The Political Economy of Growth in Ethiopia

Chapter 4 of volume 2

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We are pleased to tell you that we have finally submitted the Growth Project manuscripts to Cambridge University Press. Cambridge will publish the project as two books: volume 1 will synthesisize the project, and volume 2 will contain the country studies. We anticipate publication in 2007 (late 2006 if lucky). The titles and editors will be follows:

The Political Economy of Economic Growth in Africa, 1960-2000
Benno Ndulu, Stephen O'Connell, Robert Bates, Paul Collier and Charles
Soludo, editors

The Political Economy of Economic Growth in Africa, 1960-2000: Country Case
Studies
Benno Ndulu, Stephen O'Connell, Jean-Paul Azam, Robert Bates, Augustin
Fosu, Jan Willem Gunning and Dominique Njinkeu, editors

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1. Introduction

With a population of over 70 million in 2005, Ethiopia is the second most populous country in Africa. Its history as a political entity stretches back to antiquity, and almost uniquely within Sub-Saharan Africa, it has never been colonized. Yet Ethiopia is one of the poorest countries in the world. Rainfall and commodity prices have a major influence on year-to-year growth, but I argue in this chapter that the detrimental impact of these exogenous factors has been accentuated by a policy environment that has reflected the narrow and shifting influences of politically dominant interest groups. At the microeconomic level, investment behavior has reflected the pervasive influence of both exogenous and policy-generated risks to income and property. In the aggregate, poverty and slow growth have reproduced themselves over time. Each reflects the joint influence of structural vulnerabilities and weaknesses in governance. Against this background, key public-sector institutions have provided a critical minimum level of policy continuity in Ethiopia. In their absence, the impact of a volatile political economy on growth would have been even greater.

The literature on Ethiopia's long-run economic growth is limited. Useful but largely descriptive macroeconomic reviews appear in Eshetu and Mekonnen (1992) for 1974-1990, the papers edited by Alemayehu and Berhanu (1999) for 1991-1999, and MEDaC (1999), EEA (2000) and Berhanu and Seid (1999). Comprehensive empirical studies of the growth process are limited to those of Netsante (1997) and Seyoum (1997), who estimate augmented Solow growth models; and Seid (2000).[2] Physical capital fails to have a strong impact on growth in all three of these studies. Results for human capital are less conclusive, suggesting problems of data and method: thus Netsante finds a substantial contribution of education to growth, but Seyoum and Seid do not.

The present study differs from these in several ways. It constructs a detailed and empirical and analytical narrative of the growth record, and emphasizes political economy factors, the role of institutions, and the behavior of microeconomic agents. It also benchmarks Ethiopia's growth performance against that of all other developing countries.

I begin in Section 2 by placing growth in Ethiopia in its politico-economic and historical contexts. I distinguish three successive policy regimes in the post-1960 period and use growth accounting and cross-country econometrics to characterize the growth record across these regimes. Section 3 turns to explanation; I examine the nature of product and factor markets, the roles of institutions and political economy, and the behavior of microeconomic agents. I argue that growth in Ethiopia is largely determined by political economy factors, climatic risks, the strength and efficiency of institutions, the quality of public policies, and risks related to war and property rights. Product and input markets are found to be not only thin but inflexible. Combined with the unstable political environment, this has greatly limited both the potential for long-run growth and the sustainability of individual growth episodes. At the same time, the analysis suggests a potentially powerful role for Ethiopia's long and unique history, operating through the continuity provided by a few key public sector institutions. In the absence of such continuity – and notwithstanding the manifest inefficiencies of

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[2] These three papers are graduate research papers from the Department of Economics, Addis Ababa University.

these institutions in other respects – the growth record may well have been worse than observed. Section 4 concludes the chapter.

2. Growth experience in cross-country perspective

2.1 Historical background and policy episodes, 1960-2000

Ethiopia's modern history reflects the institutional legacy of centuries of internal conflict and external threat. Internally, religion, regional location, ethnicity, and nationality have each, at various times and in varying combinations, served as focal points in the contest for power and control over economic resources. Land remains an economically critical and politically contested resource, reflecting the age-old antagonism between a landed aristocracy (including the church, a major presence since the 4th century) and the peasantry (Addis 1975; Gebru 1995). Externally, although the country was never colonized, hostile and powerful colonial forces encircled it from the last quarter of the 19th century and rendered its independence a besieged one. The country fought three times with the Egyptians, four times with the Dervishes, five times with the Italians and once with the British in the period from 1868 to 1896 (Bahru 2001; Pankhurst 1963b). As a result, Ethiopia developed as a militaristic state[3] with an economy dependent on the export of primary commodities and the import of manufactures, especially weapons. The acquisition of firearms from nearby European powers by Ethiopia's regional lords also shaped the pattern of internal conflict and the regional balance of power. The institutional legacies of conflict and militarization are generally identified as the major internal constraints on growth and development in Ethiopia (Alemayehu 2002a and 2004; Gebre-Hiwot 1924; Pankhurst 1963a and 1963b).

Economic performance in Ethiopia is therefore highly correlated with conflict and the political processes that accompany it. The period from 1960 to 2000 breaks down readily, *ex post*, into the Imperial, Derg and EPRDF sub-periods, reflecting the divergent policy regimes implemented by a succession of ruling cliques. The political process that brought first the Derg and then the EPRDF to power (in 1974 and 1991, respectively) was both unpredictable and violent. Economic insecurity pervades Ethiopia's modern history, with the rule of law, the enforcement of contracts and the security of property each configured on a shaky political base. It is within this broader framework that the three regimes outlined below need to be understood

The Imperial Regime: 1930-1974
The 'Imperial Regime' refers to the reign of emperor Hayla-Sellase I (1930-1974) in particular, and to its predecessors in general. The landed aristocracy and the majority of peasants (tenants) constitute the major socio-economic agents during this period. Land was the critical resource, the control of which was invaluable for any economic agent that aspires for power. In this period an attempt was made to modernize the country through the expansion of modern schools and health facilities, the promulgation of a constitution, the development of infrastructure, and the beginning

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[3] According to Pankhrust (1963), by the late 19th and early 20th century the Emperor of Ethiopia commanded an army of between 100,000 and 225,000 solders. The overall population at the beginning of the 20th century was below 9 million (Pankhrst 1968). If each of five regional kings commanded an army of (say) 100,000, and we assume an entourage of 5 persons per soldier (including the soldier's family), the military as a whole, which is dependent on the peasant sector's output, amounted to over a quarter to one half of the total population and a third of the economically active population.

of medium-term planning. The Imperial Regime pursued a market-based economic policy, which in the terminology of Chapter 2 can be characterized as syndrome free. GDP growth averaged 4 percent over the final phase (1960-1974), which is the first period for which we have data; the average *per capita* growth was roughly 1.5 percent.

