

ETHIOPIA PUBLIC EXPENDITURE REVIEW

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Ethiopia Public Expenditure Review

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ABBREVIATIONS AND ABBREVIATIONS

ASPIRE	Social Protection Atlas for Resilience and Equity
BOFEDs	Bureaus of Finance and Economic Development
CBHI	Community-based Health Insurance
CIT	Corporate Income Tax
CTR	Cost-Transfer Ratio
EDHS	Ethiopia Demographic and Health Survey
EEPCO	Ethiopian Electric Power Corporation
EGTE	Ethiopian Grain Trade Enterprise
EHIA	Ethiopian Health Insurance Agency
EMIS	Education Management Information System
FDI	Foreign Direct Investment
FMOH	Federal Ministry of Health
GAVI	Global Alliance for Vaccine and Immunization
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GTP	Growth and Transformation Plan
HEP	Health Extension Program
HICES	Household Income, Consumption and Expenditure Survey
HSDP	Health Sector Development Program
HSS	Health Systems Strengthening
JFA	Joint Financing Arrangement
MDG	Millennium Development Goal
MDGPF	Millennium Development Goal Performance Fund
MoE	Ministry of Education
MOFED	Ministry of Finance and Economic Development
MoH	Ministry of Health
MoWIE	Ministry of Water, Irrigation and Electricity
MSEs	Micro and Small Enterprises
NSPP	Ethiopia's National Social Protection Policy
OWNP	One WaSH National Program
PBS	Promotion of Basic Services
PER	Public Expenditure Review
PIT	Personal Income Tax
POEP	Private Organizations' Employees Pension
PSNP	Productive Safety Net Program
PSSS	Public Servants Social Security
SHI	Social Health Insurance Scheme
SNNP	Southern Nations, Nationalities and Peoples
SOE	State-Owned Enterprises
TVET	Technical and Vocational Education & Training
UHC	Universal Health Coverage
VAT	Value Added Tax
WSS	Water Supply and Sanitation

FOREWORD

This Public Expenditure Review (PER) for the Federal Democratic Republic of Ethiopia is the result of a body of programmatic fiscal work. The primary objective is to analyze recent fiscal developments in Ethiopia within the context of a broad infrastructure investment program for growth and poverty reduction.

The report reviews the aggregate fiscal framework—its evolution, policies, revenues, spending, fiscal balances and financing—and also discusses the composition of spending at the three levels of government, federal regional and *woreda*, by functional and economic classification. It also analyzes the equity and efficiency of public spending in four sectors: health, social protection, education, and water and sanitation.

The programmatic fiscal analysis has been conducted in close coordination with government counterparts, with ongoing analyses shared as presentations in a continuous dialogue. The emphasis is on establishing a baseline understanding of key fiscal management and policy challenges, highlighting reform measures for policymakers, and setting the agenda for the next phase of work.

This PER joins a growing number of analytical reports that seek to use public expenditure data in an easy and accessible excel format; an initiative promoted through a Bank-wide collaborative effort (known as BOOST) to facilitate access to budget data and promote effective use for improved decision-making processes, transparency and accountability.

The BOOST database—to be hosted at the Ministry of Finance in Ethiopia—provided detailed public spending data at line item level, including data on sub-regional spending. The BOOST data is used in this report for the analysis of capital expenditure trends, distribution and efficiency and to suggest possible improvements in monitoring.

Ultimately, it is hoped that this PER will facilitate more practical and insightful analytical work to inform policy recommendations for improving the quality and efficiency of public service delivery in Ethiopia.

EXECUTIVE SUMMARY

Abstract

Ethiopia's remarkable socio-economic transformation over the last decade has been marked by: a reorientation of expenditure from recurrent to capital; a significant devolution of resources from Federal Government to Regions; and a clear prioritization of infrastructure spending, while protecting spending on education at four percent of GDP. The Government of Ethiopia has also leveraged external resources to boost spending in pro-poor sectors, particularly health and social protection. As a result, Ethiopia is home to the largest social safety net program in Africa, and has also achieved remarkable health outcomes using cost effective approaches.

Recent investments have seen a significant build-up of capital stock, with capital spending at sector level pointing towards increased service capacity. The current public investment-led strategy requires to be complemented by increased budgetary provisions in operations and maintenance so that new investments translate into enhanced service coverage and delivery. As Ethiopia lays the foundation to become a middle income country, and the changing global environment implies declining external assistance, it is imperative that domestic taxation activity support this transition. The current tax-to-GDP ratio is low compared to peer countries, and the tax structure would benefit from increased contributions by direct tax sources. Therefore, there is an immediate need for advancing tax reforms and improve capacity and quality of tax administration. Broadening the tax bases, through review of exemptions, as well as review of tax rates might be venues to consider. Additional revenues will create the much-needed fiscal space to increase funding for operations and maintenance for service delivery, and support fiscal sustainability.

As a follow-up to this Public Expenditure Review, the Government of Ethiopia has asked the World Bank to provide further analytical support, with a view to enhance domestic revenue mobilization through simpler and more efficient taxation, while retaining equity priorities in public finances.

A. Introduction

- 1. Ethiopia's state-led growth model achieved growth rates well above the average for Sub-Saharan Africa.** Economic growth, concentrated in services and agriculture, was driven by productivity gains and capital accumulation arising from a substantial expansion of public infrastructure investment within a conducive external environment. Ethiopia's Growth and Transformation Plan (GTP) 2010/11-2014/15 defined not only the nature and size of public investment projects but also the level of jurisdiction and responsibilities. For instance, more capital spending on road construction and higher education expansion, and increased pro-poor spending at the lower tiers of administration. The model places crucial emphasis on State-Owned Enterprises (SOEs) to finance and manage public infrastructure development investments.
- 2. The primary objective of the Public Expenditure Review (PER) 2015 is to analyze recent fiscal developments in Ethiopia within the context of a broad infrastructure investment program for growth and poverty reduction.** The overarching question is to draw insights

on how to finance public investment in situations where: revenue capacity is low and the fiscal envelope is finite; external grants play a significant role in government finances; increased capital spending needs to be matched by appropriate levels of recurrent expenditure; domestic and external concessional financing needs to be balanced in a sustainable financing mix of the budget deficit; and non-concessional financing is contained within sustainable debt limits.

3. **The PER 2015 is structured in two complementary parts. The first part reviews the aggregate fiscal framework: its evolution, policies, revenues, spending, fiscal balances and financing.** This part also discusses the composition of spending at the three levels of government, federal regional and *woreda*, by functional and economic classification. The review illuminates potential challenges in the sustainability of the current budget strategy in light of declining provisions for recurrent operating expenses. To strengthen the depth of the review, the PER analysis was complemented by an effort to establish a BOOST database for Ethiopia; BOOST provides detailed expenditure data at line item level for all levels for general government.
4. **The second part of the PER analyzes the equity and efficiency of public spending in four sectors: health, social protection, education, and water and sanitation.** Each sector review analyzes the equity and efficiency of spending to inform the design of ongoing reforms in the respective sectors. The health review, for instance, seeks to inform design of the universal health insurance scheme, while review of social protection aims to complement ongoing efforts in the development and implementation of Ethiopia's Social Protection Strategy and Policy under the National Social Protection Platform. The water and sanitation review aims to illuminate progress in expanding access to water and sanitation and highlight the challenge of reaching rural areas.
5. **Ethiopia's spending on health expenditure has increased but is still among the lowest in the region at about US\$21 per capita.** Nevertheless, the health sector analysis shows the country achieved remarkable health outcomes with limited increase in expenditure. The analysis concludes that some of the positive outcomes can be attributed to increased allocative efficiency but there is scope to increase technical efficiency and equity in access to health services.
6. **The social protection review shows that Ethiopia spends an equivalent of three percent of GDP on social protection, in form of safety nets, indirect subsidies (wheat, electricity and kerosene), labor market interventions and social insurance.** Social safety net programs are largely financed by donors, while the government mainly finances subsidies and social insurance for public servants. Targeted safety nets are progressive and pro-poor, substantially contributing to reducing poverty by about two percentage points. Going forward, social protection needs and financing requirements remain high and continued expansion is predicted in the medium term. Subsidy reform would provide the much needed fiscal space to expand the safety nets program.
7. **Expenditure on water and sanitation increased from 0.4 to 0.7 percent of GDP, about US\$2 per capita.** The analysis demonstrates that the sector budget is heavily skewed in favor of capital spending which is about 80 percent of the total spending; and reveals an urban-rural

service gap in favor of urban areas. The findings raise concern over underfunded operations and maintenance (O&M), which explains the non-functional rural WSS schemes.

- 8. Education expenditure has been stable at about four percent of GDP and about 20 percent of total expenditure.** While the government met its national targets, there are disparities in access and outcomes between and within regions. Low-income households are underrepresented at higher levels of education.

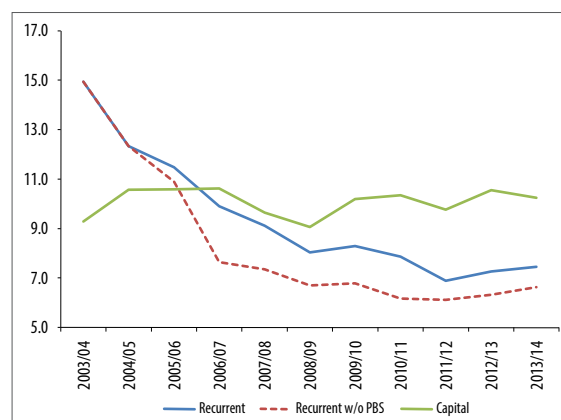
B. Review of the aggregate fiscal framework

- 9. Five key trends emerge from the review of the aggregate fiscal framework.** There is a gradual fiscal contraction in aggregate general government spending as a share of GDP; a discernible reorientation of expenditure in favor of capital spending; a rise in the share of spending at lower tiers of government — both regional and *woreda* levels; a change in composition of domestic deficit financing; and declining revenue productivity. A key observation is that spending is closely aligned to the GTP with a clear stimulus to the poverty sector; yet, the review concludes that significant revenue mobilization will be required to protect basic service delivery and to match the recurrent cost implications from ongoing investments.

- 10. General government accounts reflect a gradual fiscal contraction between 2003/04 and 2013/14.** Aggregate spending declined from 24.2 percent in 2003/04 to 17.7 percent of GDP in 2013/14. Other fiscal indicators also reflect a declining trend; domestic debt declined from 32.6 to 19.1 as a percent of GDP. External debt declined to 10.4 after HIPC and MDRI debt relief initiatives in 2008/09, but has since risen again; yet, the rise of new debt has been contained within sustainable limits increasing to 23.9 percent of GDP post-HIPC. Domestic revenue as a share of GDP has also declined from a high 16 percent of GDP in 2002/03 and is now in the range of 14 percent of GDP.

- 11. Fiscal contraction was achieved through cut backs in recurrent spending at federal level as the government focus was on capital spending and increasing service coverage through local levels** (Figure 0.1). Recurrent spending as a share of GDP declined consistently from 15.6 percent in 2002/03 to 7.5 percent in 2013/14. Capital spending is now much larger than recurrent spending and sustained at about 10 percent of GDP. Fiscal contraction was achieved through cut backs in federal budget spending which declined from 15 to nine percent of GDP. Regional spending was protected from cuts and increased from the medium term average of seven percent to about nine percent of GDP, after the introduction of MDG grants. The fiscal deficit has declined from negative four to about negative two percent of GDP over the 2002/03-2013/14 period, and is largely financed through concessional

Figure 0.1: General government spending in percent of GDP



Source: World Bank staff calculations, based on MoFED Data.

loans. Nevertheless, the gradual decline in share of recurrent spending can be traced back to the end of the war with Eritrea.

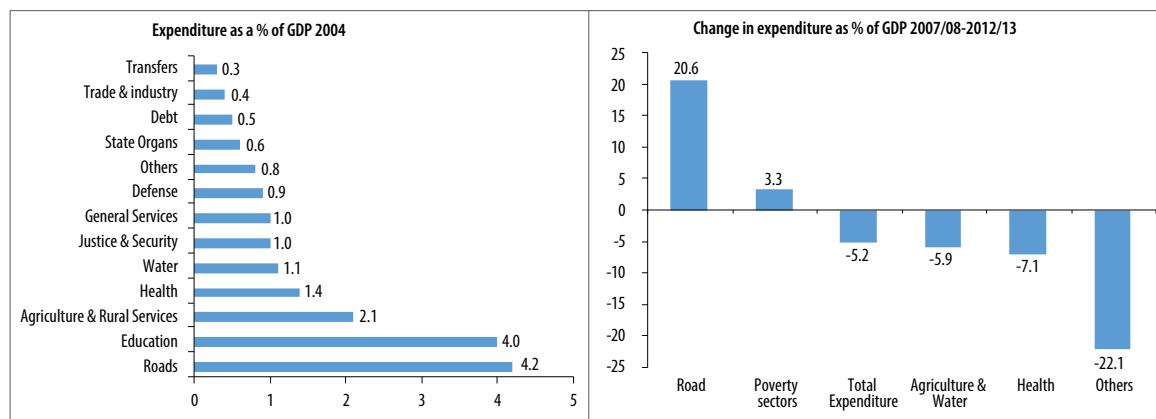
12. **The SOEs have played a key role in the economic development, facilitated by access to cheap credit from the state-owned bank.** Easy access to domestic credit at negative real interest rate provides a good opportunity for the government to finance large projects through domestic credit from the state-owned bank to SOEs. The financing constraint faced by SOEs and general government is different. General government spending is bound by macro-fiscal management, while SOEs' spending is a function of available loans from domestic and external sources. Thus the SOE investment approach circumvents spending constraints that would be dictated within the bounds of aggregate fiscal discipline.
13. **But SOEs also rely on external financing, increasingly non-concessional, to meet their financing needs for imported supplies to build infrastructure.** The major SOEs have contracted loans with and without government guarantees and including concessional as well as non-concessional sources, especially suppliers' credits. External debt levels are rising significantly as some SOEs borrow externally to finance infrastructure investment. The stock of debt from private creditors continued to rise from 2.7 percent of GDP in 2009/10 to about 4.4 percent by the end 2013/14, with potential to increase further in the near future considering large investment programs taking place in railway and sugar projects.
14. **In addition, the Government of Ethiopia issued a ten-year sovereign bond on December 4, 2014—the poorest country among 14 SSA countries that ever issued such bonds.** The successful bond issue confirms that Ethiopia is now firmly on the global investor map with all its positive externalities of improving the country's image as a financial destination market.
15. **The Eurobond is a continuation of recent trends by Ethiopia seeking new financing sources, primarily for infrastructure investments, at increasingly higher borrowing costs.** Such non-concessional borrowing supports GoE's public investment-led growth strategy. But the interest rate on the Eurobond is significantly higher than any other existing loan contract. A loan signed with Credit Suisse in 2014 had an interest rate of 4.1 percent and a grant element of about five percent, which so far represented the most unfavorable loan terms. In comparison, the Eurobond has an interest rate of 6.625 percent and a negative grant element.

C. Expenditure composition

16. **The cut backs in general government were complemented by a reorientation of expenditure towards social and pro-poor sectors.** For instance, while total expenditure as a share of GDP declined by five percent during the period under review, expenditure on roads increased by 20 percent. Consequently, the relative share of spending on roads as percent of GDP increased to the same level as education, which was protected from cuts and maintained at an average of four percent of GDP. Expenditure on health as well as agriculture and water increased in nominal terms but the relative shares to GDP contracted by six and seven percent, respectively (Figure 0.2), and now stand at 1.3 (health) and 3.2 percent of GDP (agriculture and water).

- 17. Road infrastructure investments and education are financed primarily through general government, while most other infrastructure investments are through SOEs.** The focus on roads in general government spending can be attributed to the fact that investments for other types of infrastructure, energy, rail, telecom, industry and housing are done through SOEs. Public infrastructure investments that are carried out by SOEs are primarily financed through external and domestic loans. Indicative estimates on financing of the GTP show that about US\$32 billion will be required over five years for investments in these key sectors through respective SOEs. Expenditure reorientation has prioritized sectors that are deemed viable with high returns on investments such as rail, roads and education (Figure 0.2).

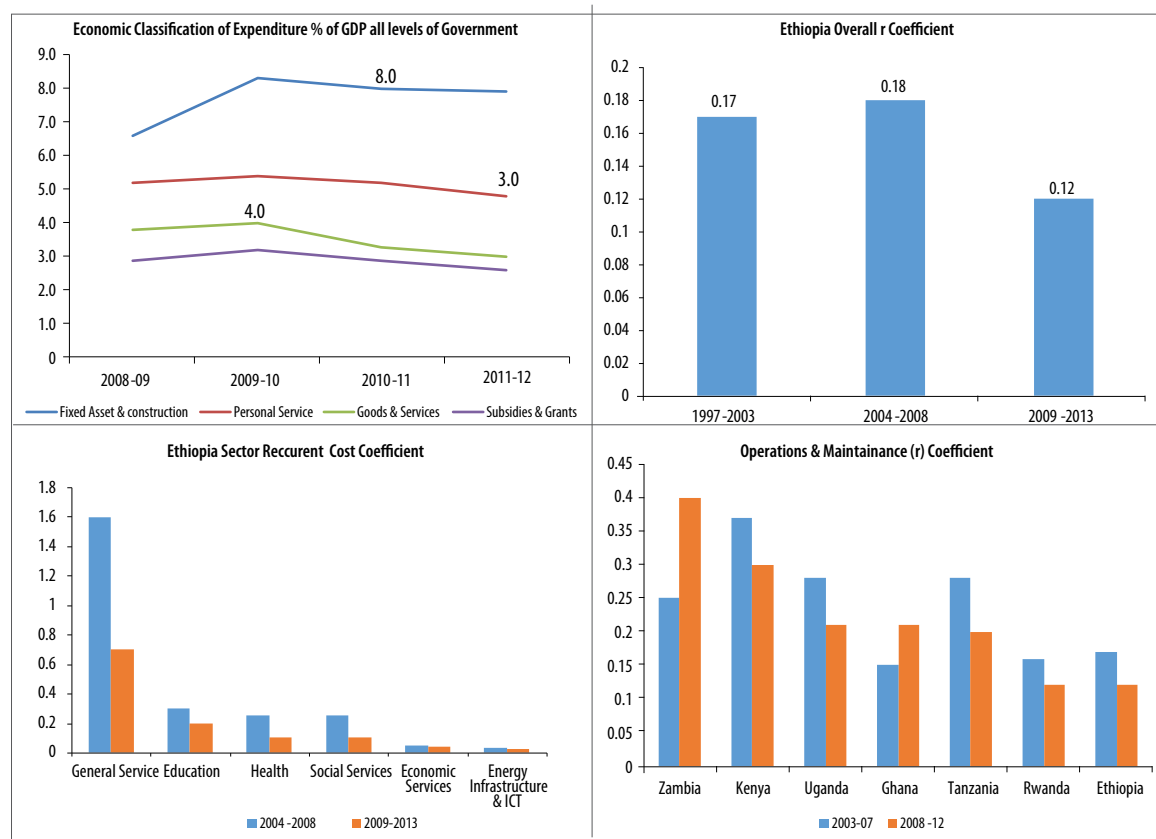
Figure 0.2: Aggregate general government expenditure contracted but expenditure on roads increased remarkably - now at par with education, at 4 percent of GDP



Source: World Bank staff calculations, based on MoFED Data in BOOST Format.

- 18. The share of spending on operations and maintenance declined, with the government focusing on capital expenditure.** General government expenditure fell on non-wage recurrent operating expenses. A review of expenditure by economic classification shows that aggregate spending on fixed assets and construction increased and stabilized at eight percent of GDP, while spending on goods and services declined over time and is now about three percent of GDP. Even at *woreda* level, expenditure on goods and services is much lower than capital spending. The capital spending at *woreda* level, as revealed in the sector reviews, is intended to close service coverage gaps such as in the health and water and sanitation sectors.
- 19. If the declining trend continues, operations and maintenance spending could fall below the thresholds required to sustain service delivery standards.** Investments require sufficient provision of operating and maintenance funding to sustain a consistent stream of real services per unit of investment; the recurrent cost ratio. Decline of the recurrent ratio in Ethiopia is one of the lowest in a group of regional peers (Figure 0.3). The water and sanitation analysis provides a good example where the rising number of non-operational water supply schemes is attributed to insufficient provision for operations and maintenance. However, as observed above, the shortfall in recurrent operating expenses—particularly at *woreda* level—could be compensated by donor funding, for instance, the Promotion of Basic Services (PBS).

Figure 0.3: The decline in spending on goods and services is discernible at all levels of government and across all sectors

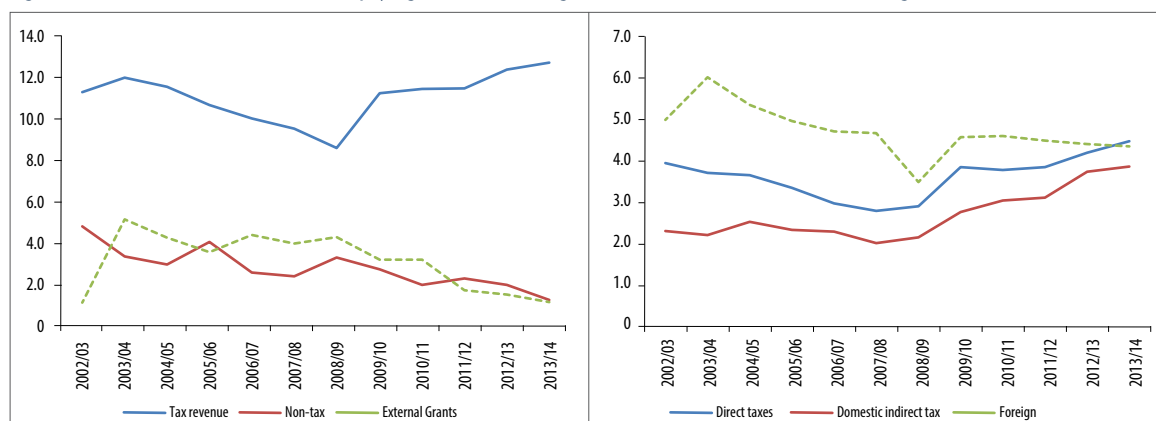


Source: World Bank staff calculations, based on MoFED Data in BOOST Format.

D. Revenue performance

- 20. Tax revenues dipped to a low of 8.7 percent of GDP in 2007/08 but have since recovered to a peak of 12.7 percent of GDP.** Significant effort will be required to improve revenue mobilization to match operations and maintenance needs for ongoing investments. Revenue and grants declined from 21 percent of GDP in 2003/04 to the prevailing level of 15.1 percent of GDP, while tax revenues dipped to an all-time low in 2007/08 to 8.7 percent of GDP, but the trend has since reversed and revenue performance improved to reach 12.7 percent of GDP in FY2013-14.
- 21. VAT and income taxes performed well compared to foreign trade taxes and non-tax revenue.** Foreign trade taxes contributed the largest share of revenue (34 percent of total), and the tax base has broadened overtime, but the effective tax rate has declined from 24 percent in 2003 to 18 percent in the recent years. Non-tax revenue, mainly state dividend proceeds from public enterprises, has been declining (Figure 0.4).
- 22. The last comprehensive tax reform in Ethiopia dates back to 2002/03 when Sales Tax was replaced by VAT.** It appears that lack of tax reforms that could drive up revenues is substituted by increasing exposure to borrowing – domestic and external, concessional and non-concessional. However, the resultant costs of increased borrowing make tax reforms relatively more attractive to implement.

Figure 0.4: Tax administration efforts are paying off but external grants and non-tax revenue are declining



Source: World Bank staff calculations, based on data from MOFED.

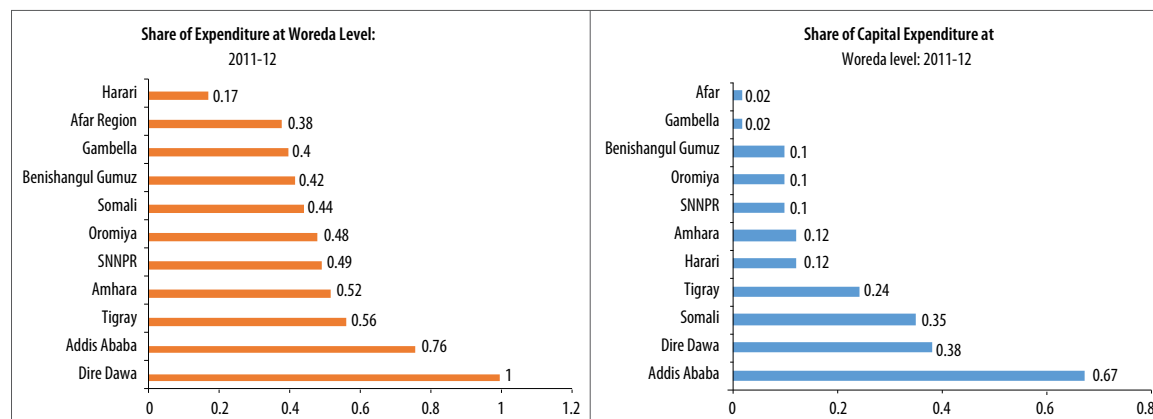
- 23. Revenue is trending upwards thanks to tax reforms and enhanced tax administration.** More recent efforts to broaden the tax base and strengthen tax administration through automation, tax education and enforcement measures drove the increase in revenues on profits and VAT. The decline in profit taxes has been reversed from a low 1.4 in 2007/08 to 2.5 percent of GDP in 2012/13. Over the same period, VAT collection increased from 2.5 to 5.0 percent of GDP, and its productivity improved from 0.17 to 0.33. Ethiopia has one of the lowest revenue efforts compared to peers in the region. This review suggests that reforms in tax administration could enhance Ethiopia's revenue performance by an additional 3-4 percent of GDP.

E. Expenditure composition by level of government

- 24. Intergovernmental fiscal allocations determine the size and composition of expenditure at devolved levels of government.** The intergovernmental transfer system is designed to address vertical and horizontal allocation of resources between and within regions in line with constitutional provisions; that all citizens should have equal access to services, and that disadvantaged regional states shall receive assistance to provide services in similar range and quality to that of other regions.
- 25. Historically, the federal government has controlled about 60 percent of total spending, while regions and *woredas* execute 15 and 25 percent of the budget, respectively.** However, the introduction of the MDG grant in 2011/12 increased the regional expenditure share of the budget from 15 to 20 percent. The government's commitment to meet the MDG targets led to increased pro-poor spending. The emphasis on improvements in service coverage rather than quality improvement has contributed to the rise in capital spending at the expense of recurrent spending.
- 26. While the MDG grant provided for an increase in regional spending, sectoral analyses show that spending is often still short of official commitments and equity concerns still persist.** This is particularly true for water and sanitation, but similar equity issues are found also in the health sector. In both sectors, the orientation of spending towards capital expenditures had a positive impact on service coverage, but not so on service delivery. Much more, increased spending has not been able to increase equity in service delivery in both sectors.

- 27. In fact, aggregate numbers mask significant regional differences in the region/woreda split in expenditures.** Outside the two city administrations of Addis Ababa and Dire Dawa as well as Harari, Tigray region is by far the most decentralized, with 56 percent of expenditure happening at *woreda* level. This is in contrast to Afar region, at the opposite end of the spectrum, where 38 percent of spending is carried out at the *woredas* (Figure 0.5).

Figure 0.5: The share and composition of expenditure at woreda level varies by region in 2011-12



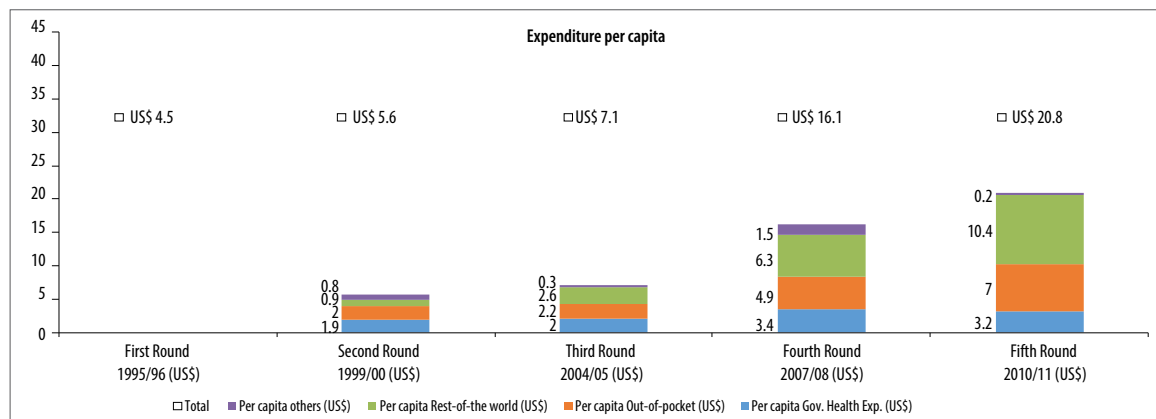
Source: MoFED Data in BOOST Format

D. The health sector

- 28. The review is undertaken in the context of the commitments in the GTP to improve access to health service.** The GTP commitments include: availing affordable health services to improve the health of mothers, neonates, children, adolescent and youth; reducing the incidences and prevalence of communicable and non-communicable diseases and improving hygiene and environmental health; and improving the quality of health services. Provision of health services according to standards set for health facilities at all levels is another indicator.
- 29. The government has set a noble goal and made a strong commitment to achieving Universal Health Coverage (UHC).** Ethiopia achieved MDG 4 (reducing child mortality) three years ahead of target. Remarkable progress in health service delivery between 2005 and 2011 is reflected in key health indicators such as: neonatal, infant, child and under five mortality; weight for height and weight for age; total fertility rate and anemia among children.
- 30. Despite the substantial progress, the country is still facing many challenges in achieving MDG 5 (reducing maternal mortality), expanding some essential interventions such as skilled birth attendance and improving quality of services provided.** A close look at its composition shows that neo-natal mortality reduced significantly for richer parts of the society (middle and fourth wealth groups), but increased for the bottom 40 percent. Coverage of service delivery also varies between regions. For instance, service delivery for immunization, skilled birth attendant and use of modern contraceptives varies (on average) from 40 percent service coverage in Addis Ababa to just below 10 percent of total population in Afar and Harari. Furthermore, for a given region, even if average coverage appears high, variation between different services also tends to be high, indicating the average is pushed high by few selected services.

- 31. Health spending increased in recent years, but this was driven primarily by non-government sources.** Per capita spending on health increased from US\$4.5 to US\$20.8 between 1995/96 and 2010/11. As a result of shift in funding sources, government expenditure contributes less than 20 percent of total health spending, while external assistance accounts for about 50 percent, and out-of-pocket spending for about one-third. Compared with other low-income countries, spending on health in Ethiopia is low, and relies heavily on external assistance and out-of-pocket spending. Notably the high out-of-pocket share undermines access for low-income households (see Figure 0.6).

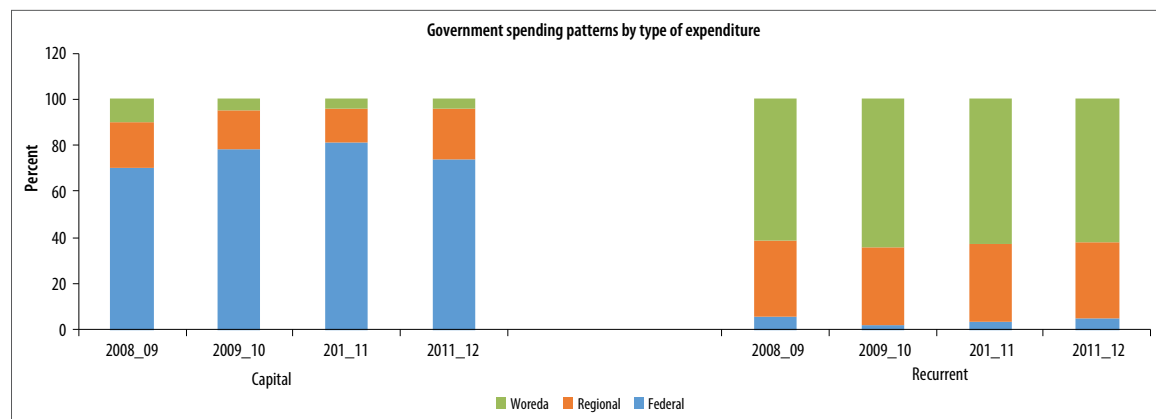
Figure 0.6: Expenditure per capita has increased largely financed by external assistance



Source: Ethiopia National Health Account studies.

- 32. There are significant disparities in health expenditure in absolute and per capita terms at subnational level.** At subnational level, the huge variations in regional allocations to health are because regions allocate the block grant independently. The disparities are reflected in both proportion of regional budget to health sector and per capita health spending. Capital expenditure has larger variation than recurrent expenditure per capita; spending on health at regional level ranges between ETB7 and ETB108; and between ETB42 and ETB153 for recurrent budget.
- 33. Expenditure mandates determine the composition of expenditure by levels of government; capital expenditures at federal level and recurrent expenditure by *woredas*.** More than 70 percent of capital expenditure occurs at federal level, and about 60 percent of recurrent expenditure occurs at *woreda* level (Figure 0.7). The Constitution mandates the federal government to be responsible for policy reforms, accountable for performance, coordination and technical oversight. The nine regional health bureaus and two city administrations, as well as *woredas* in their areas, are responsible for plans and programs in their respective areas to deliver health services; health service delivery within the region (including all types of hospitals); licensing of health facilities; and ensuring adequate supply of safe and affordable medicines and supplies. In practice, block grants transfers make it possible for regions and *woredas* to cover recurrent expenditures (mostly salary payment), while FMOH-managed external assistance makes it possible for the federal government to pick up the function of ensuring availability of infrastructure, commodities, drugs, and supplies.

Figure 0.7: Government health spending pattern by type of expenditure and level of government

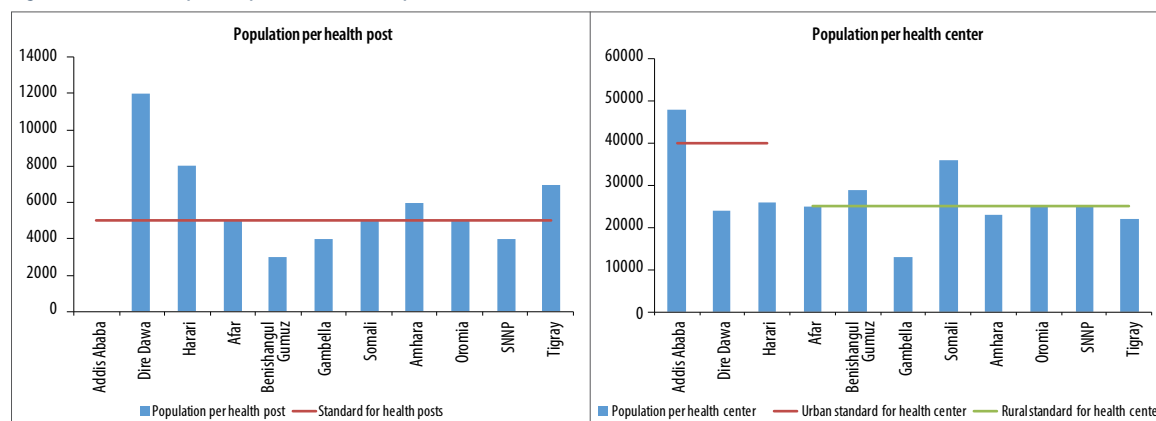


Source: MoFED Data in BOOST Format

34. The rising trend in capital spending in the sector is driven by construction of health facilities.

As of 2012/13, there were 127 hospitals, 3,245 health centers, and 16,048 health posts. As a result, most regions have achieved the standard of population coverage for health centers and health posts, as shown in Figure 0.8. Some 175 hospitals were being constructed as of 2012/13, of which 170 are in the regions of Amhara, SNNP and Oromia. Completion of these constructions will bring the total number of available hospitals up to 302 and greatly improve hospital coverage.

Figure 0.8: Health capital expenditure in Ethiopia



Source: World Bank staff calculation based on Ethiopia health sector Annual Performance Reports.

35. The Health Extension Program (HEP) reduces some of the pressure to provide additional resources for operations.

Deployment of more than 35,000 health extension workers under HEP accounts for a significant portion of government health expenditure, particularly recurrent expenditure. Health workers are selected by communities and go back to their own communities to serve after one-year training. This flexible human resource policy and strong political and fiscal commitment has made sure government resources are used for primary care and on the disadvantaged groups, i.e., rural, less educated and poor people.

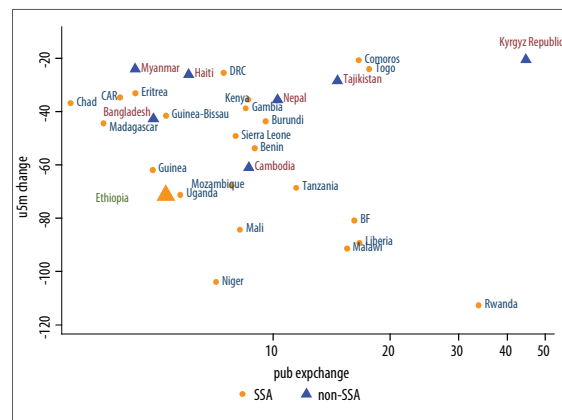
36. Health outcomes relative to the overall development level and health expenditure are relatively good in Ethiopia.

Using health expenditure per capita and female education to

predict health outcomes, the results show that Ethiopia is one of the few countries in SSA that have life expectancy higher than predicted, while per capita expenditure is lower than predicted, indicating an overall high efficiency in health sector. Nevertheless, the investments from other sectors like water and sanitation, though not yet quantified, could have contributed to the outcomes in the sector.

