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Taxes and Tax Reform in Ethiopia, 1990-2003

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Abstract

In 1991 the Ethiopian Revolution Democratic Front (EPRDF) toppled the old 'socialist' regime that had ruled the country for seventeen years. In contrast to the previous policy regime of hard control, EPRDF initiated a wide range of reforms that covered not only the tax system but also the exchange rate, interest rates, trade, domestic production and distribution. This paper attempts to explore the contribution of the tax reform, the changes in its structure and institutional reform in order to understand its role in raising revenue.

Keywords: tax reform, fiscal policy, distribution of income, incidence analysis, Ethiopia, Africa

JEL classification: D1, D3, D6, E6, H0, H2, H4

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1   Introduction

In Ethiopia the year 1991 marked the end of the previous policy regime of hard control that had lasted for nearly two decades. This was the year when the seventeen-year old 'socialist' regime was toppled by the coalition of rebel forces, the Ethiopian Revolution Democratic Front (EPRDF), which formed the current government. Starting from 1992, the EPRDF has initiated a wide range of reforms that can be termed as liberalization. Reform of the tax system was among the range of liberalization polices that also extended, among others, to the exchange rate, interest rates, trade, domestic production and distribution.

After the 1992 liberalization, investment grew rapidly. But this increasing level of investment could not be financed by domestic resources alone. Savings declined sharply in 1990/1 (a period of violent change in the government). Since then, there has been some recovery, only to decline further by the end of the 1990s. Public saving has shown quite a remarkable recovery in the 1990s. Thus, in this respect the government's fiscal policy seems promising.[1] However, total domestic saving was far below the level of investment, and this resulted in a government deficit of about 10 per cent of GDP per annum in the last decade (see Geda 2005). The current government has registered modest achievement in terms of fiscal policy, chiefly through revenue generation, but this is being frustrated by the war with Eritrea and the natural disasters of the recent past.

The deficit also points to the country's dependence on external resource in bridging its resource gap. This is more obvious in the financing of government capital expenditure than anywhere else (Geda 2005). Current expenditure is largely financed by government revenue, which is a positive development. For instance, external assistance constituted on average only 8 per cent of the total recurrent expenditure during the period 1985/6 to 1990/1. This figure rose sharply to 12 per cent in 1991/2 but dropped to an average of 3 per cent for the period 1991/2-97/8. On the other hand, in financing capital expenditure, the external sector accounts for approximately 20 per cent in terms of loans and around 10 per cent in terms of assistance. An interesting development for this period was the sharp rise in the treasury financing of capital expenditure that grew from around 50 per cent at the beginning of the 1990s to about 70 per cent at the end of the decade—a commendable achievement (see Geda 2005) which might have something to do (in particular) with the tax reform being carried in Ethiopia.

This paper attempts to explore the contribution of the tax reform, the changes in its structure and institutional reform in order to understand its role in raising revenue (sections 2 and 3). However, as this might have distributional implications, we examine this issue using incidence analysis (section 4). Section 5 concludes the paper.

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[1]   A simple regression suggests in Ethiopia the possibility of crowding-in.

2 A chronology of the main tax reforms, 1990-2003

2.1 An over view of the tax system and the tax reform

The first major change in Ethiopia's tax system was initiated in the post-Second World War period (between 1942-44), the years 1947-52 covering its second stage. These changes were generally discretionary, including amendments to property taxes (land and cattle). Broad-based taxes on goods and services were also introduced in the mid 1950s. Later in the decade and in the early 1960s, changes were also made in the rate and structure of taxes, especially on income. In the post-revolution period (1974-91), particularly during 1976-79, significant major changes on the rate and structure of all types of taxes were made. These involved widening the land taxbase, introducing capital and surplus transfers from nationalized firms, as well as certain minor arrangements on other taxes (Wogene 1994: 26-7).

Leaving aside this brief description of the evolution of the tax system before the 1991/2 reform, the subsequent taxing system in Ethiopia can be divided into three broad categories: (i) taxes on income and profits, (ii) taxes on goods and services and (iii) taxes on international trade. Most of these taxes have been reformed and amended in the last decade following the general 1992 liberalization (or reform) policy. Some institutional reforms aimed at enhancing the government's capacity to raise tax revenue have also been made.

2.2 The three major taxes and tax reform

Taxes on income and profits

Tax on employment income used to be guided by Income Tax Proclamation No. 173/1961. In the 1990s, this proclamation was amended with modifications to the legislation regulating income tax on employment: rural land and agricultural income tax; rental income tax; taxes on business and other profits; tax on income form mining activities; capital gains tax, and taxes on other sources of income such as chance wining (which carries a tax rate of 15 per cent), royalties (with a tax rate of 5 per cent) and tax on non-resident persons offering services in Ethiopia (which carries a tax rate of 10 per cent) (see Appendix Table 1 for details).

This reform resulted in a schedule for marginal tax rate which is currently being applied to income exceeding Birr 150, the assumed minimum wage rate.[2] Compared to the marginal tax rate of 89 per cent during the military (*Derg*) period, the current reform which reduced the maximum marginal tax rate to 35 per cent was quite radical. The 1978 income tax for rural land and agricultural activities was also amended in 1995 and 1997. For land use, farmers are now taxed Birr 10 for the first hectare and Birr 7.5 for each additional half hectare. Moreover, annual income exceeding Birr 1,200 is subject to a progressive tax rate (as outlined in Appendix Table 1). The land use fee for state farms is Birr 15 per hectare. A novel aspect of the latest tax policy concerning the agricultural sector is the fact that an agricultural investor is exempted from income tax for two consecutive five-year periods. A progressive marginal tax rate schedule was

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[2] Details of this marginal tax rate are given in Appendix Table 1.

also enacted in 2002 for income derived from the rent of houses (including manufacturing plants).

