
Kuwait	1971	0.14	0	0	20.76	0.04
Kuwait	1972	0.13	0	0	20.50	0.04
Kuwait	1973	0.09	0	0	20.00	0.03
Kuwait	1974	0.08	0	0	17.79	0.01
Kuwait	1975	0.09	0	0	17.07	0.01
Kuwait	1976	0.12	0	0	14.28	0.01
Kuwait	1977	0.11	0	0	11.98	0.02
Kuwait	1978	0.11	0	0	14.61	0.02
Kuwait	1979	0.10	0	0	15.56	0.01
Kuwait	1980	0.10	0	0	14.80	0.03
Kuwait	1981	0.10	0	0	14.62	0.03
Kuwait	1982	0.09	0	0	13.61	0.02
Kuwait	1983	0.10	0	0	14.00	0.02
Kuwait	1984	0.10	0	0	17.42	0.02
Kuwait	1985	0.10	0	0	...	0.02
Kuwait	1986	0.09	0	0	18.03	0.02
Kuwait	1987	0.08	0	0	19.64	0.01
Kuwait	1988	0.08	0	0	18.62	0.02
Kuwait	1989	0.08	0	0	19.71	0.01
Kuwait	1990	0.08	0	0	17.08	0.02
Kuwait	1991	0.06	0	1	10.72	0.03
Kuwait	1992	0.08	0	1	13.44	0.01
Kuwait	1993	0.07	0	1	15.14	0.00

Table C.75: The Food Cost Data

Kuwait	1994	0.07	0	1	17.01	0.01
Kuwait	1995	0.08	0	1	15.55	0.01
Kuwait	1996	0.09	0	1	15.77	0.01
Kuwait	1997	0.09	0	1	15.55	0.00
Liberia	1980	0.10	0	0	18.89	8.97
Liberia	1981	0.11	0	0	22.28	10.11
Liberia	1982	0.08	0	0	22.34	10.36
Liberia	1983	0.09	0	0	26.08	12.12
Liberia	1984	0.06	0	0	25.01	13.38
Liberia	1985	0.07	0	0	...	8.79
Liberia	1986	0.08	0	0	...	9.61
Libya	1964	0.18	0	0	15.56	1.87
Libya	1965	0.22	0	0	13.80	0.51
Libya	1966	0.17	0	0	15.66	0.07
Libya	1967	0.18	0	0	18.23	0.06
Libya	1968	0.16	0	0	13.79	0.24
Libya	1969	0.16	0	0	14.18	0.26
Libya	1970	0.16	0	0	22.59	0.15
Libya	1971	0.20	0	0	22.26	0.09
Libya	1972	0.19	0	0	16.69	0.13
Libya	1973	0.18	0	0	17.87	0.19
Libya	1974	0.18	0	0	17.35	0.10
Libya	1975	0.20	0	0	17.13	0.04
Libya	1976	0.19	0	0	14.80	0.06
Libya	1977	0.30	0	1	18.72	0.06
Libya	1978	0.29	0	0	16.62	0.07
Libya	1979	0.19	0	0	16.74	0.02
Libya	1980	0.17	0	0	19.29	0.05
Mexico	1984	0.08	0	0	16.03	0.05
Mexico	1985	0.08	0	0	12.44	0.08
Mexico	1986	0.08	0	0	9.06	0.21
Mexico	1987	0.08	0	0	10.78	0.12

Table C.76: The Food Cost Data

Mexico	1988	0.08	0	0	14.25	0.10
Mexico	1989	0.08	0	0	15.95	0.05
Mexico	1990	0.08	0	0	14.64	0.06
Mexico	1991	0.08	0	0	10.93	0.09
Mexico	1992	0.09	1	0	8.96	0.09
Mexico	1993	0.09	1	0	8.14	0.11
Mexico	1994	0.10	1	0	8.32	0.10
Mexico	1995	0.09	0	0	6.29	0.14
Mexico	1996	0.09	0	0	7.62	0.09
Mexico	1997	0.08	0	0	6.07	0.03
Mexico	1998	0.08	0	0	...	0.01
Morocco	1967	0.30	0	0	31.49	1.98
Morocco	1968	0.32	0	0	26.67	2.87
Morocco	1969	0.12	0	0	18.57	2.15
Morocco	1970	0.11	0	0	20.66	2.17
Morocco	1971	0.11	0	0	24.83	3.06
Morocco	1972	0.11	0	0	21.57	2.02
Morocco	1973	0.11	0	0	27.79	1.52
Morocco	1974	0.11	0	0	28.19	1.51
Morocco	1975	0.11	0	1	29.61	2.68
Morocco	1976	0.10	0	1	19.95	2.23
Morocco	1977	0.09	0	1	16.98	5.15
Morocco	1978	0.08	0	1	19.81	3.27
Morocco	1979	0.09	0	1	19.19	3.03
Morocco	1980	0.09	0	1	19.79	4.88
Morocco	1981	0.08	0	1	23.43	6.99
Morocco	1982	0.08	0	1	16.30	5.11
Morocco	1983	0.08	0	1	17.64	2.92
Morocco	1984	0.20	0	1	20.54	2.78
Morocco	1985	0.18	0	1	17.50	6.27
Morocco	1986	0.18	0	0	15.89	2.31
Morocco	1987	0.19	0	0	13.45	2.34