- 37. Ethiopia is also one of the few countries in SSA that achieved a significant reduction in under-five mortality with limited increase in expenditure per capita.** Using allocative efficiency approach, improvements in health outcomes relative to increase in public health expenditure shows that in the case of Ethiopia, for the same level of increase in expenditure, reduction in under-five mortality can range between 20-110 deaths per 1,000 live births. The analysis shows that Ethiopia reduced under-five mortality by about 80 deaths per 1,000 live births with an increase of US\$5 in health expenditure per capita. No other country has achieved a larger reduction for the same level of increase in expenditure. In absolute values, only six countries achieved a larger reduction than Ethiopia, but they also had large increases in public expenditure on health. Kenya for instance, reduced under-five mortality by about 35 deaths per 1,000 live births through an increase of US\$10 in health expenditure per person (see Figure 0.9).

Figure 0.9: Efficiency of health expenditure is higher than comparator countries



Source: World Bank staff calculations, based on Data from HNP Stats (World Bank).

- 38. Establishing a high efficiency in the health sector, measured by the relation between outcomes and spending, as well as achieving relatively low under-five mortality are particularly noteworthy achievements.** Priority has been given to primary care through HEP, which started in 2003/04. By integrating donor funds into the “one plan, one budget and one reporting” framework, the government has successfully reduced inefficiencies often resulting from fragmentation of donor assistance. Yet, the required annual increase of nine percent over the period 2010/11 to 2014/15 has not yet been achieved. It is also possible that the ability to realize synergies with other sector interventions played a key role in these developments. For instance, advances in access to water and sanitation, including through the WASH program, reduced the spread of communicable diseases in urban and rural communities, a precondition of increasing health outcomes.
- 39. Some of the positive outcomes can be attributed to increased allocative efficiency, but there is scope to increase technical efficiency.** Nowadays, more than half of health spending is on primary care, the most cost-effective level of health care. For instance, reproductive health accounts for 21 percent and HIV/AIDS 16 percent of total government expenditure. Nevertheless, there appears to be room for improving technical efficiency as the average number of outpatient visits per health worker per day is between two and nine and the average inpatient case per health worker per day is only one. It is imperative to identify *woredas* and/

or facilities that operate less efficiently through further study, and develop customized work plan for improvement.

40. **Equity in access to health service has also improved.** Service delivery and utilization has been quite equitable, especially basic public health services such as family planning and maternal health services. Concentration curves for coverage of antenatal care, contraceptive coverage and skilled birth attendance have all moved towards equality during the period from 2005 to 2014 based on DHS data. There is not much disparity between poor and non-poor in general outpatient and inpatient service utilization, though non-poor tend to use higher level of facilities such as government hospitals versus health centers and health posts, as well as expensive facilities such as private providers versus public providers.
41. **Nevertheless, the high share of out of pocket expenses undermines some of the gains in equity.** Among the lowest income quintile group, 55 percent did not utilize outpatient services, and 45 percent did not utilize inpatient services for financial reasons. The numbers are significantly lower—at 19.6 and 9.7 percent—among the highest income quintile group. In absolute terms, higher income groups pay more than lower income groups; the outpatient cost among the highest quintile doubles that of the lowest income quintile, and the inpatient cost among the highest quintile triples that of the lowest group.
42. **Overall health service coverage improved but the pace of progress differs by regions.** Comparing service coverage from 2005 to 2010, and public health expenditure from 2007/08 to 2010/11, results show that for the same amount of increase in health sector investment by government, service coverage increased much more in most agrarian regions (except Oromia) than in urban and pastoral regions. For example, in Amhara region, one Ethiopian Birr increase resulted in 0.82 percent increase in service coverage compared to an increase of 0.11 percent in Addis Ababa. The difference can be partly attributed to the low base effect in agrarian regions, and the probable lower price levels in rural areas compared to urban areas. In addition, community contributions, which are not accounted in the expenditure data, are significant in most rural areas.
43. **There is no mechanism in place to support lagging regions' access through additional funding.** Based on the limited available data, it does not seem that lagging regions receive more resources for catching up as decisions are mainly made at individual region level. FMOH-managed external assistance could have been used to improve equity between regions, but there is no data available to enable such analysis. FMOH-managed resources are potential tools of intergovernmental transfer to improve efficiency and equity.

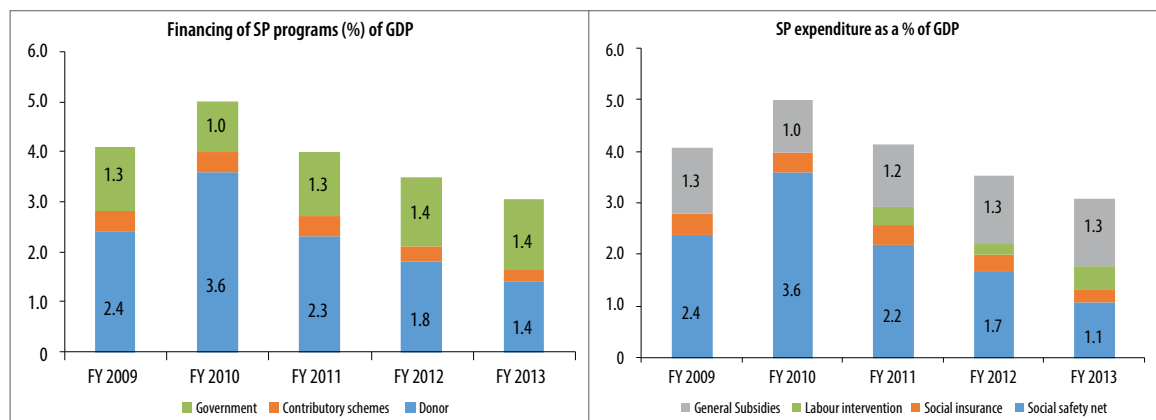
F. Social protection

44. **Ethiopia has made remarkable progress in reforming and scaling up actions in the area of social protection over the past decade.** Globally, Ethiopia is recognized as a leading exemplar on reforming a system of humanitarian emergency response to one of predictable transfers with diverse goals of protection, prevention and promotion at the core. Notably, support for social protection has been influenced by a strong evidence base, especially in charting the impact of the Productive Safety Net Program (PSNP). Recent analysis concludes that the

immediate direct effect of transfers provided to rural households in the PSNP reduced the national poverty rate by two percentage points since 2005¹.

- 45. Ethiopia spends an equivalent of three percent of GDP on social protection, including safety nets, general subsidies, labor market interventions and social insurance.** Social safety nets and subsidies account for 84 percent of SP programs—SSNs are the main drivers accounting for about 47 percent, general subsidies about 37 percent, and eight percent each for social insurance and labor interventions (see Figure 0.10).

Figure 0.10: SP expenditure is about three percent of GDP mainly in social safety nets and general subsidies

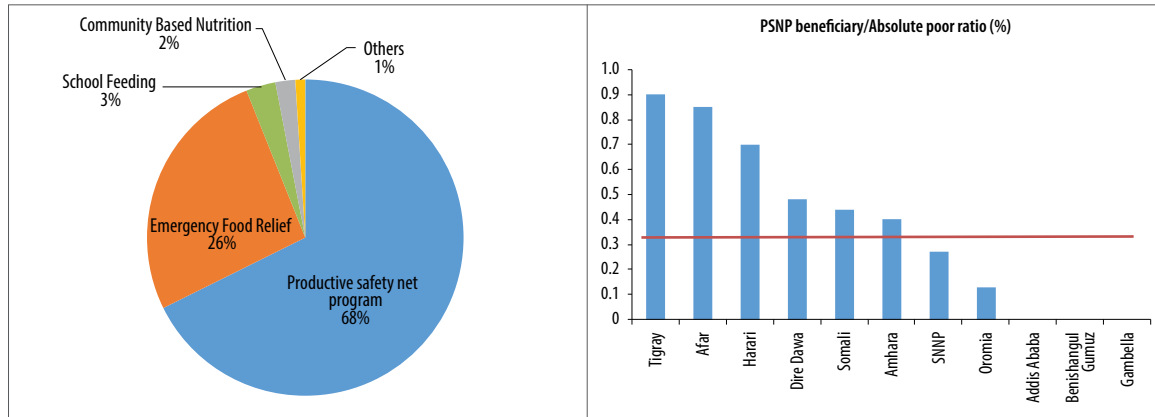


Source: World Bank staff calculations based on data from sector ministries.

- 46. Ethiopia has one of the largest social safety net programs in Africa; largely financed by donors while the government covers subsidies and social insurance for public servants.** Although donor financing as a share of GDP declined in the recent years from an average of 2.2 percent to about 1.4 percent in FY2013, donor contributions are essential for the social safety nets. Government financing increased by about 0.1 percentage points to 1.4 percent of GDP. The contributory scheme constitutes a small share in the financing architecture in the range of 0.3 percent of GDP. Subsidies are in the form of cross subsidies on three products: wheat, kerosene and electricity. The financing envelope is about 1.3 percent of GDP.
- 47. Social safety nets constitute about half of social protection programs but the recent data reflect a declining share in expenditure as a share of GDP from 2.4 percent in 2009 to 1.1 percent of GDP in 2013.** Expenditures increase in drought years, as was the case in 2010, driven by emergency food relief operations. The PSNP is the main program and constitutes 67 percent of total expenditure. PSNP is the largest social transfer program in Africa (excluding South Africa) providing almost seven million beneficiaries with predictable cash transfers during lean months, through different modalities of support, including direct cash support for incapacitated households, and conditional cash support in the form of public works interventions (see Figure 0.11).
- 48. PSNP and food relief account for the largest share of safety net program beneficiaries, with almost 10 million combined beneficiaries in 2013.** Though data on national coverage is not

¹ See: World Bank, 2014b; (World Bank, 2014a; ILO, 2014; Sabestes-Wheeler et al, 2011; Hoddinott et al, 2012; Berhane et al, 2012.)

Figure 0.11: PSNP is the largest safety net program with a national coverage ratio of 30 percent of absolute poor

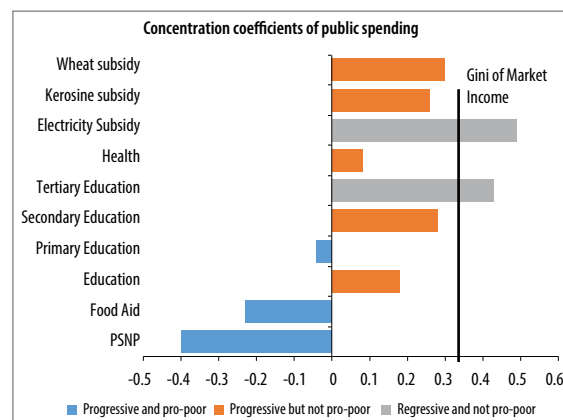


Source: World Bank staff calculations based on data provided by PSNP Donor Coordination Unit.

easily available, there is variation in regional PSNP coverage. The national coverage is about 31 percent but with significant differences in coverage in different regions. For instance, in Tigray and Afar the program covers about 90 and 84 percent of the absolute poor, respectively, whereas in Oromia and Amhara the coverage ratio is about 15 and 41 percent, respectively. Regarding the regional disparities, the share in the number of beneficiaries in the larger regions, Oromia and Amhara, is increasing during PSNP 4. PSNP's strong track record in targeting has been fundamental to its success in reaching the poor, especially in highland areas. Under PSNP 4 further improvements to ensure a more transparent and systemic targeting will be introduced, including a proxy-means team (PMT) poverty index. The revised targeting will provide the foundation for the development of a unified registry database, which could ultimately be leveraged to enhance efficiencies across the broad social protection sector.

- 49. Recent evidence suggests mixed impact of the various components of the social protection program: the direct cash transfers are pro-poor, general subsidies for kerosene and wheat are progressive though not pro-poor, and electricity subsidies are highly regressive.** A comparison of the benefit incidence from the three types of SP programs shows that: PSNP and food aid are both progressive and pro-poor; spending on the PSNP is the most progressive; while wheat and kerosene subsidies are progressive but not pro-poor. The result is expected: poor households consume less electricity, kerosene and wheat than richer households and as a result none of these subsidies are pro-poor. The richest 30 percent of the population received 65 percent of electricity subsidies and 52 percent of wheat subsidies while the poorest 30 percent—those living below the national poverty line—obtained only 10 percent of the subsidy for electricity and 13 percent of the subsidy for wheat. Electricity is the largest of the three subsidies (see Figure 0.12).

Figure 0.12: Targeted social safety nets and food aid are pro-poor and progressive



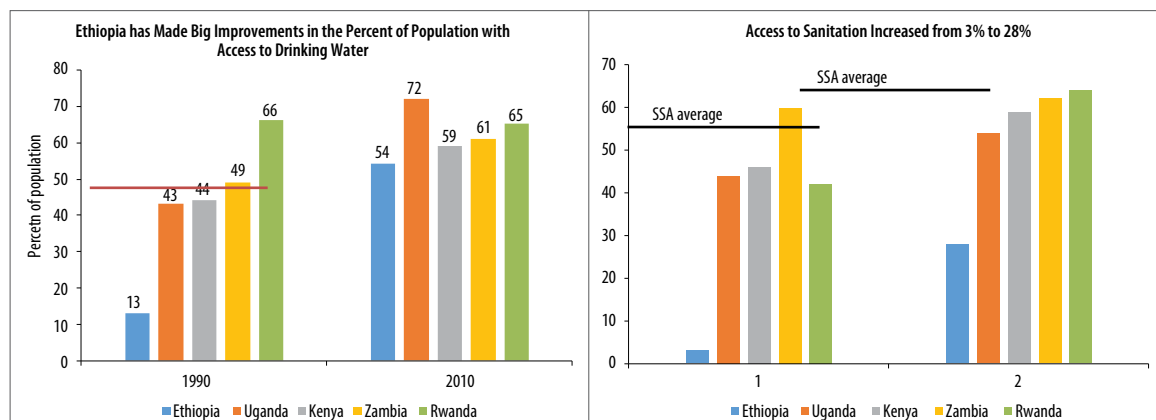
Source: World Bank (2015). Ethiopia Poverty Assessment.

- 50. Targeted social programs are much more effective in terms of both the impact and the cost to address the needs of the most vulnerable.** The subsidy impact is in direct contrast to targeted social protection programs that provide direct transfers to households, such as the PSNP. In the PSNP, the poorest 30 percent receive 59 percent of the program benefits while the richest 30 percent receive only 13 percent of the program benefit.
- 51. Transfers made in the PSNP and food aid have a sizeable direct effect on poverty, reducing it by two percentage points.** The PSNP and emergency food aid contributed substantially to reducing poverty, as they are both progressive and pro-poor. The direct effect of these transfers reduced poverty rates from 33 percent to 31 percent (estimated by comparing consumption with and without the size of the transfer provided). The transfers reduce the poverty gap by 1.4 percentage points (14.6 percent) and the squared poverty gap by 1.4 percentage points (30.4 percent).
- 52. Going forward, social protection needs and financing requirements remain high and continued expansion is predicted in the medium term.** Unlike other sectors, social protection is a nascent and diffuse area. The needs for continued social safety nets coverage are high, with increasing urbanization a priority. As the economy formalizes, continued scale up and expansion of social insurance will be a priority. Social protection needs will also require continued customization for informal groups and the rural economy. In rural areas, expanding interventions to promote the non-farm sector is essential in addition to enhancing agricultural productivity, although this has been a considerable challenge to date.

G. Water and sanitation

- 53. Ethiopia has made significant progress in expanding access to water and sanitation services, more than quadrupling access over two decades from 1990 to 2010.** Access to water increased by about seven percent annually from 13 percent in 1990 to 54 percent in 2010. The 2015 JMP estimates show that access to improved drinking water increased to 57 percent and access to improved sanitation to 28 percent. Based on these estimates, Ethiopia is considered to have met the MDG target for drinking water (57 percent) but not for sanitation (54 percent) – see Figure 0.13.

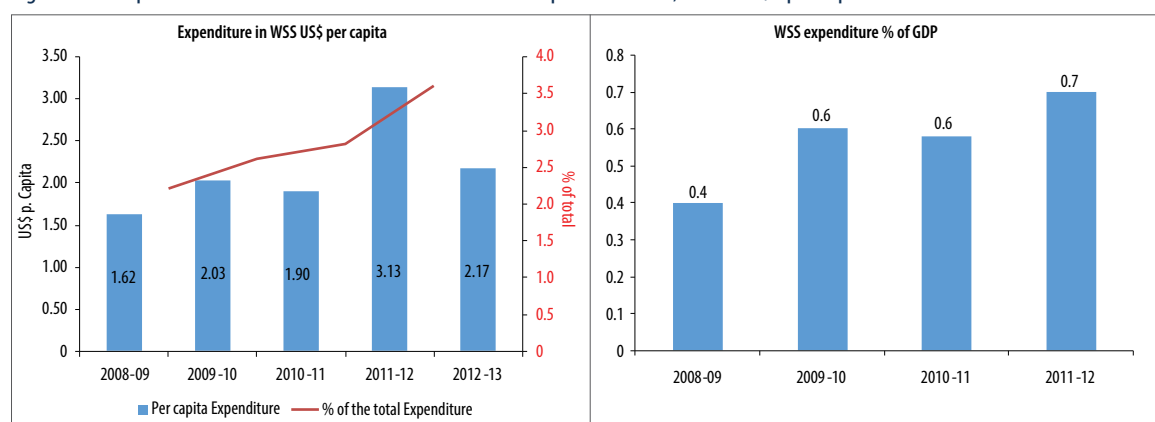
Figure 0.13: Ethiopia made remarkable progress in access to water and sanitation between 1990 and 2010



Source: MoFED Data in BOOST Format.

- 54. There is a stark urban-rural differential in service coverage, with much higher coverage in urban areas.** For instance, while access to improved water source reached 97 percent for urban areas in 2012, it was only 42 percent in rural areas. About 31 million Ethiopians (26.5 million rural and 4.5 million urban) are yet to access safe drinking water, while about 30.4 million (27.5 million rural and 2.8 million urban) people have no access to sanitation
- 55. Overall, sector expenditure increased from 0.4 to 0.7 percent of GDP.** Expenditure in the sector increased in relative and absolute terms; the sector share in total expenditure increased from two to 3.5 percent and has been stable at about US\$2 per capita for the periods 2008-09 and 2011-12. Nevertheless, the increase falls short of the funding requirements in the GTP and MDG targets. The annual average actual capital expenditure (US\$144 million) spent in the sector during the four-year period was only 59 percent of the amounts identified in the MDG Needs Assessment Report (US\$243 million average annual investment need between 2005 and 2015) — see Figure 0.14.

Figure 0.14: Expenditure in the sector increased from 0.4 to 0.7 percent of GDP, about US\$2 per capita

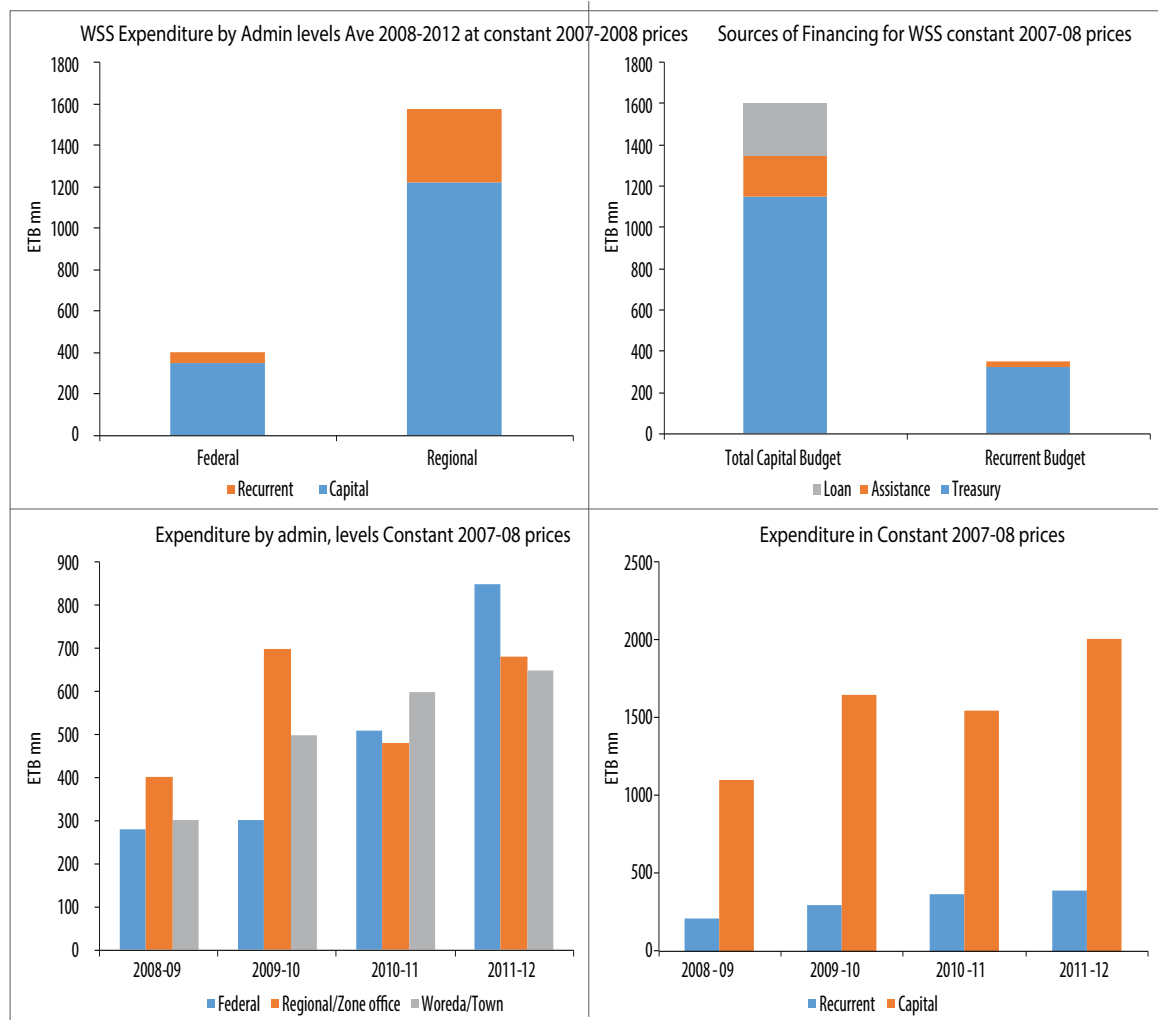


Source: MoFED Data in BOOST Format.

- 56. The sector budget is heavily skewed in favor of capital spending which is about 80 percent of the total and raising concern over underfunded operations and maintenance (O&M).** The capital bias in the sector spending can be attributed to the drive to close service gaps through additional investments, and, the government's cost recovery structure that leaves the responsibility of maintenance to users. Following the principles of sustainable water financing, the funding for operations and maintenance, rehabilitation and service expansion is to be generated from local revenues. However, as the number and complexity of schemes increases, lack of adequate recurrent budget in excess of salary has extremely constrained the ability of federal, regional and *woreda* level implementers to supervise and support the next level actors. Furthermore, sustainability of new investments requires continuous supervision and post construction support that are beyond the capacity of local level water committees and utilities. In this regard, the review identifies inadequate O&M budget as the main reason behind nonfunctional WSS schemes.
- 57. Service delivery in the water and sanitation sector (WSS) is devolved to regional and woreda-level administration, but woreda-level grants are barely sufficient to cover salary expenses for all required staff.** Decentralization has pushed service delivery in WSS issues

down to the local level. Over the course of four years from 2008/09 to 2011/12, regions outspent the federal government on a per capita basis by ETB13.73 to ETB6.23 per person - see Figure 0.15.

Figure 0.15: WSS expenditure is mainly at the region, financed through local revenue



Source: MoFED Data in BOOST Format

H. Education

58. Ethiopia has made remarkable progress in extending education to its population, expanding from 10 million to more than 23 million learners over the past decade. Access improved across all levels of education (from pre-school to higher education) but the rate of improvement varied considerably across levels. Significant improvement is noted for pre-school and primary education cycle one (grades 1-4) but not for cycle two (grades 5-8). Enrolment has increased substantially in urban secondary schools and in higher educational institutions, declined in Technical and Vocational Education & Training (TVET).

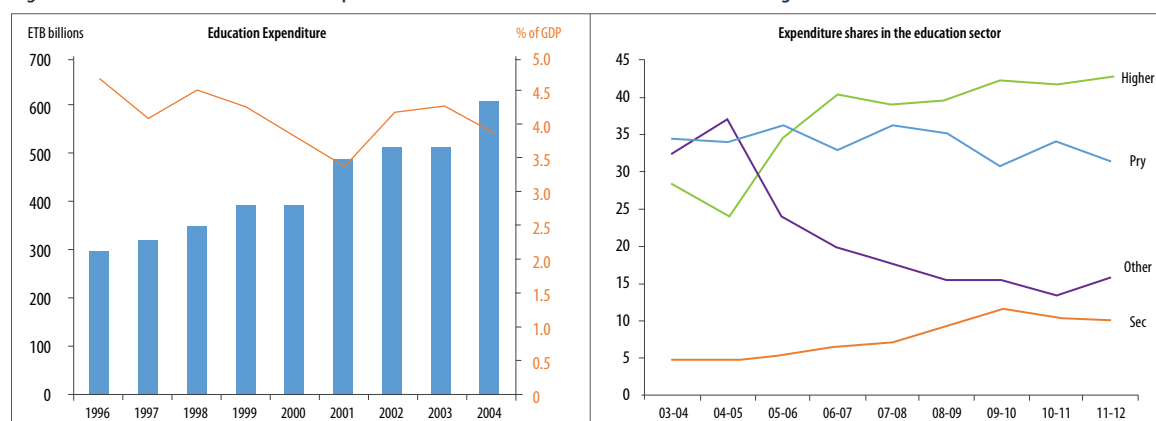
Expenditure trends

59. The government’s commitment to investing in education is evidenced by the steady share of education in the total government budget, at 20 percent for the last ten years. However, the increase in expenditure is mainly recurrent (by more than 33 percent in FY2011/12) and reflects government’s efforts to recruit a significant number of new teachers to support the system. But the share of education in the government capital budget declined to less than 15 percent, as more infrastructure projects required substantial government investment in sectors other than education.

Allocative Efficiency

60. Higher education now takes the largest share of spending in the sector. Trends in public expenditures by sub-sectors showed that: primary education remained stable; secondary education increased; TVET share declined slightly and higher education is now the biggest sub-sector by spending (see Figure 0.16). Higher education accounts for almost 80 percent of the education capital budget, taken up mostly by the construction of second and third generation of universities.

Figure 0.16: Education share in total expenditure has been stable and skewed in favor of higher education

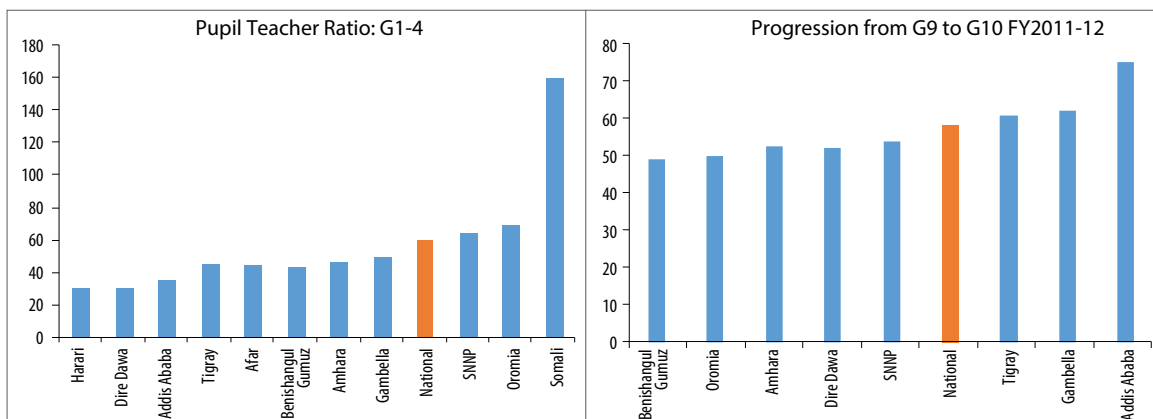


Source: MoFED Data in BOOST Format.

61. Per student recurrent spending in higher education is 26 times that of primary education and 10 times that of secondary education. Within recurrent expenditures, salaries accounted for more than 90 percent in primary education, more than 80 percent in secondary education, 60 percent in TVET and less than 40 percent in higher education. In fact, for higher education, more than 50 percent of recurrent spending was not directly related to academics as they covered food and housing subsidies as well as other administrative costs.

62. Ethiopia has more or less achieved its national targets for education. However, progress is uneven between regions and, perhaps more worryingly, within regions, and concentrated largely at the lower primary cycle (see Figure 0.17). Education outcomes at region/*woreda* level show a mixed performance. Better off *woredas* have improved while laggard *woredas* remain far behind, and a similar performance can be deciphered at regional level. For instance, the Pupil Teacher Ratio (PTR) stands at 60 nationally but varies from 32.1 in Harari to 158 in Somali.

Figure 0.17: Progress in education attainment and supply of inputs is uneven between and within regions



Source: Constructed from EMIS data

Equity in Access

63. Children from the poorest income quintile are equally represented in the first primary cycle, but are increasingly under-represented at higher levels and a very small percentage access TVET and higher education. Under-representation of the poorest is a product of incompleteness of schools as well as inability to enter the next level. The probability of entering the second primary cycle by age 11 is three times for children from the highest income quintile over those from the poorest income quintile. For instance, the poorest comprise two percent of the student population in higher education and one percent in TVETs. The wealthiest households dominate education participation at higher levels.

Effectiveness and Efficiency

64. Nationally, the average degree of efficiency did not improve in the last five years, although differences arose between regions and *woredas*, with some showing marked improvements and others becoming worse. At the same time dropouts remain stubbornly high in Ethiopia as a whole.

65. Young Lives Study showed that primary schools in Ethiopia helped students learn, but the level of learning is low. For mathematics, only less than three percent of Grade 4 students performed at expected grade level. The majority of students performed two years behind the expected grade level. For reading comprehension, only less than one percent of students performed at the expected grade level, 64 percent at the level of one year, 35 percent at the level of two years, and more behind the expected grade level.

66. Several factors undermine the efficiency and effectiveness of education investments. On the demand side, a challenging household background has a negative impact on a child's participation and progression in schooling. Pupil characteristics—including being over-aged, being a girl, not having three meals a day, being poor, orphan or in households with no one being literate, etc.—explained the difference in learning outcomes.

67. On the supply side, classroom shortage and high pupil teacher ratio remain binding constraints to efficiency of primary schools in about a quarter of all *woredas*. School factors

— such as teacher education, teachers’ knowledge, efforts and pedagogical competencies, teacher absenteeism, availability of school grants and textbooks, electricity, library and reading materials, having experienced and educated school leaders, etc.—explained the difference between highly effective and lowly effective schools.

Conclusion and recommendations

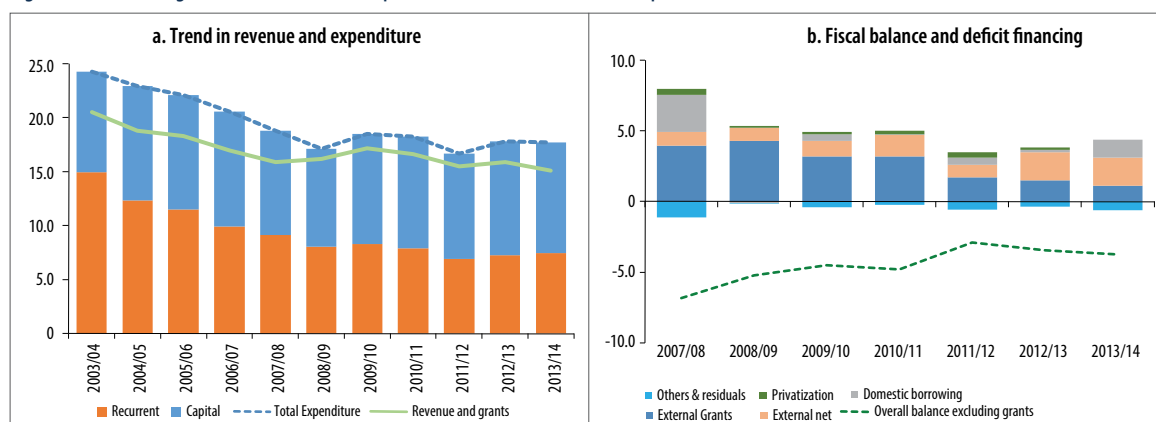
68. The review concludes that the current public investment-led strategy now requires to be balanced with provision for operations and maintenance. Findings from the aggregate fiscal analyses are confirmed by emerging conclusions from the sector reviews that capital spending increased service coverage. However, investments require to be complemented by increased budgetary provisions in operations and maintenance to translate to service delivery. In this regard, there is urgent need to advance tax reforms and enhance tax administration. Additional revenues will create the much-needed fiscal space to increase funding for operations and maintenance. Under-provision of O&M also undermines efficiency, particularly where 25 percent of rural water supply schemes are non-operational. Investments in the health sector in some regions have exceeded the standard norms, creating idle capacity and undermining efficiency. The SP analyses points to a need to increase efficiency and coverage of the SP programs, which can be achieved through consolidation of existing programs (food aid, workfare and targeted cash transfers). The consolidation needs to be complemented by reforms and removal of general subsidies (on wheat and kerosene) that are inefficient and regressive.

OVERVIEW OF ETHIOPIA'S FISCAL POSITION

1.1 Aggregate fiscal management

69. Over the last decade, the GoE¹ has pursued a prudent fiscal stance, controlling aggregate spending to levels consistent with total revenue and grants. General government expenditure to GDP ratio fell from 24.7 percent in 2003/04 to an all-time low of 16.8 percent in 2011/12 (Figure 1.1). This decline has been largely accompanied by a sustained decline in total revenue (including grants) to GDP ratio—falling from high of 20.5 percent in 2003/04 to 15.5 percent in 2011/12². The decline in revenue was, however, partially offset by the decline in aggregate spending, resulting in the contraction of the fiscal deficit (including grants) from seven percent of GDP in 2007/08 to 1.2 percent of GDP in 2011/12 its lowest level in a decade.

Figure 1.1: General government revenue, expenditures and fiscal deficit, as percent of GDP



Source: Computed based on MOFED data.

70. A large part of fiscal deficit has traditionally been financed by external grants while the share of financing from domestic sources has steadily declined. External grants, which averaged around 3.4 percent of GDP in the last decade, remained the largest source of financing of Ethiopia's fiscal deficit (Figure 1.1). The World Bank's Protection of Basic Services (PBS) project which replaced the budget support operations in 2006, constitutes the main portion of the external grants (on average 1.4 percent of GDP in 2005/06-2013/14). However,

1 "General government" represents revenues and expenditure related to federal government and regional states. State-owned enterprises are separate legal entities and not included in the "general government". In this report, "general government" and "government" are used interchangeably.

2 While GDP growth averaged 10.9 percent, tax to GDP ratio has continued to decline which requires investigating the administrative and tax policy issues arising from the tax system.

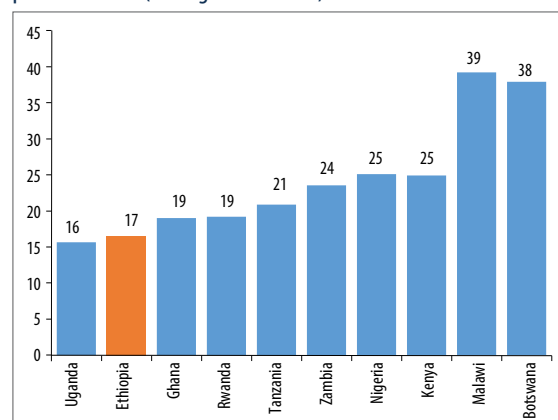
in 2013, PBS converted from grants to loans, following Ethiopia's low risk of external debt distress assessment in the Debt Sustainability Analysis. The rest of the fiscal deficit is financed from three broad sources: external loans (66 percent), bank borrowing (21 percent), and non-bank sources like Treasury Bills to corporations, proceeds from privatization (33 percent), and cash balance and residuals (-19 percent, on average). The declining domestic debt in the last decade was supported by relatively lower debt service obligations as a result of negative real interest rates.

1.2 General government expenditure

71. The general government expenditure declined, the outcome of a decade of tighter fiscal policy. Total spending declined from 24.7 percent of GDP in 2003/04 to 16.8 percent in 2011/12 and leveled around 17.8 percent in 2012/13 and 2013/14. In nominal terms, total general government expenditure has increased more than nine-fold between 2003/04 and 2013/14. In real terms, there has been an increase of less than two-fold during the same period. A relative increase in spending has been observed in recent years, due to rising spending on pro-poor sectors. Moreover, public investment has been increasing as a share of total spending, demonstrating the government's commitment to expand Ethiopia's social and economic infrastructure and to build the public capital stock.

72. General government spending for Ethiopia is one of the lowest amongst African peers. With expenditure share of only 17 percent, Ethiopia is one of the lowest, ahead of Uganda (Figure 1.2). Countries like Malawi and Botswana have high expenditure to GDP ratios. However, Ethiopia is spending a large portion of its budgetary resource on capital spending in an effort to address the infrastructure gap.

Figure 1.2: African countries' general government expenditure, as percent of GDP (Average 2005-2014)



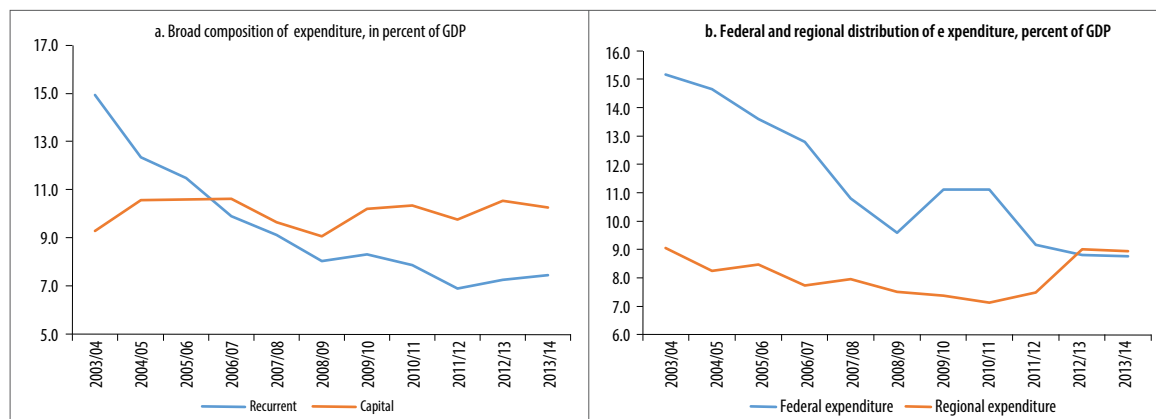
Source: WEO, IMF, April 2015.