Taxes on goods and services

The reform in this category refers to Excise Tax Proclamation (Nos 68/193, 77/1997, and 149/1999), and the applicable tax rate ranges from a low of 10 per cent on textiles and television sets to 100 per cent for alcohol, perfumes and automobiles. Sales tax on goods constitutes the second category and these range from 5 per cent (mainly for agricultural goods) to 15 per cent.

Many basic goods are exempt from taxation. The reform also introduced a 5 per cent tax rate for work contracts and financial services, while a 15 per cent rate is applied to the sale of other services. Valued-added tax (VAT) was introduced in January 2003 and may mean a shift from Ethiopia's dependence on foreign to domestic trade, but it is too early to evaluate its impact. It is not, however, difficult to see that its implementation is a challenge, owing to the predominance of small and informal operators in the country, its history of tax evasion and corruption, lack of standard recordkeeping systems as well as the lack of knowledge about VAT and a taxbase for its computation.

Taxes on international trade

The reform of taxes on international trade relates to levies on imports (customs duty, import excise tax, import sales tax) and tax on exports. The custom tariff reform that took place between 1993 and 2002 grouped imports into 97 categories based on the Harmonized System of Tariffs Classification Code. An *ad valorem* rate ranging from 0 to 35 per cent was introduced.[3] The same rates were applied for import excise and sales taxes as those established for goods and services (see section above). An important development in the export sector was the abolition of all export taxes, with the exception of coffee. Similarly, to encourage exports, schemes for duty drawback and duty free imports were implemented (see Appendix Table 1 for details).

Other miscellaneous tax-related reforms have been carried out in the last decade. These include the amendment of stamp duties (Proclamation No. 110/1998); the introduction of a 3 per cent withholding tax (Proclamation No. 227/2001), a 2 per cent withholding tax on income (Proclamation No. 227/2001), as well as a 5 per cent withholding tax on interest income (Proclamation No. 227/2001).

2.3 The administrative reform

The current tax-to-GDP ratio of about 13.7 per cent (see Appendix Table 1) calls for reform not only on the tax rates but also on its administration. Tax reform began in 1999, and one of the changes was to scale up the 'revenue board' to ministerial level to become the Ministry of Revenue. This ministry controls the three revenue collection institutions: Federal Inland Revenue (FIR), Ethiopian Custom Authority (ECA) and the National Lottery Administration (NLA).

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3 The rates are: 0-10 per cent on raw material; 0-20 per cent on pharmaceuticals and chemicals; 20-35 per cent on durable and non-durable goods, and 35 per cent on luxury goods and goods that can be produced locally.

Major components of the reform focused on reducing corporate income tax from 35 to 30 per cent and the maximum income tax rate applicable to a sole proprietor from 40 to 35 per cent. The new income tax law also allowed deductions for business expenditures such as tax payments, land lease payments, interest payments on loans, insurance premiums and other expenditures, which previously were not deductible from taxable income. It also provided provisions for loss carry-forward, and capital gains as well as withholding taxes (MoR 2003). The reform also improved application of the business income tax by replacing the earlier assessment method of presumptive tax that had been based on estimates with a more simplified standard method less vulnerable to corrupt practices. Based on a recent study, the government has also revised the outdated profitability rate that had been used for the computation of taxes. New presumptive taxes were established: an advance business profit income tax on commercial imports (3 per cent on cif) and withholding tax of 2 per cent on payments made by private limited companies (MoR 2003).

To align the Ethiopian system with the international trend towards indirect taxes, the government introduced a value-added tax (VAT) of 15 per cent on 1 January 2003 to replace the earlier sales tax on imports and domestically manufactured goods. VAT is not applied to transportation or kerosene nor on medical, financial and educational and other services. This, together with the reduction in income tax, is believed to ease the tax burden of the low-income population. Turnover tax was also introduced for business enterprises whose annual turnover of taxable good is less than the VAT registration threshold of Birr 500,000. The tax applied is 2 per cent for goods and 10 per cent for services (MoR 2003). The excise tax proclamation of January 2003 also included provisions for a reduction in tax payment by excluding depreciation from the cost of production.

In conjunction with this reform, the Ministry of Revenue re-organized the FIR by introducing and improving operational programmes, systems and procedures. The other reform measures include the establishment of additional branch offices, training and recruitment of qualified personnel, introduction of performance and accountability measures, setting up a taxpayer education programme and similar initiatives aimed at implementing the new income tax, VAT, turnover tax and excise tax proclamations. The government is currently in the process of upgrading its computer system, implementing the use of a tax identification number for the enforcement, verification and processing of sales tax and VAT refund claims (MoR 2003). These reform efforts are being carried by ensuring the participation of the regional tax authorities in the development of these new tax legislations. (MoR 2003; see also Fantahun 2002).

3 The evolution of tax revenue and its composition, 1990-2003

The tax-related data of the last four decades in Table 1 show the evolution of tax revenue as a share of income, as well as its composition. Half-decade average values of the tax revenue and its structure provide a benchmark in understanding the development of tax revenue and its structure in the last decade, as is shown in Table 2.

Tax revenue, which constitutes a lion share of total revenue (about 90 per cent in 1961-65 and 70 per cent in 1986-89) had grown rapidly between 1960-90, rising from

Table 1
Historical evolution of tax revenue, 1961-90

Year	% of GDP			Share of different taxes in total tax revenue (%)					
	Total revenue	Tax revenue	Non-tax revenue	Income tax	Property tax	Taxes on domestic goods & services	Taxes on international goods & services	Enterprises	Non-tax
1961-65	8.1	7.3	0.8	10.2	11.6	23.3	44.0	4.3	5.7
1966-70	9.5	8.4	0.8	10.7	10.6	24.5	44.2	4.7	4.3
1971-75	11.0	9.6	0.8	11.5	9.5	25.5	43.1	4.8	4.5
1976-80	15.8	13.1	0.9	12.7	8.3	26.5	41.5	4.8	5.0
1981-85	21.4	16.2	0.9	14.7	7.2	27.3	39.3	5.1	8.8
1986-89	27.6	18.7	1.0	16.3	6.3	28.1	37.0	5.2	9.2