Table C.77: The Food Cost Data

Morocco	1988	0.18	0	0	12.71	2.15
Morocco	1989	0.18	0	0	12.94	2.07
Morocco	1990	0.18	0	0	9.78	4.22
Morocco	1991	0.15	0	0	10.35	4.61
Morocco	1992	0.17	0	0	14.11	3.45
Mozambique	1963	0.26	0	0	17.09	...
Mozambique	1964	0.28	0	0	17.48	...
Mozambique	1965	0.27	0	0	17.32	...
Mozambique	1966	0.27	0	0	17.26	...
Mozambique	1967	0.29	0	0	16.91	...
Mozambique	1968	0.27	0	0	16.88	...
Mozambique	1969	0.29	0	0	15.52	...
Mozambique	1970	0.27	0	0	13.49	...
Mozambique	1971	0.33	0	0	13.71	...
Mozambique	1972	0.33	0	0	10.00	...
Mozambique	1990	0.30	1	0	...	43.20
Mozambique	1991	0.33	1	0	...	46.61
Mozambique	1992	0.32	1	0	...	87.06
Mozambique	1993	0.33	0	0	...	65.03
Mozambique	1994	0.32	0	0	17.93	60.48
Mozambique	1995	0.28	0	0	22.31	49.90
Mozambique	1996	0.18	0	0	22.03	33.22
Mozambique	1997	0.24	0	0	...	29.46
Nicaragua	1965	0.36	0	0	12.62	1.75
Nicaragua	1966	0.42	0	0	10.65	2.73
Nicaragua	1967	0.35	0	0	9.60	2.50
Nicaragua	1968	0.44	0	0	11.16	2.62
Nicaragua	1969	0.48	0	0	9.34	2.65
Nicaragua	1970	0.48	0	0	9.81	3.32
Nicaragua	1971	0.47	0	0	10.54	2.53
Nicaragua	1972	0.64	1	0	11.69	1.69
Nicaragua	1973	0.74	1	0	12.67	3.33

Table C.78: The Food Cost Data

Nicaragua	1974	0.72	1	0	7.96	3.36
Nicaragua	1975	0.73	0	0	8.51	2.83
Nicaragua	1976	0.74	0	0	8.83	2.31
Nicaragua	1977	0.68	1	0	7.74	1.75
Nicaragua	1978	0.70	1	0	10.01	2.15
Nicaragua	1979	0.74	1	0	13.82	8.00
Nicaragua	1980	0.76	1	0	15.43	10.93
Nicaragua	1981	0.77	1	0	17.34	6.33
Nicaragua	1982	0.77	1	0	12.25	5.26
Nicaragua	1983	0.72	1	0	12.74	4.67
Nicaragua	1984	0.78	1	0	13.62	3.87
Nicaragua	1985	0.77	1	0	9.50	4.07
Nigeria	1963	0.06	0	0	12.14	0.35
Nigeria	1964	0.06	0	0	9.32	0.77
Nigeria	1965	0.08	0	0	9.17	1.27
Nigeria	1966	0.10	0	0	11.02	1.03
Nigeria	1967	0.07	0	0	10.47	1.32
Nigeria	1968	0.10	0	0	8.11	1.36
Nigeria	1969	0.10	0	0	8.79	1.33
Nigeria	1970	0.12	0	0	8.26	0.89
Nigeria	1971	0.11	0	0	8.63	1.26
Nigeria	1972	0.12	0	0	10.15	0.73
Nigeria	1973	0.11	0	0	10.85	0.55
Nigeria	1974	0.09	0	0	9.64	0.31
Nigeria	1975	0.12	0	0	9.53	0.30
Nigeria	1976	0.10	0	0	10.32	0.15
Nigeria	1977	0.09	0	0	13.04	0.12
Nigeria	1978	0.10	0	0	14.33	0.12
Nigeria	1979		0	0	17.15	0.06
Nigeria	1980	0.09	0	0	15.10	0.06
Nigeria	1981	0.10	0	0	15.64	0.07
Nigeria	1982	0.14	0	0	18.51	0.08