The Derg Regime: 1974-1991

The Derg (meaning 'the committee' [of soldiers] in Amharic) came to power after toppling the imperial regime in the 1974 popular revolution. In terms of ideology and general policy, the Derg opted for a socialist economic system where market forces were deliberately repressed and socialization of the production and distribution process pursued vigorously. By all measures they adopted a "hard control" regime. Between 1974/75 and 1989/90, growth decelerated to 2.3 percent (-0.4 percent in *per capita* terms). Growth was also extremely irregular given its dependence on the agricultural sector, which is vulnerable to the vagaries of nature (see Alemayehu 2003a). The Derg Regime was also characterized by intense conflict, which accentuated the dismal growth performance.

The EPRDF Regime: 1991 to date

This period begins following the accession to power of the Ethiopian People Revolutionarily Democratic Front (EPRDF) in May 1991, following the demise of the Derg. The Tigray People Liberation Front (TPLF) form the core of the regime. The EPRDF adopted the typical structural adjustment policies of market liberalization, with the support of the Bretton Woods institutions. Although these reforms countered the regulatory syndrome characteristic of the Derg, the EPRDF regime can be viewed as displaying the "redistributive" syndrome, with power, policymaking, and resources controlled by, and in the direct interests of, the TPLF, which originated from the North of the country.

Economic growth during this period (1990/91-1999/00) was quite impressive. Real total and per-capita GDP grew at average rates of 3.7 and 0.7 percent per annum, respectively, figures that rise to 5.6 and 2.6 percent, respectively, if one excludes the abnormal years 1990-92. The revival of growth appears to be the combined result of the reforms and favorable weather. Growth performance has nonetheless been fragile and uneven; on a-year-to year basis, growth was heavily dependent both on the vagaries of nature and on external shocks, including the war with Eritrea (see Alemayehu 2003a, 2005).

In sum, the last four decades have witnessed a cyclical evolution of policy regimes in Ethiopia. The environment for growth evolved from a fairly market-oriented one to a highly controlled one before being liberalized in the third period. This cyclical policy stance is associated with a growth cycle which was favorable in the first and third periods, and very poor in the second.

2.2 Determinants and sources of growth

In Table 1 I have employed the Collins and Bosworth (1996) benchmark estimation to carry out a growth accounting exercise. I seek to estimate the contribution of physical capital, education, and the residuals to growth under the three political regimes[4].

Tables

Table 1: The Collins and Bosworth growth accounting based decomposition of source of growth for Ethiopia

Period	Growth in Real GDP per worker	Contribution of		
		Physical capital per worker	Education per worker	Residual
1960-64	2.72	3.23	0.05	-0.55
1965-69	1.68	2.32	0.05	-0.68
1970-74	1.71	0.88	0.11	0.73
1975-79	-0.20	-0.29	0.13	-0.04
1980-84	-0.55	1.42	0.27	-2.25
1985-89	-2.35	0.93	0.31	-3.58
1990-94	-0.14	0.25	0.28	-0.67
1995-2000	2.96	1.13	0.28	1.55
Total: 1960-00	0.73	1.18	0.19	-0.63

Source: Author's Computation based on O'Connell and Ndulu (2000), revised 2003, coefficients..

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[4] In Collins and Bosworth (1996), the stock of physical capital was derived by applying the perpetual inventory method using initial (1950) capital stock from Nehru and Dhareshwar (1993). Similarly, the labour quality index imputed a rate of return of 7% to an additional year of average schooling attainment in the adult population (see O'Connell and Ndulu 2000).

The results in Table 1 appear to substantiate our periodization. Although the average share of investment in total GDP was fairly stagnant in the first two regimes at 12.6 (1962/63-1973/74) and 12 percent (1974/75-1989/90) respectively, it attained a high level in early 1960s (1962/63-1965/66): 13.2 percent of GDP. The highest contribution of capital to growth occurred in the 1960s, partly reflecting the large investment in infrastructure under the three development plans of the Imperial regime. In addition, this was also a period in which the age-old feudal aristocracy began to change into a nascent entrepreneur class by investing in capital-intensive farms and food-processing firms. The process of capital formation was interrupted, however, by the 1974 revolution and the coming into power of the Derg, which imposed hard controls. The contribution of physical capital to growth abruptly declined under the Derg. This decline may reflect the disruption caused by the revolution, compounded by the radical institutional changes[5] that disrupted the operation of productive economic agents.

With the rise to power of the EPRDF, the early 1990s also witnessed another political change. The change was violent, briefly bringing back the instability that accompanied the coming of the Derg. This led to the lower contribution of physical capital to growth in the first half-decade of the EPRDF regime. Thanks to the return of external finance, which had dried up during the Derg regime, and the liberalization policy pursued by the EPRDF, the share of investment in GDP rose to about 17 percent between 1990/91 and 1999/2000. The result was the strong contribution of physical capital and total factor productivity to growth in the late 1980s (see Table 1).

The contribution of education per worker was very weak over the whole period. In the Imperial Regime, the quality of education was extremely poor. Nearly 90 percent of the population remained illiterate. By contrast, the Derg invested heavily on education, in particular through the expansion of schools in rural areas and by launching an adult education program called the 'Literacy Campaign.' These efforts reduced the illiteracy rate to 38 percent by 1990 (see Getahun 1992). Although the drive for expanding primary education continued in the post-Derg period, the 'Literacy Campaign' was stopped, helping to explain the recent rise in the level of illiteracy. Given these trends, it is not surprising to see the positive contribution of education per worker in the period 1990-1989 (see Table 1).

Note that that the contribution of total factor productivity to growth remained negative throughout the period 1974-1994. One reason might be political instability and the regulatory policies adopted by the Derg. Another is that total factor productivity growth in rain-dependent African countries is closely related to the weather and to external shocks. Note in particular the year 1984, where we witness the lowest total factor productivity growth: 1984 was one of the worst drought years in Ethiopia.

The growth accounting exercise reinforces our three-way partition of Ethiopia's post-1960 experience. It points to the detrimental effect of systemic instability, as well as to Ethiopia's vulnerability to weather shocks. The latter vulnerability is partly explained by lack of structural change in the economy, which remained overwhelmingly dependent on rain-fed agriculture

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[5] For example, the changes in the land tenure system, the role of public institutions, the formation of peasant associations and the policy of repressing the private sector.

Following the growth accounting exercise, I have used coefficients derived from two cross-country regression-based growth models. On the basis of Hoeffler's (2002) augmented Solow and O'Connell and Ndulu's (2000) conditional growth models I have attempted to frame Ethiopia's position within the context of a cross-county growth regression based on a sample of 85 developing countries (see Ndulu and O'Connell 2000). The results are given in Tables 2 and 3.