Source: Authors' computation form Wogene (1994).

about 7 per cent of GDP in 1961-65 to 18.7 per cent in 1986-89. The bulk of this revenue comes from taxes on goods and services in general and taxes on foreign trade in particular; the latter constituting an average of 44 per cent of total tax revenue in the first half of the 1960s and 37 per cent in the second half of the 1980. This is followed by taxes on domestic goods and services, about 23 and 28 per cent of total tax revenue respectively in the two periods mentioned. This category of taxes has also exhibited a rising trend. The share of income tax, which is modest, has shown an increasing trend while property tax has declined. This is partly explained by the nationalization policy of the *Derg* regime which effectively eliminated private firms and substituted tax revenue with income transfers from nationalized firms. In general, the years 1960 to 1990 can be characterized as a period of rapid growth in tax revenue and very heavy dependence on taxes from international trade (see Table 1 and Appendix Table 2).

Given this background, it is interesting to examine the evolution of tax revenue and tax structure over the recent past. The decade of the 1990s is distinguished from the earlier period mainly because of the liberalization policy that had been pursued since 1991 and which replaced the more than twenty years of hard control by the *Derg*. The analysis is also interesting in terms of the tax regime because the second half of the 1990s witnessed the implementation of a wide-ranging tax reform, as described above.

Although it is too early to draw firm conclusions, tax revenue as share of GDP shows a rising trend. Not withstanding this positive trend, the actual figure, which is about 14 per cent of GDP for the year 2000/01, is far below the corresponding figure for other developing countries. This modest result has made government financing of investments dependent on loans and grants (total revenue and grants for the same year were about 24 per cent). For the decade as a whole, the average shares of tax revenue, direct taxes, indirect taxes, taxes on international trade, non-tax revenue and total revenue and grants in GDP were 11.2, 3.8, 2.9, 4.3, 5.4 and 19.6 per cent, respectively. This is indicative of the low level of tax collection in the country (see Table 2a and Appendix Table 2).

Table 2a
Recent trends of tax revenue as percentage of GDP, 1990-2002

European calendar	1990/1	1991/2	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8	1998/9	1999/00	2000/1
Ethiopian calendar	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Tax revenue	10.7	7.8	8.3	10.9	11.4	12.5	12.9	11.8	11.4	11.8	13.7
Direct taxes (income and profit taxes)	4.2	3.2	2.6	3.2	3.6	4.3	4.2	3.7	3.8	4.2	4.6
Indirect taxes (domestic)	3.9	2.6	2.8	2.9	2.8	3.0	3.1	2.7	2.5	2.8	2.5
Tax on foreign trade (total)	2.4	2.0	2.7	4.6	4.8	4.8	5.2	5.0	4.7	4.5	6.1
Non-tax revenue	3.4	2.8	3.7	3.0	6.0	5.9	6.1	6.9	8.3	7.0	5.8
Total revenue and grants	16.5	13.2	13.7	17.4	20.8	21.3	22.6	21.3	23.0	21.7	24.4
GDP at current price (in millions of Birr)	19,195.3	20,792.0	26,671.4	28,328.9	33,885.0	37,937.6	41,465.1	44,840.3	48,687.6	52,002.7	54,210.7

Source: Authors' computation based on MOFED data (2003). See Appendix Table 2 for details.

Table 2b
Composition of tax revenue, 1990-2001

European calendar	1990/1	1991/2	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8	1998/9	1999/00	2000/1
Ethiopian calendar	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Direct taxes (income and profit taxes)	38.9	29.7	24.3	29.7	34.0	40.6	39.4	34.5	35.4	38.9	33.2
Indirect taxes (domestic)	36.9	24.0	26.1	27.5	26.1	28.5	29.1	24.8	23.1	25.9	23.8
Tax on foreign trade (total)	22.6	18.9	25.3	42.8	44.7	44.7	48.8	46.6	44.3	41.8	47.3

Source: Authors' computation based on MOFED data (2003). See Appendix Table 1 for details.

Table 2b shows the evolution of the tax revenue structure in the last decade. In general, direct taxes and taxes on foreign trade both show a trend of an increasing share in total tax revenue. Indirect tax, on the other hand, exhibits a general declining trend. Similarly to the years between 1960 and 1990, tax on foreign trade is dominant, accounting for 47 per cent of total tax revenue. Although not as dramatic as in the year 2001 (Table 2b), the decadal average for the 1990s shows a similar pattern, with the share of direct, indirect and foreign trade taxes being, respectively, 35, 27 and 40 per cent (see Table 2b and Appendix Table 2).

It is interesting to note the major contribution of foreign trade and to compare it with that of the agricultural sector which employs about 85 per cent of the population. Agriculture's share to public revenue has been fairly constant at about 10 per cent (both for agricultural income tax and land use fees) of direct taxes. This share was actually declining in the late 1980s but recovered in the post-reform (1991) period. Thus, agriculture's contribution to public revenue is not significant even though it is the dominant sector in terms of output and employment. Perhaps this points to some structural imbalance in tax revenue and major economic activity (see Geda 2002).

4   The distributional impact of the recent tax reforms: incidence analysis

Ethiopia, like most countries in Africa, has been making considerable efforts in recent years to restructure its tax system with a view to increase tax revenue as well as reduce distortions in the economy. The impact these reforms have had on the poor is of considerable importance to policymakers, given that the poor and the vulnerable constitute a significant majority of the population in Ethiopia. However, to analyse the distributional impact of its tax system is not so straightforward. There are several reasons for this. First, tax evasion is considered to be substantial in Ethiopia, leading to unintentional consequences on income distribution. Second, a substantial portion of tax revenue comes from commodity taxes whose effect on income distribution is essentially determined by household consumption patterns and the market structure. Thus, disentangling the effect of the tax system *per se* on income distribution from the distortions arising out of tax administration and market imperfections becomes difficult. The third factor is the paucity of data that are needed to analyse the welfare effects of tax reform: this lack extends to social accounting matrices, and sufficient rounds of household income and expenditure surveys. In this study, we make use of a one-period household income and consumption survey to illustrate the likely distributional impact of commodity taxes (indirect taxes) in Ethiopia.