Table C.79: The Food Cost Data

Nigeria	1983	0.11	0	0	21.73	0.14
Nigeria	1984	0.10	0	0	21.76	0.12
Nigeria	1985	0.12	0	0	18.50	0.12
Nigeria	1991	0.39	0	0	6.36	1.05
Nigeria	1992	0.35	0	0	...	0.87
Nigeria	1993	0.03	0	0	...	1.47
Nigeria	1994	0.02	0	0	...	0.89
Pakistan	1963	0.09	0	0	21.96	...
Pakistan	1964	0.09	0	0	20.41	...
Pakistan	1965	0.09	1	0	20.16	...
Pakistan	1966	0.10	0	0	15.75	...
Pakistan	1967	0.10	0	0	21.55	6.48
Pakistan	1968	0.10	0	0	19.01	4.99
Pakistan	1969	0.10	0	0	8.36	3.83
Pakistan	1970	0.10	0	0	20.91	4.24
Pakistan	1971	0.10	1	0	19.03	3.93
Pakistan	1972	0.11	0	0	30.17	3.32
Pakistan	1973	0.10	1	0	24.86	4.53
Pakistan	1974	0.10	0	0	23.18	5.11
Pakistan	1975	0.11	0	0	23.60	5.90
Pakistan	1976	0.11	0	0	20.90	7.68
Pakistan	1977	0.13	0	0	17.00	3.93
Pakistan	1978	0.13	0	0	19.32	3.60
Pakistan	1979	0.12	0	0	19.91	3.65
Pakistan	1980	0.13	0	0	13.03	5.05
Pakistan	1981	0.13	0	0	14.05	2.96
Pakistan	1982	0.14	0	0	13.57	3.01
Pakistan	1983	0.15	0	0	14.03	2.57
Pakistan	1984	0.14	0	0	17.08	2.38
Pakistan	1985	0.14	0	0	18.89	2.51
Pakistan	1986	0.14	0	0	17.85	2.93
Pakistan	1987	0.13	0	0	13.81	2.51

Table C.80: The Food Cost Data

Pakistan	1988	0.13	0	0	15.92	3.60
Pakistan	1989	0.13	0	0	18.66	3.68
Pakistan	1990	0.13	0	0	17.35	2.89
Pakistan	1991	0.13	0	0	12.15	3.08
Pakistan	1995	0.12	0	0	17.74	1.39
Papua N. G.	1963	0.05	0	0	28.20	...
Papua N. G.	1964	0.06	0	0	27.11	...
Papua N. G.	1965	0.06	0	0	25.28	24.21
Papua N. G.	1966	0.05	0	0	...	22.00
Papua N. G.	1967	0.06	0	0	7.39	22.34
Papua N. G.	1968	0.06	0	0	23.72	22.89
Papua N. G.	1969	0.06	0	0	24.54	21.85
Papua N. G.	1970	0.06	0	0	20.22	23.59
Papua N.G.	1971	0.06	0	0	18.87	21.15
Papua N. G.	1972	0.06	0	0	20.16	23.89
Papua N. G.	1973	0.07	0	0	23.21	16.10
Papua N.G.	1974	0.08	0	0	27.16	19.31
Papua N. G.	1975	0.09	0	0	21.76	23.76
Papua N. G.	1976	0.10	0	0	23.02	16.46
Papua N. G.	1977	0.11	0	0	...	15.89
Papua N. G.	1978	0.15	0	0	...	15.41
Papua N. G.	1979	0.17	0	0	21.66	12.69
Papua N. G.	1980	0.21	0	0	20.98	13.10
Papua N. G.	1981	0.18	0	1	19.61	13.92
Papua N. G.	1982	0.24	0	0	19.66	13.80
Papua N. G.	1983	0.25	0	0	18.38	13.72
Papua N. G.	1984	0.24	0	0	19.69	12.89
Papua N. G.	1985	0.24	0	0	18.67	11.01
Papua N. G.	1986	0.24	0	0	19.46	10.06
Papua N. G.	1987	0.23	0	0	17.57	10.59
Papua N. G.	1988	0.24	1	0	17.36	10.64
Papua N. G.	1989	0.24	1	0	15.66	10.17

Table C.81: The Food Cost Data

Peru	1979	0.31	0	0	20.27	1.37
Peru	1980	0.31	0	0	19.77	1.03
Peru	1981	0.31	1	0	19.18	0.97
Peru	1982	0.33	1	0	17.77	0.79
Peru	1983	0.33	1	0	25.17	1.65
Peru	1984	0.35	1	0	23.54	1.67
Peru	1985	0.36	1	0	19.45	1.79
Peru	1986	0.34	1	0	22.71	1.58
Peru	1987	0.29	1	0	19.47	1.29
Peru	1988	0.33	1	0	18.66	2.51
Peru	1989	0.30	1	0	21.43	1.75
Peru	1990	0.32	1	0	23.57	1.57
Peru	1991	0.36	1	0	20.09	2.75
Peru	1992	0.39	1	0	21.87	1.17
Peru	1993	0.43	0	0	19.64	1.69
Peru	1994	0.44	0	0	17.63	0.78
Philippines	1963	0.19	0	0	14.43	0.41
Philippines	1964	0.19	0	0	16.73	1.30
Philippines	1965	0.19	0	0	20.35	1.50
Philippines	1966	0.19	0	0	15.84	0.59
Philippines	1967	0.23	0	0	16.15	1.08
Philippines	1968	0.18	0	0	13.25	0.80
Philippines	1969	0.18	0	0	12.79	0.90
Philippines	1970	0.19	0	0	11.22	0.70
Philippines	1971	0.19	0	0	13.64	0.99
Philippines	1972	0.20	1	0	15.26	2.07
Philippines	1973	0.20	1	0	13.87	2.23
Philippines	1974	0.20	1	0	11.11	1.15
Philippines	1975	0.22	1	0	10.49	1.20
Philippines	1976	0.18	1	0	9.88	1.10
Philippines	1977	0.20	1	0	9.53	0.94
Philippines	1978	0.18	1	0	7.98	1.11