Table 2:   Hoeffler's augmented Solow model (SYS-GMM Estimates): decomposition for Ethiopia

Period	Actual growth (per capita)*	Predicted growth	Residual	Actual deviation of growth from sample mean	Estimated contribution of:				
					Initial income	Investment rate	Initial education attainment	Replacement investment term	Residual
1960-64	1.13	2.49	-1.36	0.03	0.34	-0.01	-0.01	-0.01	-1.33
1965-69	1.02	2.36	-1.34	-0.08	0.32	-0.03	-0.01	-0.04	-1.36
1970-74	1.03	2.22	-1.18	-0.07	0.32	-0.09	0.00	-0.03	-1.27
1975-79	1.05	2.27	-1.21	-0.05	0.31	-0.07	0.00	-0.04	-1.28
1980-84	0.93	2.38	-1.45	-0.17	0.31	-0.01	0.00	-0.05	-1.47
1985-89	1.08	2.29	-1.21	-0.02	0.32	-0.03	0.00	-0.07	-1.27
1990-94	1.10	2.49	-1.39	0.00	0.30	0.01	0.00	-0.01	-1.36
1995-2000	1.10	2.57	-1.47	0.00	0.30	0.04	0.00	-0.01	1.00
1960-00	1.06	2.38	-1.33	-0.05	0.32	-0.02	0.00	-0.03	0.13

At 1985 international prices. Note the variation from Table 5 which is consistent with MEDaC data. This is attributed to variation in method of growth computation, coverage of years and use of different prices in the two models.
Source: Source: Author's Computation based on O'Connell and Ndulu (2000), revised 2003, coefficients..
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Table 3: Ndulu and O'Connell pooled conditional model based results for Ethiopia

| Period | Fits and Residuals | | | Actual and predicted growth deviations | | | | Breakdown of policy contribution by variable | | |
| | | | | | Contribution to predicted growth deviation | | | | | |
	Actual growth (per capita)	Fitted growth	Residual	Actual growth deviation from sample mean	Base Variables	Political Instability	Policy	Inflation (>500 percent)	Parallel Market Premium (>500 percent)	B/L gov't spending/ GDP
1960-64	2.7	5.1	-2.4	0.5	2.4	0.1	-0.2	0.0	0.1	-0.3
1965-69	1.7	4.4	-2.7	-0.5	2.2	0.2	-0.2	0.1	0.0	-0.3
1970-74	1.7	3.6	-1.9	-0.5	1.4	-0.3	-0.3	0.0	0.0	-0.4
1975-79	-0.2	1.9	-2.1	-2.4	1.6	-1.0	-1.0	0.0	-0.4	-0.6
1980-84	-0.6	1.2	-1.7	-2.7	0.6	-0.1	-0.7	0.0	-0.4	-0.4
1985-89	-2.4	-12.9	10.6	-4.5	1.6	-0.2	-1.7	0.0	-1.0	-0.7
1990-94	-0.1	-13.3	13.2	-2.3	0.4	0.0	-1.2	0.0	-0.9	-0.3
1995-2000	3.0	-13.2	16.1	0.8	0.4	0.0	-1.2	0.0	-0.9	-0.3
1960-2000	0.4	-4.0	4.5	-1.8	1.2	-0.2	-0.9	0.0	-0.5	-0.4

Source: Source: Author's Computation based on O'Connell and Ndulu (2000), revised 2003, coefficients..
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The comparison of actual with predicted growth rates in Table 2 demonstrates that the rate of growth in Ethiopia lay below expected levels in all periods. During the Imperial regime, this deviation is to a large extent explained by initial level of income. Under the Derg, both investment in and the replacement of capital equipment contributed to Ethiopia's deviation from the mean rate of growth of all developing countries. The high residual observed in the previous period persisted in this era and reached its historic minimum (-1.45) in 1980-84. The post-Derg period is characterized by some degree of improvement in all variables. The positive value of the time dummy may reflect the positive effect of reforms initiated in 1992 and favorable weather during this period. Investment and education also made a positive contribution.

Table 3, which is based on Ndulu and O'Connell (2000), provides additional information. It suggests the dramatic extent to which Ethiopia's growth lagged behind that of other countries. This deviation was the highest during the Imperial regime. The base variables (demographic, trade shocks and initial endowments) made the greatest contribution to this deviation. Political stability contributed to growth in the Imperial period, while subsequent instability detracted from it, with 1975-1979 representing the nadir.

The contribution of policies to growth deviation is negative throughout the three periods, but was at its worst under the Derg. In that period, overvaluation of the exchange rate and government spending weakened Ethiopia's growth performance. Public spending, much of it unproductive, remained a problem in the other two periods as well. Defense spending consumed half the budget during the Derg regime. Additional policy failures resulted in inefficient public enterprises, a bias against the private sector, the slow diffusion of farm technology, import compression, and low capacity utilization (below 50 percent in most industries).

Many of the policies of the Derg were altered in 1992. Although the EPRDF still engages in excessive and inefficient public spending, the detrimental impact of these policies appears to have declined. This may be a reflection of the declining share of defense expenditure during this period.[6] Recent data shows that parallel market premium rate declined from its highest level of 358 percent in 1992 to just 15.5 percent in 1997, thus suggesting a favorable alteration in exchange rate policies (see Alemayehu *et al* 2003).

Although growth and policy performance seem to have improved in the 1990s, the sustainability of this growth remains in question. This is because of the economy's continued dependence on rain-fed agriculture, its vulnerability to external shocks, and the high level of political instability.

3. Markets, institutions, agents, and the political economy of growth

3.1 The political economy of growth

By late 1960s, the educated elite that had emerged in the Imperial period began to challenge the political system. The result was the downfall of the Imperial Regime and of Hayla-Sellase I (its last emperor). Those who overthrew the Imperial government formed a military junta called the Derg, which soon endorsed socialism, the ideology of the Ethiopian educated elite of the period (see Clapham 1988). Its first important policy decision was to nationalize land and other private property (rental property), financial institutions, and manufacturing firms. The Derg began to build a socialist state and a strong army. It began as well to consolidate its grip on power by introducing new institutions of economic and political control, including peasant associations and cooperatives, marketing boards, and a worker's party.

A growing number of opposition groups among the intelligentsia began to oppose the Derg, however: Meison, EPRP, TPLF, EPLF[7] (see Clapham 1988). The Derg managed to destroy most of these organizations, except the TPLF and EPLF, who eventually toppled it in 1991. As all were Marxists organizations, ideology appears to have played little part in this conflict. Although grievances over the cultural/linguistic domination by Amharic speakers over others did play a role, the fundamental feature was competition for power and control of resources.[8] In the case

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[6] Notwithstanding the post-1998 sharp rise following the Ethio-Eritrea war.