In terms of methodology we use the notion of concentration curves that are convenient for looking at the welfare impact of tax reform in a revenue-neutral setting.[4] Concentration curves are generalized forms of the popular summary measure known as the Lorenz curve. In many planning exercises and issues of economic growth, the distribution of expenditure on various goods across a spectrum of household characteristics renders valuable insights for policy options. Mahalnobis introduced the concept of concentration curves whose properties were illustrated and rigorously

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4   See also Rajemison, Haggblade and Younger (2003) and Younger *et al.* (1999) for the application of concentration curves on African data and Seifu (2003) on Ethiopia. Early attempt was made by Shimeles (1993) for Ethiopia using the 1980/1 household income and consumption survey.

discussed by Roy, Chakravarty and Laha (1959); later Kakwani (1980) provided proof of some of the empirical properties, and Yitzhaki and Slemrod (1991) used them to analyse issues of marginal tax reform in a revenue-neutral setting.

As defined by Roy, Chakravarty and Laha (1959), a 'concentration curve' for a commodity X gives the percentage of the total consumption of the commodity x consumed by the poorest 100 per cent of the population' (1959: 481) or in the words of Yitzhaki and Slemrod (1991: 481), 'the concentration curve is a diagram similar to the Lorenz curve. On the horizontal axis, the households are ordered according to their income, while the vertical axis describes the cumulative percentage of the total expenditure on specific commodity that is spent by the families whose incomes are less than or equal to specified income level'. This definition of a concentration curve embodies the income effects, and Roy, Chakravarty and Laha (1959) introduced relative concentration curves to normalize the effects of differences in purchasing power so that the effect of differences in preferences for various commodities could be captured neatly. Kakwani (1980: 165-6) proved important theorems pertaining to concentration curves, of which the following are repeated here for the purpose of this paper:

i)   If the income elasticity of commodity i, E_i, is greater than the income elasticity of commodity j, then the concentration curve for i lies above the concentration curve for j;

ii)   The concentration curve for commodity i will be above (below) the egalitarian line if, and only if, E_i is less (or greater) than zero for all income level greater than zero.

iii) The concentration curve for commodity i lies above (below) the Lorenz curve if, and only if, E_i is less (greater) than unity for all income greater than zero.

It follows, therefore, that if the concentration curve of a commodity lies above the egalitarian line, it is an inferior commodity; if the concentration curve lies between the Lorenz curve and the egalitarian line, it is a necessary commodity, and if the concentration curve lies below the Lorenz curve, the commodity is a luxury.

Yitzhaki and Slemrod (1991) made insightful use of concentration curves in the realm of public economics to analyse issues of tax reform. It is becoming rather conventional in the literature to look at the structure of indirect tax systems, and the possibility of reform by maximizing the social-welfare function of the community subject to government revenue constraint.[5] This approach presupposes knowledge of indirect utility function of the community, and thus the respective demand systems in order to be of any empirical use. When one looks at the severe limitations that developing countries face in meeting the data requirements of this approach, then the search for an alternative method is very compelling. In this respect, the marginal conditional stochastic dominance rules (MCSD) developed by Yitzhaki and Slemrod (1991) using the concept underlying concentration curves can be considered as a significant step to that end.

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[5] See Atkinson (1970) for the specification of a social-welfare function; Ahmad and Stern (1984), King (1983), Cragg (1991) for empirical application and Deaton (1979, 1981) for the implication of additive preferences to optimal commodity taxes.

MCSD is defined (Yitzhaki and Slemrod 1991: 482) as a state where,

> if the (shifted) [due to tax incidence] concentration curve of one commodity is above the (shifted) concentration curve of another commodity, then, the first commodity dominates in the sense that a small tax decrease in the first commodity accompanied by a tax increase in the second (with revenue remaining unchanged) increases social welfare functions ... In other words, if and only if concentration curves do not intersect, will all additive social-welfare functions show that the tax change increases welfare. We refer to these rules as marginal conditional stochastic dominance rules.

Normally this proposition would have required the plotting of n(n-1)/2 curves which, for a sufficiently large number of commodities, becomes cumbersome. The Gini coefficient has been used to identify a group of easily computable necessary conditions for welfare dominance through translation into income elasticities. This condition states that the income elasticity of commodity *i* be lower than that of commodity *j* for commodity *i* to dominate commodity *j* in the event they are subject to an indirect tax. We have attempted to employ an aspect of this approach in this study.

The dataset used to analyse the distributional impact of tax incidence in Ethiopia comes from the 1999/2000 household income and consumption survey conducted by the Central Statistical Authority. The data are nationally representative, and consist of more than 17,000 households. The consumption data comprise more than 250 different consumption items collected over a period of one year when sample households were interviewed on their consumption habits during a recent week. In all, four visits were made at intervals of a week. In this sense, the data are adjusted for seasonalities as well as other unintended expenses.

The method, based on the concept of concentration curves, provides a partial ranking of various commodities subject to different forms of indirect taxation on their equity implications. The selection of commodities is based on their relevance to the overall tax revenue of the Ethiopian government and their characteristics for easy identification to illustrate tax incidence. At the time of the survey, there were three types of commodity taxes in Ethiopia: excise tax, import duties and sales or transaction taxes. The exercise here is to identify the relative burden borne by the poor population. The commodities selected were food (only spaghetti, pasta, and bread flours), tobacco, alcohol, kerosene, butane gas, cooking oil, electricity, *chat*, sugar, salt, and watches. To complete the analysis, access to education was also considered in the distribution of benefits of freely provided services. The relevant concentration curves are illustrated in Figures 1 to 3.