Table C.82: The Food Cost Data

Philippines	1979	0.16	1	0	7.38	0.97
Philippines	1980	0.18	1	0	7.81	0.92
Philippines	1981	0.20	1	0	8.50	1.06
Philippines	1982	0.19	1	0	10.17	0.90
Philippines	1983	0.18	1	0	8.86	1.30
Philippines	1984	0.18	1	0	8.54	1.25
Philippines	1985	0.20	1	0	10.71	1.54
Philippines	1986	0.19	1	0	10.27	3.15
Philippines	1987	0.20	1	0	8.54	2.25
Philippines	1988	0.18	1	0	10.55	2.19
Philippines	1989	0.17	1	0	10.20	1.96
Philippines	1990	0.20	1	0	10.34	2.89
Philippines	1991	0.20	1	0	8.54	2.30
Philippines	1992	0.16	0	0	8.44	3.18
Philippines	1993	0.18	1	0	7.78	2.69
Philippines	1994	0.17	1	0	8.10	1.61
Philippines	1995	0.17	1	0	8.35	1.17
Philippines	1996	0.17	1	0	8.14	1.04
Philippines	1997	0.17	0	0	7.61	0.81
Russian F	1993	0.13	1	0	...	0.63
Russian F	1994	0.14	1	0	...	0.58
Russian F	1995	0.13	1	0	...	0.49
Russian Fe	1996	0.14	1	0	17.83	0.31
Russian F	1997	0.15	1	0	18.59	0.19
Russian F	1998	0.14	1	0	...	0.40
Rwanda	1969	0.61	0	0	18.69	9.37
Rwanda	1970	0.64	0	0	19.22	9.90
Rwanda	1971	0.49	0	0	14.04	11.33
Rwanda	1972	0.44	0	0	18.64	12.21
Rwanda	1973	0.39	0	0	17.11	13.51
Rwanda	1974	0.40	0	0	13.30	15.22
Rwanda	1977	0.53	0	0	...	12.49

Table C.83: The Food Cost Data

Rwanda	1978	0.65	0	0	11.93	14.42
Rwanda	1979	0.72	0	0	11.74	14.35
Rwanda	1984	0.48	0	0	...	10.36
Rwanda	1985	0.48	0	0	...	10.52
Rwanda	1986	0.47	0	0	...	10.77
Sierra Leone	1981	0.52	0	0	27.17	...
Sierra Leone	1993	0.42	1	0	...	...
Somalia	1967	0.78	0	0	27.55	4.35
Somalia	1968	0.73	0	0	23.83	11.16
Somalia	1969	0.73	0	0	27.98	10.81
Somalia	1970	0.70	0	0	33.68	8.61
Somalia	1971	0.69	0	0	37.71	9.28
Somalia	1972	0.50	0	0	26.20	7.17
Somalia	1973	0.47	0	0	22.71	9.46
Somalia	1974	0.41	0	0	20.37	17.33
Somalia	1975	0.44	0	0	26.01	21.37
Somalia	1976	0.39	0	0	24.91	12.66
Somalia	1977	0.35	0	0	22.72	38.64
Somalia	1978	0.37	0	0	20.72	34.84
Somalia	1979	0.31	0	0	18.83	37.16
Somalia	1980	0.57	0	0	32.49	71.90
South Africa	1963	0.26	0	1	...	...
South Africa	1964	0.22	0	1	5.60	...
South Africa	1965		0	1	5.01	...
South Africa	1966	0.20	0	1	8.08	...
South Africa	1967		0	1	5.96	...
South Africa	1968	0.19	0	0	5.06	...
South Africa	1969		0	0	3.66	...
South Africa	1970	0.18	0	0	5.53	...
South Africa	1971		0	0	4.82	...
South Africa	1972	0.17	0	0	4.48	...
South Africa	1973	0.18	0	0	5.63	...