[7] *Meison* refers to the Amharic abbreviation for 'All Ethiopia Socialist Movement'; EPRP refers to the 'Ethiopian People Revolutionary Party'. Both were multi-ethnic parties. The EPLF (Eritrean People Liberation Front –a nationalist group dominated by Tigregna-speaking Christian highlanders of Eritrea) is a secessionist organization, established following the abolition of a UN sponsored federation of the Italian colony of Eritrea with Ethiopia by emperor Hayla-Selasse I in 1961. After a protracted guerrilla war with the Derg, and with the help of TPLF (Tigray People Liberation Front – an ethno-linguistic front), it de facto managed to secede Eritrea by 1991. The TPLF was a Marxist guerilla opposition established with the help of the EPLF to fight the Derg. The TPLF initially flirted with the idea of secession but later (in the 1980s) changed its objective to creating a democratic Ethiopia. It began to organize other ethno-linguistic based organizations (including the Amhara Nation Democratic Movement, the Oromo People Democratic Organization and the South Nations, Nationalists and People Organization) to form the Ethiopian People Revolutionary Democratic Front, EPRDF, which is the current government. It initially accommodated the other important ethno-linguistic organization, the Oromo Liberation Front (OLF), but chased it out later. The EPRDF reorganized the country as a federal state structured along ethno-linguistic lines (see Alemayehu & Befekadu 2003).

[8] This working hypothesis of mine is confirmed by a recent book authored by one of the opposition leaders (Berhanu Nega, 2006) who is arrested following the 2005 election and wrote this

of ethno-linguistic groups, ethnicity is conveniently deployed in this competition for power (see Alemayehu 2004).

The abrupt political change in 1974, the nationalization of the productive assets and the inability of the new owners to run them, the disruption in both industrial and agricultural activity following the revolution, and the 1984/85 drought, resulted in the deceleration of growth. The Derg imposed a control regime that implemented polices aimed at benefiting the socialized (and penalizing the private) sector. As a result, the period witnessed deteriorating economic conditions and mounting discontent. Following the military failure of the Derg, especially in the North of the country, the regime was finally toppled in 1991. Following its ascent to power, the EPRDF pursued a liberalization policy aimed at revitalizing the devastated economy, a process that had been initiated by the Derg virtually at the end of its reign.

Three fundamental political trajectories informed this reform (see Alemayehu 2005). First was the collapse of the USSR. Secondly, the government inherited a shattered 'socialist' economy with no foreign exchange reserves. While the reform did not directly address the problem, it did elicit inflow of international aid.[9]

The third was an attempt by the political elites of the ERPDF to weaken the national bureaucracy through expenditure reduction and retrenchment programs. The ruling EPRDF was dominated by the TPLF (*Tigregna* speakers from the North). It adopted the position of 'self determination including cessation' [10].for regions organized along ethno-linguistic lines[11] while many political groups, including the majority of the inherited bureaucracy, opposed radical decentralization. Its political core came from a relatively resource-poor and drought-prone northern part of the country and the EPRDF regime has used the state power to effect the redistribution of resources away from the central and southern part of the country (whose main actors are *Amharic* and *Oromingna* speakers). The shift of power in 1991 thus marked the change from a regulatory syndrome to 'a redistributive syndrome.' One implication was increased uncertainty for investors. Another was that the domination of the TPLF might mark the substitution of sub-national, ethnic interests for national ones.

In identifying the political process that shapes policy choice in Ethiopia, it is worth emphasizing the cycles of revolt and conflict. These conflicts, though apparently ethnic, were essentially regional and class-based. The evidence for this is that they were structured by:

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book from his prison cell. In that book Berhanu describes the inner fight among members of his coalition opposition organizations to get registered as much candidates of their own as possible in the electoral board since financing by the diaspora of such organizations is a function of the number of registered candidates they have. However, there were also few individuals who believed (or were made to believe) the ideology pursued by the rebels and committed for the betterment of the majority. This in particular is true among the rank and file of the insurgent movements.

[9] The need to address the distributional dimension of this policy stance is empirically substantiated in Alemayehu *et al* (2002).

[10] This political factor implicitly addresses the so called 'Eritrean question', that is, the fact that EPRDF opted for the country's independence, a position opposed by many other political groups.

[11] In Ethiopian politics (especially of the EPRDF) these groups are referred as nations, nationalities and people without any conceptual basis for distinction. Gebre-Hiwot's references to these groups with the term '*Neged*' and its use would have been broad and relevant (see Alemayehu 2002b).

- The 'king of kings' system where the strongest regional-based king[12] became the king of all regional kings and occupied the central position of power. The king of kings normally came from one region (which is not necessarily ethnic based region) and maintained his power by drawing officials from different regions (usually tying regional lords through marriage to his off-springs;
- The subjugation of *all* peasants from *all* ethnic groups by the ruling elite;[13]
- Civil conflict among the intelligentsia, who were drawn from different ethnic groups and subscribed to the same leftist ideology, yet fighting.

Evidence of the impact on growth can be seen in Figure 3 where we plot the index of per capita income against an indicator of political risk.[14] Clearly the premium on reducing political risk (which can also be taken as an indicator of the quality of governance and institutions) is huge – an improvement in this index by one unit brings about 0.4 point increment in the index of the per capita income (see Figure 3).

Figure 3: Political risk and per capita income growth in Ethiopia (1984-2000)
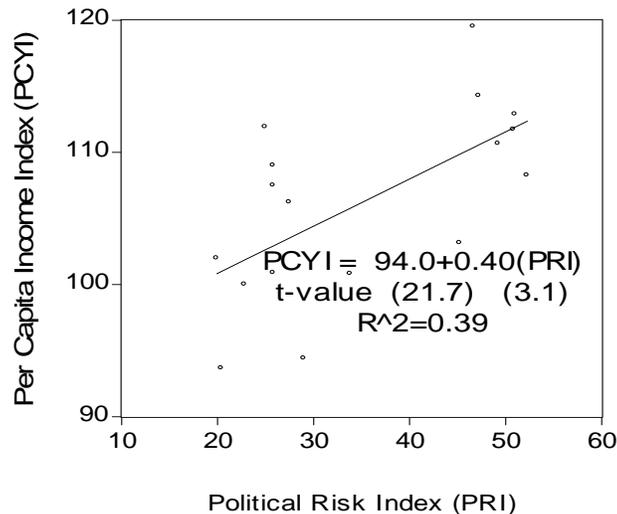
Each regime created institutions to help it to sustain its grip on power. At the core of the Imperial regime lay the church and the military; at the core of the Derg, mass organizations such as peasant associations, as well as marketing boards and the military; and at the core of the EPRDF, ethno-linguistic parties, party-affiliated

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[12] An important evidence here being the fierce regional competition and war between the *Shewan* and *Gojam* Kings , who ethnically speaking belong to *Amhara*, in the late 19th century to control regions that lay in today's South Western Ethiopia (called the battle of *Embabo* in Ethiopian history).