For the comparison of the burden of taxes, the egalitarian line (45° line) and the expenditure Lorenz curve are taken as reference points. Accordingly, taxes paid on tobacco, watches, food, alcohol, cooking oil, and butane seem to be progressive as their concentration curves lie below the Lorenz curve. Taxes on salt, and to a certain extent also on kerosene and sugar, tend to be regressive. In terms of income elasticities, the commodities under progressive tax are luxuries, and those under regressive tax systems are necessities. From this simple illustrative analysis, the following inferences also can be made for policy purposes. First, most commodities in Ethiopia have a progressive tax structure, implying that the burden of tax incidence is less on the poor population. The second point is that reforms directed at shifting taxes away from the necessities to the luxuries improve welfare. As an example, tax reduction on salt, sugar and kerosene

with a corresponding increase on such items as alcohol, tobacco, and even watches can improve social welfare. Finally, based on the concentration curves, electricity, the only selected commodity not subject to tax is one of the commodities belonging to luxury items. Thus, taxing kerosene while exempting electricity diminishes welfare. The same argument also applies to cooking oil, which surprisingly is also a good with higher income elasticity than, say, kerosene.

Figure 1
Concentration curves for selected commodities in Ethiopia
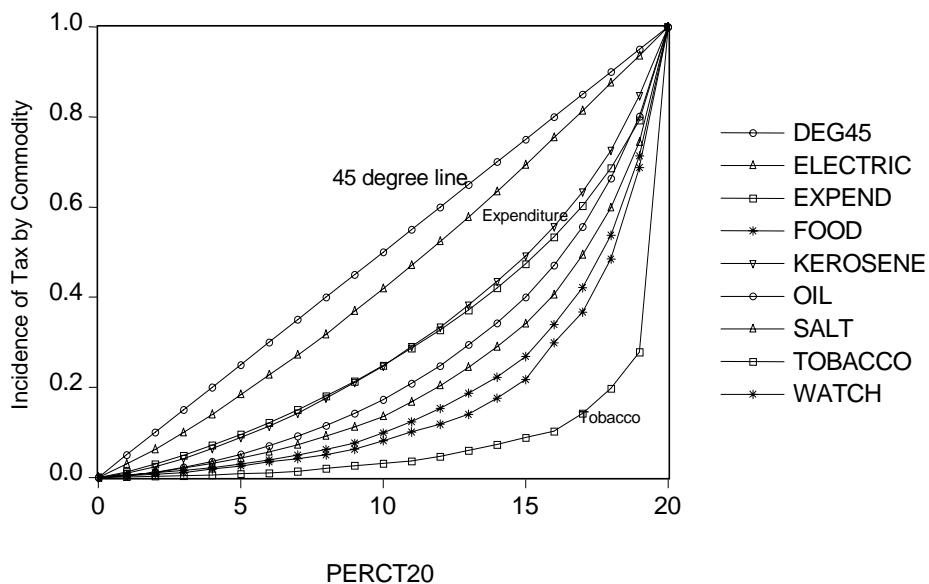
Source: Authors' computations base on the 1990/00 household income and consumption survey.

Figure 2
Concentration curves for selected commodities in Ethiopia

Source: See Figure 1.

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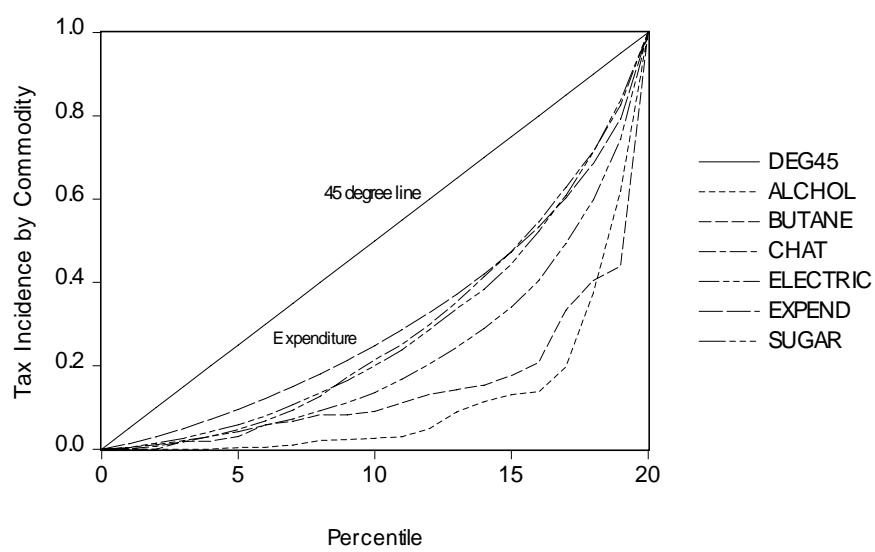
Figure 3
Concentration curves for education in Ethiopia
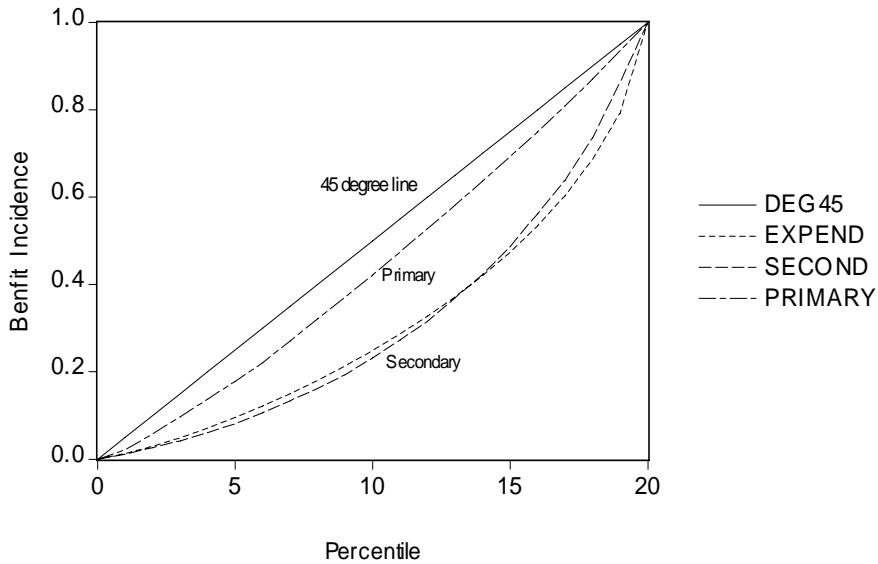
Source: See Figure 1.