Table C.84: The Food Cost Data

South Africa	1974	0.18	0	0	5.40	...
South Africa	1975	0.19	1	0	4.93	...
South Africa	1976	0.18	1	0	4.85	...
South Africa	1977	0.19	1	0	6.34	...
South Africa	1978	0.19	1	0	4.75	...
South Africa	1979	0.18	1	0	4.94	...
South Africa	1980	0.18	1	0	2.92	...
South Africa	1981	0.17	1	0	3.53	...
South Africa	1982	0.18	1	0	3.48	...
South Africa	1983	0.18	1	0	6.52	...
South Africa	1984	0.19	1	0	8.04	...
South Africa	1985	0.20	1	0	6.11	...
South Africa	1986	0.21	1	0	...	...
South Africa	1987	0.22	1	0	...	...
South Africa	1988	0.22	1	0	4.93	...
South Africa	1989	0.23	1	0	4.90	...
South Africa	1990	0.23	1	0	4.99	...
South Africa	1991	0.24	0	0	5.17	...
South Africa	1992	0.26	0	0	8.39	...
South Africa	1993	0.26	0	0	6.16	0.22
South Africa	1994	0.22	0	0	6.34	0.22
South Africa	1995	0.21	0	0	6.68	0.26
South Africa	1996	0.22	0	0	6.39	0.26
South Africa	1997	0.21	0	0	5.54	0.34
South Africa	1998	0.21	0	0	...	0.40
South Africa	1999	0.21	0	0	...	0.43
Sri Lanka	1966	0.10	0	0	47.87	1.48
Sri Lanka	1967	0.09	0	0	45.65	2.25
Sri Lanka	1968	0.08	0	0	46.10	2.88
Sri Lanka	1969	0.19	0	0	37.81	2.41
Sri Lanka	1970	0.20	0	0	46.98	2.18
Sri Lanka	1971	0.17	1	0	46.85	2.39

Table C.85: The Food Cost Data

Sri Lanka	1972	0.15	0	0	47.68	2.29
Sri Lanka	1973	0.18	0	0	50.70	2.04
Sri Lanka	1974	0.16	0	0	45.95	2.28
Sri Lanka	1975	0.12	0	0	50.46	4.06
Sri Lanka	1976	0.14	0	0	36.28	4.36
Sri Lanka	1977	0.15	0	0	39.83	4.60
Sri Lanka	1978	0.12	0	0	29.71	11.92
Sri Lanka	1979	0.14	0	0	23.31	9.64
Sri Lanka	1980	0.11	0	0	20.40	9.75
Sri Lanka	1981	0.12	0	0	19.36	8.73
Sri Lanka	1982	0.11	0	0	12.82	8.63
Sri Lanka	1983	0.12	1	0	17.17	9.16
Sri Lanka	1984	0.14	1	0	15.28	7.78
Sri Lanka	1985	0.15	1	0	19.96	7.87
Sri Lanka	1986	0.15	1	0	17.74	8.59
Sudan	1963	0.16	1	0	20.25	...
Sudan	1967	0.19	1	0	23.21	...
Sudan	1968	0.16	1	0	21.36	...
Sudan	1969	0.26	1	0	14.00	...
Sudan	1970	0.20	1	0	21.27	...
Sudan	1971	0.22	1	0	21.02	...
Sudan	1972	0.30	1	0	23.31	...
Syrian	1963	0.29	0	0	12.86	-0.16
Syrian	1964	0.29	0	0	24.68	-0.03
Syrian	1965	0.30	0	0	22.49	-0.10
Syrian	1966	0.29	0	0	23.52	0.05
Syrian	1967	0.28	0	1	20.28	0.07
Syrian	1968	0.32	0	0	21.06	0.29
Syrian	1969	0.27	0	0	16.57	0.48
Syrian	1970	0.23	0	0	28.59	0.99
Syrian	1971	0.24	0	0	36.11	0.58
Syrian	1972	0.24	0	1	25.16	1.34

Table C.86: The Food Cost Data

Syrian	1973	0.25	0	1	26.45	8.91
Syrian	1974	0.24	0	0	28.14	11.00
Syrian	1975	0.25	0	0	21.38	9.51
Syrian	1976	0.25	0	0	17.18	6.54
Syrian	1977	0.22	0	0	11.85	10.25
Syrian	1978	0.24	0	0	18.02	7.52
Syrian	1979	0.26	0	0	13.62	17.14
Syrian	1980	0.31	0	0	14.10	12.51
Syrian	1981	0.25	1	0	15.63	9.33
Syrian	1982	0.23	1	0	14.46	5.74
Syrian	1983	0.34	1	0	19.80	4.49
Syrian	1984	0.39	0	1	18.82	3.55
Syrian	1985	0.37	0	1	18.96	3.60
Syrian	1986	0.39	0	1	17.16	5.33
Syrian	1987	0.40	0	1	16.39	6.03
Syrian	1988	0.39	0	1	...	1.82
Syrian	1989	0.39	0	1	24.88	1.34
Syrian	1990	0.42	0	1	31.07	5.71
Syrian	1991	0.43	0	1	...	3.03
Syrian	1992	0.42	0	1	19.02	1.53
Syrian	1993	0.41	0	0	...	1.94
Syrian	1994	0.35	0	0	...	7.24
Syrian	1995	0.36	0	0	16.70	3.10
Syrian	1996	0.32	0	0	15.62	1.59
Syrian	1997	0.30	0	0	20.69	1.38
Syrian	1998	0.30	0	0	...	1.06
Thailand	1967	0.08	1	0	6.24	0.98
Thailand	1968	0.13	1	0	6.76	1.15
Thailand	1969	0.09	1	0	7.09	1.02
Thailand	1970	0.15	1	0	5.39	1.05
Thailand	1971		1	0	5.98	0.85
Thailand	1972		1	0	6.10	0.66