Expenditure Strategy

Two major changes in a declining trend of expenditure

73. Budget priorities in Ethiopia were primarily driven by successive national development plans that witnessed two major shifts in expenditure patterns in the last decade. These include: a reorientation of expenditure from recurrent to capital spending, and from federal to regional governments. The gradual re orientation in the government expenditure strategy started in 2003/04 and by 2005/06 capital spending expenditure share reached 50 percent of the total. The shift coincided with the five-year national development plan completed in 2009/10, which triggered large budgetary capital spending for social and infrastructure development (see Figure 1.3).

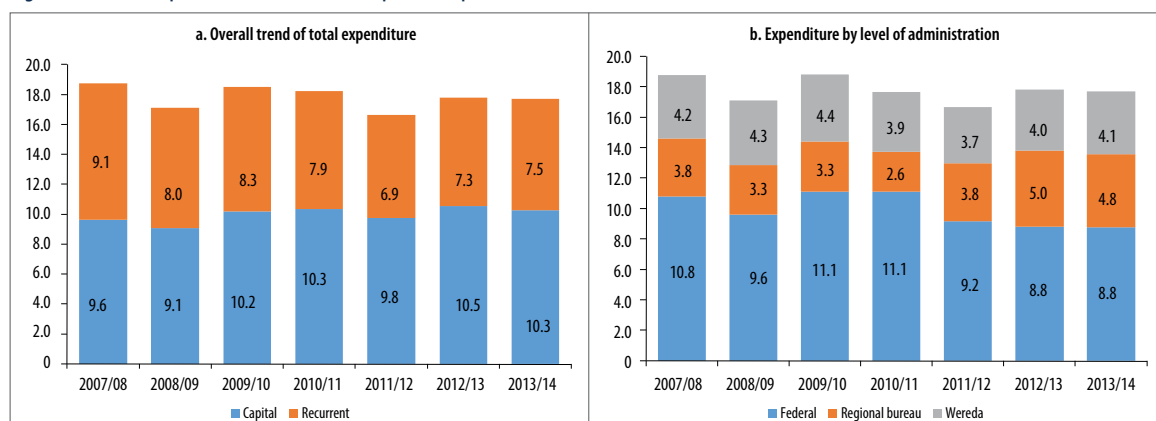
Figure 1.3: Shift in the general government budget strategy in the last decade



Source: Staff computation based on MOFED data.

74. Despite difference in spending mandate across levels of government, a second shift is reflected in the increase in regional governments' expenditure, and a contraction in spending at federal level. Regional governments are primarily undertaking current expenditure, leaving more responsibility for federal government to finance large capital projects. On average, 10 percent of GDP comprised federal government expenditure while regional bureaus and *woredas* account for 3.8 and 4.1 percent of GDP, respectively in 2007/08. By 2013/14 general government spending declined to 8.8 percent and the share at lower tiers of government increased to 4.8 and 4.1 percent, respectively. The increase emanated from the drive to fast track the achievement of MDGs, see Figures 1.3 and 1.4.

Figure 1.4: Total expenditure trend and composition, percent of GDP



Source: Staff computation based on MOFED data.

Functional classification

Functional classification that is increasingly allocated towards capital spending

75. The declining trend of recurrent expenditure was identified across all functional activities (Table 1.1). The share of recurrent spending declined from 9.1 percent of GDP in 2007/08 to 7.5 percent in 2013/14, which is observed in spending in pro-poor sectors as well as other sectors. In terms of share in total expenditure, the recurrent spending for poverty sectors

Table 1.1: Total expenditure by major functional classification, percent of GDP

	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
	Percent of GDP						
Recurrent Expenditure	9.1	8.0	8.3	7.9	6.9	7.3	7.5
Poverty sectors	4.3	3.8	3.9	3.8	3.4	3.7	3.7
Agriculture & water	0.9	0.8	0.7	0.7	0.6	0.6	0.6
Road	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Education	2.6	2.4	2.5	2.4	2.2	2.3	2.3
Health	0.6	0.5	0.5	0.6	0.5	0.6	0.6
Others	4.8	4.2	4.4	4.1	3.5	3.6	3.8
Capital Expenditure	9.6	9.1	10.2	10.3	9.8	10.5	10.3
Poverty sectors	7.8	7.0	8.5	8.4	8.4	8.8	8.5
Agriculture & water	2.4	2.1	2.3	2.1	2.2	2.5	2.4
Road	3.2	2.9	3.8	3.6	3.8	3.9	3.6
Education	1.4	1.4	1.9	2.1	1.8	1.7	1.7
Health	0.8	0.6	0.6	0.7	0.5	0.7	0.7
Others	1.9	2.1	1.6	1.9	1.4	1.7	1.8
Memo: real growth							
Recurrent Expenditure	6	-13	15	7	-5	7	15
Capital Expenditure	5	-7	25	15	2	10	9

Source: Computed based on MOFED data.

accounted for about one-fifth of total expenditure (or almost half of recurrent spending). In the poverty sectors, education has a relative stable share in percent of GDP averaging 2.4 percent per annum. In 2007/08-2012/13, the average real growth of recurrent spending was only three percent while capital spending increased by eight percent.

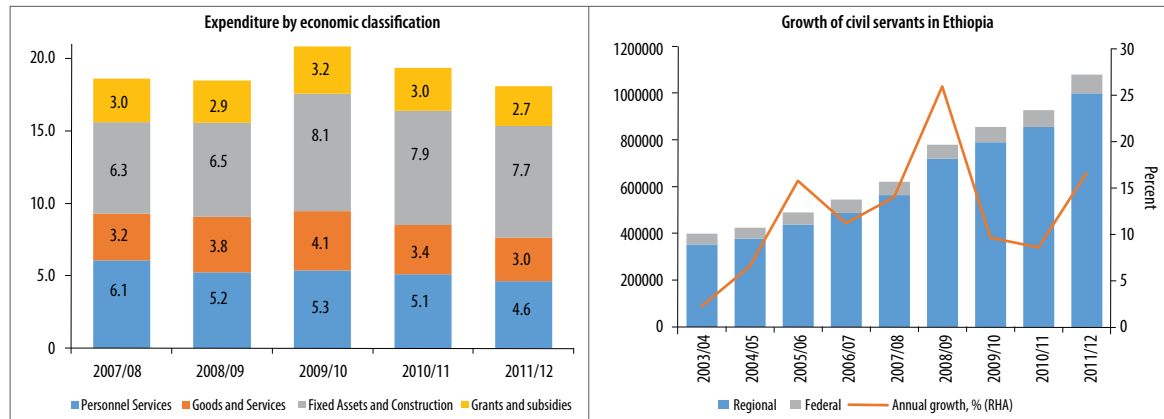
76. On the contrary, capital spending which is mainly devoted to poverty sectors is generally on an increasing trend. Capital expenditure increased from 9.8 percent of GDP in 2007/08 to 10.7 percent in 2012/13. The increase was mainly in the poverty sectors—from seven to nine percent of GDP—which now account for nearly half of the total expenditure (or about 82 percent capital spending) most of which (about 36 percent) is channeled to road construction. In this regard, the length of roads increased by 70 percent (of which asphalt roads increased by 98 percent) in 2005-2012. In the case of education, the number of universities are now 33 from only two in 2004. Within the safety net program, about 4.5 million people are benefitting from support.

Economic classification

Wage bill increases - combination of increase in staff numbers and, most recently, salary increase.

77. The increase in public sector wage bill emanated from two angles: an increase in the number of public servants and the recent increase in public sector wages in FY15. The number of civil servants at subnational levels doubled in six years through 2012. In terms of salary increases, the government implemented a substantial shift (average of 43 percent) in FY15 in the range

Figure 1.5: General government total expenditure by economic classification



Source: Staff computation from MOFED data.

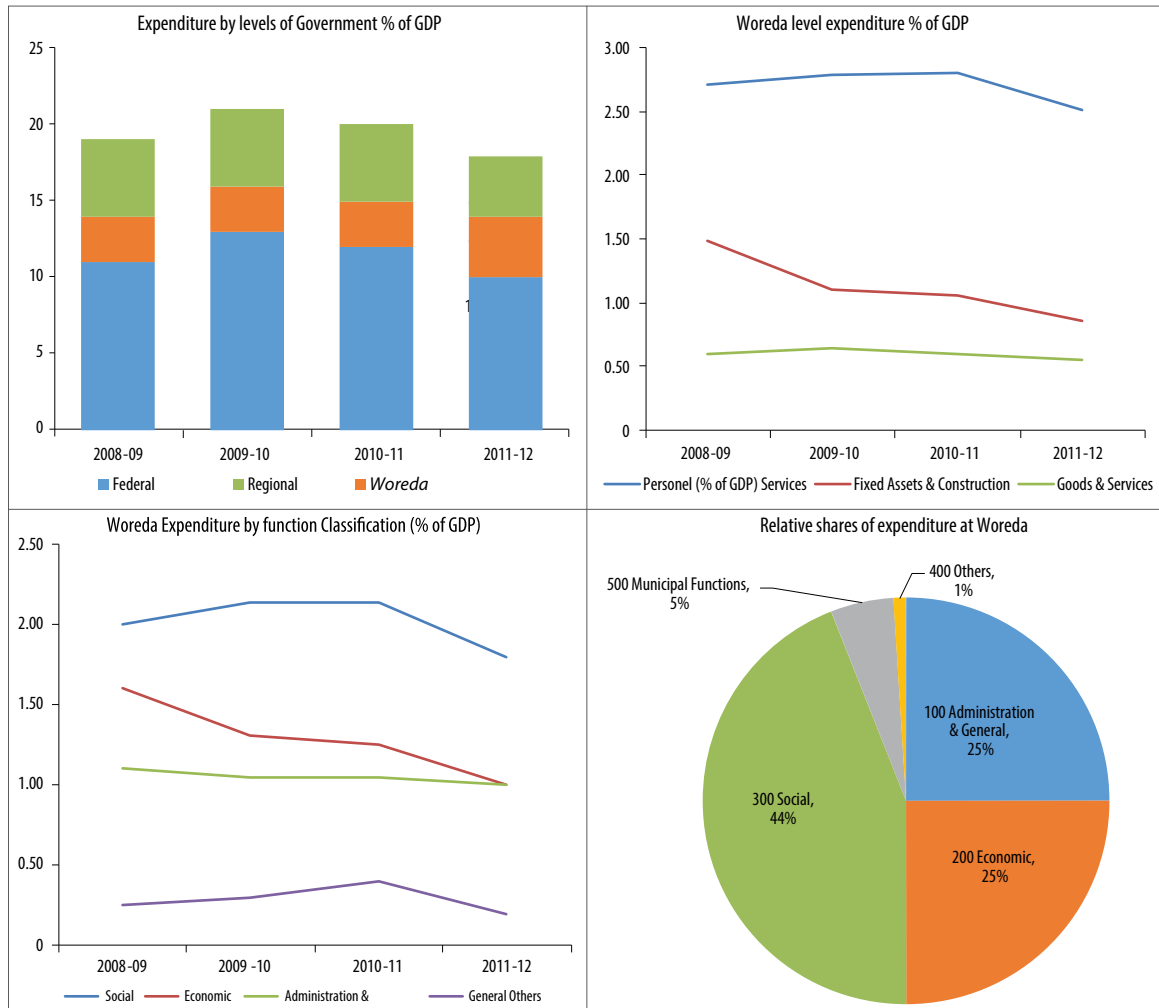
between 33 to 46 percent depending on the pay grade. However, the salary adjustment is not large enough to compensate for the erosion of the real wage observed over the decade, as a result of high inflation. The government has provisioned ETB6.5 billion in the federal budget and later on approved a supplementary budget of ETB8 billion, totaling ETB14.5 billion (1.1 per cent of GDP) for salary increments. Most of the budget impact of the salary rise is borne by regional governments as regions employ more than three quarters of civil servants.

1.3 Spending and funding at woreda level

- 78. Allocation of responsibilities between region and *woreda* is consistent across regions, in terms of assigning health, education, water, agriculture and some administrative roles to *woredas*.** Oromiya devolves a further responsibility, support to micro and small enterprises; and SNNPR devolves road construction and urban development, in addition to MSEs.
- 79. Nationally, the share of expenditure at *woreda* level has remained stable at about 25 percent of total expenditure but the relative share varies within regions.** Outside the two city administrations, Tigray is by far the most decentralized where 58 percent of spending is undertaken by *woredas*. At the lower end of the scale, Harari is the least decentralized region, where *woredas* execute only 17 percent of total expenditure. However, Harari and Dire Dawa are small urban regions not easily comparable to other regions, see Figure 1.7.
- 80. Wages and salaries account for 60 percent of expenditure, which reflects a gradual rise over the four-year period (2008/09 to 2011/12) from 53 percent to 61 percent.** As discussed in previous sections of this report, *woreda*-level expenditure is largely recurrent in nature, mainly wages and salaries translating to three percent of GDP. Acquisition of fixed assets and construction is the second largest expenditure category for *woredas* (20 percent of expenditure) but has declined in the recent years. Expenditure on goods and services has been in the range of 3-4 percent of total expenditure.
- 81. Education takes the largest expenditure mandate at 38 percent of total expenditure but has declined in the recent years.** Over 80 percent of spending at *woreda* level is concentrated on five functions: education, health, construction of rural roads and housing, agriculture and rural development and organs of the state. Education is the main sector absorbing a third of

spending at this level. The rest of expenditure is evenly shared among the other sectors, each taking 10-12 percent of the total (Figure 1.6).

Figure 1.6: Expenditure at woreda level is four percent of GDP—about a quarter of total expenditure—largely wages and salaries in the education sector



Source: Staff computation from MOFED data.

82. An inter-governmental transfer system is designed to address vertical and horizontal imbalances between and within regions in line with Constitutional provisions: "...all citizens should have equal access to services, disadvantaged regional states shall receive assistance to provide services in similar range and quality to that of other regions".

83. Regions provide a significant amount of transfers, largely unconditional, to local governments. The system of grants between regions and *woredas* is not included in the Federal Constitution, but is provided for in the regional constitutions. In addition, the Fiscal Decentralisation Strategy (2011-12) outlines the national approach to both federal-regional and regional-*woreda* grant systems. The Strategy lays out a number of criteria for the allocation formulae of region-*woreda* block transfers, including a focus on minimum standard of service and expenditure need analysis. Annex 1 highlights the variations in approach and formula components across regions.

1.4 Capital versus current final expenditure³

- 84. Over the past decade, Ethiopia has made some strong budget adjustments, which effectively increased government savings to fund a major increase in annual government Gross Fixed Capital Formation (GFCF).** It reallocated funds away from general administration to economic and social services by cutting recurrent expenditures, with the reallocation being more pronounced at the federal level than at subnational levels. The government approximately halved current expenditures from 14 percent to seven percent of GDP while revenues and grants as a share of GDP remained a relatively constant level. This effectively increased government savings that helped fund a major increase in annual government GFCF by over three percent of GDP up to around 10 percent of GDP. This increase was split between the economic services—such as roads—and the social sector, such as health and education facilities. The combination of enhanced investment in the government accompanied by enhanced SOE investment rates have raised economic growth rates to the 9-10 percent range that doubled real capita income within a decade.
- 85. But recurrent funding rates within both the economic and social service sectors are low compared to all comparators in this analysis.** Recognizing that the recurrent or operations and maintenance (O&M) budget support required to sustain the public sector services of investments varies significantly across sectors and that Ethiopia has been focusing on the economic sectors with lower recurrent cost requirements, it is still found that at a sector level the realized recurrent funding rates within both the economic and social service sectors are still low compared to all comparators.

Theoretical considerations

- 86. Yet, the need to sufficiently budget recurrent costs to ensure effective public sector services in developing economies has been long recognized.** In fact, the concept was popularized by Heller since the 1970s in a series of articles and analysis (1974, 1979, 1982, 1985 and 1991). At the heart of Heller's concept is the "r-coefficient" or the recurrent O&M expenditures that are required to sustain the public sector services per unit of investment in a public sector services facility. Over time, this became a core concept in budgeting and budget analysis, which also underlies this section's analysis.
- 87. The O&M funding requirements can be expressed as an "r-coefficient," which is a measure of the annual real O&M expenditure required per unit of additional capital expenditure on a public sector services project or program.** To make this concept more precise, r should be the annual expenditures to sustain a constant stream of real service over the future. In other words, it should cover the labor and other operating costs (supplies, utilities, etc), routine maintenance and repairs, and replacement or rehabilitation investments to sustain the productivity of the investment. For a fleet of vehicles, for example, it would include the maintenance and replacement of parts as well as whole vehicles as needed. For a road it would include routine repairs and maintenance as well rehabilitation of the road. This precision is important to allow a clear distinction to be made between capital expenditures that are sustaining the productivity of the public sector and those new developments that are adding to the services delivered by the public sector.

³ This section benefits from a background paper prepared by Graham Glenday (2014).

88. In addition, the ratio of the capital expenditures to combined capital and recurrent expenditures (CCR) can be used as an indicator as to whether the government is leaving sufficient fiscal room to fund the operations of its existing productive assets. If this ratio is significantly above the typical range of the same indicator for comparator countries that are known to have sustained growth and development over extended periods, then it can be used to indicate likely problems with underfunding of O&M to support public sector services. In addition, if this indicator has been persistently high or has been rising steeply as capital expenditure growth has outpaced revenues and current expenditures, then it raises a warning flag the added new investments are likely to face growing problems with O&M funding and productive declines⁴.

Capital versus recurrent expenditure in practice

89. The effective CCRs at the regional level in Ethiopia are 34 percent, 28 percent and 37 percent over three distinct periods considered: 1997-2003, 2004-2008 and 2009-13. Given Ethiopia's highly decentralized fiscal structure, it is useful to consider CCR and r-coefficients separately for regions and the federal levels. Ethiopia has implemented a decentralized government structure which is reflected in the broad summary of the revenue and expenditure patterns at the federal and regional government levels in Tables 1.2 and 1.3. The bulk of government revenues (83 percent) are collected centrally, while 40-45 percent of capital and current final expenditures are undertaken by sub national governments. This forms a gap between expenditures and revenues at the regional level over 5 percent of GDP or 37 percent of federal government revenues that needs to be satisfied by transfers from the center to ensure adequate funding.

90. Expenditure patterns at the federal level change dramatically over time and CCRs rise from 36 percent to 50 percent to 58 percent over the periods considered. Capital expenditures jump by about three percent of GDP while current final expenditures drop by more than three percent such that combined expenditures at the federal level actually fall by over two percent of GDP. As a result the shares of capital expenditures rise sharply.

91. Rising CCRs translate into falling implicit r-coefficients, especially from 2004-08 through 2009-13 when the r-coefficient falls from 0.18 to 0.12 (Figure 1.7). This raises a fundamental concern of the sustainability of public sector services if recurrent costs are underfunded at this low r-coefficient.

92. There was a major multifaceted shift in budget allocations in Ethiopia towards economic and social services. Figure 1.7 lays out the sector specific r-coefficients for Ethiopia over two time periods (2004-08 and 2009-13) first by the broad sectors: general, economic and social services; and then isolates the key sectors: transportation, communication and urban development, education and health. Figure 1.9 shows that there was a major shift in

⁴ The ratio of capital to combined expenditures (CCR) rises with the depreciation rate and the growth rate in capital assets, but falls with r-coefficient as projects move from low maintenance, capital-intensive projects to high O&M, and labor-intensive projects such as health and education facilities. To illustrate: For hard top (cement and tarmac) roads with $r=0.04$, the ratio could be about 80 percent in a fast growing economy, but drop to about 60 percent in a low growth economy. By contrast a higher maintenance gravel road with $r=0.15$, would have a lower ratio of about 40 percent in a fast growing economy. Health facilities in a low income fast growing economy with $r=0.4$ would have a ratio of about 20 percent, but in a slower growing high-income economy with $r=0.8$, the ratio of capital to combined expenditure could drop to below 10 percent. Overall a low-income, fast growing economy with an average $r=0.3$ would have a ratio of about 30 percent, while for a slower growing high-income economy, with an average $r=0.4$, the ratio drops to about 15 percent.

combined capital and final current spending away from general government services towards economic and social services. General services dropped from 41 percent to 21 percent of combined spending, while economic services rose from 32 percent to 44 percent and social services also rose from 25 percent to 34 percent.

Table 1.2: Ethiopia revenues by type of government and source, annual averages for 1997-03, 2004-08 and 2009-13 (percent of GDP)

	1997-2003	2004-08	2009-13
	(% of GDP)		
General government			
Total revenue & grants	17.5	18.4	16.5
Tax revenue	10.5	10.9	11.2
Non-tax revenue	4.6	3.1%	2.5
Ext Grants	2.4	4.3%	2.8
Tax and Non-Tax rev	15.1	14.1%	13.7
Federal government			
Total revenue & grants	14.7	15.4	13.8
Tax revenue	8.5	8.8	9.0
Non-tax revenue	3.8	2.2	1.9
Ext Grants	2.4	4.3	2.8
Regional government			
Total revenue & grants	2.8	3.0	2.7
Tax revenue	2.0	2.1	2.2
Non-tax revenue	0.8	0.9	0.6
Ext Grants	0.1	0.0	0.0
Gap = Current + Cap Exp - Total own revenue	5.6	5.4	5.1
Gap over Total Fed Rev	37.9	35.4	37.1

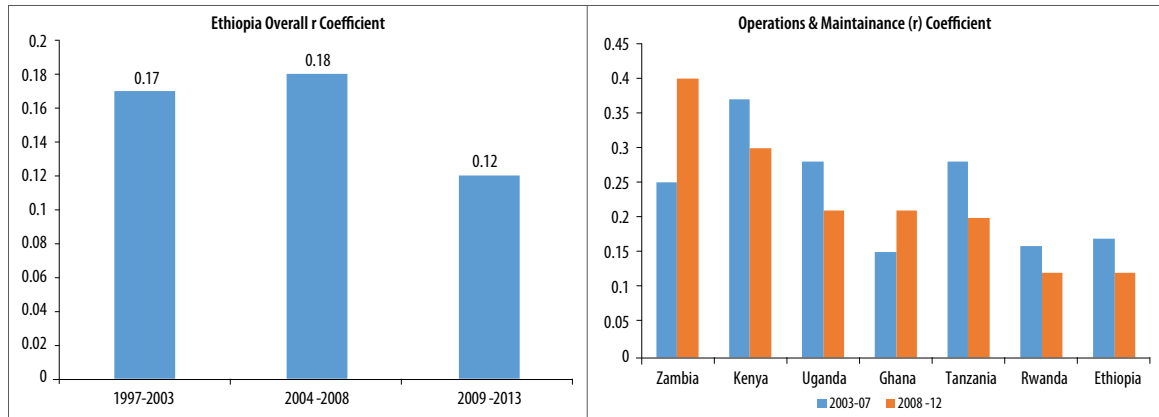
Source: World Bank staff calculations, based on data from MoFED.

Table 1.3: Ethiopia's current and capital expenditures on final goods and services for general and federal government, 1997-03, 2004-08 and 2009-13 (percent of GDP)

	1997-2003	2004-08	2009-13
	(% of GDP)		
General government			
Current expenditure	13.3	10.3	7.4
Capital expenditure	7.3	10.3	10.1
Current + Capital Exp,	20.6	20.6	17.5
Federal government			
Current expenditure	7.8	3.8	2.5
Capital expenditure	4.4	8.2	7.2
Current + Capital Exp,	12.2	12.1	9.7

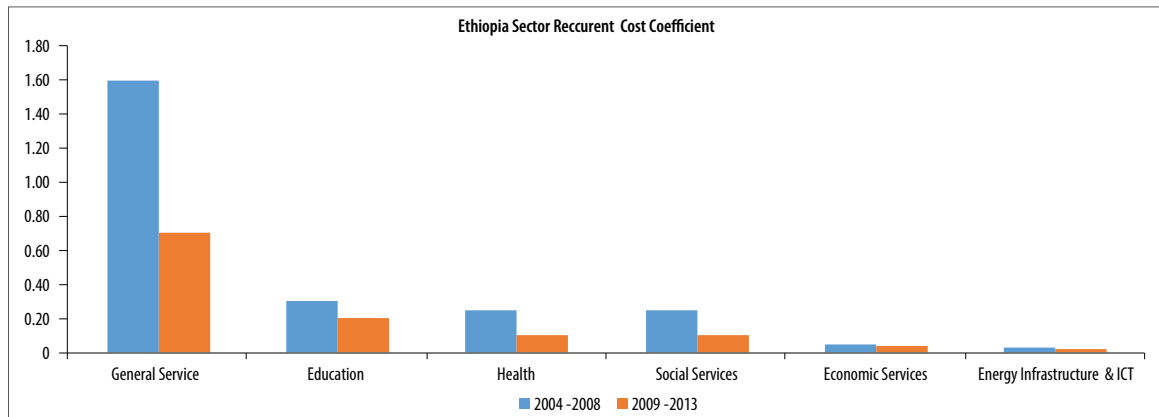
Source: World Bank staff calculations, based on data from MoFED.

Figure 1.7: Expenditure on operating expenses has declined over time and has some of the lowest coefficients in the region



Source: World Bank staff calculations, based on data from MoFED.

Figure 1.8: Ethiopia: the sector level coefficients



Source: World Bank staff calculations, based on data from MoFED.

93. Overall the main challenge is that the coefficients declined in the recent years. The emerging observation is that recurrent cost coefficients are low in Ethiopia compared to other countries in the region, but benchmarking notwithstanding the ratios declined across all sectors during the two periods under comparison 2003-07 and 2008-12.

94. The shift towards capital spending raises the question whether adequate recurrent resources are being allocated in Ethiopia. The implicit r -coefficients help answer that important question⁵ - see Figure 1.8.

- *First, in the economic sector*, the implicit r -coefficients remain steady at about 0.05. When the transportation, communication, and urban development services, which are dominated by roads and contain 57 percent of economic service capital expenditures in 2009-13, are isolated, the implicit r -coefficients drop to 0.03. This is lower than the lowest r -coefficient of about 0.04 typically applied to hard-top roads. While in the medium-term, if the road stock is being rapidly expanded, the need for rehabilitation may not yet have arisen for the new roads, over time the recurrent allocation will need to be expanded to maintain the quality of the road system.

⁵ A significant portion of O&M expenditure in some sectors comes through off-budget funding vehicles, such as the Road Fund, which is the most prominent of those. By including funding from the Road Fund into the road sector r -coefficient, however, the impact is limited. The r -coefficient would rise from 0.03 to 0.04. Given this, and the need for comparability of data, this analysis does not include off-budget funding in any sector calculation of r -coefficients.

- *Second, in the social sector*, which is expected to have much higher recurrent cost requirements because of the labor-intensity of the services and the significant requirements of goods and services, particularly in the health services, a disturbing trend in the implicit r -coefficients emerges. In social services the coefficient drops from 0.24 to 0.18. Furthermore, in the two major subsectors, education (which forms 70 percent of social service spending) and health (20 percent), the coefficients also fall. Education drops from 0.27 to 0.22 and health from 0.22 to 0.16. Both these recurrent spending levels should be kept steady or should be rising, and with the specific effort to ensure the recurrent expenditure levels to be assessed by taking into account the funding profile of the services.

1.5 Overview of public enterprises' fiscal stance

- 95. The role of SOEs in a global perspective—performance and experiences are mixed.** Globally, SOEs account for 20 percent of investment, five percent of employment, and up to 40 percent of output in some countries⁶. They continue to deliver critical services in important economic sectors such as utilities, finance, and natural resources. Governments around the world continue to own and operate as well as fund the expansion of the SOEs in these commercial sectors which is evidenced in high income countries, in major emerging market economies, and in many low- and middle income countries. However, compared to the private sector, many state-owned banks suffer from a number of vulnerabilities, including weak balance sheets and low capitalization, poor underlying profitability, and high nonperforming loans. Poor performance by SOEs can also impede competitiveness and growth. In many countries, SOEs continue to crowd out or stifle the private sector, while lack of competitive markets or a level playing field creates inefficiencies and limits the expansion of the private sector⁷. By reducing internal inefficiencies, SOEs can make public spending go farther. For example, a recent study suggests that of the roughly US\$93 billion annual infrastructure investment gap in Sub-Saharan Africa (equal to 15 percent of the region's GDP), nearly US\$17 billion could come from savings produced by improving internal efficiencies through better governance and other means (Foster and Briceño-Garmeñía, 2010).
- 96. Ethiopia is not an exception from the global experiences.** The SOEs in Ethiopia are mainly invested in infrastructure development—highways, railways, power, telecom, and manufacturing—which are operated by the government, and have increased their investment activities in recent years. The SOEs investments have attracted large domestic and external financing which potentially remain a cause for fiscal burden and a source of fiscal risk. This section highlights recent developments in the SOEs investment, based on the often limited available information on these entities.

State-owned enterprises' investment

- 97. State-owned enterprises' investment constitute an important component of public investment.** Public enterprises' investment ranged between 3.4 and 10.1 percent of GDP with an average real growth of 11 percent in 2007/08-2013/14. Recent economic growth was mainly driven by public sector investment, contributing three quarters of growth in 2011/12⁸. The contribution of state-owned enterprises was important despite general government spending taking the larger share.

6 World Bank, 'Corporate Governance of State-Owned Enterprises- A Toolkit', 2014.

7 World Bank, 'Corporate Governance of State-Owned Enterprises- A Toolkit', 2014

8 Ethiopia Economic Update II, World Bank, June 2013.

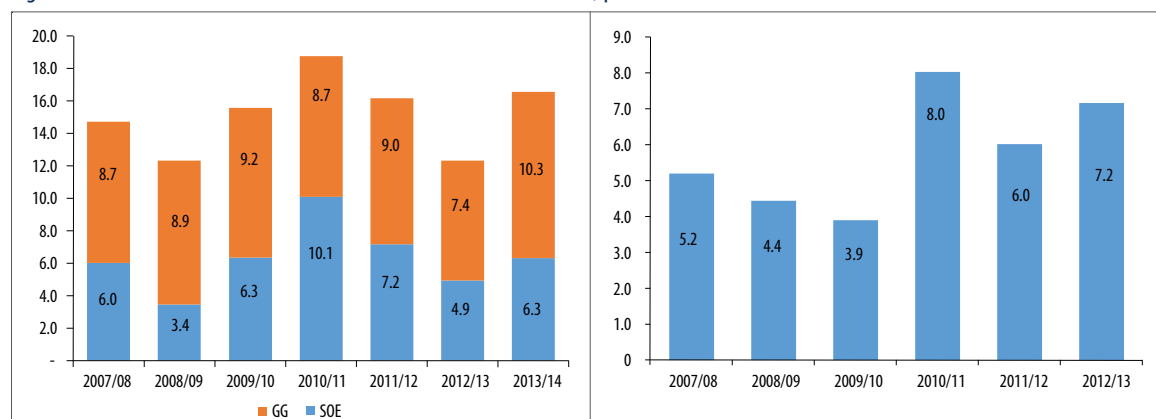
98. Capital expenditure data gathered from major state owned enterprises also shows a similar pattern⁹ (Table 1.4). Preliminary information from major SOEs indicates that capital spending has been growing for the past six years and accounted for an average of 5.9 percent in 2007/08-2012/13. Even more investment activities were undertaken from FY2013/14 due to challenges in securing financing. Data on capital expenditure needs further reconciliation, especially for 2008/09 and 2012/13, in light of differences with national accounts¹⁰ (Figure 1.9).

Table 1.4: Capital expenditure of major state-owned enterprises, in million Birr

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
EEPCCO	2,176	3,223	5,156	10,223	9,742	11,453	25,875	35,353	37,145
ETC	1,449	613	454	1,603	3,842	378	747	1,084	4,079
EAL	504	1,450	202	260	740	1,533	11,691	5,349	12,616
ESL	13	179	400	40	105	134	628	2,152	3,379
ERC	0	6	90	1	1	60	803	1,039	4,644
Total	4,142	5,472	6,302	12,127	14,430	13,557	39,742	44,977	61,863
Share in GFCF of SOE	85	60	99	81	124	55	77	84	145
Share in GDP	3.9	4.1	3.6	4.8	4.3	3.5	7.7	6.0	7.2
memo:									
SOEs GFCF in SNA	4,899	9,148	6,345	15,044	11,648	24,494	51,889	53,491	42,532
GDP nominal	107,290	132,652	173,309	250,207	337,965	385,876	515,079	747,326	864,673

Sources: CSA, balance sheet and financial statements of enterprises, and Transport Statistical Bulletin.

Figure 1.9: SOE's investment from SNA and alternative source of data, percent of GDP



Source: World Bank Staff estimated Based on MOFED and Public Enterprises data.

99. Like in many countries in Africa, SOEs investment is mainly focused on infrastructure development, due to a large infrastructure deficit that constrains growth¹¹. In this regard, Ethiopia's latest five-year development program—GTP I—focuses on infrastructure development. The plan has ambitious targets including: expansion of road network from 49,000 km to 64,500 km; increase power generation capacity from the current 2,000 MW to

9 SOE capital expenditure is based on the data gathered for major public enterprises including, EEPCCO, Telecom, EAL, ESL, ERC, and partial information for Sugar and CBE. It is estimated that these capital expenditures make up around 85 to 90 percent of all SOE capital expenditure.

10 There is evidence that 2012/13 investment data has some problems where MOFED is expected to revise in the next round of SNA series.

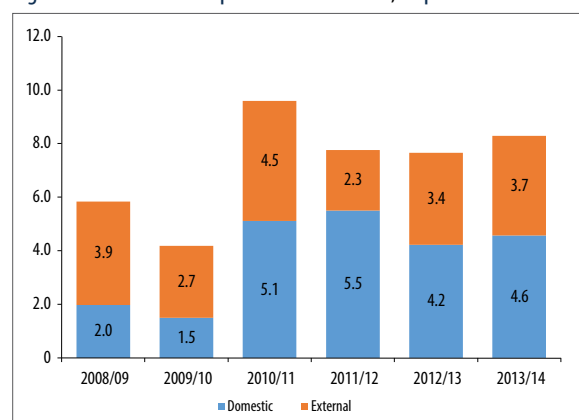
11 Foster, V. Africa Infrastructure Country Diagnostic: Overhauling the Engine of Growth: Infrastructure in Africa, World Bank, (draft), September 2008.

8,000 MW; construction of 2,395 km of railway line; and increasing the contribution of the industrial sector through the establishment of sugar, textiles, fertilizer, leather and cement industries. Achieving the GTP targets in infrastructure development depends on various factors, but primarily the mobilization of sufficient financing from both domestic and external sources. The government envisaged the implementation of infrastructure development through SOEs, and the GTP allocates 57 percent of the planned capital expenditure to SOEs.

Sources of State-owned enterprises' investment finance

100. Financing of SOE projects has been more challenging than envisaged in the GTP. The SOEs have contracted loans with and without government guarantees, including from concessional sources, and securing external loans to finance the investment activities has taken longer than expected. The external stock of debt from commercial creditors reached 4.4 percent of GDP in 2013/14, and could increase further considering the huge investments required for railway and sugar projects. On the domestic front, since 2010/11, lending to SOEs has been through loans and advances, corporate bonds and from the proceeds of the '27 percent NBE rule'¹². Public enterprises can also borrow from the state-owned Commercial Bank of Ethiopia. Domestic lending to public enterprises was estimated at 5.6 percent of GDP in 2011/12 (see Figure 1.10). Lending by the Commercial Bank of Ethiopia has been crowded out by large infrastructure investments through SOEs at the expense of lending to smaller enterprises and the private sector; the share of private sector credit declined from 52 percent in 2008/09 to 30 percent in 2013/14. Any deterioration in the financial performance of SOEs could affect the government in the form of contingent liabilities. It poses risks to the banking sector, and in particular to the Commercial Bank of Ethiopia, which is heavily exposed to SOEs.

Figure 1.10: Public enterprises' fiscal deficit¹², as percent of GDP



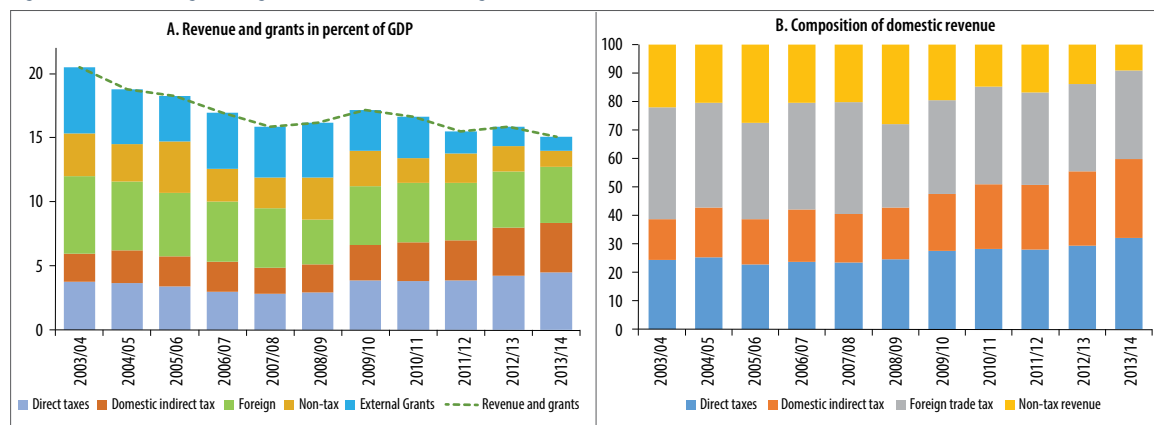
Source: Staff computation based on MOFED and NBE data.