[13] This argument in no way denies the historic domination of the highlander's language and culture over the others but takes it, compared to the power-grapping motive, as secondary.

[14] The political risk rating is based on 'International Country Risk Guide' which uses 12 political risk indicators (government stability, socio-economic condition, investment profile, internal conflict, external conflict, corruption, military in politics, religion in politics, law & order, ethnic tensions, democratic accountability, and bureaucratic quality.) Points given for each items range from 0 to 12. The first five indicators have a maximum score of 12 each; the next 6 items have a maximum score of 6 each; the last has a maximum score of 4. The higher the number, the better the performance (ie., the less the political risk).

companies and the military. Some institutions have been nourished by every regime: the Ethiopian air line, the National Bank and Ministry of Finance (which maintained prudential macro policy stance in all regimes), the Air force, the Civil Service, the Church, and other indigenous institutions including the *Iquib* (informal money market) and the like.[15] However inefficient they might appear, these institutions have contributed to the continuity of the Ethiopian state.

3.2 Institutions in the growth process
Given the dismal growth performance discussed in the previous section, what has kept Ethiopia from collapsing as a nation? Perhaps one of the positive outcomes of the long history of Ethiopia is the creation and retention of institutions which averted such collapse. This has resulted in a fairly professional, but unfortunately largely inefficient, civil servant class that has managed to prevail across different regimes. This may perhaps explains why the country survived as a nation and was able to have prudent macro policy across the different regimes despite pervasive poverty, internal conflict, and external aggression.

The Imperial regime sought to create institutions to support financial and product markets: central, commercial and development banks; private banks; and import substituting industries. As noted above, by promoting capital formation, this effort appears to have contributed to the growth performance of the economy. The nascent development of such institutions was interrupted by the 1974 revolution and Derg's rise to power. The Derg nationalized all financial institutions and firms, and biased the allocation of foreign exchange and credit against the private sector. It also maintained a fixed exchange rate (see Alemayehu 1999 for more detail).

The EPRDF liberalized the previous control regime. It also sought to revitalize the private sector. It devalued the currency and subsequently introduced an auction-based exchange rate system. It liberalized the interest rate, with the government now setting only the floor. It introduced an inter-bank market for foreign exchange. The period of the EPRDF is thus characterized by efforts to promote the market and the institutions that are compatible with a liberalized economy.

There has thus been a policy cycle: from liberalization to control regime back to liberalization. The last four decades have also witnessed the formation of a dual economy with associated institutions. While the modern institutions, such as commercial and central banks, cater to the needs of the modern sector,[16] informal (traditional) money markets called "*Iqub*" serve the majority of the private sector: the rural farming community, the urban informal sector, and micro-enterprises (see Alemayehu 2005; Dejene 1995; Mengestu 1998).

The professionalism of modern institutions is revealed by the manner in which civil servants have maintained macro economic stability in spite of the changes in

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[15] What happened to the Ethiopian air line in the last two regimes (the *Derg* and EPRDF) is quite informative. Immediately following the regime shift, the incumbents fired professionals and installed 'their men'. This resulted in an immediate decline in profits of the airline that prompted the two regimes to take back the professionals, gave the airline its management autonomy and reverse the collapse of the airline. The reason for this may relate to (a) foreign exchange generating capacity of the airline which is in the interest of the incumbent, (b) its symbolic nature and the political cost associated with the collapse of such institutions which has a long history, and (c) the personal interest of leaders to use the airline with full authority.

[16] For instance, not more than 5 per cent of the credits extended by the formal financial institutions target the rural sector. These are often channelled through public enterprises that supply small farmers with inputs such as fertilizers and improved seeds on credit basis (see Alemayehu and Befekadu 2003).

political regimes and the attendant political strife. This can be illustrated by the pattern of inflation shown in Figure 1.

Figures
Figure 1: Inflation in Ethiopia 1967-99

Diagram 1: Infaltion in Ethiopia 1967-99.
(Percenstage change over previous year)
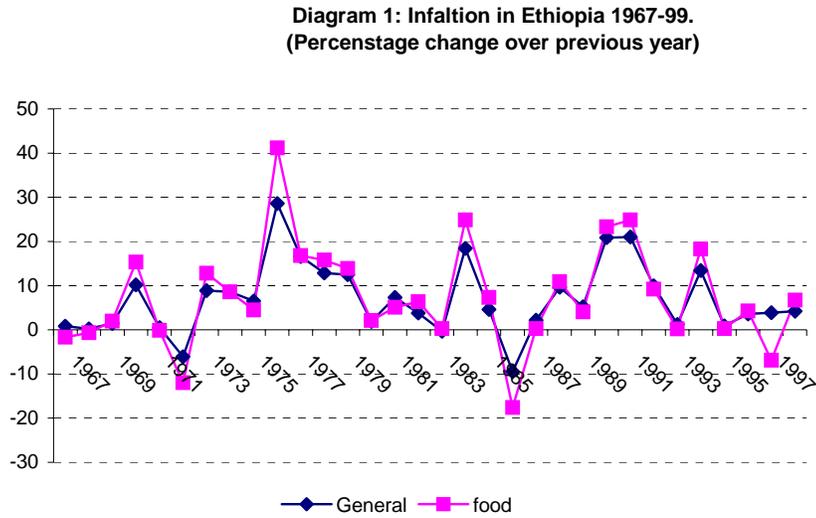
Source: Based on data obtained from Central Statistical Office.