Finally, an attempt was made to look at how some of the taxes collected revert back to the households in the form of freely provided public services such as education, health and other basic amenities. For illustrative purposes, education was taken because of its size in total government expenditure and its influence on household earnings. As Figure 3 shows, the benefits of primary education seem to be uniformly distributed and can, in terms of elasticities, be considered a necessity. Thus, free education at primary level was equitably distributed. Secondary level education, on the other hand, tends to be distributed unequally among households. In fact, better-off households benefit more than poor households. If one takes tertiary education as an illustration, it is obvious that it is unevenly distributed. One, however, needs to interpret this result with caution. There is a problem of endogenity in the relationship between education and income. Since this distribution analysis is based on ex-post events, it is possible that people are in the higher-income group because they achieved higher level of education instead of the other way round.

5   Conclusion

The evolution of tax revenue and its structure in Ethiopia is closely related to the three distinctive policy regimes that existed in the country over the last four decades. During the imperial regime that ended with the 1974 'socialist' revolutions, the policy regime can be characterized as loose-control regime. This was the period when major taxes and the requisite tax administration institutions were built. The government was dependent on taxes from international trade. This era was followed by the hard-control regime of the military that was in power over the years 1974-91. The hard-control regime enacted tax laws consistent with its socialist economic policy. As all privately owned firms had been nationalized, the source of government revenue shifted from tax to the surplus transferred from nationalized firms and other transfers from rural areas through the

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agricultural marketing boards. Thus, the importance of tax revenue as such was significantly reduced.

The end of the hard-control regime in 1991 witnessed the coming into power of the current government (the Ethiopian People Revolutionary Democratic Front, EPRDF). This regime, which can be termed as loose-control regime has engaged in the liberalization of the economy since 1992. General liberalization extended, among other things, to reform in taxation and tax administration. The government scaled up the previous revenue commission to the level of a ministry and rationalized its activity through recruitment of skilled personnel and training of the ministry's staff. The government has also enacted a number of proclamations aimed at reforming the income tax, taxes on goods and services, and tax on international trade. In line with the liberalization drive, the government not only reduced the average level of tax and tariffs but also made the move to focus more on the value-added. This was augmented by an effort to introduce information technology to increase the efficiency of tax administration. Although it is too early to evaluate the effect of these reforms, the overall result shows that tax revenue has been increasing over the recent past. International institutes such as the World Bank have begun to refer to Ethiopia as one of the highly taxed economies of the region.

The analysis of the distributional impact of tax reform pointed to some interesting facts about tax incidence in Ethiopia. In general, most commodities that are subject to some kind of tax, whether excise or import duty or sales tax, turned out to be progressive. But commodities such as salt, sugar and kerosene tend to be regressive, suggesting that reduction of taxes on these commodities compensated by taxes on, say, tobacco, alcohol or butane, or even electricity for that matter, could enhance overall social welfare. In addition, the distributional impacts of the benefits of freely provided services such as education were examined. The results indicate that primary level education is more or less uniformly distributed as compared to secondary level education, suggesting that the non-poor benefit disproportionately from free secondary level education.

Appendix Table 1
Summary of the current tax system

	Tax	Nature of tax	Deductions and exemptions	Rates		
1	Taxes on income and profits Proclamation No. 173/1961, as amended.					
1.1	Income tax on employment Proclamation No. 30/1992 Proclamation No. 107/1994 Proclamation No. 289/2002	Tax on income from employment includes (without limitation) salaries, wages, allowances, directors' fees, and other personal emoluments. Tax withheld by employer.	The first Birr 150 of monthly income is exempted.	The marginal tax rates are as follows:		
				No.	Monthly taxable income (Birr)	Marginal taxi rate (%)
				1	151-650	10
				2	651-1,400	15
				3	1,401-2,350	20
				4	2,351-3,550	25
				5	3,551-5,000	30
				6	5,001 or more	35
1.2	Rural land and agricultural activities income tax Proclamation No. 77/1997 Proclamation No. 152/1978 Proclamation No. 8/1995 (Oromia)					
1.21	Rural land use rent	An annual rent payable on rural land used for agricultural activities in Oromia regional state.	Agricultural investors exempted for 2-5 years.	Farmers: Birr 10 for the first hectare plus Birr 7.50 for each additional half hectare. State enterprises: Birr 15 per hectare.		
1.22	Income tax	Tax payable on any annual income derived from agricultural activities.	Agricultural investors exempted for 2-5 years.	For income less than Birr 1,200 per annum: Birr 15. For income of Birr 1,200 per annum or higher, marginal tax rates are as follows:		
				No.	Annual taxable income (Birr)	Marginal tax rate (%)
				1	1,201-5,000	5
				2	5,001-15,000	10
				3	15,001-30,000	20
				4	30,000-50,000	30
				5	50,001 or more	40
				State farms owned by regional governments: 40%.		