1.6 Revenue mobilization—need to strengthen fiscal capacity and fiscal efforts

101. The revenue generating capacity of Ethiopia reveals weaknesses in revenue administration. While total revenue (including grants) increased significantly in absolute values, the tax elasticity was below 1.0, resulting in the general government revenue and grants declining from 21 percent of GDP in 2003/04 to 16.1 percent in 2013/14 (See Figure 1.11). As regards tax structure, foreign trade taxes reduced (see more detail below) while the proportions of domestic indirect taxes and direct tax increased. In terms of revenue collection within the federation, the federal government retains the bulk of the tax base and collects more than 80 percent of domestic revenue.

¹² The rule requires private commercial banks to hold 27 percent of the gross lending in a five-year NBE bill at an interest rate of 3 percent per annum. Some information indicates that a very small portion of the fund is lent to private sector projects.

Figure 1.11: Trend in general government revenue and grants



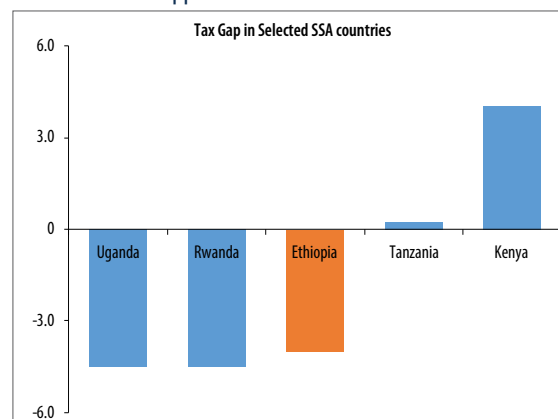
Source: World Bank staff calculations, based on MoFED Data.

102. This section discusses the various estimates of tax revenue gaps, using peer countries, and explains the low tax performance. Different factors shed light on weak revenue generation, including a dominance of trade taxes in the tax structure; the revenues foregone related to tax exemptions; and tax policy design issues and tax administrative insufficiencies on direct and indirect tax source areas. In a broader context of revenue generation, it is also important to note that the relatively untaxed subsistence agricultural sector activities continue to make up a large part of the economy.

103. Compared to other countries in East Africa and SSA, some margins for tax-to-GDP improvements in Ethiopia seem to be prevalent. Ethiopia's tax-to-GDP ratio averages two percentage points behind East African peers, and 5-6 percentage points behind Kenya and Malawi. On tax structure, Ethiopia fares differently in a number of areas. The proportion of direct taxes is well below the peer countries, except for Uganda, while on indirect taxes (except trade taxes), the proportion from these tax sources is by far the lowest in Ethiopia. It is worth noting that the revenue profile in Kenya and Malawi—the countries with the highest tax-to-GDP ratio—is even across direct and indirect taxes, while indirect taxes take a higher share of overall tax revenues in Rwanda, Uganda and Tanzania. Ethiopia is the only country where the proportion of trade taxes is higher than that of direct or indirect taxes.

104. In the short- to medium-term, the tax-to-GDP ratio may potentially be improved by 3-4 percent of GDP (IMF 2014). Estimations of tax revenue gaps across countries usually require a high degree of contextualization to ensure that structural determinants are taken into account in the comparison. In a recent Article IV consultation in Uganda, the IMF estimated the tax gap in East African countries by relating tax-to-GDP to structural variables, such as the proportion of rural population, and the share of manufacturing in the

Figure 1.12: Illustration of tax gap in select SSA countries, using a Structural Model Approach



Source: Staff computation from MOFED data.

GDP. For Ethiopia, the results of the estimation show a structurally adjusted revenue gap of 3-4 percent of GDP (Figure 1.12)¹³. The potential tax gap on Ethiopia, Rwanda and Uganda is to some extent validated by the actual tax revenue generation, including the tax structure in the three countries (Table 1.5). The relative generous tax exemptions to businesses adds to the overall picture, with the impact of the tax holidays and exemptions from import taxes estimated to be between 3-5 percent of GDP.

Table 1.5: Tax revenue for select SSA Countries

	Rwanda	Ethiopia	Kenya	Malawi	Tanzania	Uganda	Simple Average
(In percent of GDP)							
Tax Revenue	13.5	12.6	20.1	18.8	15.0	12.0	15.7
Direct Tax	5.5	4.2	9.3	8.5	6.4	4.2	6.5
Indirect Tax	8.0	8.4	10.8	10.3	8.6	7.8	9.2
(In percent of Tax Revenue)							
Direct Tax	41.0	33.7	46.2	45.2	42.7	35.3	40.6
VAT & other indirect tax	50.7	27.2	45.1	45.1	48.5	56.3	44.4
Trade Tax	8.2	39.2	8.7	9.7	8.9	8.4	15.0

Source: IMF: Ethiopia, Rwanda, and Uganda 2013 Article IV; Kenya and Malawi 2012 Article IV; and Tanzania 2011 Article IV.

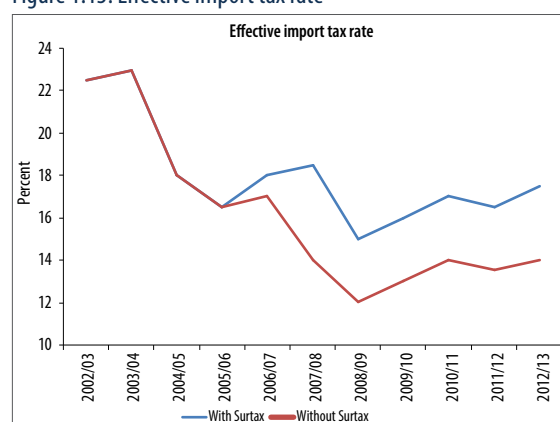
A closer look at drivers of tax performance by major revenue sources

105. Foreign trade tax makes for the most important source of government revenue.

Foreign trade taxes entirely collected from imported goods make up the largest share of the total domestic revenue, averaging 34 percent in 2008/09-2012/13¹⁴. The share, however, was lower after 2007 despite surtax (additional tax) on selected imported goods imposed since that year.

106. Despite the trade taxes imposed on a broad tax base¹⁵, the effective import tax rate is volatile and lower now than in 2003/04. The effective trade tax revenue (total trade tax collection per unit of import value) is calculated by dividing total import tax revenue by import value. As indicated in Figure 1.13, the effective rate declined from 24 percent in 2003/04 to 14.7 percent in 2008/09 before it recovered to 18.3 percent in 2012/13. Including the 10 percent surtax on imports in 2005/06, the effective tax rate improved by four percentage points in

Figure 1.13: Effective import tax rate



Source: Staff computation from MOFED data.

13 Please note that the level of tax-to-GDP ratios in Table 1.5 calculations is based on more recent data than the ones in Figure 1.6.

14 Export taxes were eliminated in 2003.

15 In addition to tariff (customs duty), four other tax types are imposed on imported goods. These includes excise taxes which are applied on selected products with rates ranging from minimum of 10 percent to 100 percent; 15 percent VAT on imported goods, withholding (pre-holding of income tax for business) of three percent and 10 percent surtax on selected products.

2012/13 but still lower than in earlier years. The resulting revenue loss over the past decade may partly be explained by tax exemptions, as outlined below.

107. The tax exemptions and privileges towards promoting domestic and foreign investment explain a great part of tax revenue foregone on import tax revenue. Government provides tax holidays in the form of profit taxes and exemption from import taxes for new investment and FDI as proclaimed in the investment law. Information on customs data revealed that in the four years preceding 2010, the average tax incentive and privilege provided resulted in a revenue loss of 49 percent of total tax revenue on trade taxation. This represents an average of 4.8 percent of GDP, which is a significant revenue foregone¹⁶ - see Table 1.6.

Table 1.6: Import revenue loss from tax exemption and tax incentives

	2007	2008	2009	2010	Average
Import tax to exemption and incentive ratio	0.74	0.99	1.10	0.89	0.93
Exemption and incentive in total tax revenue, %	42.2	51.5	55.9	45.4	48.8
Exemption & incentive in GDP, %	4.3	4.9	4.8	5.1	4.8

Source: Computed from Ethiopian Customs and Revenue Authority data.

108. Three broad conclusions can be reached from the above analysis. (a) Taxes on imports are large and will likely continue to be important sources of revenue; (b) customs duties tend to be less important for revenue generation with the existence of widespread exemptions; and, (c) the size of tax incentives is substantial, with significant revenue foregone. It may call for a need to review and rationalize investment incentives.

Direct taxes — improve the tax base and review tax brackets

109. As a low-income economy that is dependent on agriculture, the contribution of direct tax sources remains relatively limited. The share of direct tax remained constant at around 29 percent of domestic revenue in the past decade. Most of the revenues from direct taxes are generated from payroll tax and taxes on profits of enterprises and individuals. The productivity of Personal Income Tax (PIT) and Corporate Income Tax (CIT) in Ethiopia stands at 0.01 and 0.05 respectively, compared with SSA peer countries, averaging 0.20 on PIT and 0.12 on CIT¹⁷. The importance of the PIT in the overall revenue mobilization efforts—the PIT to GDP ratio—is also relatively modest in Ethiopia, standing at 0.33 percent, against 5.16 percent in SSA countries. For CIT, the ratio is 1.57 percent, with the SSA peer countries at 3.13 percent¹⁸.

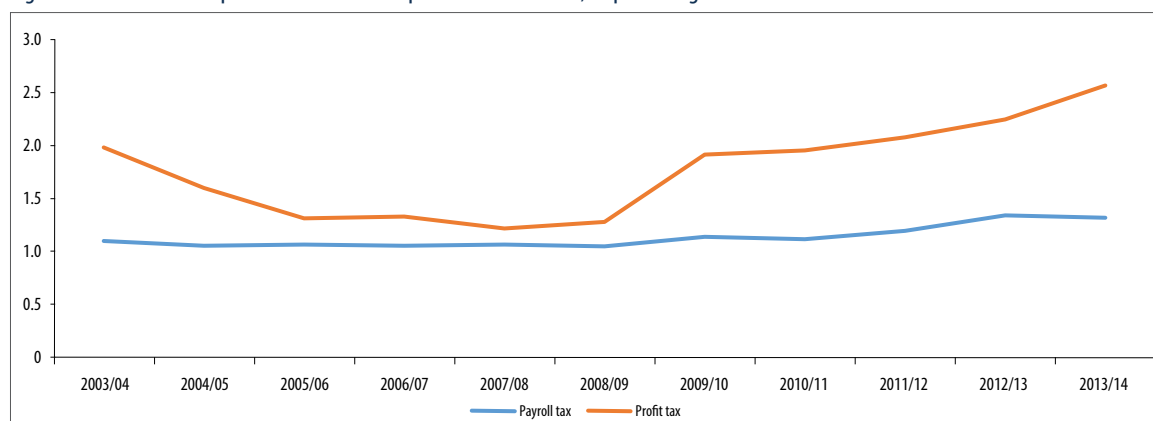
110. Declining or stagnant tax revenues may call for changes in the tax structure of direct taxes. Profit tax revenue showed a declining trend since 2008-09; down from a high of 2.8 percent in 2001/02 to as low as 1.4 percent in 2007/08 before it recovered to 2.5 percent of GDP in 2012/13 (Figure 1.14). The recent upward trend may coincide with government measures in

¹⁶ The IMF (2012) study on tax incentives and tax expenditures estimated foregone revenue in 2010 to be around 2.9%-3.0% of GDP, in line with estimates in Table 2. In general, the economic impact of tax incentives, however, should be assessed in a broader perspective; taking into account as well the positive impact on economic growth and employment. In addition, the assessment of the effectiveness of tax incentives remains a disputed topic in the literature. Please refer to van Parys & James (2009), and Klemm, (2009) for a broader discussion on challenges of tax incentives.

¹⁷ "The Collecting Taxes Database" 2012/13. USAID, <https://egateg.usaid.gov/collecting-taxes/>. The productivity indicators show the additional tax revenue (as a % of GDP), that would be raised with a 1 percentage point increase in the tax rate

¹⁸ "The Collection Taxes Database", <https://egateg.usaid.gov/collecting-taxes/>.

Figure 1.14: Trend in the profit income tax and personal income tax, as percentage of GDP



Source: World Bank staff calculations, based on MoFED Data.

strengthening tax administration through tax education, enforcement measures, automation of tax registration, introduction of a Tax Identification Number and related measures. Personal income tax is collected from payroll by the employers and its contribution to tax revenue has showed no change over the last decade.

- 111. Revision of income brackets could be considered, together with other measures to improve the revenue.** A revision of the income brackets could be provided, to align with the growth of real income. The income brackets were introduced a decade ago. With high inflation persisting during the past 10 years, the consumer price index grew more than five-fold since 2008-09. The maximum taxable income and tax-exempted threshold for both personal income tax and unincorporated business, however, remained the same. Other structural drivers, such as relative higher employment in industry- and service sectors, could point towards higher PIT revenue as well going forward.

Indirect Taxes - Value Added Tax (VAT) – strengthening efforts in a number of areas

- 112. Among the major revenues, the VAT has become an important and growing source of revenue to government.** Various measures on VAT administration and enforcement, expansion of the tax to additional products, the introduction of electronic cash registering machines, helped to increase revenues in recent years. The share of VAT (both domestic and import) revenue reached five percent of GDP in 2012/13, which was twice the share of 2007/08, and the VAT¹⁹ productivity and efficiency were improved as well (Table 1.7). The productivity of VAT averaged to 0.26 percent in nine years, ranging from as low as 0.17 percent in 2007/08 to as high as 0.33 percent in 2012/13.

- 113. In efforts to close the revenue gap, how is the VAT policy design and compliance compared to peer countries?** Over the past 10 to 15 years, VAT has become a core and robust part of the revenue mobilization across the world, particularly in Africa²⁰. While the VAT productivity and efficiency, as mentioned above, remains low, the various aspects of VAT design in Ethiopia can be compared against East African peer countries (Table 1.8).

19 A commonly used, though crude, measure of 'VAT productivity' is simply the ratio of VAT revenue to GDP divided by the standard rate of VAT (Bird and Gedron, 2006). This depicts the percentage of GDP collected by each percentage point of standard VAT rate. On the other hand, 'VAT efficiency' sometimes called 'C-efficiency' is calculated as the ratio of VAT revenues as a percentage of (usually private) consumption divided by the standard rate (Bird and Gedron, 2006).

20 M. Keen, The Anatomy of VAT, IMF Working Paper 13/111; Cottarelli et al, "Revenue Mobilization in Developing Countries", IMF, 2011.

Table 1.7: Productivity and efficiency of VAT, 2007/08-2012/13

	VAT as % of GDP	VAT in % of Non-Agr GDP	VAT productivity	VAT efficiency
2007/08	2.5	5.3	0.17	0.21
2008/09	3.1	6.5	0.20	0.25
2009/10	4.1	8.1	0.27	0.33
2010/11	4.3	8.6	0.29	0.37
2011/12	4.4	9.2	0.29	0.38
2012/13	5.0	10.0	0.33	0.44
Average	4.0	8.1	0.26	0.34

Source: World Bank staff calculations, based on MOFED data.

Table 1.8: VAT design in select Sub-Saharan African countries, 2012/13

	VAT rate	VAT gross compliance rate	VAT threshold
Rwanda	18.0	25.7	33,882
Ethiopia	15.0	15.6	29,766
Kenya	16.0	45.7	57,193
Malawi	16.5	65.9	38,772
Tanzania	18.0	44.2	25,595
Uganda	18.0	26.2	20,074

Source: The "Collecting Taxes Database" 2012/13. USAID. <https://egateg.usaid.gov/collecting-taxes/>

114. In terms of policy design, the VAT thresholds and rate in Ethiopia are relatively low, compared to peer countries. For instance, three countries in the region have established a VAT rate of 18 percent, while two countries have rates between 16 and 16.5 percent. Furthermore, the VAT threshold amount is another policy design parameter where Ethiopia may have leverage to change. The threshold is relatively low, which implies compliance issues and costly tax administrative efforts on very small tax payers. Countries like Kenya and Malawi have threshold values 50-100 percent above Ethiopia.

1.7 Key findings and recommendations

115. The government should review the levels of recurrent costs required to sustain public sector services in key sectors, including education, health, roads, water, and other major infrastructure sectors. This requires establishing the costs of sustaining services per unit of capital investment (or r-coefficients) and/or per unit of service delivered. Appropriate unit costs need to take into account efficient scales, locations, technologies, and cost variations that occur by location. In addition, and importantly, minimum standards of public sector services have to be specified when establishing the unit costs of public sector services. Such reviews should advise both whether current service delivery based on existing facilities is underfunded and whether the forward budget required as the government expands its public sector services capacity can be funded (or is financially sustainable). Based on the findings in this report it is expected that upward adjustments in current spending would be justified in many sub sectors and locations to support both current public sector services capacity and new capacity. This type of review should provide the detailed advice needed on sizing and directing the increases.

- 116. In addition, there is a need for a comprehensive review and strengthening of the Public Investment Management system.** Ultimately, all public investments need to be economically efficient (or producing positive net economic benefits) and not just be financially feasible and sustainable. Whether this is the case cannot be discerned from the types of budget expenditure data analyzed in this report. To some extent the growth rates of an economy and the efficiency of its use of capital are indicators of efficient investment decisions and project and program implementation, by GDP does not capture all the external benefits and costs experienced by individual citizens arising from these projects and programs. This requires high quality ex ante and ex post economic appraisal to ensure that the desired aggregate and distribution net economic benefits of public investments are being achieved.
- 117. Finally, a need for strengthening domestic resource mobilization seems evident, and the government is encouraged to review the tax gap and identify improved policy design and tax administrative strengthening.** The structural estimate points to a gap of 3-4 percent of GDP, and improvements in the specific policy design on tax bases, exemptions, thresholds and brackets would yield additional revenue. The revenue loss in import taxes through exemptions and incentives alone is estimated at around five percent of GDP. Furthermore, enhanced tax administrative capacity should provide additional revenue, for example, the VAT compliance rate in Ethiopia reveals a huge margin for improvements. While the tax gap assessments are based on desk studies, more analysis is needed to assess tax performance and to inform tax policy design.

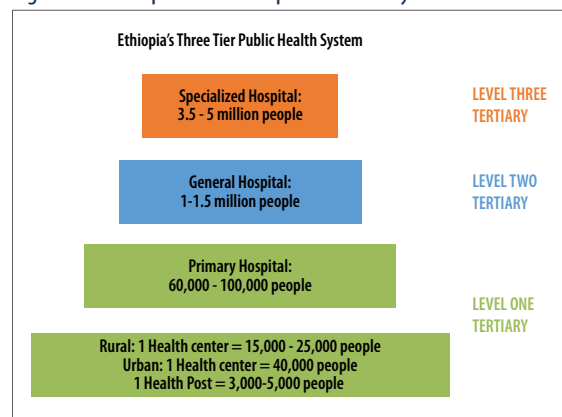
HEALTH

2.1 Introduction

118. Ethiopia's Growth and Transformation Plan (GTP) 2011-2015 has a strong focus on the MDGs and gives high priority to human development. In line with the objective of poverty eradication and bringing about social development, the GoE has invested in both physical and human capital formation to address the challenges of achieving the MDGs. For health sector, the specific goal is to improve health through provision of promotive, preventive, curative, and rehabilitative health services with focus on both access and quality.

119. A three-tier public system serves a major provider for health care, receiving 84 percent total health expenditure in 2010/11 (Figure 2.1). At primary level, there are primary care units composed of primary hospitals, health centers and health posts. The secondary level comprises general hospitals providing inpatient and ambulatory services and serving as a referral center for primary hospitals. The tertiary care level comprises specialized hospitals and serves as a referral center from general hospitals.

Figure 2.1: Ethiopia's three tier public health system



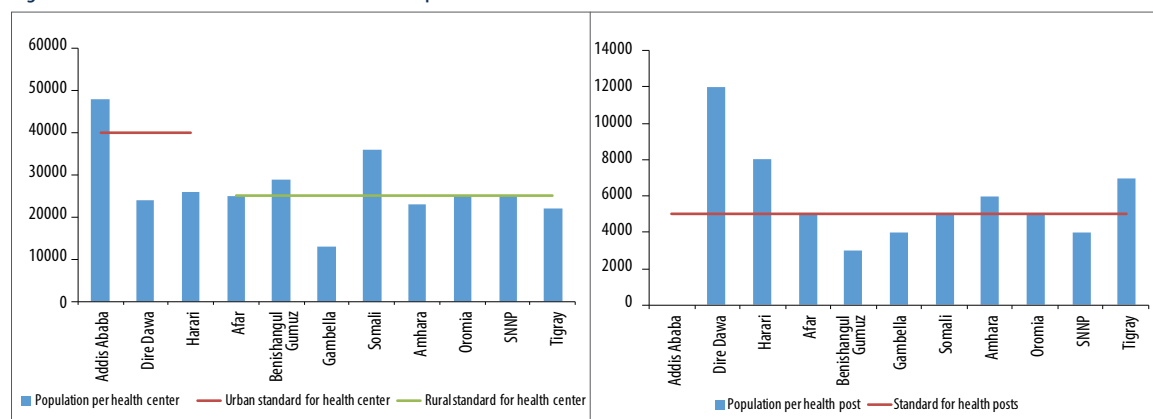
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120. Ethiopia now focuses on hospital construction after the majority of health centers/posts were completed. By 2012/13, there were 127 hospitals, 3,245 health centers, and 16,048 health posts. As a result, most regions have achieved the standard of population coverage for health centers and health posts (Figure 2.2). During 2012/13, 175 hospitals were being constructed, of which 170 are in the regions of Amhara, SNNP and Oromia.

121. Progress has been made in improving health outcomes and health service delivery. The Inter-agency Group for Child Mortality Estimation reported that Ethiopia has achieved MDG 4, three years ahead of target, with under-five mortality at 68 per 1,000 live births in 2012. Results from several DHSs¹ from 2005 to 2014 show improving trends of major health outcome indicators (Table 2.1) and coverage of essential health interventions (Table 2.2). These improvements also appear inclusive, being observed across all wealth groups.

¹ DHSs' are often seen as golden standards for data source in developing countries.

Figure 2.2: Number of health centers and health posts available as of 2012/13



Source: EDHS 2012 and 2013.

Table 2.1: Key health outcomes

	2005	2011	Relative change (2011/2005) / 2005
Neonatal mortality	39.3	37.4	-4.8
Infant mortality	77.0	50.0	-35.1
Child mortality	50.4	30.7	-39.1
Under-5 mortality	123.5	88.0	-28.7
Height-for-age	46.5	44.4	-4.5
Weight-for-height	10.5	9.7	-7.6
Weight-for-age	38.4	28.7	-25.3
Total fertility rate	5.4	4.8	-11.1
Anemia among children (6-59 months)	53.5	44.2	-17.4
Total fertility rate	5.4	4.8	-12.5

Sources: EDHS 2005 and 2011.

Table 2.2: Essential interventions

	2005	2011	2014
DPT-3	31.9	36.5	N/A
Fully immunized among under-2	20.4	24.3	N/A
Use of modern contraceptive	13.9	27.3	40.4
Skilled birth attendance	5.7	10.0	15.5
Coverage of antenatal care	27.6	42.6	58.4

Source: EDHS 2005, EDHS 2010/11 and mini-DHS 2014.

122. Despite the substantial progress being made, the country is still facing many challenges. Maternal mortality remains high, and stunting prevalence is higher than 40 percent. The coverage of skilled birth attendance remains as low as 15 percent despite enormous progress in past years, and there is still room for service quality improvement.

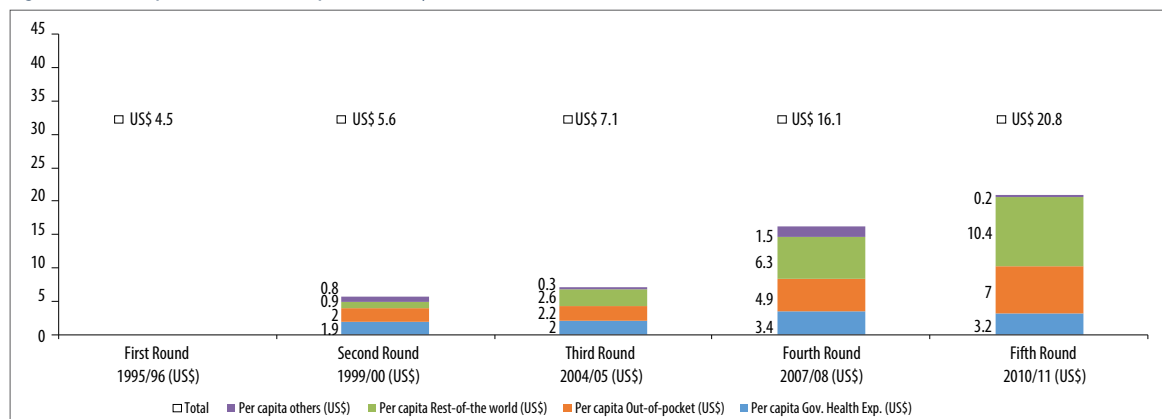
2.2 Level and flow of health expenditures in Ethiopia

Total health expenditures and sources of financing

123. This section starts with level and fund flow of total health expenditure, followed by a detailed analysis of government health expenditure at both national and regional levels.

124. Per capita spending on health has increased from US\$4.5 to US\$20.8 between 1995/96 and 2010/11, with the composition shifting towards Rest-of-the-World (ROW), as shown in Figure 2.3. Spending from ROW has increased more than ten times from 1999/00 to 2010/11. Out-of-pocket (OOP) spending has more than tripled, and government expenditure increased less than two times. As a result, external assistance has become the number one source in 2004/2005 and reached about half of the total health expenditure by 2010/11. On the contrary, the proportion of government spending almost halved from 33.4 to 15.6 percent.

Figure 2.3: Per capita total health expenditure, by sources, 1995/96-2010/11



Source: Ethiopia National Health Account studies.

125. Compared with other low-income countries, total health expenditure in Ethiopia appears low, and relies more on both external assistance and out-of-pocket spending. Out of 25 low-income countries in SSA with data available, Ethiopia ranks the 3rd lowest in per capita expenditure, the 5th lowest in the proportion of total health expenditure out of GDP, and the 12th in proportion of out-of-pocket spending. In addition, Ethiopia also ranks at high end in the proportion of external assistance out of total health expenditure.

Flow of funds

126. There are three main types of funding sources for the health sector in Ethiopia: general government revenue, development partners and households. Funds from these sources flow to facilities through an array of pathways.

- 127. Fiscal transfers from the federal government to regions are based on three criteria: population, revenue-generating capacity, and development status.** At federal level, the MOFED transfers funds to federal level agencies (e.g., Ministry of Health) in line items and Regional Bureaus of Finance and Economic Development (BOFEDs) in block grants. A similar process is undertaken at Regional level and *woreda* level.
- 128. Funds from development partners flow in the following four ways.** The first is to MOFED who allocates funds through fiscal transfer as above, e.g., the Promotion of Basic Services Program² that started in 2006. The second is to the MDG Performance Fund (MDGPF)—see Box 2.1—and then allocated to health facilities through in-kind transfer and capacity-building grants, e.g., the World Bank health MDGs Program-for-Results operation. The third is to the Federal Ministry of Health as program/project fund for specific purposes agreed between FMOH and donors, e.g., the World Bank nutrition project, and the Global Fund Ethiopia program. The fourth is channeled to implementation partners picked by donors based on bilateral agreements. Some examples of this channel are the United States Agency for International Development (USAID), the President’s Emergency Fund for AIDS Relief (PEPFAR), the Center for Disease Control and Prevention (CDC), and UNICEF.
- 129. Funds from households flow to health facilities in the form of user fees.** User fees are carried over from history and vary between facilities. Health facilities are required to post fee schedules in their public areas.

Box 2.1: MDG Performance Fund

The MDGPF is a funding mechanism managed by the FMOH using government procedures. In the framework of the Ethiopia International Health Partnership compact (IHP+), it provides flexible resources, consistent with the “One-Plan, One-Budget, and One-Report” principle, to secure additional fund for HSDP. It is one of the government’s preferred modalities for scaling up partners’ assistance to HSDP implementation.

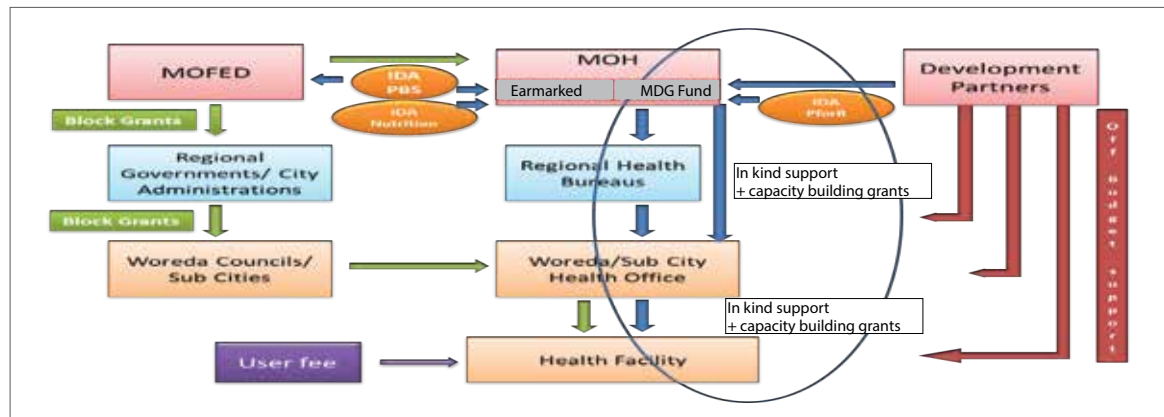
The MDGPF was established in 2007 with the Global Alliance for Vaccine and Immunization (GAVI) Health Systems Strengthening (HSS) contribution. After the signing of the Ethiopia country compact in August 2008, a JFA was prepared and signed by MOFED, FMOH and seven DPs. As of 2014, 11 partners channel resources to the MDGPF. They are Australian AID, UK Department for International development, Spanish Development Cooperation, Italian Cooperation, Irish Aid, UNFPA, UNICEF, WHO, the Netherlands Government, the World Bank and the European Commission.

The specific scope of activities to be financed by MDGPF is determined through a consultative process involving all key stakeholders every year. The Joint Financing Arrangement (JFA) sets out the overarching governance and reporting requirements for the Fund.

² The first two phases of this program were called Protection of Basic Services.

130. When funds flow into facilities, they are not always managed by their own sources. Figure 2.4 outlines flow of funds from different sources³. Funds from government, semi-government bodies and private entities are always managed by their sources, while funds from development partners go to different agents. As of 2010/11, 15 percent of external assistance was directly managed by donors, while the government managed the majority of external assistance fund (63 percent), which was 50 percent as of 2007/08.

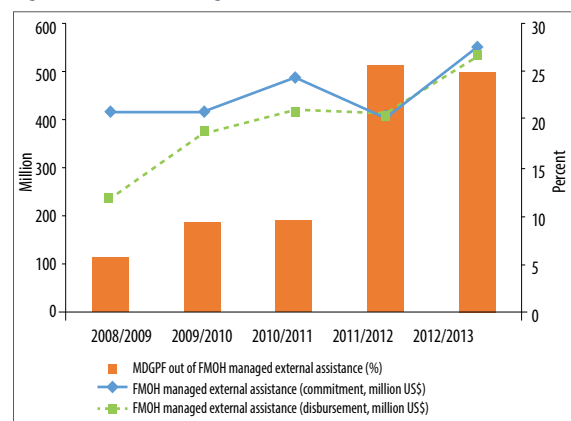
Figure 2.4: Health financing sources and funds' flow



Source: Authors.

131. External assistance fund managed by the FMOH has been increasing in both absolute terms and proportion out of total external assistance (Figure 2.5). Commitments from donor fund managed by the FMOH increased by about one-third between 2008/09 and 2012/13. The lines for commitment and disbursement in Figure 2.5 converge over time, indicating a significant increase of disbursement rate over time, from 55 percent in 2008/09 to 96 percent in 2012/13. Non-earmarked on-budget external assistance became more pronounced since the establishment of MDGPF in 2008/09. As of 2012/13, one-quarter of the external assistance fund managed by the FMOH was channeled to the MDGPF.

Figure 2.5: FMOH managed external assistance



Source: HSDP Annual Performance Reports, 2008/09-2012/13.

132. The main funding source is different by the type of service providers. Public health programs are mostly financed by government spending (75.6 percent), public hospitals are mostly financed by out-of-pocket spending (more than half) and government spending (about one-third), while private providers are almost exclusively financed by out-of-pocket spending (Table 2.3).

³ What is not reflected in Figure 2.4 is the government's plan to provide financial protection through a combination of two health insurance schemes: 1) Social Health Insurance Scheme (SHI) among formal sector employees and their family members (approximately 11% of the population); and 2) Community-based Health Insurance (CBHI) among informal sector employees and rural residents (approximately 89% of the population). Fee waiver is also not reflected. Fee waiver scheme is being implemented as a mechanism for financial risk protection to promote equity of access to health services. Citizens who can present evidence documenting their inability to pay for their medical expenses are entitled to the fee waiver scheme, and the authority that certifies the waiver will cover incurred costs. As of August 2012, 2.5 million beneficiaries were screened for the services in the country (except in Somali and Afar regions). The government allocated a budget of ETB 25.5 million, i.e., ETB 10 per capita.

Table 2.3: Sources of financing (fund agents), by type of service providers, 2010/11

	Public			Private	
	Public hospitals	Public PHCU	Public health program administration	Private hospitals	NGO PHCU and private clinics
Government	31.6	26.8	75.6	0.0	0.0
Households	50.1	54.4	0.0	97.2	97.2
ROW	2.1	12.5	2.8	0.0	0.0
Others*	16.3	6.3	21.6	2.8	2.8
Total	100.0	100.0	100.0	100.0	100.0

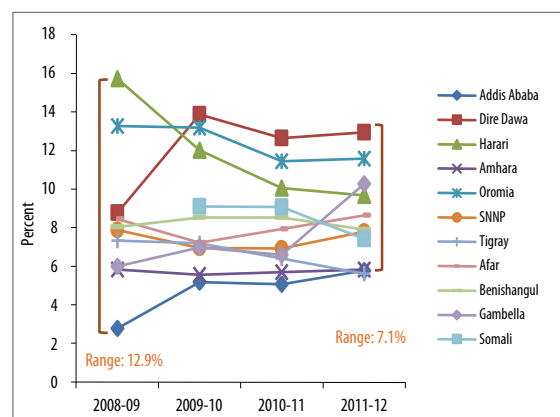
Source: Author's compilation based on data provided in the Fifth National Health Account Study Final Report, FMOH, April, 2014

*Others include private enterprises, insurance companies, international and local NGOs.

Government health expenditure (including on-budget donor support)

133. Nationwide, health accounts for five to six percent of government spending, but there is large variation between regions. During the period between 2008/09 to 2010/11, the proportion of health out of total government spending at national level ranges between 5.1 to 6.3 percent. At regional level, this indicator ranges between 15.7 and 2.8 percent in 2008/09, and between 15.9 and 5.8 percent as of 2011/12 (Figure 2.6). There is no obvious pattern between urban, agrarian and pastoral regions.

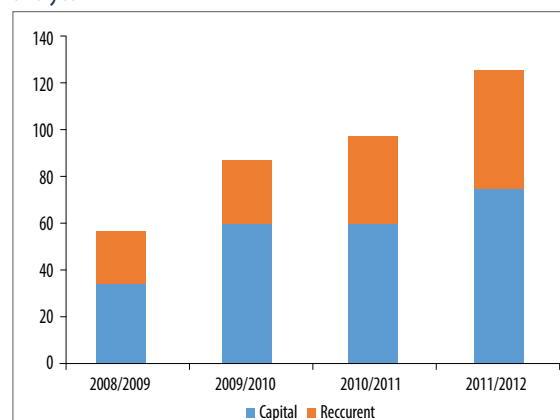
Figure 2.6: Proportion of health out of total government spending at regional level



Source: World Bank staff calculations, based on MoFED Data in BOOST Format.

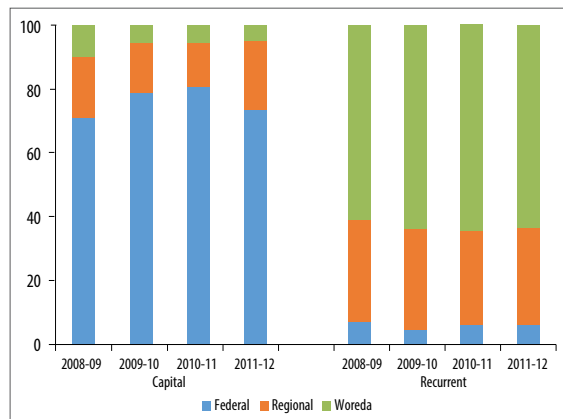
134. Per capita government health expenditure increased from ETB57 in 2008/09 to ETB126 in 2011/12 nationwide, but there is also large variation between regions. The increase has been observed for both recurrent and capital expenditure (Figure 2.7). It is noted that capital expenditure mostly occurs at federal level (accounting for more than 70 percent), while recurrent expenditure mostly occurs at *woreda* level (accounting for more than 60 percent), see Figure 2.8. At regional level, per capita capital spending on health ranges between ETB7 and ETB108 as of 2011/12, and per capita recurrent spending ranges between ETB42 and ETB153 (see Figures 2.9 and 2.10).

Figure 2.7: Per capita government health expenditure, by type and year



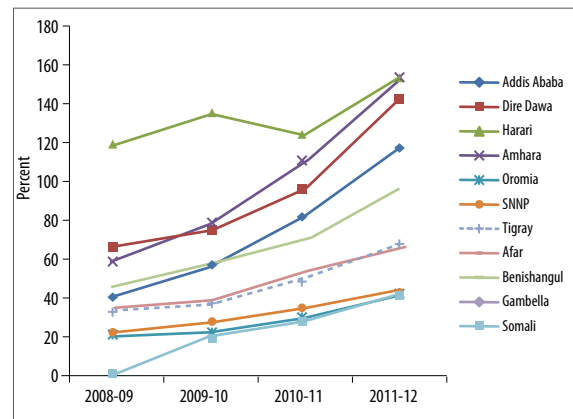
Source: World Bank staff calculations, based on MoFED Data in BOOST Format.