Figure 2: Defense expenditure and external shocks
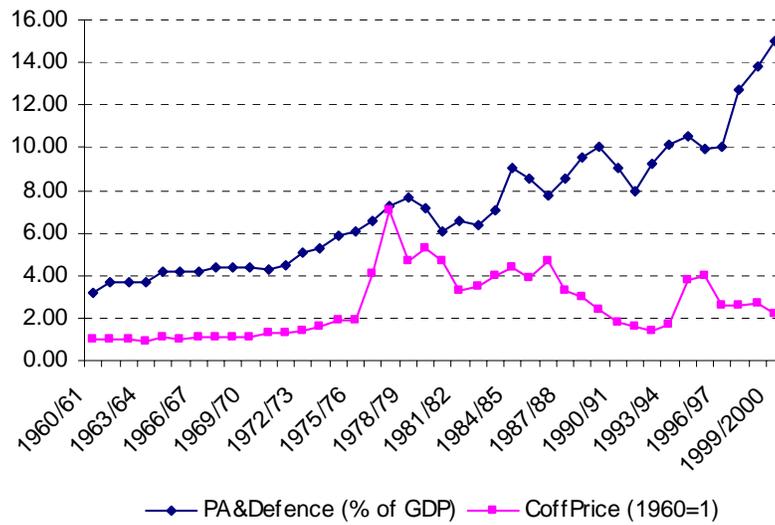
Source: MOFED for Public administration and Defense data and IMF International Financial Statistics for Coffee Price

Figure 1 shows that inflation exceeded 20 percent when there was a regime shift. However, the persistent and continuous functioning of institutions, as described above, ensured a return to price stability. Figure 2 shows that political episodes such as the war with Somalia (1977/78), and Eritrea (1998-2000) were associated with a sharp rise in defense spending. It also shows that the relative political stability of the imperial regime is associated with stable and modest level of public spending, as can be seen from the trend during the period 1960 -1973.

3.3 Markets and the growth process

The Imperial regime was based upon the landed gentry. Driven by socialist ideology, the Derg was bent on the destruction of the private sector and markets. Officially, the EPRDF has reinstated the market and endorsed the private sector. But by examining production and factor markets, we see that the departure from the control regime has not been as comprehensive as has often been claimed (Alemayehu and Befekadu 2005).

3.3.1 The product and the land markets

In the imperial period, land was privately owned. The church was also in possession of a good share of it. Political power is largely linked to the size and quality of land owned. The emperor rewarded local and regional authorities for their support by handing out land. The Northern part of the country was characterized by a communal ownership (the *rist* system), yet the peasants were the subjects of the regional lords to whom they had to provide nearly all their produce. In the south, the peasants were made serfs, under the *gabar* system of land rights[17]. The end of the imperial regime witnessed the rise of an active land market both in rural (usually for emerging commercial farms) and urban areas. The product market was also a liberalized one. These changes remained in effect until the 1974 revolution.

The Derg nationalized both urban and rural lands and it distributed them freely, but granted only usufruct rights. This policy effectively put to an end to the Imperial structure of power and to the emerging land market. Through its control over land and the Agricultural Marketing Corporation, AMC, the Derg was able to forcefully procure the agricultural surplus. The result was a decline in marketed surplus throughout that period (see L. Alemayehu 1987; 1992).

The EPRDF regime liberalized most of the product markets, but state ownership of the land is explicitly incorporated in the EPRDF's constitution. Notwithstanding official policy, however, the last two periods witnessed an emergence of a parallel market for land. Kebede and Croppenstedt (1995), for instance, found that in areas where land was acquired following the nationalization, the incidence of share cropping has increased and in most cases, sharecropped land is of average or better quality. They inferred that the parallel market is thus generating an efficient allocation of land. Abebe (2000), however, reports a lack of efficiency in land use. Alemayehu *et al* (2003) also found a small, but statistically significant, negative coefficient for the effect of land re-distribution on cereals output (see below). Abebe (2000) noted that the informal land market is operated by differentiated (as

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[17] See Teshale Tibebu (1995) for an excellent analysis of these issues using interesting analytical approach.

opposed to impersonal) agents with different bargaining power. Moreover, its operation is closely linked to other input markets.

Using a simple model, Haile (2000) has run a simulation of what the level of output would have been with and without the 1974 land reform. He found that the land reform is accompanied by a rise in output in the first 7 years and a decline thereafter. He rightly attributed the former to possible positive incentive to farmers following land distribution and the latter to the forced co-operativization and regulated price policies of the government.[18]

Whether privatization of land offers a solution to Ethiopia's growth problem in the current political context is highly debatable. In the short run, there seem to be a need for experimenting with a range of tenure systems.[19] In the long run, however, an active land market is needed if a meaningful and dynamic social and economic transformation is to be effected.

3.3.2 The labour market

Data from the Central Statistical Authority (CSA) show that unemployment rate in the rural areas increased from 0.4 to 0.7 percent between 1984 and 1994. The comparable figures for urban areas were 8 and 22 percent, respectively (MEDaC, 1999). Using a survey of about 1500 households, Krishnan *et al* (1998) estimated the urban unemployment rate in 1997 to be about 29.9 percent. The recent national labour force survey (1999) puts the total unemployment rate at 8 percent, with the urban and rural unemployment rate being 26.4 and 5.14 percent, respectively. Open unemployment is thus largely an urban phenomenon. Since the rural labour market is also very thin, people in rural areas use alternative institutional arrangements: household labor and traditional labour sharing arrangements As it functions largely in non-market fashion, the operation of the labor market is limited and highly seasonal (see Alemayehu *et al* 2003; Alemayehu and Alem 2005).

In the formal sector, wages have shown small gains since the 1990s (Krishnan *et al* 1998). Taye (2001) has found that skill formation yields greater job mobility and increased earnings. But Krishnan *et al* (1998) find that the labour market is rigid and unresponsive to the growing queue of educated job seekers.

3.4 Behavior of economic agents and the growth process

The Imperial regime was characterized by relative political and economic stability. Economic agents had relatively less risk both in terms of policy shock and natural shock such as drought. This resulted in a fairly buoyant economy with respectable growth.

In contrast, the Derg regime was actively engaged in eliminating private economic activity. Private ownership was legally prohibited, and entrepreneurship openly discouraged. Its policies constituted a major shock and reduced economic activity in the private sector. Peasants, moreover, were forced to supply their produce at fixed prices to the government marketing board, the AMC. The agents responded by withholding investment, curtailing entrepreneurial activity, and reducing

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[18] As noted before, good weather out turn is also crucial. Since Haile's regressions do not control for this it is difficult to attribute the negative dummy he used to the land reform alone.

[19] Desalegne Rahmato, one of the best rural development researchers in the country, has worked on the rural issues for the last four decades. He has suggested what he called 'associated ownership,' where community ownership could skilfully be configured with a market for land. It is an ingenious idea in the current political context of Ethiopia (see www.FSSEthiopia.com)

production to a level just sufficient to feed themselves and to satisfy the compulsory delivery targets imposed by the government.

While the EPRDF regime has reintroduced the market paradigm, it has nevertheless generated new risk factors. The most important is the remapping of the administrative framework onto ethno-linguistic lines and the affording of these ethno-linguistic entities constitutional guarantee for secession any time the majority feels like doing so. This reconfiguration is likely to limit labor and capital mobility across the ethnic enclaves, to heighten the risk of investing outside the 'ethnic home region,' and to increase the fear of political succession.