Appendix Table 1 (continues)

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Appendix Table 1
Summary of the current tax system (con't)

Tax	Nature of tax	Deductions and exemptions	Rates		
	Tax on income derived from the rent of houses, office buildings, manufacturing plants, materials and goods, etc. Tax computed on the basis of annual rent income after deducting allowable expenses.	Annual depreciation and allowable expenses are deducted from gross income. The first Birr 1,800 of annual income exempted.	No.	Annual taxable income (Birr)	Marginal tax rate (%)
			1	1,801-7,800	10
			2	7,801-16,800	15
			3	16,801-28,200	20
			4	28,201-42,600	25
			5	42,601-60,000	30
			6	60,001 or more	35
1.3 Rental income tax					
1.4 Tax on business and other profits					
1.41 Unincorporated business	Tax on income from all sources other than those mentioned elsewhere.	The first Birr 1,800 of annual taxable income exempted.	No.	Annual taxable income (Birr)	Marginal tax rate (%)
			1	1,801-7,800	10
			2	7,801-16,800	15
			3	16,801-28,200	20
			4	28,201-42,600	25
			5	42,601-60,000	30
			6	60001 or more	35
1.42 Incorporated business Proclamation No. 36/1996	Profits tax	Cooperative societies and the Ethiopian Maritime Corporation exempted. Artesian-based mining exempted.	30% of taxable income		
1.5 Tax on income from mining activities Proclamation No. 53/1993 Proclamation No. 23/1996	Tax on income received or credited from mining operations within Ethiopia by holders of large- and small-scale mining licenses.		35%		
1.6 Capital gains tax	Tax on capital gain resulting from the sale of shares, bonds or urban houses.	Inflation adjustment and capital losses in the preceding year deducted from the value of capital. Annual gains not exceeding Birr 10,000 exempted.	15%		

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Appendix Table 1 (continues)

Appendix Table 1
Summary of the current tax system (con't)

	Tax	Nature of tax	Deductions and exemptions	Rates	
1.7	Other sources of income	Income from dividends paid to shareholders.	None	10%	
		Income from chance winnings and lotteries.	Income not exceeding Birr 100 exempted	15%	
		Income from royalties.	None	5%	
		Income of nonresident persons or organizations for services rendered to persons or organizations in Ethiopia.	None	10%	
2	Taxes on goods and services Proclamation No. 68/1993				
2.1	Excise tax Proclamation No. 68/1993 Proclamation No. 77/1997 Proclamation No. 149/1999	Excise tax levied on selected locally produced and imported goods. Tax for local goods collected within 7 days of the preceding month of production and at the time of clearing customs for imported goods. The rates are based on the cost of production or the cif value for imports.	None	Goods	Tax rate (%)
				Sugar, excluding molasses	33
				Soft drinks (except fruit juice)	40
				Powdered soft drinks	40
				Mineral water	40
				Alcohol: beer and stout	50
				wine & denatured alcohol	50
				pure alcohol	100
				other alcohol	50
				Tobacco leaf	20
				Tobacco and related products	75
				Salt	30
				Petroleum and related products	30
				Perfumes	100
				Leather, tanned or dressed	20
				Furs	50
				Textiles	10
				Personal adornments	60
				Dishwashers (for homes)	80
				Washing machines (for homes)	30
				TVs, video decks, and cameras	40
				TV broadcast receivers	10

Appendix Table 1
Summary of the current tax system (con't)

	Tax	Nature of tax	Deductions and exemptions	Rates	
2.1	Excise tax (con't)			Goods (con't)	Tax rate (%)
				Automobiles:	
				up to 1300 cc	30
				1300-1800 cc	60
				above 1800 cc	100
				Land Rovers, Jeeps, and 4WDs	100
				Carpets	30
				Asbestos and its products	20
				Clocks and watches	20
				Dolls and toys	20
2.2	Sales tax on goods Proclamation No. 68/1993	Levied on locally produced goods at the manufacturing site and on imported goods at import gate. Taxation based on the producer's wholesale price plus excise tax for local goods or the cif value plus customs duty and excise tax for imports. Refund available for sales tax paid on raw materials used in the production of local goods, except for pure alcohol as raw material. The tax is payable monthly 3-5 days before month end. For imported goods, tax collected in conjunction with the customs duty.	Certain goods exempted or have reduced tax rates under appropriate tax laws or international agreements; a person engaged in informal production activity with daily sales income not exceeding Birr 25. Sales income from manufactured goods for exports also exempted. Exemptions can also be given by directive from the Minister of Finance. The following items are exempted: food: bread and *injera*; fertilizer; aviation fuel and lubricants; kerosene; containers and packing and wrapping materials; equipment and requisites for aircraft, railways, tramways, and marine transport, and for national defence and public order purposes; firefighting appliances for public use and ambulances; equipment for the handicapped; bullion imported by the National Bank of Ethiopia for coins; photographs (including enlarged or reproduced) not intended for sale; travellers' cheques, revenue stamps, etc. and works of art for public exhibition.	5% on the sale of live animals and animal products, fruits and vegetables, unprocessed cereals, other foods, pharmaceuticals, books and printed materials, hides and skins, and cotton. 15% on the sale of other goods whether produced locally or imported. Specific tax on sale of *chat*: Birr 2 per kg. for local consumption and Birr 5 per kg. for exports.	