Figure 2.8: Administrative level of expenditure, by type and year



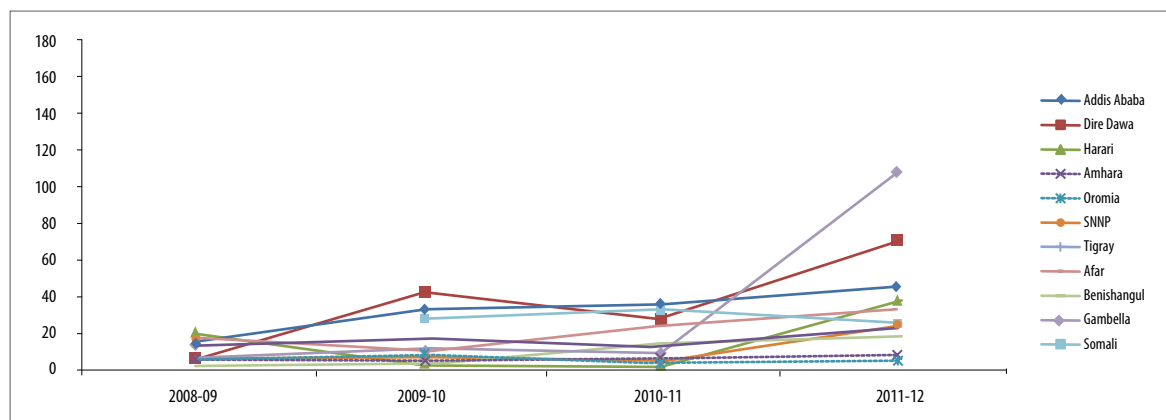
Source: World Bank staff calculations, based on MoFED Data in BOOST Format.

Figure 2.9: Per capita recurrent expenditure, by region and year



Source: World Bank staff calculations, based on MoFED Data in BOOST Format.

Figure 2.10: Per capita capital health expenditure, by region and year



Source: World Bank staff calculations, based on MoFED Data in BOOST Format.

2.3 Efficiency analysis

135. This section starts with cross-country comparison of health expenditure and health outcomes, followed by country level analysis including budget allocation and execution, marginal return of additional public expenditure on health, and efficiency of service delivery at facilities.

Health expenditure and health outcomes relative to development

136. Ethiopia is one of the few SSA countries that have life expectancy higher than predicted values based on country income and education level, indicating an overall high level of efficiency. Figure 2.11 plots deviations of life expectancy and per capita health expenditure from their predicted values based on country income and women education level⁴ for each SSA country. Points above the yellow horizontal line have life expectancy higher than predicted and those below the line are below expectation. The distance from horizontal line measures the number of years different than expected. Similarly, points to the right of the yellow vertical line have per capita health expenditure higher than predicted and those to

⁴ Predicted values are estimated based on model results where life expectancy and per capita public expenditure are regressed on per capita GNI and primary school enrollment rate of women among all countries in the world.

the left of the line are below expectation. Ethiopia is located both above and to the left of the yellow lines, indicating an overall high efficiency in achieving health outcomes and using health resources.

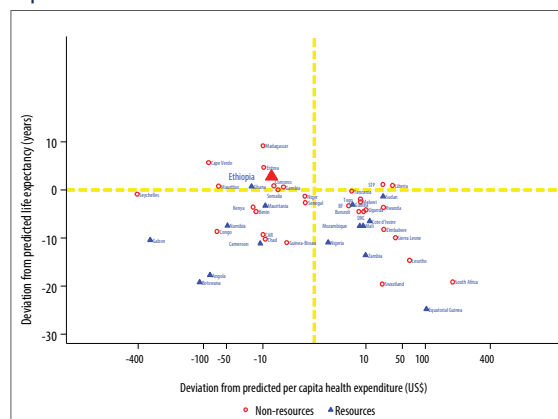
Marginal effectiveness of an additional birr increase in public health expenditure

137. At regional level, for the same amount of increase in health sector investment by government, service coverage increased much more in most agrarian regions (Figure 2.12). Given the data limitation, we compared service coverage from 2005 to 2010 based on the EDHS data⁵, and public health expenditure from 2007/08 to 2010/11 based on MOFED Boost data. Results show that for the same amount of increase in health sector investment by government, service coverage increased much more in most agrarian regions (except Oromia) than in urban and pastoral regions. In Amhara, one birr increase has resulted in 0.82 percent increase in service coverage. On the contrary, in Addis Ababa, one birr increase has only resulted in 0.11 percent increase.

Allocative Efficiency

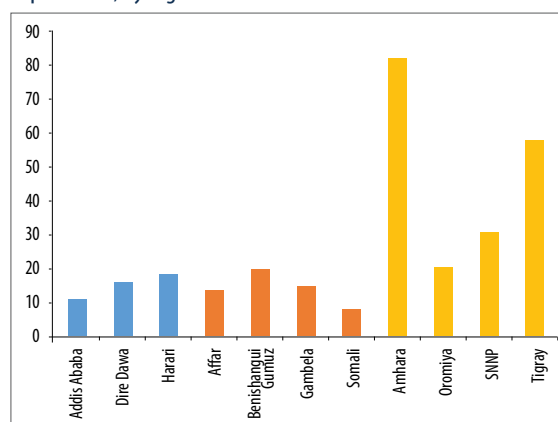
- 138. The government spends more at primary level, the level considered most cost-effective and equitable based on global experiences.** The largest receivers of government health spending are public hospitals, primary health care units, and public health programs), accounting for more than 60 percent of the total government health spending. More importantly, half of government health spending is used at primary level. There is no government spending flowing into private service providers (private hospitals, NGO PHCU and private clinics).
- 139. Almost half (46.5 percent) of government spending goes into the areas of HIV/AIDS, Malaria, TB, and reproductive health.** Close to one-fifth (17.6 percent) of government spending goes in to child health (Table 2.4). This is consistent with the extent of these health challenges. Table 2.4 also shows that direct allocation of government resources reduces the need for households to spend their limited resources on these areas, with the majority of OOP spending (78.3 percent) going into other areas.

Figure 2.11: Comparing Ethiopia's health outcome and expenditure with other SSA countries



Source: Authors' calculation based on WDI data.

Figure 2.12: Effectiveness of one birr increase in public health expenditure, by region



Source: World Bank staff calculations, based on EDHS2005, EDHS2011 and MoFED Data in BOOST Format.

⁵ Average of service coverage for the essential services (immunization, skilled birth attendance and use of contraceptive).

Table 2.4: Flow of health funding from fund agent to program areas, 2010/11

	Government	Households	REW	All
Priority program areas	46.4	21.7	70.2	50.1
HIV/AIDS	16.3	1.1	31.0	18.7
Reproductive health	21.3	11.2	12.8	13.6
Malaria	6.4	6.1	23.2	14.7
Tuberculosis	2.3	3.3	3.2	3.1
Other areas	53.6	78.3	29.8	49.9
Child health*	17.6	16.0	6.1	11.2

Source: Ethiopia National Health Account (2010/2011).

140. Overall, budget execution rates are high, particularly for recurrent expenditure. Execution rate of capital expenditure at the federal level is more than 100 percent except in year 2008/09, but at regional and *woreda* levels, the rates are relatively low and have a downward trend over time, see Table 2.5. At regional level, execution rates are consistently high in all regions for recurrent budget, but variation is substantial between regions for capital budget, from 25 to 94 percent.

Table 2.5: Execution rates at national level, by type and year

	2008/2009	2009/2010	2010/2011	2011/2012
Capital expenditure				
Federal	66.1	144.9	126.9	118.6
Regional	70.1	79.6	76.2	58.2
Woreda	73.6	78.8	62.4	53.4
Recurrent expenditure				
Federal	91.6	87.0	95.1	95.9
Regional	88.5	93.2	92.9	89.3
Woreda	96.2	97.9	96.0	95.8

Source: World Bank staff calculations, based on MoFED Data in BOOST Format.

Technical Efficiency

141. Limited evidence shows that health facilities and workers are not fully utilized at national level, which requires further study for more robust results and the related reasons. The bed occupancy rate is 51 percent as of 2009. According to results from Ethiopia Household Health Service Utilization and Expenditure Survey (2012), a health worker sees between two to nine outpatients and manages approximately one inpatient case a day. Patients' experiences suggest that long distance to health facilities might be one reason for low utilization; average travel time is about two hours for outpatient and more than four hours for inpatient. Further, there is substantial variation between regions in their travel time to inpatient facilities, ranging between 33 minutes in Harrari and 359 minutes in Gambella. It is necessary to collect more data and look into this aspect in more details, and to explore other potential bottlenecks for health facilities to be fully utilized.

142. Patients' experiences in visiting health facilities indicate that waiting time at health facility is not a major issue. On average, patients have to wait for 31 minutes to see a health worker at outpatient, and wait for two days to be admitted into hospitals.

2.4 Equity of health expenditures in Ethiopia

143. This section starts with consideration of equity in health outcomes for public resource allocation, then examines whether there is any disparity, or change in disparity, in use of publicly-financed services, and lastly, assesses the equity in financial protection.

Consideration of equity for public resource allocation

144. Regions with bad health outcomes do not necessarily provide more government budget for them to catch up. We assume that in an ideal world, a region with best health outcome should receive least increase in resource allocations, while on the other hand, a region with worst health outcomes should receive most increase. We then compare this ideal scenario with the actual situation. Results in Table 2.6 show that Addis Ababa and Dire Dawa rank much higher in reality than in ideal scenario, meaning they are supposed to increase less ideally but increased more in reality. Regions including Amhara, SNNP, Afar and Gambella, rank lower in reality than in ideal scenario, meaning they are supposed to increase more, but increased less in reality.

Table 2.6: Do regions with bad health outcomes receive more government budget?

	Rank for service coverage as of 2005a	Ideal rank for increase in per capita health expenditure	Actual rank for increase in per capita health expenditure (2007-08-2010/11)b	Difference between ideal and actual ranks
Addis Ababa	1	11	1	10
Dire Dawa	2	10	4	6
Harrari	3	9	11	-2
Afar	10	2	6	-4
Benishangul-Gumuz	9	3	5	-2
Gambella	5	7	3	-4
Somali	11	1	2	-1
Amhara	7	5	10	-5
Oromia	6	6	9	-3
SNNP	8	4	8	-4
Tigray	4	8	7	1

Source: World Bank staff calculations, based on MoFED Data in BOOST Format.

Equity in coverage of publicly-financed health services

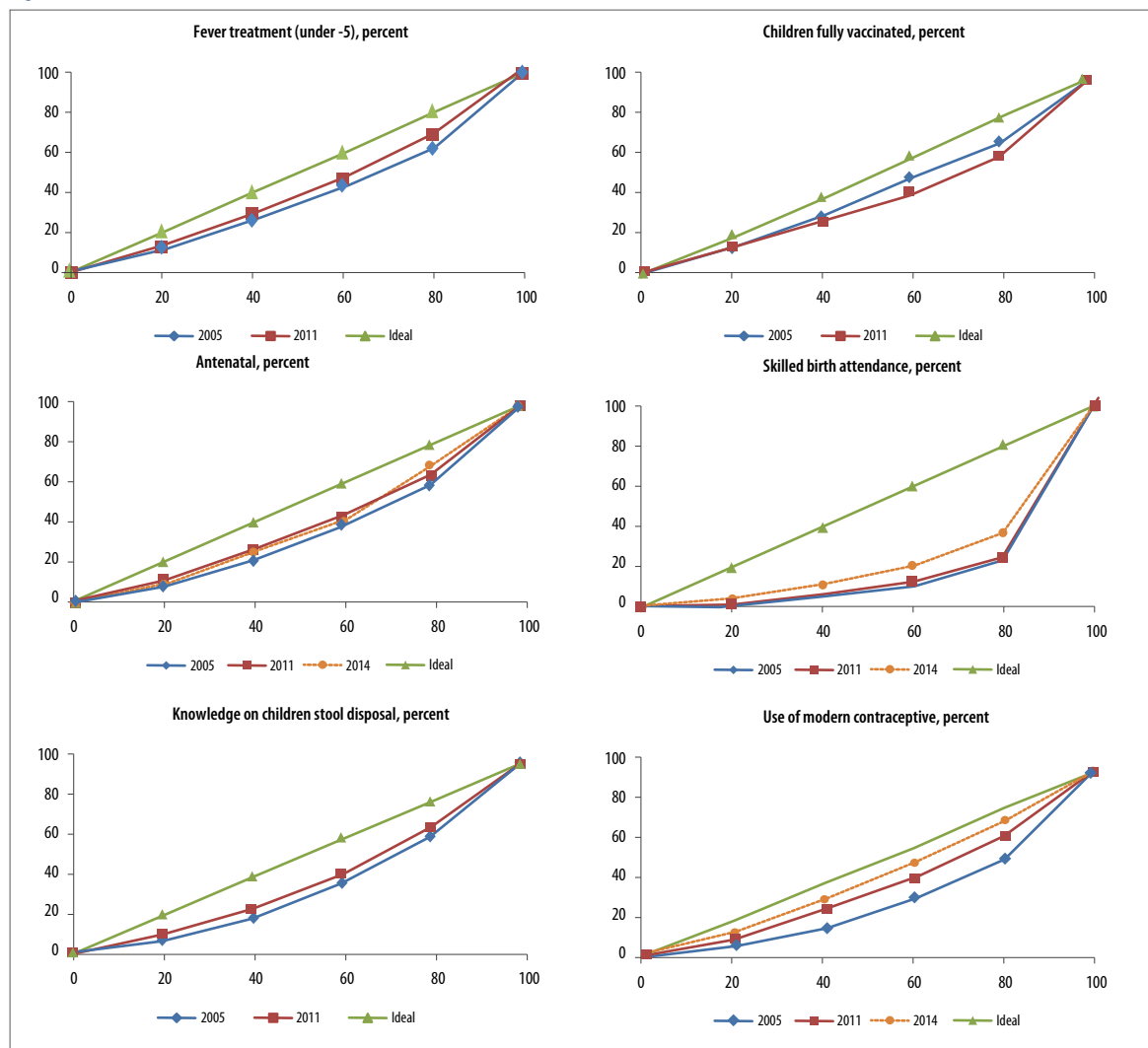
145. Although wealth inequity exists for all health services, there is noticeable reduction in the magnitude over time. In Figure 2.13, we plot concentration curves for a number of essential health interventions⁶ based on group-level data⁷ in order to show whether equity has

6 These interventions include antenatal care, skilled birth attendance, use of modern contraceptive, immunization, fever treatment for under-5 and mothers' knowledge on how to dispose of children's stool.

7 Mean for each wealth quintile in 2005 and 2011.

improved. Concentration curves plot the cumulative percentage of the variable of interests (y axis) against the cumulative percentage of the population (x axis) ranked by wealth status, beginning with the poorest, and ending with the richest. The diagonal line shows the ideal situation where coverage of services is the same across all groups. The distance between the diagonal line and a concentration curve shows the extent of inequity; the larger is the distance, the more inequitable is service coverage. Results show that there is noticeable reduction in inequity for all of them except immunization and skilled birth attendance.

Figure 2.13: Concentration curves for selected essential services, 2005-2014



Source: EDHS2005, EDHS2010/11, and Ethiopia mini-DHS 2014.

146. In terms of seeking care, poor people are less likely to do so when they are sick, and they are more likely to use lower level health facilities as expected. Table 2.7 shows that there is almost no difference in the level of outpatient service utilization (including both seeking care when sick and preventive visits). However, poor people are less likely to seek care when they are sick. This indicates that poor people use more preventive services than higher

income people. As of type of outpatient facilities, poor people are more likely to use health centers and health posts, and less likely to use government hospitals and private providers compared with higher income groups. Overall inpatient service utilization is low, less than one percent. Similar to outpatient visits, higher income people are less likely to use health centers and more likely to use government hospital and private providers.

Table 2.7: Utilization of outpatient and inpatient services by income quintiles

	Outpatient visits (past 4 weeks)	Seeking care when sick (past 4 weeks)	Inpatient visits (past 12 months)
Lowest	11.6	54.8	0.88
Secondary	11.6	63.2	0.79
Middle	11.5	62.3	0.87
Fourth	11.0	68.3	0.82
Highest	10.7	70.1	0.99

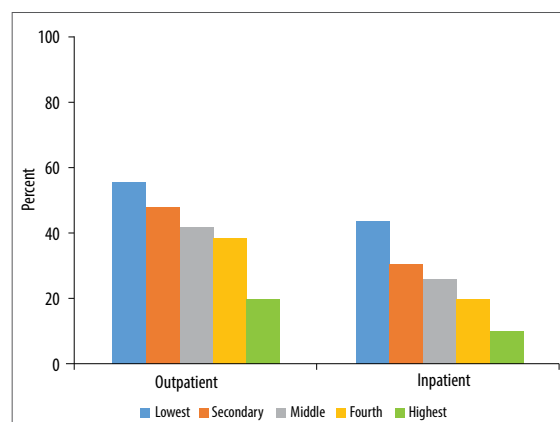
Source: Ethiopia Household Health Service Utilization and Expenditure Survey (2012).

Equity in out-of-pocket spending

147. Poor people are more likely to skip health care due to financial reasons compared with higher income groups.

Figure 2.14 presents the proportion of people who did not utilize health services when in need for financial reasons, among people with different income level. Results show that in general people are more likely to skip outpatient care for financial reasons compared with inpatient care, because inpatient care tends to be less elastic. Among the lowest income quintile group, 55 percent of them did not utilize outpatient and 45 percent did not utilize inpatient services for financial reasons; while these estimates are significantly lower in the highest income quintile group, being 19.6 and 9.7 percent, respectively.

Figure 2.14: Non-utilization of outpatient and inpatient services for financial reasons



Source: Ethiopia Household Health Service Utilization and Expenditure Survey (2012).

148. In absolute terms, wealthier groups pay more for their visits than poor people, but relative to income, financial burden to poor households are much higher.

Table 2.8 presents the average cost among those who fully paid for their services. Outpatient cost among the highest income quintile doubles that of the lowest quintile, and inpatient cost among the highest quintile triples that of the lowest quintile. When compared against their income, the financial burden is much higher for poorer people; one inpatient admission costs almost 40 percent of annual household income in the lowest quintile group. When compared against their payment capacity that is estimated as income disposable for non-subsistence expenditure, out-of-pocket spending on average impose more than one third for the bottom 40 percent.

Table 2.8: Average outpatient and inpatient costs, by wealth quintiles

	Absolute terms (Birr)		Relative to household incomes (%)		Relative to household payment capacity* (%)	
	Outpatient	Inpatient	Outpatient	Inpatient	Outpatient	Inpatient
Lowest	129.8	1185.3	4.1	37.4	-18.4	-168.4
Secondary	176.8	895.8	2.8	14.1	7.1	35.9
Middle	173.2	1284.5	1.7	12.6	2.8	20.4
Fourth	170.5	1570.7	1.0	9.6	1.4	12.5
Highest	263.6	3442.0	0.6	7.8	0.7	8.6

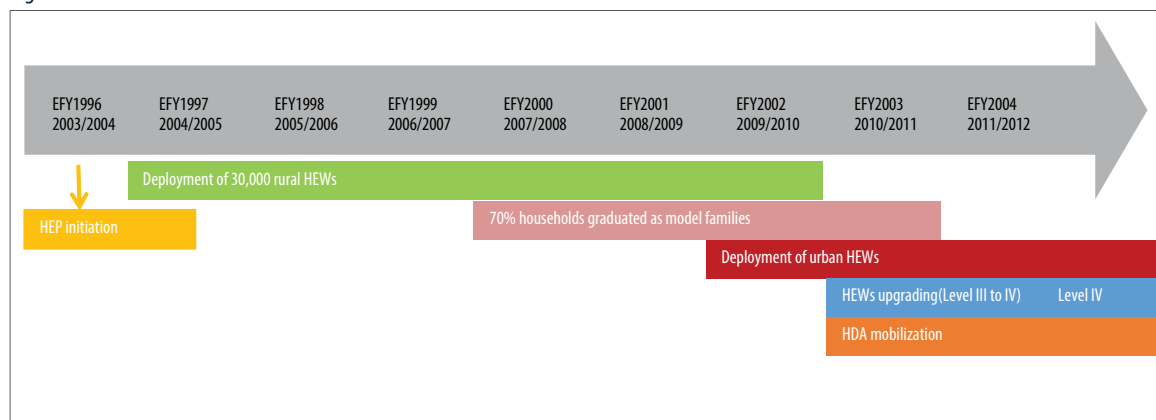
Source: Ethiopia Household Health Service Utilization and Expenditure Survey (2012)

2.5 Key factors affecting efficiency and equity

Strategic focus on primary care

149. Priority has been given to primary care, flagged by the well-known Health Extension Program, a living program with different focus at different stages. The HEP builds work program on previous achievements so that it can be brought to next level. As shown in Figure 2.15, the HEP started from deployment of HEWs to rural areas in 2004/05; when this deployment was halfway through, training of model families by HEWs started in 2007/08; again when the training of model families was halfway through, deployment of HEWs to urban areas started; then with the deployment of HEWs and training of model families coming to their end, upgrading of HEWs and mobilization of HDA started in 2010/11. Evidently, HDA formation centers around model families and relies on facilitation by HEWs.

Figure 2.15: HEP over time



Source: Author's compilation based on Annual Performance Assessments (FMOH).

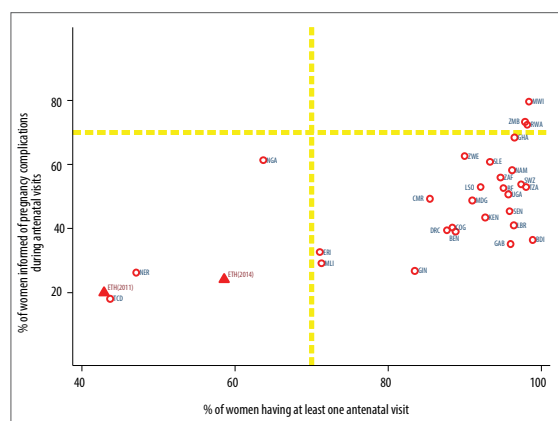
150. The HEP in Ethiopia has demonstrated that an institutionalized community approach is effective for a country to make progress towards UHC. The element of community mobilization identifies community priorities, engages and empowers community members, and solves local problems. The element of institutionalization, on the other hand, addresses the challenge of unsustainability faced by many community programs by ensuring high political commitment, coordinating national policies, and leveraging support from partners.

- 151. A case study on HEP has demonstrated the impact of HEP:** improving access to improved sanitation facilities, educating mothers on how to properly deal with children’s stools; improving people’s socio-economic and psychological environment; changing individual behaviors so that they are less vulnerable to health compromising conditions; and providing basic health services like antenatal care and childhood have disease treatment and management (fever and diarrhea).
- 152. The deployment of more than 35,000 Health Extension Workers, the backbone of the HEP, has accounted for a significant portion of government health expenditure, in particular the recurrent expenditure.** They are selected by communities and go back to their own communities to serve after one-year training. This flexible human resource policy and strong political and fiscal commitment has made sure government resources are used for primary care and on the disadvantaged groups, i.e., rural, less educated and poor people.

Quality of services

- 153. Poor quality of health services imposes direct and indirect costs on health systems and societies in various forms, comprising value for money in health sector.** With providers failing to do the right things in the first place, patients sometimes need to go through a repetitive diagnosis and treatment process. As a result, there may be unnecessary spread of communicable diseases, incidence of complications, increased hospital admissions and outpatient visits that can be avoided. Resources may be wasted as a result of poor quality as evidence from developed countries demonstrates.
- 154. It is expected that the Service Provision Assessment Plus facility survey will shed more light on the status of service quality.** Figure 2.16 uses antenatal care as an example of service quality in Ethiopia compared with other SSA countries. Many SSA countries have achieved good results in improving access to antenatal care measured as proportion of women who had at least one antenatal visit. However, when looking at quality measured as percent of women who are informed of pregnancy complications during their antenatal visit, the picture is less rosy. Ethiopia stands out in this graph: with coverage leaping from 43 to 58 percent in three years, but less than a quarter of visits informing pregnancy complications.

Figure 2.16: Access and quality to antenatal care in SSA countries⁸



Source: Author's compilation

8 Note: quality of care is measured as percentage of women informed of pregnancy complications during antenatal visits. Data source: most recent DHSs. Benin (BEN), Burkina Faso (BF), Burundi (BDI), Cameroon (CMR), CAF (CAR), Chad (TCD), Congo (COG), Eritrea (ERI), Ethiopia (ETH), Gabon (GAB), Ghana (GHA), Guinea (GIN), Kenya (KEN), Lesotho (LSO), Liberia (LBR), Madagascar (MDG), Malawi (MWI), Mali (MLI), Namibia (NAM), Niger (NER), Nigeria (NGA), Rwanda (RWA), Senegal (SEN), Sierra Leone (SEN), Sierra Leone (SLE), South Africa (ZAF), Swaziland (SWZ), Tanzania (TZA), Togo (TGO), Uganda (UGA), Zambia (ZMB) and Zimbabwe (ZWE).

Harmonization of external assistance

- 155. Harmonizing and aligning support from development partners has always been one of top priorities for the government as external assistance plays an important role in health financing in Ethiopia.** As of 2012/13, 17 partners committed fund to the FMOH through earmarked program/project fund, or non-earmarked MDGPF or technical assistance pool fund. Ethiopia is a signatory of the Global International Health Partnership (IHP+) Compact and the first to develop and sign a Country-based IHP+. Under harmonization and alignment, the major objective is to have a One-Plan, One-Budget and One-Report approach at all levels of the health system. This means all stakeholders' plans and budgets should be reflected in one strategic plan, and plan implementation is monitored using an agreed set of indicators and reporting formats.
- 156. The government has taken a number of measures to move towards “One-Budget”.** For example, the FMOH established the MDG Performance Fund subsequent to the signing of the IHP+ Compact in 2008. HSDP IV resource mapping has been undertaken with the collaboration of development partners, so that resources available from partners may be accurately reflected in annual plans of the HSDP. Grant management unit was also created within the FMOH for more efficient management of external assistance. These measures have shown positive results as shown in Figure 2.14, the disbursement rate from development partners have increased substantially, and MDGPF has accounted for about quarter of the total external assistance managed by the FMOH.

Coordination between different fund holders

- 157. Coordination between different fund holders is critical for the efficiency and equity of health spending in the Ethiopian context, given there are four types of major fund holders:** FMOH, regional councils, development partners who provide off-budget support, and households. Effective coordination mechanism is indispensable at the following two interfaces.
- 158. The first interface is between government and development partners who provide off-budget support, which is often aligned strategically at macro level but not operationally at ground level.** Ethiopia fares well in terms of harmonizing external assistance compared with many other low-income countries. In spite of this, there are still significant resources flowing into health sector mostly in the form of non-salary expenditures (e.g., supply of commodities, capacity building activities). If such funds cannot mobilize corresponding labor input, the effectiveness of such resources will be questionable; however, if such funds do manage to mobilize labor inputs which are financed by government, it may become a distraction to other areas mandated for them such as maternal and child health. For example, UNICEF has a nutrition program of US\$113.9 million for the period of 2012-2015. More than 85 percent of this program is financed by donors through UNICEF's fund raising and emergency operation, for which the project design and implementation will be subject to agreement between UNICEF and donors. At facility and community level, there is no mechanism available for proper division of labor between nutrition program and other areas.

159. The second interface is between FMOH and regional governments. In the existing system, the FMOH is responsible for capital expenditure while regional governments are responsible for recurrent expenditure. Furthermore, the FMOH provides capital support to health facilities in the form of in-kind transfer, the effectiveness of which depends on the performance of the centralized supply chain system. At the moment, there is no information available as to efficiency and equity of capital inputs transferred from central to local level. A joint accountability mechanism, therefore, is needed to make sure commodities from centralized supply chain may arrive to facilities, where qualified and motivated human resources are also available through payment of local governments. Earmarked intergovernmental transfer may be actively explored to enhance coordination between central and regional level.

Accountability and autonomy of health facilities

160. At the front line of service delivery, health facilities are often expected to be accountable for timely delivery of quality services, which makes autonomy of health facilities important, particularly in Ethiopia's environment where different types of inputs are from different channels. An autonomous facility can manage available resources diligently and seek additional resources proactively, instead of waiting for support passively.

161. There have been reform initiatives to increase autonomy of health facilities as laid out in the health financing strategy in 1998. Revenue retention policy was introduced in health facilities with the intention to increase autonomy of health facilities for them to make timely improvements of quality (Box 2.2). Retained revenue can be used for a variety of activities, but not financial incentives for workers. There is no rigorous study undertaken to understand how this policy may affect total health expenditures, and particularly out-of-pocket spending.

Box 2.2: Brief description of revenue retention policy

As of 2012/13, 2,558 health facilities (101 hospitals and 2457 health centers) were retaining and utilizing internally generated revenue to improve service quality. The amount of retained revenue generated in health facilities varied by facilities and regions. On average, hospitals retained ETB1.6 million per year, while health centers retained ETB0.4 million. User fees for drugs and consultation services are the major source of retained revenues for facilities.

Based on reports from health facilities, retained revenue has been used on the following types of activities:

- Purchase drugs;
- Improve laboratory services, e.g., purchase of microscopes, haematology complete blood count machines, centrifuges, haematology diagnostic products, chemicals and reagents;
- Improve medical equipment, e.g., purchase of ultrasound machines, operating and patient monitoring tables, modern dental equipment;
- Improve the infrastructure of health facilities, e.g., safe water supply, water tank installation, generator, laundry;
- Renovate and expand constructions, e.g., patient waiting areas, card rooms, triage rooms, pit latrines
- Improve HMIS, e.g., purchase of computers, installation of local network, printing of consultation cards, request formats, prescriptions, and patient referral slips; and
- Improve staff motivation, e.g., construction of staff residence, provision of transportation and cafeteria services.

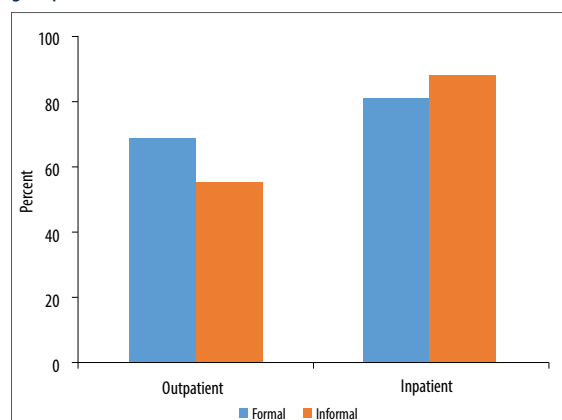
- 162. Accountability and autonomy of health facilities need a performance evaluation system to benchmark baseline and measure progress.** As a result of informational asymmetry in health sector, in addition to customer satisfaction, an objective and professional performance evaluation system is more than needed to assess quantity and quality of services. Section 5.2 points out the challenge of measuring quality of services at the moment, but the recently-finished SPA+ survey has demonstrated a great start in this direction and the government is also making plans for institutionalizing such activities.
- 163. As laid out in the revenue retention policy, financial incentives are not allowed for staff motivation, this may be partly because performance is not systematically measured.** Fixed salary is paid to workers in spite of their working performance. Studies show that altruism is a key factor for workers to work in rural areas. About half of the HEWs listed “to help the community” as their primary reason in joining the HEP. The government has developed a mechanism to intervene in the health labor market, and deploys physicians who have graduated to public health worker posts by lottery. However, studies⁹ show that nurses and particularly doctors deployed to rural areas tend to rapidly transfer to an urban posting not long into their career. The most important reasons for leaving the rural area were dissatisfaction with salary (more among doctors) and location (more among nurses).

Proposed health insurance schemes

- 164. One UHC strategy adopted by the government is to provide financial protection through a combination of two health insurance schemes:** 1) Social Health Insurance Scheme (SHI) among formal sector employees and their family members; and 2) Community-based Health Insurance (CBHI) among informal sector employees and rural residents. Ethiopian Health Insurance Agency (EHIA) is entrusted with the responsibility of administering both SHI and CBHI, and it is already in its formative stage. Through these two schemes, the government aims to cover about 50 percent of the 84 million citizens by 2015. The Parliament has approved SHI proclamation while the CBHI is piloted in 13 *woredas* of four regions, and being expanded to more than 170 *woredas*. A summary of key features of the two schemes is available upon request.
- 165. Survey results show that households with and without formal sector employees account for 10 and 90 percent respectively, and they possess different characteristics.** Compared with informal group, formal group are more likely to live in urban areas, receive higher education, and make more income (data is available upon request due to space limitation). This raises a question whether such a separation is an effective mechanism for targeting those who need financial protection most, e.g. bottom 20 or 40 percent people.
- 166. The subsidy for enrollment premium is more generous for SHI than CBHI, and the effective coverage under SHI is likely to be more generous than CBHI, even if the benefit package may appear similar on paper.** Under the current design, the government subsidy for SHI enrollees (government employees) is approximately US\$16 a year, while US\$2.5 dollars for CBHI enrollees. Many services outlined under the benefit package are not available for informal groups in reality. In addition, even without insurance, formal groups are more likely to go to high cost facilities (i.e., private facilities and hospitals). They incur more cost as a

9 Source: The World Bank, “The Health Workforce in Ethiopia: Addressing the Remaining Challenges”, 2011.

Figure 2.17: Proportion of people who fully paid for their outpatient and inpatient services, by formal vs. informal groups



Source: Authors' compilation.

Table 2.9: Average cost for outpatient and inpatient services, by formal vs. informal

	Formal	Informal
Average cost per visit		
Outpatient	258.8	171.5
Inpatient	2641.5	1541.9
Average cost per visit relative to annual household income		
Outpatient	1.0%	1.8%
Inpatient	9.7%	10.8%

Source: Authors' compilation.

result of higher income and higher level facilities, 51 percent more for outpatient visits, and 71 percent more for inpatient admissions (Figure 2.17). Insurance will potentially make SHI enrollees incur more costs, generating a between-scheme gap of service utilization that is even larger than what Table 2.9 shows.

167. Efficiency may be compromised from the perspective of insurance management and risk pooling. Taking the two-track approach as it is, that means there will be one large pool for SHI enrollees who are relatively better-off and hundreds of small pools for CBHI enrollees. Experiences from many developed and developing countries prove that fragmentation is more likely to exist when there are too many pools managed by different parties, and small pools run the risk of high administrative costs and low affordability of catastrophic expenditures.

168. Level of government expenditure will be affected by the introduction of insurance schemes. Requirement for government input may seem fixed as revenue collection article specifies, e.g., certain percentage of employee salaries. Government-led social health insurance is often seen as a social contract between the government and its citizens, therefore, besides payment of premium contribution of government employees, the government implicitly signs itself into the overall financial responsibility associated with insurance schemes. With the promise of generous benefit package, it is important to carefully examine how the potentially escalating costs under health insurance schemes will affect overall level of government expenditures, and will affect the investment in public health program areas.

2.6 Conclusions

169. Ethiopia has been making steady progress in achieving its noble goal of achieving Universal Health Coverage. Strong evidence has been found in reducing under-five mortality and Total Fertility Rate among all income groups, increasing coverage of essential health interventions particularly among poor people, establishing health service network with more than 16,048 health posts and 3,245 health centers at primary level, building a living Health Extension Program to make health human resources available at grass root

level, and harmonizing external assistance resources under “one budget one plan and one reporting” framework.

- 170. At national level, health spending remains low despite increase in recent years, and the increase was mostly driven primarily by non-government sources.** About one-third of donor support and all household payment flow to health providers at their own discretions, not necessarily going to priority program areas, or providers with good quality. In addition, these resources may compete attention and inputs from local service providers, distorting effectiveness of health human resources paid by the government. Evidence shows that out-of-pocket payment is a barrier for people to seek health care when they are sick, particularly for the poor. With Ethiopia aspiring to become a middle-income country, a health financing system with low level spending and high dependence on external assistance may not be sustainable in the long term. We suggest that a strategy for sustainable health financing be developed and endorsed by top-level decision makers, outlining actions, milestones, monitoring and evaluation system. As Ethiopia moves towards middle-income countries, government investment on health sector needs to be increased so that it can keep up with economic growth and growing demand for health care, and counterbalance unintended consequences brought by off-budget donor support.
- 171. At regional level, allocation of government budget to health sector appears to be more dependent on historical trends, instead of giving extra pushes for lagged-behind regions.** There is large variation between regions in allocating government budget to health sector. The spread between regions is substantial in terms of both proportion of spending on health and per capita health expenditure. Effectiveness of an additional birr in health sector is highest in agrarian regions, and lowest in urban regions where coverage of essential services is already high. The existing evidence does not present the entire picture, as there is no data on federal level capital expenditure (both treasury and external assistance fund managed by FMOH) is being allocated between regions. We suggest undertaking further analysis on the use of on-budget donor support for a comprehensive understanding of regional variation. This will also help examine the coordination between human resources financed through block grants and commodity supplies financed through external assistance, which is necessary for service delivery. In addition, sectoral engagement with regional block grant allocation should be encouraged so that allocation to health sector is needs-based and/or performance-based.
- 172. Efficiency has been achieved through allocating more than half government spending to primary care organizations, but technical efficiency at health facility level appears low with one health worker seeing 2-9 patients a day based on limited data.** This can be further deteriorated by low quality of services, with less than one quarter of antenatal visits informing women pregnancy complications. It is acknowledged that data used to estimate technical efficiency and quality is extremely limited and it does not reflect variations within the country. Further work will be needed to collect more solid information on this aspect. Nevertheless, low productivity of health workers may be a result of mixed factors: lack of equipment, motivation, and knowledge. An individual-level performance evaluation system and incentive mechanisms related to results will be critical in increasing the productivity of health workers.