Such factors bear upon the productivity of rural agents and the rate of growth in their output. To explore this issue, we estimate a model that empirically captures these issues, using data from a rural household survey conducted in 1999 (see Appendix I for the model and the data). Since the rural households represent more than 90 percent of the population, the result can fairly be generalized not only for the country as a whole, but also for the Derg period, when the land policy resembled that of the EPRDF. The model explores for cereal production, which accounts for more than 80 percent of the total agricultural production (CSA 1999). It employs a Cobb-Douglas production function.

Table 4: Tobit estimates (dependent variable: output)

Variable	Column 1			Column 2			Column 3		
	Coeff	t-value	Slope*	Coeff	t-value	Slope*	Coeff	t-value	Slope*
Constant	4.29	49.5		4.19	50.3		4.05	44.6	
ln (labour)	0.21	9.0	0.21	0.15	6.54	0.15	0.15	6.61	0.15
ln (Land)	1.51	17.0	1.49	1.38	16.16	1.37	1.11	11.54	1.10
ln (Oxen)	0.36	5.44	0.35	0.33	5.25	0.33	0.28	4.52	0.28
Credit				0.14	2.0	0.14	0.11	1.5^	0.11
Fertilizer use				0.63	10.9	0.63	0.58	10.1	0.57
Land quality				0.04	50	0.04	0.014	0.70^	0.01
Redistribution							-0.08	1.65	-0.08
Climate							0.01	5.8	0.01
Diagnostic Tests	LR $\chi^2(3)$ = 770.54 Prob > χ^2 = 0.0000 Log likelihood = -1757.29 Pseudo R^2 = 0.1798			LR chi2(6) = 917.39 Prob > χ^2 = 0.000 Log likelihood = -1683.86 Pseudo R^2 = 0.2141			LR χ^2 (8) = 928.27 Prob > χ^2 = 0.0000 Log likelihood = -1678.43 Pseudo R^2 = 0.2166 ^ Not significant		

Number of observations = 1291 (11 left-censored observations at ln(output) ≤ 0; 1280 uncensored observations).
* Marginal coefficients

Column 3 introduces a measure of the expectation of land redistribution. The coefficient on land declines when this variable is entered into the model. In addition, the expectation about future land redistribution has a negative impact on production though the size of the coefficient is not large. The data also reveal that farmers who associate the future with risk tend to be reluctant to conserve and upgrade their land. Cross tabulation of soil conservation practices with expectation about size of land holding shows that about 60 percent of those who rate the future as risky do not practice soil conservation. Using a small sample (about 500 rural households), Tekie (2000) reports similar results.

In the urban areas, small and medium scale firms are largely engaged in food processing activities. They make a limited contribution to GDP, as the manufacturing sector as whole contributes less than 5 percent. These firms expanded during the Imperial regime but were nationalized by the Derg, after which they performed poorly. Following liberalization under the EPRDF, the sector revived. The government yielded management autonomy to some publicly owned firms, privatized others, and created incentive schemes to motivate the private sector.

Modeling the production function of manufacturing firms as a Cobb-Douglas with two basic inputs – labour and capital – we can explore the impact of the real exchange rate (RER) and tariffs (see Alemayehu *et al* 2004).

The Central Statistics Authority manufacturing sector survey reports data on food products and beverages, tobacco products, textile, leather, wood, paper and paper products, chemical products, non-metallic products and metal products for the period 1980/81 to 1998/99. The customs authority provides data on tariff rates. The National Bank of Ethiopia provides data for foreign prices, domestic prices and the nominal exchange rate, allowing us to calculate the real exchange rate as $RER = NER * \dfrac{P^f}{P^d}$, where NER is the nominal exchange rate and P^f and P^d are foreign and domestic prices, respectively. All nominal variables are deflated by the price level to have them in real terms. We estimate the coefficients of this model using pooled time series data for the nine sectors and 19 years with 171 balanced observations. To capture the liberalization of 1991, we enter a dummy variable in column 4 that takes a value of 0 before 1991 and 1 otherwise. The estimation result are reported in Table 5.

Table 5: Results: the general model of the manufacturing sector

Variable	Column 1		Column 2		Column 3	
	Coefficient	probability	Coefficient	probability	Coefficient	probability
Constant	7.014341	0.0000	6.224008	0.0000	5.531277	0.0000
Labour	0.284343	0.0005	0.197014	0.0277	0.238453	0.0072
Capital	0.303248	0.0000	0.359461	0.0000	0.315886	0.0000
Dummy/ Regime change	-0.217327	0.0454	-0.241697	0.0254	-0.461365	0.0004
Tariff			0.267489	0.0287	0.231010	0.0537
RER					0.719319	0.0025
Diagnostic Tests	Adjusted R^2 = 0.4913 DW = 0.1458 Log likelihood =14.0667 Prob. (F-stat) = 0.0000		Adjusted R^2 = 0.5028 DW = 0.1816 Log likelihood = 2.8908 Prob. (F-stat) 0.0000		Adjusted R^2 = 0.5268 DW = 0.1748 Log likelihood = 11.2736 Prob. (F-stat) 0.0000	

As the first column of Table 5 shows, both labour and capital play a significant role in the dynamics of the manufacturing sector. The coefficient on the dummy variable shows that a regime shift negatively affects the sector's performance. However, the impact of the regime shift is not the same across the different sectors. Its negative effect was not observed on the food, leather and tobacco industries. On the other hand, textile, wood, paper and non-metal producing industries were among

the worst affected by policy of liberalization.[20] The second column of Table 6a shows that tariff rate is positively related to the manufacturing output. This result is particularly strong for the metal, chemical and tobacco industries while being insignificant for the food, paper, leather and non-metallic producing industries. The real exchange rate has a strong and significant positive impact on the output, demonstrating the importance of the macroeconomic environment for industrial development.

We can also employ this model in a growth accounting exercise. As seen in Table 6, TFP accounted for more than 56 percent of the growth during the period 1990-1998. For comparison, TFP turned negative during the period 1980/81 -90.[21] This indicates the notoriously distorted policy of the hard control regime of the Derg. However, this trend is reversed during 1990/91 – 98/99. In this period, privatized large and medium scale industries saw improvements in efficiency due to changes in ownership. Publicly owned industries enjoyed a newly accorded management autonomy. These changes, coupled with access to imported inputs and the need for being competitive in the liberalized environment, led to a remarkable increase in the contribution of TFP.

Table 6: Growth accounting in the manufacturing sector

Period	Growth rates			Contribution to growth (in %)		
	Output	Capital	Labour	Capital	Labour	TFP
1980/81-89/90	-6.18	2.93	1.30	0.98 (15.85%)	0.87 (14.07%)	-8.03 (-129.93%)
1990/91-98/99	9.67	12.63	1.36	3.16 (32.7%)	1.02 (10.6%)	5.49 (56.7%)

Notwithstanding the positive effect of the reform, the FDI flows to Ethiopia remain negligible and are dominated by one firm (MIDROC Ethiopia), which is owned by a Saudi-Arabian tycoon who was born in Ethiopia and from an Ethiopian mother. The company has invested in a range of industries, services and agro-processing.