Table C.87: The Food Cost Data

Thailand	1973		1	0	4.49	0.57
Thailand	1974	0.10	1	0	4.12	0.53
Thailand	1975	0.10	1	0	4.34	0.59
Thailand	1976	0.10	1	0	4.53	1.00
Thailand	1977	0.16	1	0	4.63	0.67
Thailand	1978	0.13	1	0	4.34	1.09
Thailand	1979	0.12	1	0	4.14	1.45
Thailand	1980		1	0	5.23	1.30
Thailand	1981		1	0	4.41	1.19
Thailand	1982	0.11	1	0	4.72	1.08
Thailand	1983		1	0	4.11	1.08
Thailand	1984	0.10	1	0	4.95	1.12
Thailand	1985		1	0	5.17	1.20
Thailand	1986	0.11	0	0	6.86	1.10
Thailand	1987		0	0	5.21	0.95
Thailand	1988	0.16	0	0	5.77	0.88
Thailand	1989	0.11	0	0	5.51	1.01
Thailand	1990	0.08	0	0	5.05	0.95
Thailand	1991	0.10	0	0	5.43	0.74
Thailand	1992		0	0	5.54	0.71
Thailand	1993	0.11	0	0	4.71	0.50
Thailand	1994	0.10	0	0	4.34	0.41
Turkey	1963	0.15	0	0	13.82	...
Turkey	1964	0.15	0	0	6.77	...
Turkey	1965	0.15	0	0	5.98	...
Turkey	1966	0.15	0	0	5.67	...
Turkey	1967	0.14	0	0	1.45	...
Turkey	1968	0.13	0	0	0.87	0.96
Turkey	1969	0.12	0	0	3.17	0.85
Turkey	1970	0.13	0	0	7.63	0.97
Turkey	1971	0.13	0	0	2.01	1.16
Turkey	1972	0.12	0	0	2.03	1.05

Table C.88: The Food Cost Data

Turkey	1973	0.12	0	0	2.27	0.29
Turkey	1974	0.13	0	0	9.78	0.13
Turkey	1975	0.12	0	0	7.43	0.12
Turkey	1976	0.11	0	0	2.83	0.23
Turkey	1977	0.12	0	0	1.32	0.15
Turkey	1978	0.13	1	0	1.38	0.26
Turkey	1979	0.11	1	0	1.77	0.63
Turkey	1980	0.12	1	0	3.50	1.37
Turkey	1981	0.12	0	0	2.77	1.01
Turkey	1982	0.12	0	0	2.61	0.99
Turkey	1983	0.11	0	0	1.84	0.58
Turkey	1984	0.11	1	0	5.73	0.40
Turkey	1985	0.11	1	0	5.24	0.27
Turkey	1986	0.11	1	0	4.94	0.45
Turkey	1987	0.11	1	0	5.19	0.43
Turkey	1988	0.10	1	0	4.25	0.30
Turkey	1989	0.11	1	0	7.96	0.13
Turkey	1990	0.12	1	0	8.32	0.80
Turkey	1991	0.12	1	0	6.05	1.07
Turkey	1992	0.13	1	0	5.95	0.17
Turkey	1993	0.13	1	0	5.62	0.22
Turkey	1994	0.12	1	0	4.95	0.12
Turkey	1995	0.12	1	0	6.99	0.18
Turkey	1996	0.12	1	0	6.50	0.13
Turkey	1997	0.12	1	0	5.45	0.00
Turkey	1998	0.12	1	0	...	0.01
Uganda	1963	0.46	0	0	2.75	2.75
Uganda	1964	0.51	0	0	...	2.41
Uganda	1965	0.50	0	0	...	1.66
Uganda	1966	0.52	0	0	7.85	1.69
Uganda	1967	0.56	0	0	7.45	1.47
Uganda	1968	0.60	0	0	5.66	1.48