173. There is no doubt risk-pooling mechanisms are needed to protect people from risk of impoverishment due to catastrophic health expenditure. However, the two-track insurance schemes for formal and informal groups cause concerns over equity in financial protection and service utilization, as the formal groups are relatively better-off than informal groups and tend to use higher level of facilities. Moving forward, it is not just about refining these policies per se; decision makers need to be put them in the large context of health financing and social protection, to examine how they may affect overall fiscal space for health, workload and morale of health workers, as well as quality of services.

SOCIAL PROTECTION

3.1 Introduction

- 174. In recent years, Ethiopia has made remarkable progress in reforming and scaling up actions in the area of social protection.** Ethiopia's Productive Safety Nets Program (PSNP), for example, is one of the largest social assistance programs in Sub-Saharan Africa. Globally, Ethiopia is recognized as a leading exemplar on reforming a system of humanitarian emergency response to one of predictable transfers with diverse goals of protection, prevention and promotion at the core (World Bank, 2014a; ILO, 2014; Sabestes-Wheeler, et al, 2011). Notably, support for social protection is influenced by a strong evidence base, especially in charting the impacts of the PSNP (Hoddinott, et al, 2012; Berhane, et al, 2012). Recent analysis concludes that the immediate direct effect of transfers provided to rural households through PSNP¹ and food aid has reduced the national poverty rate by two percentage points in 2011 (World Bank, 2014b). The development of Ethiopia's social protection agenda has been fomented through a series of policy reforms and promulgations, including the approval of Ethiopia's Social Protection Policy (2014) and development of a working strategy.
- 175. Despite these advances in policy, programming and administration, a major knowledge gap remains in the areas of public expenditure and financing in social protection.** Although considerable investment has been devoted to different programs in recent years, no comprehensive expenditure review has been conducted. Hence, there has not been a baseline understanding of key fiscal management and policy challenges, which could highlight priority reform areas for policymakers and inform the agenda towards an integrated social protection system.
- 176. This review seeks to pull together different strands of information on social protection expenditure from 2009-2013.** The objectives are to: (a) describe core social protection programs focusing on the federal level; (b) identify budgeting and expenditure patterns of core federal social protection programs, and their effectiveness in terms of resource allocation and program mix; (c) assess the equity and adequacy of priority social protection interventions, with a focus on social safety net interventions as a priority; and, (d) recommend priority actions for developing and financing a robust social protection system.

¹ PSNP alone contributed to a 1.6 percentage point reduction in poverty (lifting about 1.4 million people out of poverty) based on a calculation using US\$1.25 PPP as poverty line.

177. The review is organized as follows: Part 1 sets out the overall methodology and approach of the review. Part II provides contextual information on the overall social protection landscape in Ethiopia. Part III focuses on budget and expenditure issues, detailing the levels, trends and sources of financing towards social protection sub-sectors including safety nets, labor, social insurance and subsidies. Part IV considers issues around the adequacy and equity of spending, with a focus on social safety net and subsidy interventions. Part V identifies a number of key issues and challenges emerging from the analysis focusing on program integration, expansion, finance and fiscal sustainability. A set of conclusions and recommendations are included in the final section.

3.2 Background

Scope and methodology

- 178. The review uses the definition of social protection in Ethiopia’s National Social Protection Policy (NSPP):** “to create an enabling environment in which Ethiopian citizens have equitable access to all social protection services that will enhance their growth and development”. This includes providing social assistance and social insurance, promoting gainful employment opportunities, addressing inequalities to social services, and providing legal protection support for vulnerable populations—by putting in place appropriate legislation, programs and institutional arrangements².
- 179. Under this definition, social protection can be understood as a system focused around four objectives:** protection from economic and social deprivation; prevention against losses from shocks; promotion of livelihood and employment opportunities; and, transformation for vulnerable groups. These complement the main functions outlined in the World Bank’s strategy on equity for the poor: protecting against poverty and dire asset loss; resilience for the vulnerable, insuring against shocks; and, opportunity, promoting human capital and access to work.
- 180. The review focuses on four sub-categories of social protection instruments adopted in the World Bank’s Social Protection Atlas for Resilience and Equity (ASPIRE).** These include: (a) social assistance (social safety nets), such as cash transfers, school feeding, public works and targeted food assistance; (b) social insurance, such as old age and disability pensions and unemployment insurance; (c) labor market programs, such as skills building programs, job search and matching programs, and improved labor market regulations, and, (d) subsidies, covering food, fuel and fertilizer interventions.
- 181. The data included in the analysis is based largely on a detailed desk review that took stock of and analyzed pertinent federal level policies and programs related to social protection in Ethiopia.** The desk review was complemented with consultations undertaken with officials from sector ministries, government agencies and development partner organizations. Owing to the general absence of consolidated program data, program information was extracted from background financial and annual reports, and cross-referenced where possible.

² The description mirrors that of the World Bank’s Social Protection and Labor Strategy (2012) which notes that “social protection and labor systems, policies and programs help individuals and societies manage risk and volatility and protect them from poverty and destitution – through instruments that improve resilience and opportunity”.

182. This review builds on core guidance documents on public expenditure reviews both general and specific to social protection (Lienert, forthcoming; and Grosh, 2009). Literature consulted for the analysis include country-specific PERs conducted within the Latin American and Caribbean, East Asian and African regions in recent years. Specific social safety net assessments and social protection reviews conducted in the Africa region also provided guiding frameworks for analysis (Monchuk, 2014, Government of Kenya, 2012). The team also drew extensively on the findings and data of the recently published Poverty Assessment for Ethiopia (World Bank, 2014b).

Key limitations

- 183. Detailed budget and expenditure data in the social protection sector is severely lacking.** Unlike data in other sectors, much financing in the social protection sector is not captured on official government budget lines, for instance, external financing may be off-budget. In addition, despite recent growth of the social protection sector there is no centralized system of information management. While the review gathered data for the core federal interventions, some omissions remained concerning the Small and Medium Enterprises (SME) program and public social insurance.
- 184. The data gathered for identified programs and sub-sectors is uneven.** Amongst those programs included in the review, complete data is available only for a few programs. Detailed information required specific consultation and request with program managers, which was forthcoming to varying degrees.
- 185. Excluded from the analysis are the numerous social protection interventions managed by non-state actors that are often small in terms of the size of their investment and coverage, but very large in aggregate.** According to a 2010 report of the Agency for Charities and Societies, there are currently a total 1,651 charities and societies in Ethiopia, majority of which are externally funded to provide social services to vulnerable and at risk-populations. Similarly, specific regional programs are omitted. In addition, the analysis does not take into account informal interventions such as traditional social support mechanisms—locally known as “Iddirs” and “Equbs”—which provide support for the poorest communities in specific vicinities.
- 186. The analysis also excludes access to basic service provision support, which can be considerable with respect to other pro-poor interventions, e.g., the Promoting Basic Services Program (PBS).** While there is an overlap in these areas, basic service support also falls under sectoral and other expenditure categories.
- 187. Given the above challenges, some core data typically documented in PERs are absent, or at least more limited.** These include categorical beneficiary information, geographic disaggregation and administrative costs.

3.3 Overview of Social Protection, key risks and core interventions

- 188. Social protection has been a core part of Ethiopia's series of Poverty Reduction Strategy Papers (PRSPs):** the Sustainable Development and Poverty Reduction Program (SDPRP) 2002/03-2004/05; the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) 2005/06-2009/10; and the current Growth and Transformation (GTP) 2010/11-2014/15. All these PRSPs are anchored in the Agricultural Development-led Industrialization (ADLI) 1994, Ethiopia's economic development framework. Efforts towards these goals have been realized in pro-poor spending, estimated at 12 percent of GDP in the last decade (IMF). These programs are designed to reduce poverty and inequality and mitigate vulnerability. Available data suggests that poverty incidence declined from 44 percent in 2000 to 30 percent in 2011.
- 189. Ethiopia's Social Protection planning is devised against a dynamic backdrop of poverty, risk and vulnerability.** MOFED's analysis of trends in national as well as rural/ urban poverty head count (incidence)³, poverty gap⁴ and poverty severity⁵ offers the basis for estimating the size of the populations in need of protective social protection (MOFED, 2013). Accordingly, despite marked decline between 2004/05 and 2010/11, 29.6 percent of the Ethiopian population still requires safety net interventions. The 2014 World Bank Ethiopian Poverty Assessment found that even in the most optimistic scenario, Ethiopia could reduce extreme poverty from the current 29.6 to 8 percent by 2030 if it maintains the annual growth recorded between 2005/2011 and experiences more equal growth than in the last ten years. The assessment demonstrated that both conditions will be extremely challenging to achieve.
- 190. Although Ethiopia can be considered as one of the most equitable societies in terms of its Gini coefficient, there are still considerable inequities at the lowest economic quintiles and a need to bridge existing consumption inequality.** Total consumption inequality as measured by the Gini Coefficient increased by 0.02 between 1999/2000 and 2004/05, and remained almost constant until 2010/11. On the other hand, the trend in consumption inequality as measured by the Gini Coefficient is worse in urban areas compared to rural areas between 2005/96 and 2010/11. In urban areas, it increased from 38 percent in 1995/96 to 44 percent in 2004/05 but dramatically declined to 37 percent by 2010/11. Fluctuating between 27 and 26 percent, it remained fairly constant in rural areas over the same period (World Bank, 2014b).
- 191. Underlying poverty and risk dynamics reveal exposure to a number of challenges.** While overall unemployment data show a slowing declining trend, underemployment persists especially in urban areas, and rural areas lack agricultural livelihood opportunities. The main source of food insecurity in Ethiopia is drought, which gets magnified with volatile food price (CSA and World Bank, 2013). Further concerns are on life cycle vulnerabilities, which highlight issues around early childhood development, education for school-going children, youth unemployment and aging as unmet needs. Finally, there is a need to also

3 This is the share of the population whose income or consumption is below the poverty line; that is, the share of the population that cannot afford to buy a basic basket of goods.

4 Poverty gap refers to the distance from the poverty line. This measure captures the mean aggregate income or consumption shortfall relative to the poverty line across the whole population.

5 This takes into account not only the distance separating the poor; from the poverty line (the poverty gap), but also the inequality among the poor, that is, a higher weight is placed on those households further away from the poverty line.

take into account the gendered nature of risks and vulnerabilities in Ethiopia; 25 percent of households are female-headed. In general, although women's labour force participation rate has risen steadily from about 66 percent in 1999 to 75 percent in 2005, it is lower compared to that of men.

Core interventions

- 192. The review was able to account for 16 main social protection programs.** Notwithstanding gaps in coverage and data, when combined these programs reflect the core interventions and program mix of social protection at federal level in Ethiopia.
- 193. The programs share a number of important characteristics: they have been identified as priority interventions under the National Social Protection Policy and Strategy framework;** are federally-managed and implemented by national agencies, with financial support from international bodies; are typically in a mature phase, with the majority being in existence for more than ten years; they tend to have a large coverage at national level (subsidies) or rural level (PSNP), while programs reach important target groups, e.g., WFP Urban HIV/AIDS program; and, some of the smaller programs included in the inventory have important features of innovation and policy relevance to warrant their inclusion, e.g., the Household Asset Building Program.
- 194. Table 3.1 summarizes these programs by sub-sector, highlighting the year of initiation, number of beneficiaries, funding and implementing agencies and program objectives.** The programs are analyzed further in subsequent sections.

Table 3. 1: An inventory of Ethiopia's core social protection programs

Program	Year Started	Individual Beneficiaries (2013)	Funding Agency	Implementing Agency	Objective(s) under SP Strategy
Social Assistance					
Productive Safety Net Program (PSNP)	2005	6,889,910	10 development partners	MOA	Protect, Prevent, Promote, Transform
Relief	Historical	2,500,000	OCHA (global appeals)	DRMFSS	Protect
Food for Education (School Feeding)		670,000	WFP	Ministry of Education	Protect, Prevent
Community Based Nutrition Program	2003	943,701	UNICEF	Ministry of Health	Promote, Transform
Urban HIV/AIDS Program	2003	91,630	WFP	Ministry of Health	Protect, Prevent
Pilot Social Cash Transfer Tigray*	2011	3,367	UNICEF	Bureau of Labour and Social Affairs	Protect, Promote
Targeted Supplementary Feeding		363,879			Protect
Labour Interventions					
Small and Medium Enterprise Development*	n/a	n/a	n/a	MOLSA	Transform
Agricultural Growth Program	1997	n/a	GoE and partners	Ministry of Agriculture	Promote, Transform
Household Asset Building Program	2010	187,344	WB and GoE	DRMFSS	Promote, Transform
Social Insurance					
Public Servants Social Security	1955	1,430,000	Contributory	Public Servants Social Security Agency	Prevent, Promote
Private Organizations Employers Pension*	2011	n/a	n/a	n/a	Prevent, Promote
Community Based Health Insurance	2012	608,675	Contributory	n/a	Prevent, Promote
General Subsidies					
Wheat (direct)	2008	n/a	General subsidies	Ethiopian Grain Trade Enterprise	Protect, Prevent
Electricity (direct)	2006	n/a	Cross subsidies	Ethiopian Electric Power Corporation	Protect, Prevent
Kerosene (direct)		n/a	Cross subsidies	Ethiopian Petroleum Enterprise	Protect, Prevent

n/a: not available * Program concluded in 2011.

Source: Authors compilation.

3.4 Budgeting and Expenditure

General Trends

195. Table 3.2 presents trends in social protection spending disaggregated by categories of interventions. On average, planned spending on social protection has grown by seven percent between 2009 and 2013. Overall SP expenditure stands at an equivalent of three percent of GDP. The majority spending in social protection (87 percent) is shared between social safety nets (55 percent) and general subsidies (32 percent). The relative contribution of labor and social insurance is significantly low, partly because these are emerging interventions in Ethiopia's social protection landscape relative to social assistance, and partly because of inaccessibility of data on core labor interventions (such as the Micro and Small Enterprise Development Program) and social insurance programs (such as the POEP) which are being implemented nationally.

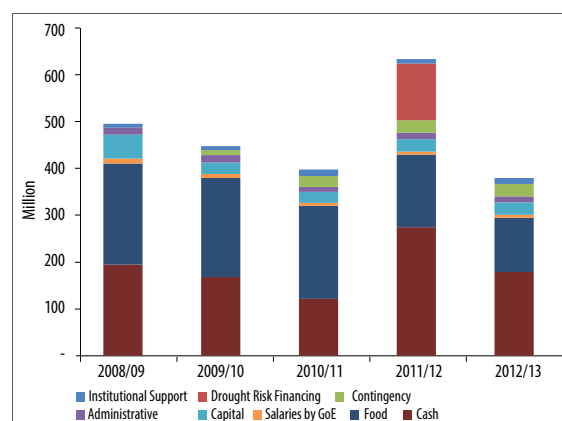
Social safety nets' expenditure

196. In 2013, social safety nets' expenditure was approximately 1.1 percent of GDP, falling from a high of 3.6 percent in FY2010. As noted earlier, safety nets interventions contribute an average of 55 percent total social protection expenditure during FY2009-2013. PSNP accounts for an average 58 percent, and emergency food relief an average of 34 percent of all safety net expenditure from 2009-2013 Table 3.3).

197. Underlying the above trends, there has been an evolution in safety net support away from the cycle of annual emergency food aid appeals—starting from the launch of the PSNP in 2005. There has been considerable consolidation of the transition from emergency response to a predictable safety net, reflected strongly between 2010 and 2014. In this context, PSNP Phase III enabled expansion to two new regions (Somali and Afar), shifted increasingly to timely cash transfers, and enhanced the quality of its own public works. The PSNP is one of the most highly evaluated safety net programs in the world (Subbarao et al, 2013), generating a lot of international interest due to its innovative approach and scale. Successive studies confirm positive findings in terms of household impacts on food security, household assets and income.

198. PSNP in particular involves a diverse set of expenditure items, which are important and challenging to disaggregate. These include: cash support, food transfer values, institutional support, contingency financing, capital expenditure and administrative costs (see Figure 3.1). Total expenditures for PSNP peaked in FY2012 owing to the scale up of contingency financing, estimated at US\$120 million. The highest share of expenditure is on cash benefits, covering direct support and public works interventions. While this declined in response to food price volatility

Figure 3.1: Components of PSNP expenditure FY2009-2013 (US\$)



Source: Authors' compilation

Table 3.2: Total program expenditure by sub-sector FY2009–2013 (US\$)

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Average rate of increase	Average share from total SP spending
Social Safety Nets	761,862,443	1,057,517,386	694,912,460	714,171,042	521,346,722	-5%	55%
Social Insurance	91,088,022	93,606,813	103,498,311	106,066,630	108,288,758	4%	7%
Labor Interventions	0	1,298,643.81	81,908,439.07	88,848,969.25	162,305,209.48	46%	6%
General Subsidies	404,924,238	284,045,874	367,110,905	540,438,754	617,281,365	15%	32%
Aggregate SP actual expenditure	1,257,874,703	1,436,468,717	1,247,430,115	1,449,525,396	1,409,222,054	4%	
Aggregate SP planned expenditure	504,904,034	554,479,941	575,729,916	651,204,957	653,557,831	7%	
GDP	31,859,000,000	29,371,000,000	31,373,000,000	42,631,000,000	45,999,000,000	11%	
SP expenditure as a % of GDP	3%	4%	3%	3%	3%	3%	

Source: Authors' compilation.

Table 3.3: Trends in expenditure on various safety net programs (US\$)

	2009	2010	2011	2012	2013	Source of funding
Productive Safety Net Program	467,429,087	437,156,335	374,259,292	479,997,322	350,376,861	Different donors and GoE
Emergency Food Relief	270,283,401	529,439,127	246,471,180	187,921,382	126,912,921	Different donors
Food for Education (School Feeding)	14,812,700	20,808,762	24,816,294	17,816,218	12,824,977	WFP
Community Based Nutrition	..	..	7,060,196	8,707,792	17,106,792	UNICEF
Urban HIV AIDS	9,337,255	11,41,1814	10,221,703	3,983,212	6,808,120	WFP
Targeted Supplementary Feeding	..	58,701,348.00	32,083,795.00	13,092,225.00	4,664,160	
Pilot Social Cash Transfer Tigray	..	..	..	602032	602,032	UNICEF

Source: Authors' compilation.

and drought in 2010/11, cash utilization has increased ever since. It should be noted that PSNP allocated approximately six percent of its budget towards capital expenditure, which provides inputs for the procurement of goods and materials under public works interventions. This figure has remained stable during the period of review. PSNP allocated seven percent of its overall budget towards administration costs, a figure below international benchmarks of approximately 10 percent.

- 199. The review notes a number of smaller scale food-based interventions, including the Food for Education and Urban HIV/AIDS program.** Expenditure for both programs has been uneven during the review period, raising questions on relevance and effectiveness of these interventions. The Food for Education retains a high prominence in the recently-approved national policy for social protection. A notable challenge concerns nutrition interventions. There have been massive declines in financial support for the Targeted Supplementary Feeding program. Although financing for the Community-Based Nutrition Program has increased dramatically in recent years, the implementation experiences have been mixed—especially for the Growth and Monitoring Program.

Labor market programs

- 200. Labor market programs reflect a push towards urban employment, and promoting productivity and livelihood opportunities especially in rural areas** (Table 3.4). National and government-led investments have focused on promoting employment in urban and rural areas. Although financial information on Micro and Small Scale Enterprises (MSE) development is inaccessible, it is a key strategy identified by the Ethiopian government for employment creation in urban areas, particularly in the GTP. According to a MoFED (2013) report, 2,174,290 business operators (of whom 38 percent were women) were trained on entrepreneurship, business management and technical skills during the first three years of the GTP period. Financial services were aimed at providing credits mainly using micro-finance institutions. A total credit of ETB4.81 billion was provided to MSEs during the first three years of the GTP period, and a total of 3,226.39 hectares of land, 7,645 sheds and 633 blocks (284 completed and 349 on construction) were distributed to MSEs over the same period⁶.

Table 3.4: Trends in expenditure on various labor market programs

Programs	2009	2010	2011	2012	2013	Source of funding
Micro and Small Scale Enterprises						Government
Household Asset Building Program			47,326,011	52,196,589	54,237,762	Different donors
Agriculture Growth Program (Cooperatives)		1,298,643	34,582,427	36,652,380	58,067,446	Different donors

Source: Authors' compilation.

⁶ Included in the present analysis is the Household Asset Building Program (HABP), previously known as the 'Other Food Security Program', is one of the four components of Ethiopia's food security strategy. Although HABP has implemented important capacity building and training activities and contributed to food security objectives (especially when combined with PSNP), its implementation was a challenge and it will no longer continue under PSNP IV. It will be replaced by an enhanced livelihood component of support.

Social insurance

- 201. Ethiopia currently implements two mandatory contributory social security schemes:** the Public Servants Social Security (PSSS) and the Private Organizations' Employees Pension (POEP) serving public and private employees, respectively. Both schemes are ostensibly old-age pension programs, with very small provisions (<1 percent) for injury, disability and survivorship benefits. Preparation of an additional Social Health Insurance for mandatory membership by both public and private employees is underway.
- 202. The PSSS dates back from 1963 when pension and social security provisions were established for public servants, employees of State-owned Enterprises, the police and military.** In 2011, Ethiopia amended the design of the civil service pension scheme and extended its application to include private sector workers, under the POEP. Data for this review was available only for PSSS. Membership to the PSSS has been increasing at an average annual rate of 20 percent, reaching 1.4 million beneficiaries by 2013 (see Table 3.5). Contributions have increased at an average of 24 percent. Despite a significant increase in average membership and contribution, administrative expenditure, total payout and reserve grew by an average of 1.04, 1.09 and 1.12 percent, respectively. Under the PSSS, employer contribution rates are 11 percent for public sector employers and nine percent for private sector (gradually rising to 11 percent by 2015), and 25 percent for the military.
- 203. Ethiopia's very low pensions coverage is not at all surprising given the very high proportion of rural and informal sector workers and the very recent extension of the civil service scheme to private sector workers.** Ethiopia has a non-linear accrual rate of three years for the first 10 years and 1.25 years after that, creating strong incentives to contribute for the first 10 years but much lower incentives after that. In addition, the combined contribution rate of 18 years is very high for a country with such a low per capita income and small formal sector labor force. In 2013, a pilot Community-Based Health Insurance (CBHI) covered 608,675 beneficiaries, with a program expenditure of US\$429,475.

Subsidies

- 204. Large shares of government revenues are spent on food and fuel subsidies, mainly in the form of price caps and direct distribution of products.** During the course of the review, these interventions have been especially pronounced, given the intentions of government to protect consumers, against a backdrop of high food inflation and price volatility. This section examines direct subsidy supports for wheat, electricity and kerosene through the Ethiopian Grain Trade Enterprise (EGTE), the Ethiopian Electric Power Corporation (EPPCO), and the Oil Stabilization Fund. Implicit costs of the government's fertilizer promotion policy are discussed separately⁷.
- 205. The increasing trend in expenditures on subsidies, which are entirely government financed, is highlighted in Table 3.6.** Subsidy expenditure for 2009 is relatively higher, owing to the introduction of the wheat subsidy in response to food price volatility. The vast share of subsidy expenditure is for wheat and kerosene.

⁷ The analysis does not include the costs of Ethiopia's fertilization promotion, which are not insignificant. Rashid et.al (2013) estimate that the implicit cost of the fertilizer promotion is approximately US\$40 million per year since 2008.

Table 3.5: Public servants' social security data

	2009	2010	2011	2012	2013	Average
Membership size	Total	700,000	800,000	900,000	1,200,000	1,430,000
	Rate of growth		14%	13%	33%	19%	20%
Contribution	Total	140,885,399	183,795,258	236,102,242	282,974,335	329,622,087
	Change from previous year		30%	28%	20%	16%	24%
Administrative expenses	Total	2,602,236	2,441,356	2,994,179	3,931,140	4,010,223
	Change from previous year		0.94	1.23	1.31	1.02	1.04
Total pay out	Total	91,161,140	93,631,546	103,553,615	105,621,159	107,905,602
	Change from previous year		1.03	1.11	1.02	1.02	1.09
Pay out - old age	90,912,519	93,492,833	103,316,921	105,451,713	107,744,549	
Pay out - Invalidity	19,581	14,641	25,705	22,304	19,263	
Pay out - Employment injury	48,186	16,111	72,842	56,035	40,713	
Pay out - survivorship	107,736	83,228	82,843	84,723	54,758	
Reserve	Total	49,724,258	90,163,711	132,548,627	239,483,270	221,716,486
	Change from previous year		1.81	1.47	1.81	0.93	1.12
Profit out of investment	Total	7,011,120	5,920,982	5,165,846	5,921,563	8,770,954
	Change from previous year		0.84	0.87	1.15	1.48	1.50

Source: Authors' compilation.

Table 3.6: Various expenditures of subsidies

Programs	2009	2010	2011	2012	2013
Wheat value chain	182,051,700	58,060,318	94,709,706	162,049,848	270,827,520
Electric power consumption	28,504,048	44,060,074	53,851,778	92,565,528	74,895,345
Kerosene	194,368,490	181,925,482	218,549,421	285,823,379	271,558,499
Total	404,924,238	284,045,874	367,110,905	540,438,755	617,281,364

Source: Authors' compilation.

- 206. The wheat subsidy program started in 2008 following soaring food prices aimed at stabilizing increasing food inflation in the country.** The program has targeted the urban part of the country by supplying the market with wheat at a subsidized price. The subsidy to consumers is the difference between the economic cost of a quintal of wheat and its selling price as determined by the State. The economic cost (total expense) includes the support price, purchase costs and distribution costs. The cost of wheat subsidy in birr terms has more than doubled in the last five years from ETB2.2 billion (US\$182.1 million) in 2008/09 to ETB5.04 billion (US\$270.8 million) in 2012/13. On average, this implies the sales price of wheat has increased by 11 percent whereas the economic cost increased by more than 22 percent from ETB414 to ETB902 per quintal over this period.
- 207. In nominal terms, over the last five years, the electricity subsidy has more than quadrupled from ETB344 million (US\$28.5 million) to ETB1.4 billion (US\$74.9 million) in 2012/13.** The difference between the average cost of supply and the average residential price of supply represents the subsidized amount per KWh. Subsidy expenditure peaked in 2011/12 at ETB1.64 billion. The electricity subsidy averaged about 20 percent of the total output of electricity and water between 2010/11 and 2012/13. The average price of supply has ranged from ETB0.27 to ETB0.41 per KWh over past five years, while average unit price of supply was lower than recovery cost, implying that average electricity consumption yielded a subsidy across all years. Increases in the total subsidy level were guided by the varying gaps between the recovery cost and supply price.
- 208. Kerosene is consumed by Ethiopian households mainly as a source of energy for cooking.** The kerosene subsidy is defined as the difference between retail and actual price of kerosene. The kerosene subsidy is administered through cross-subsidies funded by revenues from oil and oil products. Total subsidy expenditure is almost absent in 2008/09 and 2009/10, but jumped to ETB143 million in 2010/11. In the following year, average subsidy was ETB2.21 per liter and resulted in an escalation of total subsidy to ETB691 million, which was 4.85 times greater relative to the previous year's total subsidy. In 2012/13, total subsidy declined by more than half from the previous year to a total of ETB320 million. The main reason for increase in kerosene subsidy in 2010/11 and 2011/12 was to shield kerosene consumers from soaring international prices. Nonetheless, in 2012/13 as international kerosene price declined the subsidy commensurately went down to ETB0.93 per liter.

Sources of financing

209. Table 3.7 shows the various sources of finance for the inventory of social protection programs included in this analysis. International partners' share of total social protection spending has averaged at 58 percent, followed by government contributions (averaging 35 percent). Contributory schemes account for the smallest share of total financing, averaging only seven percent of the total. Given the poverty reduction impacts of safety net interventions, the lack of government financing is striking. The safety net programs reviewed are almost exclusively donor-funded, with government providing approximately two percent in-kind contributions to PSNP for salary costs. However, under preparations of the PSNP Phase 4, the government has committed to allocating at least one percent of GDP to finance national safety nets by end 2019. If realized, this will be a remarkable sign of progress and commitment to the sector. This will also be an important benchmark given the likelihood that external financing for social protection may stabilize in coming years.

Table 3.7: Overall sources of financing for social protection in Ethiopia

	2009	2010	2011	2012	2013	Share from total SP spending
Donor	751,031,897	1,050,047,862	728,287,092	758,361,796	639,325,291	58%
Contributory schemes	91,088,022	93,606,813	103,498,311	106,066,630	108,288,758	7%
Government	415,754,784	292,814,042	415,644,712	585,096,970	661,608,006	35%
Total spending on SP	1,257,874,703	1,436,468,717	1,247,430,115	1,449,525,396	1,409,222,054	100%

Source: Authors' compilation.

3.5 Adequacy and equity of social protection programs

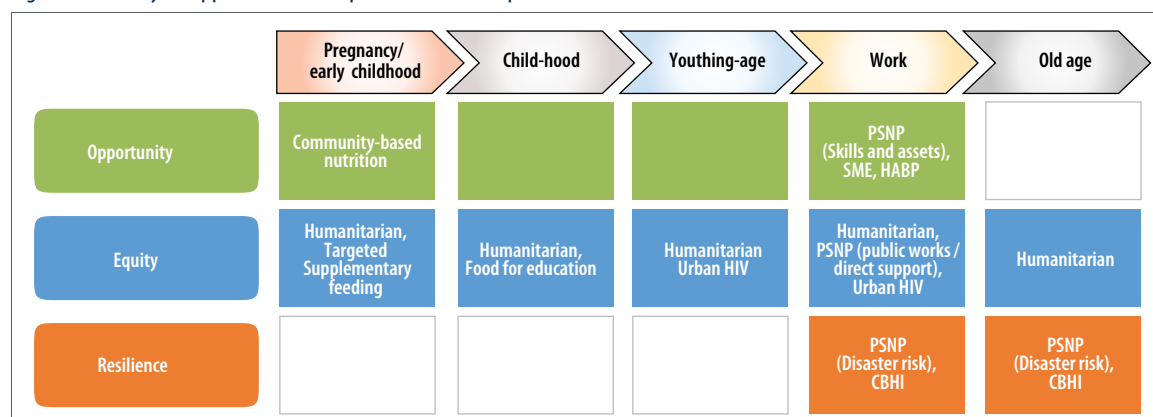
210. This section reviews the adequacy and equity of social protection programs in Ethiopia. More specifically, it identifies trends and disparities in the coverage, generosity, benefit incidence and cost-effectiveness of core social protection programs. The discussion on coverage, generosity and cost-effectiveness focuses on safety nets (including PSNP) due to limitations of relevant information on other programs. The discussion on benefit incidence compares the extent to which the PSNP, emergency food relief and subsidies, which together make up a significant percentage of social protection spending in Ethiopia, are pro-poor.

Coverage of the poor

211. In aggregate, the inventory of social protection programs has a national coverage—however, a comprehensive picture is hard to discern. Full data has not been available to estimate the overall coverage of social protection, or to provide basic data disaggregation in terms of geographic and categorical distribution. Nonetheless, a number of important observations can be made.

212. Following the earlier discussion on risk and vulnerabilities, Figure 3.2 applies a Life Cycle Framework to broadly describe overall coverage and possible gaps of social protection programs in Ethiopia. Information on subsidy programs is excluded. The framework highlights strong coverage of programs around the equity objective and innovations around resilience. Concerning opportunities, or transformative programs, these can be seen through PSNP (skills, assets, livelihoods) and community-based interventions. A key gap concerns opportunities during childhood and amongst youth.

Figure 3.2: Life Cycle Approach to social protection in Ethiopia



Source: Authors' compilation.

213. In aggregate, safety net programs cover a high share of the overall population. Table 4.8 considers beneficiary numbers for each of the safety net programs from 2009-2013. PSNP and food relief account for the largest share of safety net program beneficiaries, when combined reaching almost 10 million program beneficiaries in 2013.

Table 3.8: Trends in the numbers of beneficiaries of social safety net programs*

	2009	2010	2011	2012	2013
Productive Safety Net Program (Overall)	7,574,480	7,821,003	7,535,496	7,642,068	6,889,910
(By Modality)					
Cash		1,743,992	1,957,825	1,156,038	3,249,308
Food		1,702,225	3,440,958	1,352,169	1,803,255
Cash and Food		4,374,786	2,136,713	5,133,861	1,837,347
Emergency Food Relief	6,200,000	5,200,000	4,500,000	3,500,000	2,500,000
Food for Education (School feeding)	481,791	555,324	600,072	649,185	669,394
Community Based Nutrition				564,331	608,675
Urban HIV	116,161	132,093	127,000	86,310	91,630
Targeted Supplementary Feeding	1,100,000	542,592	708,921	708,531	363,879
Urban HIV	116,161	132,093	127,000	86,310	91,630
Pilot Cash Transfer				3,367	3,367

* Total beneficiary numbers are not provided owing to the potential overlap of beneficiaries across different programs. While this is assumed to be low, it is not possible to calculate based on available data.

Source: Authors' compilation.

214. There are a number of striking aspects concerning overall program coverage:

Targeting: The strong targeting accuracy of PSNP highlights the programs' significance in coverage of the chronically poor and vulnerable⁸. Based on 2011 data, the PSNP alone can potentially cover 30 and 26 percent of the absolute and food poor population respectively, and about a third of extremely poor Ethiopians. While PSNP coverage has generally remained constant, there have been decline in the share of beneficiaries of other safety net programs (with a slight increase in 2013). For every measure of vulnerability, rates of vulnerability are higher in PSNP *woredas* than in non-PSNP *woredas*. For example, the proportion of households vulnerable to absolute poverty is 11 percentage points higher in PSNP *woredas* than in non-PSNP *woredas*.

Rural Focus: Social safety net coverage is largely focused in rural areas given the dominance of the PSNP program, yet across these rural regions there is strong variation. There is significant regional disparity in the ratio of beneficiaries versus incidence of poverty among regions. In other words, there is significant variation in the size of beneficiaries of PNSP in a region relative to the size of absolute and food poor population in that region. Coverage is most complete in Tigr, Afar and Harare and lowest in Oromiya, SNNP. PSNP does not cover any absolute and food poor in Benshangul Gumz, Gambela and Addis Ababa.

Livelihoods: Considerable investment has been made in understanding the livelihoods and assets of households in different parts of the country and their vulnerability to different types of risks. This has resulted in the scale up of pastoral interventions under PSNP. About eight percent of the Ethiopian population lives in the lowlands, of which about two-thirds are engaged in pastoralism.

Urban support: The GOE has implemented a number of poverty-focused measures to tackle the increasing level of vulnerability in urban areas. Two of the primary responses have been in the area of food price stabilization and youth training under MSEs. A future roll out priority under the SP National Strategy is for an urban safety net, which is currently under preparation with the support of the World Bank.

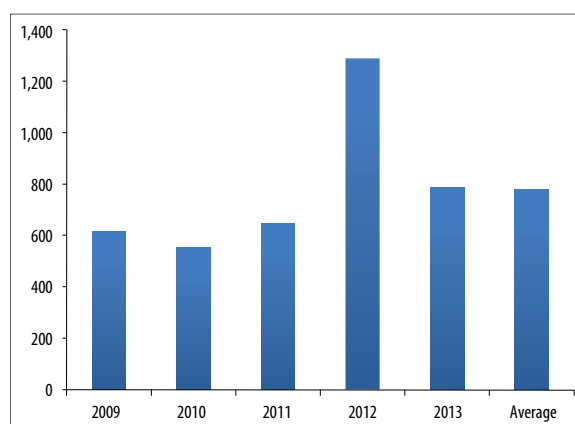
215. Because social insurance schemes target formal employees, they are present mainly in urban and peri-urban areas in all regions where such employees tend to concentrate. Apart from some of the pilot vulnerability schemes, mandated social security schemes that are being implemented at scale do not target the rural population of any region. Moreover, such schemes do not cover vulnerable groups such as children, unemployed women, the elderly and people with disabilities who had not participated in formal employment.

⁸ Of the available evidence, for example, the 2012 impact evaluation finds that the PSNP has good targeting accuracy in terms of wage targeting performance. It reported that PSNP beneficiaries have two fewer animals, a difference of 40.4 percent. Landholdings of PSNP beneficiaries are, on average, 26 percent smaller than non-beneficiaries. That PSNP is well-targeted means that in practice the PNSP does cover about 1/3 of the extremely poor. On the other hand, food aid is targeted to communities particularly affected by disasters, and whilst there is often targeting of poor households within these communities this is done in an ad hoc fashion in order to ensure aid is provided in a timely manner. As a result targeting errors in the selection of individuals at the local level can be quite high (Gilligan et al 2010). Similarly, a 2009 outcome evaluation of TSF program identified inclusion errors as one of the reasons for the relatively low measured effectiveness in terms of reaching the extremely poor. The PSNP combined geographic and community based targeting to identify eligible beneficiaries. Historic receipt of food aid was used as a criterion for determining target regions and *woredas*. Administrators of the selected *woredas* then assigned a 'PSNP quota' to the chronically food insecure kebeles in their *woreda*. Community based targeting was then applied to identify beneficiary households in the kebele.

Benefit levels and generosity

216. Information on the value and modes of transfers exists only for PSNP and emergency support. Accordingly, transfers are provided to households on a monthly basis for six consecutive months. All PSNP beneficiaries receive the same transfer regardless of whether they participate in Public Works or Direct Support. Cash and food transfers are set at the level required to smooth household consumption or fill the food gap. Each Public Works household member is entitled to receive a transfer based on five days of work at the prevailing cash or food wage rate. This represents 45-90 percent of the annual food needs of households participating in the PSNP. The household allocates the work requirement among able-bodied adults. If the work requirement exceeds household labor capacity then additional transfers are provided in the form of Direct Support. Households with members unable to work receive Direct Support only. Households are provided transfers of cash, food, or a temporal mix of both resources. The mix tends to be applied in a way that addresses the seasonal rise in food prices leading up to the hunger season. PSNP transfer levels have been annually adjusted in response to price inflation. Figure 3.3 shows the amount of cash transfers per person per annum. However, this does not necessarily mean that the adjustment fully compensates for the rate of inflation.

Figure 3.3: Average benefits to cash transfer beneficiaries in PSNP



Source: Author's calculations.