4. Conclusion

This chapter has shown that growth performance in Ethiopia has been disappointing, especially compared to that of other developing countries. The rate of growth has varied across the three regimes, the Derg regime's performance being the worst. GDP growth was the highest during the Imperial era (averaging 4 per cent and 1.5 per cent per capita), declined during the Military regime of 1974-91 (2.3 per cent and -0.4 per

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[20] This result is not surprising as most of the producers in these sectors were/are going out of the market because of the stiff foreign competition following the regime shift of 1991.

[21]   The average α value during this period is estimated to be 0.33; and capital was not found to be statistically significant in two of the nine manufacturing sectors. Moreover, capital also bears a negative sign in the other two sectors.

cent per capita) and revived during the post-Derg period 1992-1999 (3.7 per cent and 0.7 percent per capita). Total factor productivity growth was negative under all the three regimes, with the Military era scoring the lowest and the post-Derg era the highest.

There is a marked absence of structural transformation during the past four decades due to structural problems and initial condition, especially in the last two regimes. Applying the Augmented Solow Model and its 'conditional' variant to the Ethiopian data shows that the sources of GDP growth were intensive use of resources, especially labour. Productivity growth played little part, and when it did, its impact was negative. This finding should not come as a surprise given an economy that is operating with backward technology embedded in an often hostile policy environment, and vulnerable to external shocks, some meteorological and some originating in foreign markets.

The lessons from the last four decades are that the market-oriented policies provide the best opportunities for growth. The more the market has been tuned to local conditions and capacities, the better has been the outcome. Markets require institutional defenses, however. The long history of Ethiopia has bequeathed such institutions: the state, the military, the church, the Ministry of Finance and the central bank, as well as indigenous self-help associations. Most are archaic, however. And they have been riven with conflict, as one group or the other seeks to control them to advance its interests. This, in turn, has led to cycles of violence and created levels of risk   sufficient   to   thwart   the   growth   of   the   economy.

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Appendix I: A Model of Constraints on Rural Microeconomic Agents

In order to investigate factors that constrain the productivity of the rural households, a simple Cobb-Douglas production function is specified. The output of household i is given by:

$$Y_i = \prod_j (\mathbf{X}_{ij}^{\beta_j}) \prod_k (\mathbf{Z}_{ik}^{\alpha_k}) e^{\gamma + \mu_i} \qquad [1]$$

where Y_i is the output of the ith household, $\mathbf{X_{ij}}$ is the ith household's use of the jth input, $\mathbf{Z_{ik}}$ is the effect of other variables k on the ith household, β_j and α_k are elasticities of Y with respect to $\mathbf{X_j}$ and $\mathbf{Z_k}$, and γ and μ_i are the constant term and the stochastic disturbance term, respectively.

For estimation purpose equation [2] can be linearized as

$$LnY_i = \Sigma \beta_j \ln \mathbf{X}_{ij} + \Sigma \alpha_k \ln \mathbf{Z}_{ik} + \gamma + \mu_i \qquad [2]$$

Equation [2] can, thus, be augmented, in a semi-log form, to capture the effects of other variables apart from the physical inputs:

$$\ln Y_i = \gamma + \beta_1 \ln(labour)_i + \beta_2 \ln(Land)_i + \beta_3 \ln(OX)_i + \beta_4(fert)_i + \beta_5(land\ quality)$$
$$\beta_6(climate)_i + \beta_7(redistribution) + \beta_8(credit)_i + \mu_i$$

$$[4]$$

Where:

Output	Measured as total cereal production by household i.
Land	Area of land used for cereal production by household i
Labour	Total adult equivalent man-days including family and non-family members labour.
OX	Number of animals used in cereal production by household i.
Fertilizer	Chemical fertilizers used. For the purpose of estimation this variable is used as a dummy variable in which those households who used chemical fertilizer are assigned 1 and 0 otherwise.
Land quality	Three types of land quality are identified in the questionnaire. These are fertile, infertile and intermediate. The land quality is indexed from 1 to 3, in which 3 indicates fertile land, 2 intermediate land, and 1 indicates the infertile or least fertile land.
Credit	Loan acquired by household i for agricultural activities.
Redistribution	In the questionnaire the households are asked about their future expectation about their land holding size. The response is categorized into four groups: 'increase', 'decrease', 'no change' and 'do not know'. Those households with the response of 'decrease' and 'do not know' are considered to be uncertain about the future and hence categorized as one group and considered to associate some risk premium about their land holding while the rest – those with the response of 'increase' and 'no change' – do not expect future risk in relation to their land size and are hence classified as one group. Thus,

           this variable is treated as a dummy variable in which 1 indicates negative expectation and 0 otherwise.

Climate   This variable is a combination of environmental variables including total rainfall, distribution of rainfall, availability of rain near harvest season, prevalence of storm, hail, frost and flood. To get a reasonable measure of the impact of such natural factors, the above indicators are indexed as indicated in Table A1.

Table A1. Climate variables

Total Rainfall		Distribution of Rainfall		Rainfall near harvest		Natural Calamities					
						Response	Storm	Hail	Frost	Flood	Total
Good	3	Excellent	3	Yes	2	No	2	2	2	2	16
Shortage	2	Good	2	No	1	Yes	1	1	1	1	9
Excess	1	Poor	1								2
Can't recall	0	Can't recall	0								0

Data and Estimation

The relevant variables are extracted from the 5th round (1999) Ethiopian Rural Household Survey conducted by the Department of Economics of the Addis Ababa University. The survey covered 1681 household in 18 villages spanning 15 districts. The sample was selected using systematic sampling method in which the households in the villages were selected randomly after the villages were identified so as to capture the major farming regions (see Negus 2001[22] and Croppenstedt and Mulat 1997 for a good summary of the survey structure).

For the initial sample 1681 households, we selected 1291 major cereal-producing households for estimation purposes (apriori truncation). In addition, the outliers in the data set are filtered following Mukherjee *et al* (1998) defining an observation Y_0 as an outlier if $Y_0 < Q_L - 1.5*IQR$ or $Y_0 > Q_U + 1.5*IQR$ where IQR is the inter quartile range and Q_L and Q_U are the lower and upper quartiles, respectively. This process entails censoring the sample. The resulting dataset is both truncate and censored, implying that OLS give biased and inconsistent estimates of the parameters (Maddala 1983); to take care of this, we used Tobit regression.

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[22] Unpublished MSc thesis, Addis Ababa University