Table C.89: The Food Cost Data

Uganda	1969	0.53	0	0	5.78	...
Uganda	1970		0	0	6.57	...
Uganda	1971	0.44	1	0	6.32	...
Uganda	1984	0.74	1	0	...	4.60
Uganda	1985	0.27	1	0	...	5.20
Uganda	1986	0.02	1	0	...	4.95
Uganda	1987	0.12	1	0	...	4.81
Uganda	1988	0.20	1	0	...	6.16
Uganda	1989	0.80	1	0	...	8.72
United States	1963	0.08	0	1	23.42	...
United States	1964	0.08	0	1	22.28	...
United States	1965	0.07	0	1	19.61	...
United States	1966	0.07	0	1	18.74	...
United States	1967	0.07	0	1	18.20	...
United States	1968	0.07	0	1	16.91	...
United States	1969	0.07	0	1	15.27	...
United States	1970	0.07	0	1	16.12	...
United States	1971	0.07	0	1	14.54	...
United States	1972	0.07	0	1	13.68	...
United States	1973	0.07	0	1	13.76	...
United States	1974	0.07	0	1	11.18	...
United States	1975	0.07	0	1	10.84	...
United States	1976	0.07	0	0	10.18	...
United States	1977	0.07	0	0	9.93	...
United States	1978	0.06	0	0	9.62	...
United States	1979	0.06	0	0	9.18	...
United States	1980	0.06	0	0	8.22	...
United States	1981	0.06	0	0	7.71	...
United States	1982	0.06	0	0	7.87	...
United States	1983	0.06	0	0	7.85	...
United States	1984	0.06	0	0	7.17	...
United States	1985	0.06	0	0	7.03	...

Table C.90: The Food Cost Data

United States	1986	0.06	0	0	7.15	...
United States	1987	0.06	0	0	6.48	...
United States	1988	0.06	0	0	5.94	...
United States	1989	0.06	0	0	5.72	...
United States	1990	0.06	0	0	5.81	...
United States	1991	0.06	0	1	5.93	...
United States	1992	0.07	0	1	5.73	...
United States	1993	0.07	0	1	5.33	...
United States	1994	0.07	0	1	5.04	...
United States	1995	0.06	0	1	4.78	...
United States	1996	0.06	0	1	4.93	...
United States	1997	0.06	0	1	4.99	...
United States	1998	0.05	0	1	...	...
Yemen, Rep.	1969	0.01	1	0	42.43	...
Yemen, Rep.	1970	0.01	0	0	62.63	...
Yemen, Rep.	1971	0.01	0	0	43.78	...
Yemen, Rep.	1972	0.02	0	0	51.08	...
Yemen, Rep.	1973	0.05	0	0	51.35	...
Yemen, Rep.	1974	0.10	0	0	44.10	...
Yemen, Rep.	1975	0.07	0	0	45.49	...
Yemen, Rep.	1976	0.03	0	0	40.93	...
Yemen, Rep.	1977	0.04	0	0	...	...
Yemen, Rep.	1978	0.11	0	0	27.97	...
Yemen, Rep.	1979	0.09	0	0	26.25	...
Yemen, Rep.	1980	0.09	0	0	28.36	...
Yemen, Rep.	1981	0.10	0	0	31.98	...
Yemen, Rep.	1982	0.11	0	0	25.76	...
Yemen, Rep.	1983	0.10	0	0	25.81	...
Yemen, Rep.	1984	0.10	0	0	...	...
Yemen, Rep.	1985	0.07	0	0	...	...
Yemen, Rep.	1986	0.09	1	0	...	...
Yugoslavia	1962	0.11	0	0	16.53	...

Table C.91: The Food Cost Data

United States	1986	0.06	0	0	7.15	...
United States	1987	0.06	0	0	6.48	...
United States	1988	0.06	0	0	5.94	...
United States	1989	0.06	0	0	5.72	...
United States	1990	0.06	0	0	5.81	...
United States	1991	0.06	0	1	5.93	...
United States	1992	0.07	0	1	5.73	...
United States	1993	0.07	0	1	5.33	...
United States	1994	0.07	0	1	5.04	...
United States	1995	0.06	0	1	4.78	...
United States	1996	0.06	0	1	4.93	...
United States	1997	0.06	0	1	4.99	...
United States	1998	0.05	0	1	...	...
Yemen, Rep.	1969	0.01	1	0	42.43	...
Yemen, Rep.	1970	0.01	0	0	62.63	...
Yemen, Rep.	1971	0.01	0	0	43.78	...
Yemen, Rep.	1972	0.02	0	0	51.08	...
Yemen, Rep.	1973	0.05	0	0	51.35	...
Yemen, Rep.	1974	0.10	0	0	44.10	...
Yemen, Rep.	1975	0.07	0	0	45.49	...
Yemen, Rep.	1976	0.03	0	0	40.93	...
Yemen, Rep.	1977	0.04	0	0	...	...
Yemen, Rep.	1978	0.11	0	0	27.97	...
Yemen, Rep.	1979	0.09	0	0	26.25	...
Yemen, Rep.	1980	0.09	0	0	28.36	...
Yemen, Rep.	1981	0.10	0	0	31.98	...
Yemen, Rep.	1982	0.11	0	0	25.76	...
Yemen, Rep.	1983	0.10	0	0	25.81	...
Yemen, Rep.	1984	0.10	0	0	...	...
Yemen, Rep.	1985	0.07	0	0	...	...
Yemen, Rep.	1986	0.09	1	0	...	...
Yugoslavia	1962	0.11	0	0	16.53	...