217. According to the recently completed poverty assessment, direct transfers from PSNP and food aid make up a smaller share of market income of the poorest deciles when compared to countries such as South Africa, Argentina, Uruguay or Armenia. However, they do make up about 20 percent of market income of the poorest decile, which is comparable to what direct transfers do in Jordan (23%) and Mexico (31%) and more than what direct transfers achieve in Indonesia, Peru and Sri Lanka (World Bank, 2014b). This suggests that targeting more households could increase the benefits of the program.

Benefit incidence: PSNP, subsidies and food aid

218. The following section summarizes key findings from the recently completed Ethiopia Poverty Assessment (World Bank, 2014b), which highlighted that targeted safety net interventions benefit the poor more proportionately than subsidies, and also brought in to focus the potential benefits of replacing urban focused subsidies, for an urban oriented safety net. Figure 3.4 highlights the concentration coefficients of public spending in terms of their pro-poorness. Spending on direct transfers in the PSNP is particularly pro-poor, whilst spending on subsidies is never pro-poor and sometimes regressive. Disaggregating spending, it is clear that spending on the PSNP and food aid and primary education is not only progressive, but also pro-poor. Of these three programs, spending on the PSNP is the most progressive. Figure 3.4 shows that while wheat and kerosene subsidies, health, education, secondary education

are progressive, they are not pro-poor. The electricity subsidy and tertiary education are regressive as their concentration coefficients are greater than the Gini coefficient for market income.

Cost effectiveness

219. A cost efficiency analysis was done to look at cost effectiveness of PSNP. In the context of social transfers like PSNP, cost efficiency is taken to be the relationship between amount of program administrative costs and amount of social transfers. In this review we used the Cost-Transfer Ratio (CTR) to measure cost efficiency. CTR is the ratio of administrative costs to transfers and can be interpreted as the administrative cost of making one-unit transfer to beneficiaries (White et. al. 2013).

220. In programs like PSNP, where transfers are both in kind and in cash, some argue that the value of food transfer should be monetized at its market value at their point of distribution rather than at their cost. But due to limitation of data, availability of data on size and type of items distributed as well as prices of food items at regional market, the review uses CTR where transfers are amount of cash transferred and estimated value of food transfer at cost in USD. The CTR values here then can be interpreted as the administrative cost of transferring US\$1 of benefits to beneficiaries. The results are shown with and without capital, which is the cost of public work projects, as an administrative cost. With capital included, CTR ranges between US\$0.12 to US\$0.19 with average value of US\$0.15. Without capital, CTR averages at US\$0.01 with a range of US\$0.09 to US\$0.10.

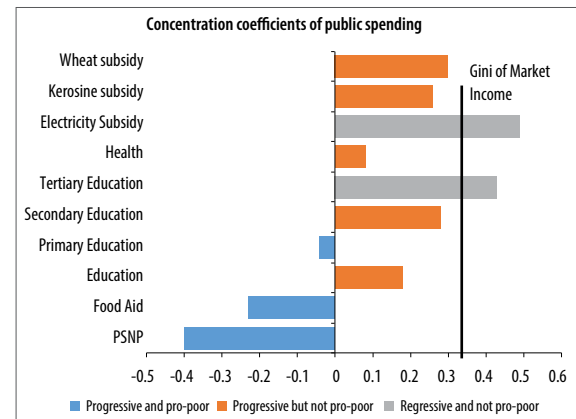
221. When longer-term food security objectives are taken into account, PSNP is almost certainly more cost-effective than relief. Though difficult to measure and quantify, benefits coming from greater predictability and timeliness of transfers, and the secure foundation these provide for household asset protection and accumulation, contribute to the PSNP's cost-effectiveness. PSNP's risk financing mechanism is critical in this regard, as it can help maintain and extend the program's cost-effectiveness in the face of shocks.

3.6 Looking forward: key issues for discussion

Program integration and selectivity – potential efficiency gains

222. Adopting a social protection system that can reduce transactional cost, drive efficiency and improve on effectiveness may require revisions of the business processes among sector ministries and bureaus to align their current operations. Doing so may require: (a) simplifying institutional arrangements can facilitate integration, reduce transactional cost and enhance efficiency and effectiveness. For example, labor related interventions are managed by at least three mandated social security schemes—for public (PSSSA), private (POEP) and health

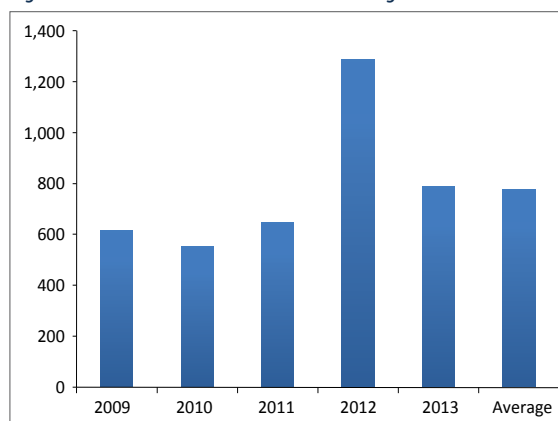
Figure 3.4: Concentration coefficients of public spending



Source: World Bank (2014b). Poverty Assessment.

(SHI), each managed by an agency; (b) streamlining administrative processes such as targeting and information management. For example, the current community-based PSNP targeting system may provide the foundation for development of a single registry database that will form the basis for targeting and exit of PSNP client households. Harmonized information management will entail a comprehensive social protection M&E systems with common indicators and coordinated data collection and analyses for related variety of social protection programs.

Figure 3.5: Administrative cost of transferring US\$1 in PSNP



Source: Author's calculations.

Expansion of coverage

223. In order to cover a greater percentage of the extremely poor with safety net, Ethiopia may need to improve on targeting practices of programs with poor targeting performance, scale up its safety net program, implement a system that integrates and coordinates various safety net program for aggregate efficiency gains and redirect general subsidies to a more targeted subsidies or transfers. The effect of safety nets on poverty reduction, even controlling for the sectoral composition of growth, suggests that they hold potential in helping reach the poorest households that have not been participating in economic growth in recent years. Hoddinott et al (2013) provides evidence that safety nets have supported agricultural growth in Ethiopia. The PSNP also reduced poverty through redistribution, in addition to any impact through supporting growth. The effect of PSNP coverage on zonal poverty reduction corroborates evidence from impact assessments of the PSNP (Gilligan, Hoddinott and Seyoum Taffesse 2010, Berhane et al 2012) which suggests that the program has been well targeted to poor households and has enabled households to acquire and protect assets, particularly when safety net payments have been large and reliable. The evidence also suggests that the transfers reduce poverty by six percent. Expanding safety nets may reduce poverty further. Hill and Porter (2014) show that although the PSNP is well-targeted, almost half of the poor households in Ethiopia live in *woredas* in which the PSNP is not functioning, and some very vulnerable areas of the country are not covered.

224. In this respect some priorities might include:

- a. *Initiating and strengthening urban safety nets: Urban safety net can address high food prices that hurt the urban poor.* The cost of an urban safety net could be cost-effective and have a substantial impact on urban poverty rates. Many urban poor people are gainfully engaged, but in low-productivity self-employment and, hence, a livelihood and employment generation scheme would benefit more poor people than a labor-intensive public works scheme.
- b. *In rural areas, expanding interventions to promote the non-farm sector is essential in addition to enhancing agricultural productivity, although this has been a considerable challenge under the HABP.* The rural non-farm sector is estimated to account for

between 35-50 percent of household earnings in the developing world and an average of 34 percent of rural earnings across Africa (Haggbalde et al 2010). In Ethiopia, however, the rural non-farm sector comprises about 10 percent of household earnings.

- c. *The contributory social insurance schemes that cover public and private employees may in the short term continue with the current coverage of four types of contingencies: old age, invalidity, employment injury, survivors and health.* However, some general reform principles may be considered to facilitate modernization. For instance: changes to accrual rate, benefits indexation (at least to the consumer price index) to protect workers in retirement. Another priority would include the adaptation of social insurance provisions to cover the informal sector. This would involve encouragement of voluntary contributory schemes known in the insurance literature as micro-insurance to reach the informal operators.

Human resource development

225. There is significant dearth in the diversity, quality and quantity of human resource required for the provision of minimum package of social protection services. In recognition of the severe gap in human resources in all sectors, the GOE has defined and begun implementing an elaborate framework for an outcome-based and demand-driven system for workforce development and management for all sectors elaborated in the National TVET Strategy (2008). Based on the framework, the Ministry of Labor and Social Affairs and the Federal TVET agency have defined a Joint Action Plan to establish a comprehensive system to develop workforce for the social protection sector. Implementation is yet to start and will require the participation of key stakeholders.

Financing

226. Ethiopia spends a considerable amount of domestic resources on social protection. However, the effectiveness of government expenditure is poor in some respects, especially concerning subsidies. Demonstrated impacts have been identified in social safety net programs, which are almost entirely financed by international development partners. Going forward, it is expected that the government will gradually assume an increasing share of social protection expenditure. In order to realize this, Ethiopia needs to maintain/accelerate growth, identify areas for resource reallocation and consider reforms to make fiscal policy.

227. There are considerable opportunities for domestic resource reallocation via:

- a. *Subsidy reform.* As previously noted, none of the subsidies are pro-poor given the increased level of consumption by higher income groups, and the electricity subsidy in particular is highly regressive. There are considerable international lessons in how subsidies can be phased out, with compensatory mechanisms for the poor, for example, in Sudan, Senegal, Cameroon and Indonesia.
- b. *Continued humanitarian reform, and diversion of current donor financing.* As previously noted, a major evolution of PSNP has been diversion of recurrent emergency funding towards a more sustainable safety net. Ethiopia is also notable for contingency financing support, which ensured scalability of PSNP to drought and food-shortage. In 2015 alone, an estimated 2.9 million beneficiaries have been identified to require

emergency relief assistance, which is additional to the regular caseload of the PSNP for 2014/15. The cost of the emergency response is budgeted at USD\$386 million.

- c. *Domestic revenue mobilization potential.* Although poverty falls as a result of fiscal policy, one in four households are impoverished (either made poorer or made poor) after direct taxes are paid and transfers received, and nearly one in ten households are impoverished when all taxes paid and benefits received are taken into account. There are two areas by which this negative impact could be reduced: by reducing the incidence of direct tax on the bottom deciles and increasing the progressivity of direct taxes. Accordingly, the suggestion to consider the redistributive effects of fiscal policy needs to be complemented with a full analysis of whether specific taxes or expenditures are desirable⁹.

Expansion and fiscal sustainability of social protection—simulations for next five years

228. Given the context of high vulnerability and fiscal space described previously, sustainable flow of finance for a gradually expanding social protection sector becomes a challenge. The specific challenges related to fiscal sustainability differ among various categories of social protection programs. For example, based on trends in the size of membership, contribution, expenditures and reserve of the PSSS shows, the scheme is on a financially sustainable footing at least in the short to medium term (Table 3.5). General subsidies have been covered entirely by the government, costing an average of one percent of GDP, with poor targeting. Social safety nets have come almost entirely from development partners.

229. If Ethiopia is to realize its constitutional obligation to progressively provide social security coverage to Ethiopia’s poor and vulnerable citizens, it needs to assume an increasing share from total spending on safety nets. Table 3.9 looks at some projections on this front. If the current rate of economic growth is sustained, government will have increased revenue at its disposal from which it may progressively allocate more resources to safety nets. Table 3.9 estimates the amount of financing that could be sourced from the government using four scenarios in which it allocates 0.5, 1, 1.5 or 2 percent of GDP and diverts of subsidies to safety nets. The estimates are based on the optimistic assumption that the following trends extend into the next five years: the current rate of GDP growth, revenue as a percentage of GDP that government currently collects, the incidence of absolute poverty in 2011, and rate of population growth.

⁹ When one tax or expenditure is found to be more redistributive to the poor than another, the temptation is to conclude that the former is preferable. It should be noted that Ethiopia’s tax collection as a percentage of GDP has been declining over the years, which may dim the promise for domestic fiscal space for SP given competing priorities. Although tax collection has increased in absolute terms, tax collection as a presentation of the GDP has declined from an average of 10.5 per cent from 1996/97 to 2001/02 to 9.9 per cent in 2008/09 with fluctuating decline between about 12.7 per cent and 10.9 per cent during the years between 2001/02 and 2005/06. Moreover, Ethiopia tax performance is one of the lowest even by sub-Saharan standards. An estimated 77.5 per cent of the total recurrent domestic revenue is derived from taxation making it a major source of government’s domestic revenue (Getenet, 2010).

Table 3.9: Simulations of safety net financing in Ethiopia from 2015-2019

	Assumption	2015	2016	2017	2018	2019
a. Total population	Constant population growths of 2.5%	93,935,167	96,283,546	98,690,635	101,157,901	103,686,848
b. Total population in absolute poverty	Constant poverty incidence of 29.6%	27,804,809.4	28,499,929.6	29,212,427.9	29,942,738.6	30,691,307.0
c. Total population in absolute poverty covered by PSNP	Population covered by PSNP	6,889,910	7,000,000	8,000,000	9,000,000	10,000,000
d. Population in absolute poverty in need of SSN	Population not covered by PSNP (b-c)	20,914,899	21,499,930	21,212,428	20,942,739	20,691,307
e. Total PSNP expenditure		712,935,080	694,854,760	695,355,240	659,194,040	649,194,040
f. Annual PSNP benefit per head	e / c	103	99	87	73	65
g. Estimated additional allocation required to cover the remaining population in need of SSN	Total requirement for additional SSN (dxt)	2,164,174,201.61	2,134,189,777.58	1,843,771,609.13	1,533,925,382.77	1,343,267,320.48
h. Total subsidies	Based on past trends, general subsidies grow with an average of 1.37%	634,310,732	643,000,789	651,809,900	660,739,695	669,791,829
i. Net requirement to cover the population in need of SSN	g-h	1,529,863,469.93	1,491,188,988.88	1,191,961,709.62	873,185,687.64	673,475,491.52
GDP	constant 8.19% GDP growth rate	53,842,179,552	58,251,854,058	63,022,680,905	68,184,238,471	73,768,527,602
Total government revenue	Constant rate of collection at 10.9% of GDP	5,868,797,571	6,349,452,092	6,869,472,219	7,432,081,993	8,040,769,509
Estimate of proposed allocations to SP						
Scenario 1	0.5% of GDP	269,210,898	291,259,270	315,113,405	340,921,192	368,842,638
Scenario 2	1% of GDP	538,421,796	582,518,541	630,226,809	681,842,385	737,685,276
Scenario 3	1.5% of GDP	807,632,693	873,777,811	945,340,214	1,022,763,577	1,106,527,914
Scenario 4	2% of GDP	1,076,843,591	1,165,037,081	1,260,453,618	1,363,684,769	1,475,370,552
Shortfalls (requirement of international assistance)						
Scenario 1	0.5% of GDP	1,260,652,572	1,199,929,719	876,848,305	532,264,495	304,632,854
Scenario 2	1% of GDP	991,441,674	908,670,448	561,734,901	191,343,303	(64,209,784)
Scenario 3	1.5% of GDP	722,230,777	617,411,178	246,621,496	(149,577,889)	(433,052,423)
Scenario 4	2% of GDP	453,019,879	326,151,908	(68,491,908)	(490,499,082)	(801,895,061)

i. Total beneficiary numbers are not provided owing to the potential overlap of beneficiaries across different programs. While this is assumed to be low, it is not possible to calculate based on available data.

Source: Authors' compilation.

- 230. In a moderate scenario, a basic level of safety net financing of one percent of GDP, results in financing the entire safety net and leaves it with an extra US\$64 million by 2019.** Government financing would short fall below the required financing during 2015 to 2018, implying some reliance on international financing during the first four years, though decreasing from year to year.

3.7 Conclusions and recommendations

- 231. Social protection expenditure and coverage has increased in the recent years but has remained at about three percent of GDP.** In aggregate, spending on social protection has been growing at an average rate of seven percent between 2009 and 2010. As a percentage of GDP, expenditure on social protection has been increasing by an average of three percent during the same period with an exceptional rise to four percent in 2010. Overall spending in social protection is shared between social safety nets and general subsidies. The relative contribution of labor and social insurance is significantly low, partly because these are emerging interventions in Ethiopia's social protection landscape relative to social assistance, and partly because of inaccessibility of data on core labor interventions (such as the Micro and Small Enterprise Development Program) and social insurance programs (such as the POEP) which are implemented nationally.
- 232. The social protection landscape spans over 16 federal level programs, which have been considered in this review.** The review however excludes large informal interventions, undocumented NGO support and specific support at regional level. In terms of coverage, safety net interventions are directed at the most needy. PSNP and food relief account for the largest share of safety net program beneficiaries, when combined reaching almost 10 million program beneficiaries in 2013. Based on 2011 data, the PSNP alone can potentially cover 30 percent and 26 percent of the absolute and food poor population respectively. While PSNP coverage has generally remained constant, there have been decline in the share of beneficiaries of other safety net programs (except with a slight increase in 2013).
- 233. Social safety nets are financed almost exclusively by development partners, while the government has financed subsidies in increasing amounts since 2010, reaching US\$617,281,364 in expenditure by 2013.** General subsidies have been much less effective social protection instruments than targeted transfers. Indirect subsidies are present for electricity, kerosene and wheat, and although they are progressive for wheat and kerosene in relative terms they are highly regressive for electricity. Poorer households consume less electricity, kerosene and wheat than richer households and as a result none of these subsidies are pro-poor. It is important to note that such subsidies are not necessarily targeted to the most vulnerable groups. The richest 30 percent of the population received 65 percent of electricity subsidies and 52 percent of wheat subsidies while the poorest 30 percent—those living below the national poverty line—obtained only 10 percent of the subsidy for electricity and 13 percent of the subsidy for wheat (World Bank 2014). This is in direct contrast to targeted social protection programs that provide direct transfers to households such as the Productive Safety Net Program (PSNP). In the PSNP, the poorest 30 percent receive 59 percent of the program benefits while the richest 30 percent receive

only 13 percent of the program benefit. Although subsidies are better targeted among urban households, the level and targeting of subsidies still falls well below that of the PSNP, indicating that targeted social programs are much more effective in terms of both the impact and the cost to address the needs of the most vulnerable.

- 234. The core set of social protection programs under review have varying degrees of adequacy, equity and effectiveness.** Targeting and administrative efficiency varies among the programs. Geographical targeting has been limited, leaving pockets of vulnerable households in some *woredas*. However, the PSNP is clearly identified as the most efficient program in targeting and administrative efficiency. When longer-term food security objectives are taken into account, PSNP is almost certainly more cost-effective than relief. Though difficult to measure and quantify, benefits coming from greater predictability and timeliness of transfers (and the secure foundation these provide for household asset protection and accumulation) contribute to the PSNP's cost-effectiveness. PSNP's risk financing mechanism is critical in this regard, as it can help maintain and extend the program's cost-effectiveness in the face of shocks.
- 235. The social protection sector is evolving to meet these requirements, with a dynamic set of programs under implementation and planned.** Coverage gaps identified through the life cycle approach point to the need for greater assistance for child-age members of the population, as well as youth. A review of program coverage points to the need to support safety net expansion in urban areas.
- 236. Going forward, social protection needs and financing requirements remain high and continued expansion is predicted in the medium term.** Government already spends a large share of resources on social protection, but impacts in many areas are negligible. Even if support is calibrated to areas of highest impact (e.g. scale up of PSNP, reduction of subsidies), international assistance requirements will remain high into the medium to longer term. Accordingly, a more robust medium term financing strategy is critical for successful program implementation. The National Strategy and Policy provides an overarching framework to consolidate the sector. To achieve this, many complex political economy issues will need to be resolved. For example, what are the criteria and factors determining a narrow set of priority interventions going forward? What are the opportunities to promote program consolidation, as a means of promoting cost efficiencies? To what extent can national resources be reallocated to SP, say, subsidies or humanitarian reform?
- 237. There are considerable data constraints and shortfalls in this growing sector, which need to be addressed.** Data is sparse, and concentrated largely in SSN sub-sector—sometimes creating an imbalance in analysis on sector. Even within PSNP, there are data anomalies in the calculation especially of food transfers, where the full administrative costs of this modality are most likely underreported.

238. In this context the review concludes by setting out five recommendations going forward:

- Build on National Social Protection Policy as a robust framework to develop a SP system;
- Maintain the progressive evolution of safety net support on basis of ‘cash-first’ principle and ensuring incremental domestic financing;
- Focus on the consolidation of core programs and administrative structures, as an entry point for greater program efficiency;
- Finance social protection expansion through: (i) scaling back subsidy support, with compensatory mechanisms for safety net interventions: (ii) continual humanitarian reform; and, (iii) consideration of domestic revenue potential;
- Implement an improved data management system and program performance monitoring to address critical gaps in the sector, and to better understand program impacts, and effectiveness.
- For future public expenditure work, include regional analysis and other financing sources (eg. NGOS).

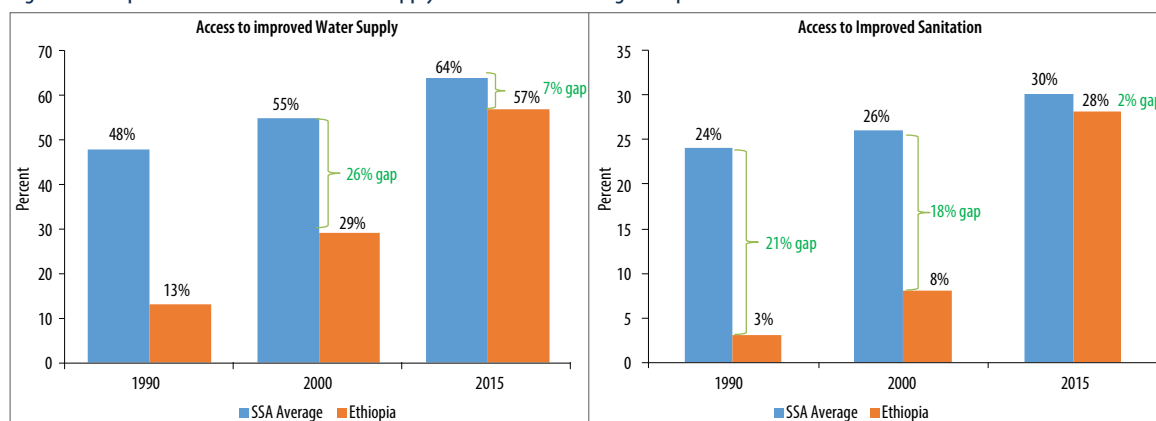
WATER AND SANITATION

4.1 Introduction

239. The WSS sector in Ethiopia started from a very low base far behind the SSA countries average.

According to the UNICEF/WHO Global Joint Monitoring Program for water and sanitation (JMP), in 1990 only 13 percent of Ethiopian people (81 percent urban and 3 percent rural) had access to improved water supply, while the average for SSA countries was 48 percent. Similarly, only three percent (19 percent urban and 0 percent rural) had access to improved sanitation, compared to 24 percent average for SSA countries. National prevalence of open defecation was 92 percent (40 percent urban and 100 percent rural) compared to 36 percent of the average for SSA countries (see Figure 4.1).

Figure 4.1: Improvement in access to water supply and sanitation during MDG period



Source: UNICEF/WHO Joint Monitoring Report 2015 Update.

240. However, over the past two decades, the government has made profound changes in putting in place the right policies, strategies and institutional structures that significantly increased access to improved WSS services. (See Annex 4 for the list of major changes in the sector). As a program response, WSS was among the priority sectors classified as ‘pro-poor’ in all the economic and social development plans (SDPRP, PASDEP and GTP)¹ developed and implemented since 2002.

¹ Sustainable Development and Poverty Reduction Program (SDPRP) is a three year medium-term program (2002/03-2004/05). A Plan for Accelerated and Sustained Development to End Poverty (PASDEP) is a five year plan (2005/06-2009/10), while Growth and Transformation Plan (GTP) is the third development plan (2010/11-2014/15): All the three plans serve as vehicles to achieving the targets of MDGs (1990-2015) and beyond.

- 241. Since 1990 access to improved WSS services has improved remarkably enabling Ethiopia to join 147 countries in the world that have already achieved the MDG target for drinking water supply.** Ethiopia's remarkable achievements are vividly illustrated on Figure 4.1, which shows the tremendous progress made in closing the gap in service coverage compared to the SSA countries average. In 2015 service coverage in Ethiopia is seven percent behind the SSA countries average in terms of drinking water supply and two percent in terms of improved sanitation. This means that about 48 million Ethiopians have gained access to safe drinking water between 1990 and 2015. The 2015 assessment report by JMP indicates that Ethiopia has met the target of 57 percent of the population using safe drinking water and attained the target by halving the number of people without access to safe water since 1990². Like many other SSA countries, Ethiopia is off track in terms of halving the people without access to improved sanitation in 1990. The MDG target for sanitation was to reach 52 percent, however only 28 percent of the people have access to improved sanitation in 2015.
- 242. Despite the remarkable progress made, access to safe drinking water and improved sanitation in Ethiopia is still low and behind the SSA countries average.** About 42 million Ethiopians (33 million rural and peri-urban and 9 million urban) still lack access to safe drinking water, while 65 million people (54 million rural and peri urban and 11 million urban) do not have access to improved sanitation.
- 243. Ethiopia has not only improved service coverage, but also the equity in access.** Ethiopia is among 62 countries that are categorized by JMP as increasing coverage while improving equality in access to drinking water supply. In terms of sanitation, the JMP recognizes that Ethiopia has made exceptional progress against the open defecation equity tree which suggests that there is a strong correlation between where people live and their level of access to improved drinking water sources and sanitation³. According to the National WaSH Inventory⁴ conducted in 2011, access to improved water supply ranges from 37 percent in Afar to 84 percent in Harari. Afar, SNNPR, Oromiya and Amhara are reported to have coverage below the national average (54.3 percent). There is also a large variation across regions in terms of latrine coverage ranging between nine percent in Afar and 94 percent in SNNPR (MoH annual report 2012/13). Oromiya, Diredawa, Harari, Benishangul, Gambella, Afar and Somali are regions having coverage below the national average (60 percent).
- 244. Service delivery has improved in cities, but urbanization is putting stress on the already inadequate water and sanitation systems in urban areas.** Given strong urban population growth and increased water usage of a growing urban economy, the growth is insufficient. Although water supply systems in the larger cities have recently been improved, they need to be expanded to meet the demands of population growth and the enhanced industrialization. While almost universal coverage is reported in some cities for water supply coverage, the actual service provision in terms of minimum standard (20 liters per capita per day at a

2 The JMP estimates for Ethiopia were updated following a joint mission to Addis Ababa from 26-27 November 2014 and include data from the most recent nationally representative surveys.

3 A sanitation coverage trend analysis in 11 regions in Ethiopia showed that the national prevalence of open defecation declined from 82% in 2000 to 34% in 2012. Having made nationwide efforts to move people up the sanitation ladder, encouraging communities to stop open defecation and construct sanitation facilities, three subsequent household surveys show a remarkably steep decline in open defecation and steady progress in sanitation coverage across all 11 provinces of Ethiopia, despite wide variations in wealth, ethnicity and other socioeconomic characteristics (JMP report 2014).

4 The National WaSH Inventory (NWI) was prepared as part of a major initiative by the GOE and key sector stakeholders to establish a nationwide data base as a monitoring tool for water supply, sanitation, and hygiene. Released in 2013 the findings of the NWI has significantly reduced the level of access reported (for water supply from 68.5 % to 54%) through administrative reports.

distance of 500 meters) is unrealized. WSS in urban communities is characterized by low service levels, lack of sustainability and high non-revenue water (NRW)—as high as 40 percent in some cities, including Addis Ababa. Despite this, urban water supply interventions are biased towards new projects and expansion of existing systems, with little attention in allocating resource for improving operational efficiency (reducing non-revenue water, and improving financial management, billing and accounting).

- 245. Environmental problems are rising due to low level of urban sanitation services.** Most towns do not have adequate means of septic removal (vacuum trucks) and many do not have designated areas for waste disposal or do not adequately enforce regulations. This situation contributes to environmental degradation of the cities and, in some cases, to contamination of the water supply. Future interventions have to consider urban sanitation as a priority. Training and deployment of the urban health extension package is just starting and needs to be speeded up to expand coverage.
- 246. The impressive achievements fall short of GoE's ambitious five-year Universal Access Plan (2011-2015) for reaching the GTP's sector targets—98 percent of the population with improved access to safe water and 84 percent coverage for improved hygiene and sanitation by 2015.** According to the One WaSH National Program meeting these targets is estimated to cost US\$2.4 billion. Though the actual resource mobilized and spent in the sector since OWP was issued (August 2013) is yet to be known, the OWP estimates on the funding potential indicate that available resources will only finance 68 percent of the cost (37 percent from government, 23 percent from donors and 8 percent from communities and NGOs). This leaves a US\$776 million (or 32 percent) funding gap (FDRE: One WaSH National Program: A multi-sectoral SWAP, August 2013).
- 247. In the context of Ethiopia's limited fiscal space, interventions focusing on reducing inefficiencies in the sector and mobilizing more external resource are expected to play significant role to narrow funding gap in the sector.** The AICD Ethiopia country report estimates in efficiencies in the water sector to be 0.26 percent of GDP. The study identified four distinct opportunities for efficiency gains: improving budget execution rates; reallocating existing spending toward subsectors in greatest need; raising user charges closer to cost recovery levels by targeting those who can afford; and, increasing the operating efficiency of utilities and other service providers (Briceno, Garmenda, Smith and Foster 2008). This PER examines public expenditure on WSS and highlights potential areas for further examination.
- 248. The review does not include revenue/contributions collected from beneficiaries in the form of tariff, service charge and counterpart fund (material/cash/labor) as well as off-budget spending in the sector from non-governmental organizations and donors.** These data limitations should be borne in mind when interpreting the results of the analysis⁵.

⁵ This analysis mainly uses the overall government budget and expenditure data set obtained from MoFED and analyzed through the World Bank's Boost Data Tool. In this data source budget data for drinking water supply and sanitation is classified under water resources that fall under the responsibility of the Ministry of Water, Irrigation and Energy (MoWIE) and its respective bureaus and *woredas*. Similarly for Hygiene and Sanitation (H&S) budgets that are proclaimed under the Ministries of Health and Education. Project/programs containing water supply, sanitation and hygiene in their title were pooled together from each WASH ministries to establish the data base for the analysis. This may understate the budget and expenditure particularly for H&S as the data set excludes projects with H&S sub components that do not have references to H&S in their project/program title. In addition, while a substantial part of the Health Extension Program deals with H&S it is not included in the data set. As disaggregating the recurrent expenditure among water resource, irrigation, and water supply and sanitation is difficult the recurrent expenditure under water resource is considered in its totality.

4.2 Institutional Environment

- 249. Ethiopia is among few countries that officially acknowledge the right of citizens' access to clean water supply and sanitation⁶.** Article 90 of the 1994 Constitution of the Federal Democratic Republic of Ethiopia states that: “to the extent the country’s resources permit, policies shall aim to provide all Ethiopians access to public health and education, clean water, housing, food and social security”. Inclusion of the right to basic service in the constitution signifies a political commitment to the reality that everyone not only has a need for the service, but is also entitled to it as far as country resource permit. To realize this constitutional provision the government has put in place various policies, strategies, sector development programs and institutional arrangements (see Annex 3).
- 250. The responsibility for development and provision of WSS services is shared among the federal WaSH ministries (water, health, education and finance) and their respective regional bureaus, zonal and woreda/town offices.** While the Ministry of Water, Irrigation and Energy is mainly responsible for WSS at federal level, the ministries responsible for health and education, as well as the Environmental Protection Authority, are also assigned with some mandates related with hygiene and sanitation. Recently, MoFED was mandated to document the fund flow and for financial reporting. Annex 4 provides more details on the institutional settings on the different government levels.
- 251. In recognition of the multi-sectoral nature of WaSH, an MoU was signed in 2006 bringing all concerned ministries and agencies together.** The MoU covers MoWIE, MoH and MoE to facilitate their cooperation in joint planning, implementation, and monitoring of water supply, sanitation and hygiene education (WaSH) in communities, schools and health institutions. The MoU sets out broad institutional responsibilities for ministries, bureaus, *woredas* and towns to work on their sector mandate and more importantly coordinate across their sectors.
- 252. The MoU has also stated the coordination structure to be established at federal, regional and woreda levels.** Accordingly, a National WaSH Steering Committee, National WaSH Technical Team, National WaSH Coordination Office were established. Similar structures are also established at the regional level. However, it was not easy to bring together the three sectors to jointly plan, implement and monitor WaSH program activities as envisaged in the MoU. While the coordination structures are established at all levels, they are not effectively functional, particularly at federal and regional levels. In most cases members of the national/regional steering committees do not meet on regularly.
- 253. After a review of the performance and implementation challenges of coordination in the sector through the government, the MOU was revised in 2012.** The revised MoU—among other revisions—provides that MoFED is a signatory with responsibilities of fund management and financial reporting. However, the WaSH sector ministries and bureaus are yet to prove their commitment for action beyond signing the MoU. There is no enforcing mechanism to ensure adherence to the principles of the MOU and delivery of shared and specific institutional responsibilities among parties to the MOU.

⁶ For list of countries that refer to the right to water and sanitation in their constitutions refer to: <http://www.righttowater.info/why-the-right-to-water-and-sanitation/the-rights-to-water-and-sanitation-at-the-national-level/>

254. Overall, the institutional environment is constrained by capacity limitations particularly at the local levels. For example, according to the 2012/13 annual report of the Amhara region water and energy bureau, at *woreda* level the number of posts approved was 2,580 (20 posts per *woreda*) but the filled and placed posts were only 774, which is just about 30 percent of the approved posts. The structure permits two engineers and one geologist for every *woreda*; however, none of these posts were filled. At zone level, 300 (30 each) posts were approved and 206 (or 69 percent) were filled. Even at zone level engineer and geologist posts were still open.

4.3 Financing Policy

255. The water sector policy and strategy recognizes that allocation of resources should consider both economic and social benefits. The policy and strategy envision a move towards full cost-recovery for urban water supply, and partial capital cost-sharing and full O&M cost-recovery for rural water supply schemes. The policy states that rural tariff should be based on the objective of recovering O&M costs while urban tariff structures are based on full cost recovery. However, the success in implementing full cost recovery policy for town water supply is limited. Tariffs established in most water utilities do not cover beyond O&M, and investments for rehabilitation and expansion of the system are mainly financed by government or donors.

256. The government established a Water Resource Development Fund (WRDF) under MoWIE in 2002 to serve as an instrument for implementing the cost recovery policy for investment on urban WSS (Proclamation No 268/2002). The WRDF is mandated to create and manage a revolving fund through collection of loan repayments and new source of money from government and donors. Since inception, WRDF has received more than 144 applications for loans from town utilities all over the country and extended loans to 34 towns (24 percent of the request) with a value of ETB1.7 billion. Utilities who have completed their grace period have started repaying their loans. Although over 100 towns are in the waiting list to take up loans, WRDF has not yet started disbursing the repayments. In addition, WRDF is yet to introduce new short term lending products to ease temporary financial shortfalls, preparation of various studies and designs, etc. WRDF should develop clear criteria to determine towns eligible for grant, loan or both.

257. To protect the poor and ensure affordability of the service the policy introduces special flat tariff rates for communal services. These include hand pumps and public stand posts as well as providing support to cover “connection fee” in areas where it turns out to be beyond the reach of local communities. However, effective utilization of these policy provisions is constrained by limited capacity of utilities and absence of detailed guidelines for operationalization. Despite a small budget earmarked for Low Income Areas (LIA) as a component to large urban water supply projects and NGOs involved in construction of latrine facilities in poor slum areas, most utilities and local administrations do not allocate resources in their annual budget specifically for ensuring access to poor and vulnerable groups.

258. The government provides no subsidies or grants for household sanitation facilities. Households are expected to fund and construct their own latrine with hand washing facilities and adopt good hygienic practices. The government supports hygiene promotion and capacity building for behavioral change to encourage households to build and use sanitation facilities. The support through public funds also includes construction of institutional sanitation facilities for schools and health facilities.

Resource allocation and flow of funds to the WSS Sector

259. The WSS sector receives public resources allocation from all administrative levels: federal, regional and local governments. Allocations include: federal government to federal WaSH ministries; federal government to regions in the form of a special purpose grant that is specifically earmarked for WSS activities; regional governments out of the block grant they receive and from their own revenue; *woreda*/town/municipal administrations from the block grant they receive from their respective regional governments and their own revenue; and, bilateral and multi-lateral donors in the form of grant and loan (see Annex 4 for flow of resource to the sector).

260. The budget allocations at regional levels follow regional priorities, which usually are aligned with national plans developed by the federal government. Regions allocate budgets to *woredas* and zones based on the basic principles of the federal block grant formula. Under the basic principles, regional formulas may vary: while some regions use the federal block grant formula, others use federal block grant formula with additional parameters to address regional contexts (SNNPR and Afar), while others use unit cost for service delivery as a basis for the allocation (Amhara).

261. Block grants received by *woredas* are allocated among sectors based on the priorities of the *woreda* consistent with national and regional priorities. *Woreda* councils determine the volumes of resources a sector office should get for each fiscal year. *Woredas* usually receive a large portion of their budget through block grants. However, most of the grant is absorbed by recurrent costs and the resource left for the *woredas* to allocate for their local priority is usually insignificant. The major problem here is that in most cases the amounts of budget allocations *woredas* get from regions are so small that they barely cover salary expenses.

262. The nature and complexity of investment in WSS could affect resource allocation in the sector. Allocation of the limited public resource among key sectors, mainly depend on the magnitude of the problem, cost of achieving the targets in each sector and federal, regional and local government priorities. Preference among sectors in prioritization could be affected by various factors. In this regard, WSS may not get the attention it deserves for the following reasons: WSS is less considered as productive investment that stimulates economic growth compared to roads, power, education and health sectors; interventions in the water supply are dependent on availability of water source, which is sometimes complex, costly and beyond the capacity of local governments; and, investment in hygiene and sanitation is mainly on software and on behavioral change which are not tangible compared to investment on real physical assets. Evidence-based efforts have to be made by major stakeholders to promote the WSS sector.