	Tax	Nature of tax	Deductions and exemptions	Rates
2.3	Sales tax on services Proclamation No. 08/1993 Legal Notices No. 1/1994 and 3/1998 Proclamation No. 149/1999	Sales tax levied on all locally rendered services. The tax paid by the person or organization rendering the services and computed on the basis of the service charge.	Water, electricity, and medical and educational services exempted.	5% on work contracts and financial services 15**%** on the sales of other services
3.	Tax on international trade			
3.1	Taxes on imports			
3.11	Customs duty Tariff Regulations No. 122/1993 Proclamation No. 67/1993 Tariff Regulation 1998 Tariff Regulation 2002	Customs tariff applies to all imports. Items are classified into 97 groups, based on the Harmonized System of Tariffs Classification Code.	Diplomatic and consular missions, personal effects, grants and gifts to Ethiopia, firefighting instruments and appliances, trade samples, defence and public security equipment, materials and equipment for the handicapped, and sheath contraceptives exempted. Some exemptions and concessions granted to certain organizations and on certain items.	*Ad valorem* duty on imports consisting of 6 rates, ranging from 0 to 35%, as follows: Imports — Tax rate (%) Raw materials, capital goods 0-10 Pharmaceuticals and chemicals 0-20 Durable and nondurable consumer goods 20-35 Luxuries and goods that can be produced locally 30-35
3.12	Import excise tax	Levied on selected imported goods.	None	As specified in 2.1
3.13	Import sales tax	Sales tax levied on imports; the basis for taxation is the cif value plus the customs duty and excise tax paid.	See items in 2.2 for exemptions	As specified in 2.2
3.2	Taxes on exports	All export duties and taxes except for coffee abolished. Duty drawback and duty free import schemes introduced. Under duty drawback scheme, goods produced for export, re-export or imported raw materials on which duty has been paid are eligible for duty refund: A 95% refund for raw materials or commodities if these items are re-exported and 100% if exported after being processed or used for packing or containing (con't).		

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Appendix Table 1
Summary of the current tax system (con't)

	Tax	Nature of tax	Deductions and exemptions	Rates
3.2	Taxes on exports (con't)	Under the duty free import scheme, persons or organizations engaged entirely in supplying products for foreign markets eligible to duty-free purchases of necessary local or imported raw material used in production. Resulting product to be exported within one year of the purchase of said raw materials.		
4	Other taxes			
4.1	Stamp duties Decree No. 26/1975, as amended by Proclamation No.110/1998	Obligatory use of stamped paper for many legal documents (contracts or documents in court proceedings); duty stamps also to be affixed to other legal documents (property titles, power of attorney, notary acts, etc.).	Stamp duties not applicable to documents for which Ethiopian government, foreign embassies, consulates, etc., would be subject to duty.	Rate varies according to the type of document and value of transaction.
4.2	Withholding tax Proclamation No. 227/2001	Tax collected at the time of import of goods for commercial use; collected amount is treated as withheld tax that is credited against the taxpayer.		3%
4.3	Income tax Proclamation No. 227/2001	Withholding of income tax on payments. Government agencies, private nonprofit institutions and NGOs withhold income tax on remittances made to persons within the categories specified in Regulation No. 75/2001.		2%
4.4	Interest income Proclamation No. 227/2001	Agencies paying interest to withhold income tax on interest remittances or credits.		5%

Source: MOFED (2003).

Appendix Table 2
Summary of the current tax system

European calendar	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	Share in total taxes		
Ethiopian calendar	1990/1	1991/2	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8	1998/9	1999/00	2000/01	1990/1	1995/6	2000/01
Tax revenue	10.7	7.8	8.3	10.9	11.4	12.5	12.9	11.8	11.4	11.8	13.7			
Direct taxes (income & profit taxes)	4.2	3.2	2.6	3.2	3.6	4.3	4.2	3.7	3.8	4.2	4.6	0.40	0.36	0.35
Personal income	1.4	1.3	1.0	1.0	0.9	0.9	0.9	1.0	1.1	1.1	1.3			
Business profits	2.5	1.9	1.4	2.0	2.5	3.2	3.0	2.3	2.4	2.6	2.7			
Agriculture income	0.3	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2			
Indirect taxes (domestic)	3.9	2.6	2.8	2.9	2.8	3.0	3.1	2.7	2.5	2.8	2.5	0.38	0.25	0.19
Sales/excise taxes	3.6	2.3	2.5	2.5	2.3	2.5	2.6	2.1	1.9	2.1	1.8			
Petroleum products	0.4	0.0	0.4	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0			
Alcohol and tobacco	1.4	1.0	0.9	0.9	0.9	0.9	1.0	0.7	0.7	0.5	0.5			
Other goods	1.8	1.3	1.1	1.4	1.2	1.4	1.5	1.4	1.2	1.6	1.3			
Services sales tax	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5			
Stamp duties	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2			
Tax on foreign trade	2.4	2.0	2.7	4.6	4.8	4.8	5.2	5.0	4.7	4.5	6.1	0.23	0.39	0.46
Import duties & taxes	2.3	2.0	2.6	4.4	4.2	4.5	4.9	4.6	4.4	4.2	6.0			
Custom duties	1.4	1.0	1.3	2.2	2.2	2.3	2.6	2.3	2.2	2.1	2.4			
Sales/excise taxes	1.0	0.9	1.3	2.2	2.0	2.1	2.3	2.3	2.2	2.1	2.6			
Petroleum products	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.2	0.2			
Alcohol and tobacco	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1			
Other imports	0.9	0.9	1.2	2.0	1.8	2.0	2.2	1.9	2.0	1.9	2.4			
Export taxes [6	0.1	0.0	0.1	0.2	0.6	0.3	0.3	0.4	0.3	0.3	0.2			
Coffee duties	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.2			
Coffee surtax	0.0	0.0	0.0	0.1	0.5	0.2	0.2	0.2	0.0	0.0	0.0			
Coffee others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Transaction tax	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0			
Non-tax revenue	3.4	2.8	3.7	3.0	6.0	5.9	6.1	6.9	8.3	7.0	5.8			
Total revenues	14.1	10.6	12.0	13.9	17.4	18.4	19.0	18.7	19.6	18.8	19.6			
External grants	2.4	2.6	1.7	3.5	3.3	2.9	3.6	2.6	3.4	2.9	4.8			
Total revenue and grants	16.5	13.2	13.7	17.4	20.8	21.3	22.6	21.3	23.0	21.7	24.4			
GDP at current price (in millions of Birr)	19,195.3	20,792	26,671.4	28,328.9	33,885	37,937.6	41,465.1	44,840.3	48,687.6	52,002.7	54,210.7			

Source: MOFED (2003).

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