Table C.92: The Food Cost Data

Yugoslavia	1963	0.09	0	0	20.38	...
Yugoslavia	1964	0.09	0	0	14.24	...
Yugoslavia	1965	0.09	0	0	16.14	...
Yugoslavia	1966	0.07	0	0	15.85	...
Yugoslavia	1967	0.07	0	0	12.53	...
Yugoslavia	1968	0.06	0	0	8.42	...
Yugoslavia	1969	0.06	0	0	7.38	...
Yugoslavia	1970	0.06	0	0	7.93	...
Yugoslavia	1971	0.08	0	0	10.84	...
Yugoslavia	1972	0.10	0	0	10.95	...
Yugoslavia	1973	0.12	0	0	11.87	...
Yugoslavia	1974	0.13	0	0	9.76	...
Yugoslavia	1975	0.13	0	0	6.91	...
Yugoslavia	1976	0.12	0	0	9.64	...
Yugoslavia	1977	0.12	0	0	8.96	...
Yugoslavia	1978	0.12	0	0	7.15	...
Yugoslavia	1979	0.11	0	0	7.87	...
Yugoslavia	1980	0.11	0	0	7.71	...
Yugoslavia	1981	0.11	0	0	6.31	...
Yugoslavia	1982	0.11	0	0	6.12	...
Yugoslavia	1983	0.12	0	0	6.44	...
Yugoslavia	1984	0.11	0	0	5.50	...
Yugoslavia	1985	0.12	0	0	4.75	...
Yugoslavia	1986	0.12	0	0	7.55	...
Yugoslavia	1987	0.13	0	0	6.51	...
Yugoslavia	1988	0.13	0	0	7.38	...
Yugoslavia	1989	0.14	0	0	8.42	...
Yugoslavia	1990	0.27	1	0	11.97	...
Yugoslavia	1991		1	0	...	...
Yugoslavia	1992		1	0	...	...
Yugoslavia.	1993		1	0	...	...
Yugoslavia	1994		1	0	...	...

Table C.93: The Food Cost Data

Yugoslavia	1995	0.29	1	0	...	...
Yugoslavia	1996	0.33	1	0	...	...
Yugoslavia	1997	0.32	1	0	...	...
Yugoslavia	1998	0.33	1	1	...	0.79
Zimbabwe	1960		0	0	...	...
Zimbabwe	1961		0	0	...	0.00
Zimbabwe	1962		0	0	...	...
Zimbabwe	1963	0.28	0	0	...	0.98
Zimbabwe	1964	0.27	0	0	...	0.39
Zimbabwe	1965	0.30	0	0	7.32	0.28
Zimbabwe	1966	0.31	0	0	...	0.02
Zimbabwe	1967	0.29	0	0	...	0.02
Zimbabwe	1968	0.29	0	0	...	0.14
Zimbabwe	1969	0.27	0	0	...	0.04
Zimbabwe	1970	0.26	0	0	...	0.04
Zimbabwe	1971	0.26	1	0	...	0.04
Zimbabwe	1972	0.24	1	0	...	0.03
Zimbabwe	1973	0.24	1	0	...	0.03
Zimbabwe	1974	0.23	1	0	...	0.04
Zimbabwe	1975	0.24	1	0	...	0.09
Zimbabwe	1976	0.26	1	0	...	0.15
Zimbabwe	1977	0.30	1	0	...	0.16
Zimbabwe	1978	0.32	1	0	...	0.22
Zimbabwe	1979	0.32	1	0	0.86	0.25
Zimbabwe	1980	0.30	1	0	6.44	2.48
Zimbabwe	1981	0.29	1	0	3.55	2.71
Zimbabwe	1982	0.31	1	0	2.97	2.62
Zimbabwe	1983	0.35	1	0	5.48	2.79
Zimbabwe	1984	0.36	0	0	8.12	4.82
Zimbabwe	1985	0.36	0	0	4.96	4.31
Zimbabwe	1986	0.37	0	0	3.27	3.73
Zimbabwe	1987	0.35	0	0	...	4.49

Table C.94: The Food Cost Data

Zimbabwe	1988	0.32	0	0	...	3.59
Zimbabwe	1989	0.31	0	0	...	3.28
Zimbabwe	1990	0.26	0	0	3.68	4.00
Zimbabwe	1991	0.30	0	0	2.23	4.70
Zimbabwe	1992	0.29	0	0	17.82	12.23
Zimbabwe	1993	0.30	0	0	11.17	7.89
Zimbabwe	1994	0.31	0	0	4.83	8.50
Zimbabwe	1995	0.34	0	0	6.00	7.23
Zimbabwe	1996	0.29	0	1	10.36	4.46
Zimbabwe	1997	0.30	0	1	7.15	4.11
Zimbabwe	1998	0.31	0	1	...	4.74

Table C.95: The Food Cost Data

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This dissertation was typeset with \LaTeX^\dagger by the author.

[†] \LaTeX is a document preparation system developed by Leslie Lamport as a special version of Donald Knuth's \TeX Program.