263. The resource flow to the WSS sector uses multiple channels (see Annex 4).

Channel 1 is ‘on-budget’—reflected on budget from Treasury—and is managed by MoFED, Regional Bureaus of Finance and Economic Development (BoFEDs) and *woreda* finance offices. Allocations to regions by the federal government are based on a formula approved by the House of Federation. The government and some donors—such as the World Bank, African Development Bank, DFID, and UNICEF—have agreed to finance sector investments through Channel 1b. Channel 1b does not provide flexibility for the government to use funds in any other way than the earmarked sector.

Channel 2 funds are made available to the WaSH ministries, then allocated to their respective Bureaus and finally channeled down to *woreda* offices. These funds are ‘on-budget’ but not reflected on the budget from Treasury. Decisions on which regions and *woredas* benefit from these funds are usually made at federal level and the criteria used may not match regional priorities. Some of the challenges faced by regions include the problem of raising matching funds for implementation, lengthy processes and complex procurement procedures, as well as lack of implementation capacity. Donors may apply different criteria to select *woredas* for investment. But *woredas* are rarely involved in program design and implementation.

Channel 3 funds are generally transferred directly to service providers and are often entirely ‘off-budget’ as they are not captured in the national and regional budgets. These funds come from non-governmental organizations (international or national) and some donors. Off-budget funding contributes to a substantial amount of total expenditure in the sector.

4.4 Public Expenditure Review Findings

Funding the WSS Sector

264. Providing access to improved water supply and sanitation services are among the most important government priorities classified as pro-poor – but largely underfunded. As shown on Table 4.1, the public budget allocated for WSS sector (at 2007/08 constant price) increased at an average annual rate of 28 percent between 2008/09 and 2011/12. The total budget (recurrent and capital) allocated amounts to ETB13.6 billion of which ETB11.2 billion was spent. However, this figure is far below the amount of resource estimated to achieve UAP by 2012 (ETB16.7 billion for drinking water and ETB10.7 billion for sanitation).

265. WSS sector is predominantly financed from the national Treasury, which on the average accounts for about 76 percent of the total budget allocated for WSS. As shown on Table 4.2, from the average budget allocated during the study period, external assistance and loan account only for 24 percent (11.5 percent assistance and 12.5 percent loan)⁷. The resource mobilized from external source during the study period is low compared to GoE’s expectations⁸. According to the One WaSH National Program (OWNP) cost estimate and resource mapping out of US\$2.41 billion required to implement the OOWNP only US\$1.61 billion (62 percent of total cost) is available, of which US\$564 million is expected to be mobilized from external loan and assistance in two years.

⁷ The major development partners involved in financing WSS include IDA, DFID, AfDB, UNICEF, EU, Finland, Italy, Japan and France.

⁸ During the MDGs Needs Assessment, the financing requirements remaining after the maximum possible contribution of resources by private actors, communities, and government through domestic resources were estimated to imply very roughly the need for foreign financing equivalent to about US\$65 per capita per year over the 10 year period 2005/06-2014/15. While actual external financing including emergency Aid and technical assistance has risen to about US\$43 per capita (WB CPS, 2011) from the earlier level of US\$13 per capita, it is still far below the level needed to reach the MDGs. (Ethiopia progress towards achieving MDGs, MoFED September, 2008)

Table 4.1: WSS Budget (capital + recurrent) by administrative levels at 2007/08 constant price

Fiscal Year	Budget Composition	Budget in Million ETB				Total Budget in Million US \$	Relative Share of Capital in %				Annual Growth Rate in %		
		Federal	Regional and Zonal office	Woreda/Towns	National		Federal	Regional	Woreda/Towns	National	Capital	Recurrent	Total
2008/09	Capital	210.95	465.20	407.63	1083.77	104.00	86.0%	79.0%	83.0%				
	Recurrent	34.25	74.88	106.67	215.80	20.71							
	Total	245.25	540.08	514.29	1299.57	124.71							
2009/10	Capital	282.95	924.04	484.19	1691.17	131.34	89.0%	64.0%	81.0%	56.0%			
	Recurrent	35.10	79.00	276.56	390.65	30.34					81.0%		
	Total	318.04	1003.04	760.74	2081.83	161.68						60.2%	
2010/11	Capital	390.74	583.48	606.79	1581.04	92.20	91.0%	67.0%	79.0%	-6.5%			
	Recurrent	37.16	85.89	297.58	420.63	24.53					7.7%		
	Total	427.93	669.37	904.37	2001.67	116.73						-3.9%	
2011/12	Capital	499.94	1089.36	490.60	2079.90	114.09	88.0%	63.0%	82.0%	31.6%			
	Recurrent	66.02	90.98	291.76	448.77	24.62					6.7%		
	Total	565.96	1180.34	782.36	2528.67	138.71						26.3%	
Average 2008/09-2011/12	Capital	346.15	765.52	497.30	1608.97	110.41	89.0%	79.0%	81.0%	27.0%			
	Recurrent	43.13	82.69	243.14	368.96	25.05					31.8%		
	Total	389.28	848.21	740.44	1977.93	135.46						27.6%	

Source: World Bank staff calculations, based on MoFED data in Boost format.

Table 4.2: Source of budget by components at 2007/08 constant price average (2008/09-2011/12)

Description	Amount in Million ETB				Relative Share in %		
	Treasury	Assistance	Loan	Total	Treasury	Assistance	Loan
Capital Budget							
H&S	43.66	12.48	3.44	59.57	73	21	6
O/W Institutional WaSH	14.13	0.2	0.1	14.42	98	1	1
Rural WS	456.79	88.59	25.94	571.32	80	16	5
Urban WS	384.22	36.22	22.07	442.52	87	8	5
Not Classified	282.68	57.89	195	535.57	53	11	36
Total Capital Budget	1167.35	195.18	246.45	1608.97	73	12	15
Recurrent Budget	336.02	32.9	0.04	368.96	91	9	0
Total (Recurrent + capital)	1503.36	228.08	246.49	1977.93	76	12	12

Source: World Bank staff calculations, based on MoFED data in BOOST format.

266. Off-budget' expenditure—Channel 3—are important contributions, but overall marginal.

The growth in access to WSS is largely attributed to the collective effort of all development actors involved in the sector. The role of CSO/NGOs is significant but not properly documented. There are about 100 national and international NGOs that are involved in financing the sector through Channel 3, however, their interventions are not properly planned, harmonized and reported. According to the Water and Sanitation Forum (WSF)⁹ report, NGOs spent a total ETB593.2 million and constructed 5,677 rural water supply schemes, 209,933 latrines and provided capacity building and trainings between 2009/10 and 2011/12.

Budget Composition

267. The WSS sector is a very pronounced case of the overall pattern observed in Ethiopia with low recurrent funding and high investment funding. During the study period (2008/09 to 2011/12) only 55 percent of the total government budget is allocated to capital budget, while in the WSS sector this proportion is significantly higher (81 percent). Looking at administrative levels, the proportion of capital budget for the WSS sector is relatively lower (80 percent) at local than at the federal levels, where it is 89 percent.

268. The bias towards capital budget is partly explained by the government's policy on cost recovery, which leaves the responsibility of O&M to the users. In addition, the government with the little resource it generates is largely preoccupied in the task of narrowing down the infrastructure gap. In most cases, the revenue collected from beneficiaries in the form of tariff and service charge is inadequate to cover the required cost to ensure sustainable service delivery.

269. Shortage of recurrent budget coupled with unattractive benefit packages more severely affects capacity at the local level. Most *woredas* lack sufficient human resources and operational budgets to effectively perform their basic role. For example, according to the 2012/13 annual report of the Amhara Region Water and Energy Bureau, some 2,580 *woreda-*

⁹ The Water and Sanitation Forum (WSF) was established in 2008 by CRDA to produce a consolidated annual NGO performance report since 2009/10. Though there are many NGOs/CSOs working in the sector across all regions, the WSF forum report includes only 41 NGOs who reported their activities.

level were approved (20 posts per *woreda*) but only 774 posts were filled and placed—about 30 percent of the approved posts. The structure permits two engineers and one geologist for every *woreda*; however, none of these posts were filled during the reporting period. At zone level, 300 (30 each) posts were approved and 206 (or 69 percent) were filled. Even at zone level engineer and geologist posts were still open.

270. Inadequacy of recurrent budget is seriously constraining the quality and adequacy of supervision and support to the water sector. As shown on Table 4.3 the amount of recurrent budget allocated at *woreda* level during the study period increased from ETB141.5 million to ETB622.5 million. However, when divided among the large number of *woredas* in the country, the average monthly budget for wages and salaries (ETB24,306) is too small to recruit and maintain the approved calibre of expertise. Furthermore, the operational budget left after paying out salaries is too small to fund field visits. The ETB5,287 average monthly recurrent budget for per diem, and fuel and maintenance is insufficient even for a team of two *woreda* experts to make weekly visits for supervision and provide support.

271. Community ownership and management is a key activity affected by shortage of recurrent budget. Ensuring ownership is not a one-time activity rather, requires continuous follow up, refresher training, and closer monitoring. These are activities that require recurrent operational costs. Furthermore, effective utilization of capital budget in WSS requires ample lead time and qualified professionals for the preparation and processing of fundable projects. Activities including study and design, contract packaging and preparation of bidding

Table 4.3: Recurrent budget allocated at *woreda* level by budget category

	Woreda/Town	2008/09	2009/10	2010/11	2011/12	Average / 2008/09 - 2011/12
	Amount					
	Wage,Salaries & Other Benefits	105,397,252	201,218,097	263,284,428	363,462,506	233,340,571
	Goods and Services	28,064,957	121,406,470	163,509,151	217,065,015	132,511,398
	Perdiem	12,234,356	15,342,805	19,504,101	24,760,655	17,960,479
1	Fuel and maintainance	7,047,333	27,290,515	40,653,846	56,190,967	32,795,665
	Others Goods and Services	8,783,268	78,773,149	103,351,205	136,113,394	81,755,254
	Fixed Assets and Construction	6,089,352	47,498,397	20,952,293	36,427,584	27,741,907
	Subsidies,Grants and Payments	1,949,255	1,893,909	3,789,735	5,566,933	3,299,958
	Total Recurrent budget for Woreda level	141,500,816	372,016,872	451,535,607	622,522,038	396,893,833
	Relative share					
2	Wage,Salaries & Other Benefits	74%	54%	58%	58%	59%
	Others	26%	46%	42%	42%	41%
	Average per Woreda					
3	Number of Woredas	800.00	800.00	800.00	800.00	800.00
	Wage,Salaries & Other Benefits	10,978.88	20,960.22	27,425.46	37,860.68	24,306.31
	Recurrent Budget per Woreda/month	14,739.67	38,751.76	47,034.96	64,846.05	41,343.11

Source: World Bank staff calculations, based on MoFED data in BOOST format.

documents, review and evaluation of bids are usually conducted by permanent staffs and covered under recurrent budget, which is currently inadequate compared to the growing size and complexity of projects.

Budget execution

272. Budget execution in WSS as a whole is relatively high, but in sub-categories such as hygiene and sanitation, and rural water supply, execution rates are below the total average of 80 percent. As shown in Table 4.4, out of ETB11.1 billion aggregate budget allocated between 2008/09 to 2011/12, ETB8.9 billion (80 percent of the budget) was utilized, while the budget utilization rate was only 60 percent for the hygiene and sanitation. Similarly, the budget utilization rate for rural water supply is also low at 61 percent. When the budget utilization rate is further examined by administrative levels, over 38 percent of budget at the *woreda* levels and 35 percent at regional levels are not utilized. This is in stark contrast to federal level utilization, which exceeded its plan by 39 percent.

Table 4.4: Capital budget utilization by major components

	Description	Budget	Expenditure	Utilization Rate
A	Components			
	H&S	417.7	237.8	57%
	O/W Institutional WaSH	103.4	72.1	70%
	Rural WS	3,840.2	2,344.2	61%
	Urban WS	3,003.2	2,642.2	88%
	Not Classified	3,825.5	3,671.6	96%
	Total	11,086.6	8,896.4	80%
B	Administrative level			
	Federal	2,441.8	3,401.2	139%
	Regional/Zonal office	5,315.6	3,440.3	65%
	Woreda/Towns	3,329.3	2,054.9	62%
	Total	11,086.6	8,896.4	80%

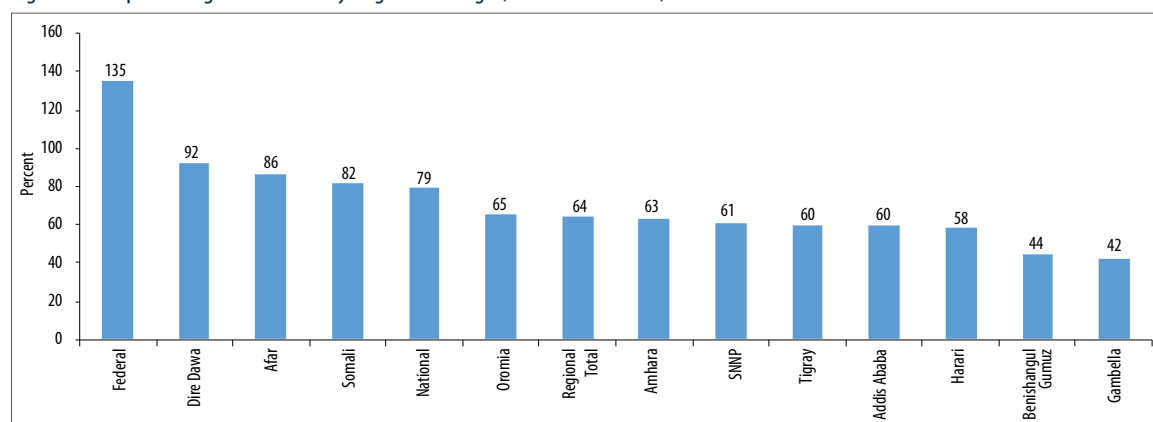
Source: World Bank staff calculations, based on MoFED data in BOOST format.

273. Budget execution for WSS is better in recurrent expenditure. In terms of cumulative budget for WSS, Ethiopia allocated ETB16.2 billion during 2008/09-2011/12 of which ETB13.6 billion (84 percent of total budget, or 92 percent recurrent budget and 80 percent capital budget) was executed. The better utilization rate for recurrent budget is due to the nature of recurrent expenditure, which does not require much approval processes as it is largely established personnel expenses.

274. Budget execution in capital spending on the federal level is above target while on the regional level it is below plans with significant variations across regions. As shown in Figure 4.2 the utilization rate across regions has significant differences. Gambella and Beneshaugul Gumuz regions used only 42 and 44 percent of their capital budget respectively, while Diredawa and Afar have used over 85 percent of their capital budget. The low level of utilization in

Gambella and Benishangul Gumuz is consistent with low utilization rate in their total capital budget for all sectors, which is 57 percent in Gambella and 65 percent in Benishangul. The low utilization rate is likely related to weak implementation and absorptive capacity¹⁰. On the other hand, Afar and Somali regions stand out as having high execution rates yet also low capacity. In both regions the capital budget utilization rate for WSS was high—86 percent for Afar and 82 percent for Somali—despite their low implementation capacity reflected by low overall capital budget execution in the respective regions (71 percent for Afar and 54 percent for Somali). Afar and Somali are among those regions with higher proportion of WSS expenditure compared to their total public expenditure, possibly because the high utilization rate is linked to high prioritization of the sector. However, variations in budget utilization rate among regions need to be further examined for appropriate interventions to improve utilization rate. Regardless, low budget utilization rates observed in some regions indicate that there is significant potential for resource gain to the sector through improving implementation capacity.

Figure 4.2: Capital budget utilization by Regions' average (2008/09-2011/12)



Source: World Bank staff calculations, based on MoFED data in BOOST.

275. Implementation capacity at public and private sector is a critical factor affecting budget utilization. The Implementation Completion Report of the WSSP¹¹ identified capacity limitation, both public and private, as the critical factor affecting implementation progress and subsequent budget utilization. Specifically: limited capacity of consultants, suppliers, and drillers, resulting in failure to commence and complete contracted activities within agreed schedules; poor quality of study, design and tender documents which leads to re-design, re-tendering and high variations in price, and created complex contract management issues; limited contract administration capacity that constrains the PMU's ability to follow up on contractual matters and take appropriate and timely actions, resulting in cost and time overruns and sometimes compromising the quality of works; high staff turnover that undermines capacity building efforts and affects implementation progress; and, in most towns, water boards and utilities are not strong enough to assist and follow up project implementation and to properly manage their new systems.

¹⁰ Note: Findings from regional field visits show that despite the fact that relatively more resources been allocated to the water supply development activities in Amhara and SNNPR regions, the resource utilization is found to be lower than the information obtained from the official data reported by MoFED and obtained through the BOOST tool. It is unclear where this difference between perceived and reported execution comes from.

¹¹ The Water Supply and Sanitation Project (WSSP) is a large project jointly financed by DFID (GBP 66million & IDA US\$ 180 million) implemented all over the country in 224 *woredas* and 124 small and medium towns between 2004 to 2013

- 276. Participation of the private sector in Ethiopia is underdeveloped and its involvement is limited to small works, goods and service contracts.** In particular, the number and capacity of private drilling companies is inadequate to meet the growing demand for drilling and groundwater development in the country. As a result it is a common phenomenon to repeatedly re-bid floated drilling contracts and receive exaggerated prices due to lack of adequate competitive bidders. Time overruns in implementation is also common as drillers engage in several drilling contracts beyond their implementation capacity. Regional state-owned water design and construction enterprises are used as gap fillers who bid for contracts for drilling and construction of water supplies like private enterprises. Private sector participation, although controversial in implementation, has been a useful tool for improving operational performance and efficiency particularly in francophone African countries. The GoE has to examine the experience in francophone African countries to explore the potential for applicability of expanding the role of private sector in Ethiopia.
- 277. Urban piped water supply systems often operate well below capacity and with high non-revenue water (NRW) due to inadequate and timely maintenance.** As a result, rationing and service interruptions are frequent. Though accurate information on NRW is not available it is estimated to vary among cities ranging from 20 to 35 percent (UWSSP PAD, May 2012). In Addis Ababa alone, about 150,000 m³ of improved water is lost due to NRW. When a utility's product (treated water) is lost, water collection, treatment and distribution costs increase, water sales decrease, and substantial capital expenditure programs are often promoted to meet the ever-increasing demand. Experience has shown that establishment of appropriate incentive mechanism through performance contract agreement between water utilities and water boards or between water utilities and private operators are effective in reducing NRW. In this regard, MoWIE and the World Bank have to speed up and ensure realization of the ongoing IBINET exercise to collect data from water utilities and develop performance indicators to be used as a benchmark for performance agreement. Also, the potential for implementing the good experience in Senegal, Brazil and other developing countries in outsourcing NRW reduction program to a private firm through a performance contract agreement has to be explored.

Expenditure trend

- 278. There is an increasing trend observable of total actual expenditure in the WSS sector both in nominal and real terms between 2008/09 and 2011/12.** In nominal terms, actual expenditure (recurrent and capital) in the sector more than doubled (259 percent), increasing from ETB1.37 billion in 2008/09 to ETB4.93 billion in 2011/12. During this period, expenditure in the sector was growing at annual average rate of 55 percent. However, when inflation is factored in and the expenditure figures are adjusted to 2007/08 constant price, the average annual growth rate declines to 32 percent. The introduction of an MDG fund¹² amounting to about ETB12 billion in the overall 2011/12 government budget could explain the sharp increase (79 percent) in total expenditure compared to the previous year (see Table 4.5).

12 For example in SNNP ETB 306.2 million (59 percent of total for the sector) and ETB 412.5 million (62 percent of total for the sector) has been spent from MDG fund in 2011/12 and 2012/13 respectively. In Amhara, though not disaggregated by sector, the region has received ETB 3.5 billion (26 percent of total budget) and 4.6 billion (27 percent of total regional budget) from the MDG fund in FY 2011/12 and 2012/13 respectively. The effect of the introduction MDG fund is also reflected in the subsequent sections.

Table 4.5: Total WSS Expenditure (capital + recurrent) by administrative levels (2008/09-2011/12)

	Descriptions	2008/09	2009/10	2010/11	2011/12	Average 2008/09- 2011/12
A	At market price					
	Federal	385.74	440.38	899.91	1,934.80	915.21
	Region/Zone office	559.88	994.54	833.23	1,545.36	983.25
	Woreda/Town	426.54	734.20	1,028.50	1,451.87	910.28
	National	1,372.17	2,169.11	2,761.63	4,932.03	2,808.73
	Total Expenditure in million US \$	131.68	168.46	161.04	270.54	182.93
	Annual Growth rate		58%	27%	79%	55%
	Relative Share					
	Federal	28%	20%	33%	39%	30%
	Region/Zone office	41%	46%	30%	31%	37%
Woreda/Town	31%	34%	37%	29%	33%	
B	At 2007/08 constant price					
	Federal	282.80	314.09	543.41	871.24	502.89
	Regional/Zon office	410.47	709.32	503.15	695.87	579.70
	Woreda/Town	312.71	523.64	621.06	653.78	527.80
	National	1,005.99	1,547.05	1,667.62	2,220.89	1,610.39
	Annual Growth rate		54%	8%	33%	32%

Source: World Bank staff calculations, based on MoFED data in BOOST format.

Expenditure on WSS as share of total expenditure

279. The share of total expenditure on WSS sector from the overall government expenditure is steadily increasing but not sufficient. As shown on Table 4.6, though the share of total expenditure on WSS sector from the overall government expenditure is steadily increasing over time, it remains very low compared to other priority sectors. The four-year average between 2008/09 to 2011/12 shows that WSS accounts for only 2.9 percent of total government spending and 4.1 percent of pro-poor sectors' expenditure, while construction, education, agriculture and rural development, and health sectors accounted for 22, 21, 14, and 8 percent of total government expenditure, respectively.

280. The WSS sector started from a very low base and despite remarkable improvement over the last two decades a significant proportion of the people are still deprived of these basic services. This demands channeling of more resource to the sector complemented by interventions to improve implementation capacity and efficiency in resource allocation and utilization. Given the unavoidable overall financing shortfall, increasing spending to the WSS from the available resource envelope will be at the expense of reducing funds from other key sectors. However, based on careful examination of the progress made and the current situation in each sector the potential for gradual reallocation among key sectors should be explored.

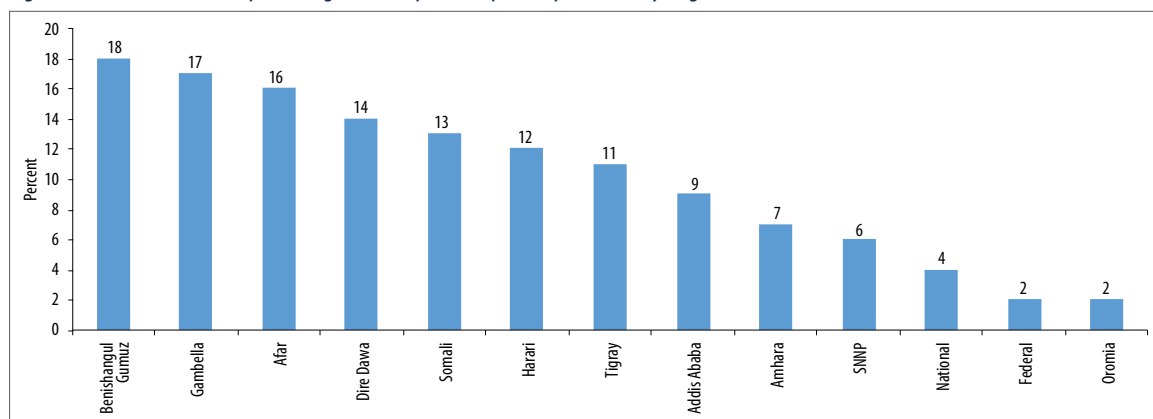
Table 4.6: Expenditure on key priority sectors, as percentage of total public expenditure

Description	2008/09	2009/10	2010/11	2011/12	Average (2008/09- 2011/12)
Pro poor sectors expenditure recurrent + capital					
Agriculture and Rural Development	8496.81	8828.39	6466.1	7097.99	7722.32
Water Resources	1839.63	2799.77	2855.7	3646.85	2785.49
O/W WSS	1005.99	1547.05	1667.62	2220.89	1610.39
Construction	9234.84	11763.09	13845.31	14056.78	12224.75
Education	8746.39	11389.01	13348.65	13296.21	11695.06
Health	3282.23	4852.86	4725.16	4658.57	4379.71
Sub Total Priority sectors	31599.91	39632.11	41240.92	42756.39	38807.34
Total all sectors	45760.64	57320.68	60234.63	60889.18	56051.28
Relative share from Total					
Agriculture and Rural Development	19.0%	15.0%	11.0%	12.0%	14.0%
Water Resources	4.0%	5.0%	5.0%	6.0%	5.0%
Construction	20.0%	21.0%	23.0%	23.0%	22.0%
Education	19.0%	20.0%	22.0%	22.0%	21.0%
Health	7.0%	8.0%	8.0%	8.0%	8.0%
Sub Total Priority sectors	69.0%	69.0%	68.0%	70.0%	69.0%
Total all sector	100.0%	100.0%	100.0%	100.0%	100.0%
WSS as % of Priority sectors	3.2%	3.9%	4.0%	5.2%	4.1%
WSS as % of total Public expenditure	2.2%	2.7%	2.8%	3.6%	2.9%

Source: World Bank Staff calculations, based on MoFED data in Boost format.

- 281. The relative share of capital expenditure on WSS compared to total public capital expenditure increased significantly between 2008 and 2012.** As shown on Table 4.7 the relative share of capital expenditure on WSS compared to total public capital expenditure increased consistently from 3.1 percent in 2008/09 to 5.1 percent in 2011/12.
- 282. Regions spend a larger proportion of their budgets on WSS than the federal level.** Disaggregation by federal and regional levels reflects that regions spend larger proportion of their expenditure on WSS (about 10 percent) than the federal level, which is only about two percent. This could be partly explained by the devolution of responsibility of provision of service delivery to decentralized level and the focus at federal level on regulatory and policy issues. As shown on Figure 4.3 the share of capital expenditure on WSS out of total public capital expenditure varies among regions ranging from 17.7 percent in Benishangul Gumuz region to two percent in Oromiya region. In addition, pastoral regions like Afar and Somali are among regions that spend significant portion of their resource in WSS sector showing the priority given in the pastoral regions where water is life.

Figure 4.3: Share of WSS, as percentage of total public capital expenditure by Regions



Source: World Bank staff calculations, based on MoFED data in BOOST format.

WSS Expenditure in Ethiopia against international comparisons

- 283. Increasing trends in WSS spending are also observed when looking at per capita spending but low compared to resource required to achieve GoE's targets.** Figure 4.4 shows the increasing trend in expenditure per capita on WSS over the four-year period between 2008/09 and 2011/12. Per capita expenditure during this time grew from US\$1.62 in 2008/09 to US\$3.13 in 2011/12. However, the expenditure per capita is low compared to what was planned in the financing strategy and Universal Access Program. The per capita budget estimated to achieve UAP ETB 160 (US\$ 80 @ 1US\$= ETB20). Similarly the US\$2.4 billion estimated to achieve the GTP targets as per OWNP in two years (US\$13 per capita per year).
- 284. Public expenditure on WSS as a percent of GDP has also been increasing steadily but low compared to the need of the sector.** As shown on Figure 4.5 actual average expenditure on WSS between 2008/09 and 2011/12 accounted for 0.57 percent of GDP. However, it is below the recommendation by the 2006 Human Development Report that all countries should

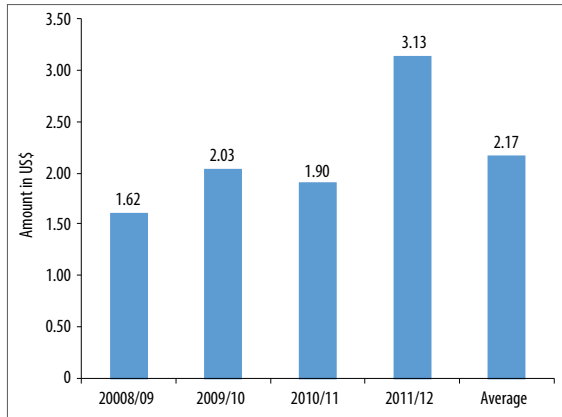
Table 4.7: Relative share of WSS as percentage of total public sector capital expenditure in million ETB

Description	2008/09	2009/10	2010/11	2011/12	Average (2007/08 - 2011/12)
Federal	19965.13	27472.58	26456.47	24619.63	24628.45
Others Sector	19712.70	27187.02	25947.58	23802.88	24162.55
Wash	252.43	285.56	508.89	816.74	465.91
Share of Wash (%)	1%	1%	2%	3%	2%
Regional/Zone Office	2268.27	3750.17	3861.12	7575.01	4363.64
Other Sectors	1921.28	3113.68	3433.33	6959.85	3857.04
Wash	346.99	636.49	427.79	615.16	506.61
Share of Wash (%)	15%	17%	11%	8%	12%
Woreda/Town/Municipality	3948.09	3337.68	3534.07	3250.78	3517.65
Other Sectors	3739.07	3079.04	3185.26	2877.26	3220.16
Wash	209.02	258.64	348.81	373.52	297.50
Share of Wash (%)	5%	8%	10%	11%	8%
National	26181.49	34560.43	33851.66	35445.42	32509.75
Other Sectors	25373.05	33379.73	32566.17	33640.00	31239.74
Wash	808.44	1180.70	1285.49	1805.42	1270.01
Share of Wash (%)	3.1%	3.4%	3.8%	5.1%	3.9%

Source: World Bank Staff calculations, based on MoFED data in Boost format.

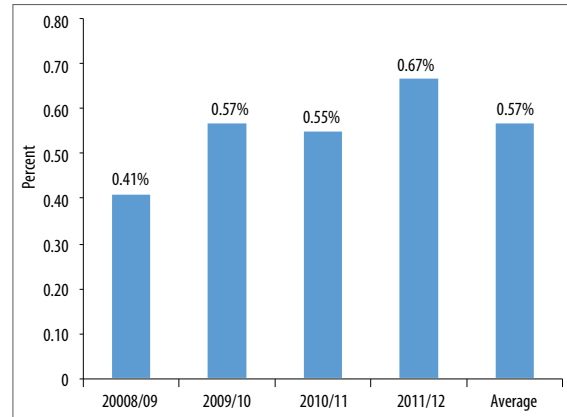
spend at least one percent of their GDP on WSS. Similarly, the Africa Infrastructure Country Diagnostics (AICD), conducted by the World Bank, estimated the overall price tag for reaching the MDG targets for access to WSS at US\$22.6 billion per year, or 3.5 percent of Africa's GDP, of which water supply is estimated to require allocations up to US\$17 billion per year, or 2.7 percent of Africa's GDP (AICD, World Bank 2011).

Figure 4.4 : Per capita public expenditure in WSS in US\$



Source: World Bank staff calculations based on MoEFD data in Boos format.

Figure 4.5: Public Expenditure on WSS as percent of GDP



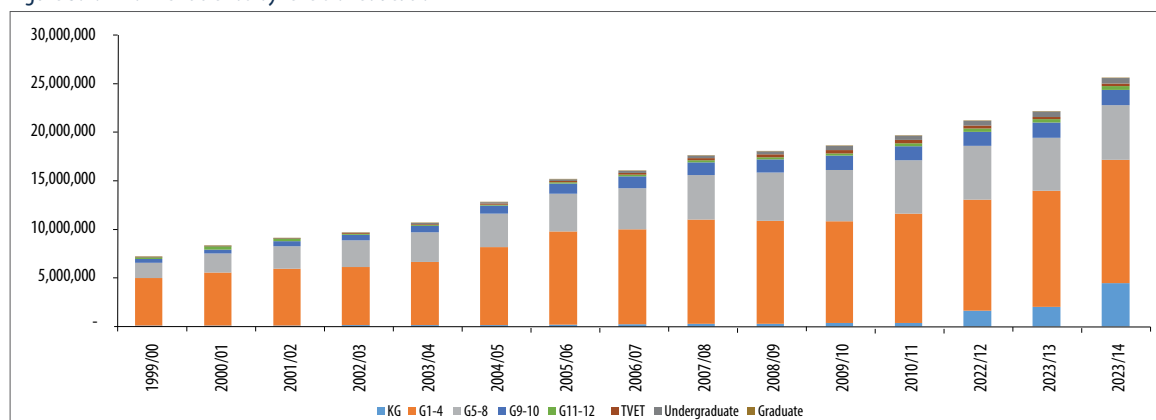
Source: World Bank staff calculations, based on MoFED data in BOOST format.

EDUCATION

5.1 Enrolment trends

285. Ethiopia has made remarkable progress in extending education to its population. Over the past ten years, the education system has expanded from 10 million learners to more than 25 million learners today (Figure 5.1). Access has improved across all levels of education (from pre-school to higher education) but the rate of improvement has varied considerably across levels.

Figure 5.1: Enrolment trends by levels of education



Source: EMIS.

286. There has been a big push on pre-primary education, with enrolment now at over two million and a net enrolment rate of 24 percent. This growth has come mainly from the provision of ‘Grade 0’, or ‘O classes’ in regular primary schools, achieving over one million enrolment in the first year of implementation. Kindergarten also continues to grow, now at half a million enrollees. The third strategy to increase provision has been child-to-child provision, now reaching close to 300,000 children.

287. Enrolment in primary first cycle (Grades 1-4) is still growing but less dramatically than in previous periods, growing by 14 percent from 2001-05 to 11.2 million. The net intake rate (NIR—the net enrolment rate in Grade 1) is reported as close to 100 percent in all but three regions (Afar, Somali and Gambella) and significant progress has been made in net enrolment rates (NER) in the cycle as a whole, rising from 89 to 96 percent¹.

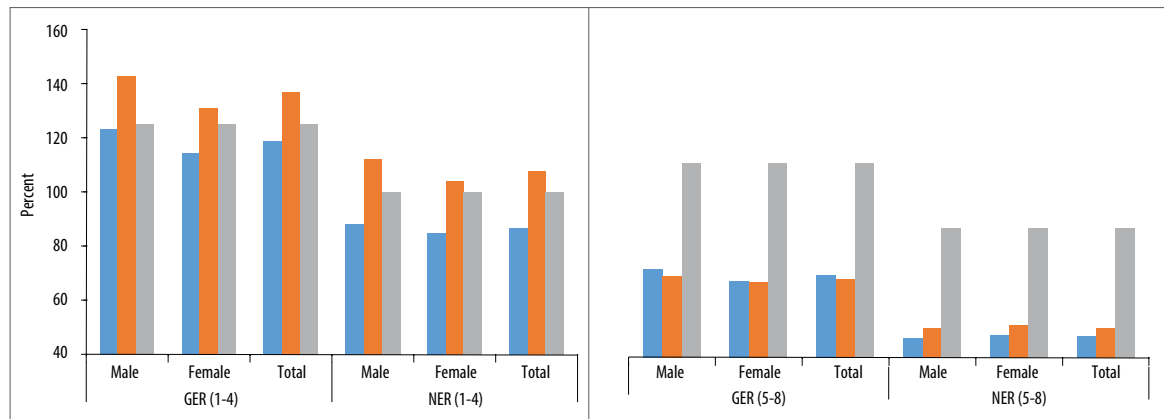
¹ Net and gross enrolment rates are to be treated with caution, as many NERs are registered as over 100%; it is not known if population data is underestimated or school enrolment over-reported. With NER there is also the issue that underage entry appears the same as overage, presumably the driver of very low NIRs in the three urban regions.

- 288. Enrolment in primary second cycle (Grades 5-8) grew by 10 percent during 2001-05, slower than growth in the 11-14 year old population over the period.** Enrolment is now at 5.5 million, less than half that of the first primary cycle, a reflection of the huge numbers who drop out permanently before ever reaching Grade 5. The ESDP V target for NER in Grade 5-8 of 80 percent was not likely achieved as the NER of this age group in 2007 was only 48 percent.
- 289. Enrolment in secondary first cycle (Grades 9-10) stagnated during 2001-2004 before growing in 2005 to over 1.5 million.** This stagnation can be seen as another reflection of low progression rates in primary school (indeed, the number of secondary schools in the period increased by 60 percent). Enrolment in preparatory school (Grades 11-12) has grown significantly and consistently, up by 75 percent between 2001-05, as higher education capacity was expanded by two waves of construction. Although urban schools still dominate the sector at 85 percent of enrolment, growth was particularly impressive in rural schools, almost tripling to 23,000 students. Gender parity also improved over the period, up 20 percentage points to 90 percent in G9-10 and doubling to 80 percent in preparatory schools in response to positive discrimination policies.
- 290. TVET enrolment appears to have declined significantly, from 369,000 in 2003 to 236,000 in 2005.** Both government and private enrolment have fallen but the decline has been most dramatic in the private sector, falling from a high of 178,000 in 2002 to just 58,000 in 2005. Increased government regulation of the sector resulted in a fall in private enrolment. The introduction of a centrally administered examination exposed competency deficits in many privately trained TVET students, ultimately resulting in the closure of some institutions. Simultaneously, terms of license renewal were enforced more strictly, also resulting in the closure of private institutions. The sector appears to have been hit more generally by the expansion of higher education, as enrolment in government schools also fell from 2003.
- 291. Enrolment in higher education has grown spectacularly during the period as two waves of new government institutions were constructed.** Construction of a second generation of universities was completed in 2001, with construction of a third generation of universities beginning the following year and running through 2004, alongside the continued expansion of established universities. There are now 31 universities, with all but two regions now containing a university. Enrolment in government institutions is now close to 400,000, with total enrolment close to 450,000 (full-time equivalent). This expansion has been almost entirely domestically funded, with just 0.02 percent coming from external sources. Access nearly doubled 2001-05, reflecting the government's commitment to bring higher education to all corners of the country.

5.2 Equity of educational access

- 292. The education system still resembles a pyramid, with varying degrees of access for different age groups,** i.e. nine out of ten children of appropriate age are enrolled in primary cycle one, five out of ten in primary cycle two, two out of ten in secondary education and only one out of ten is enrolled in higher education.

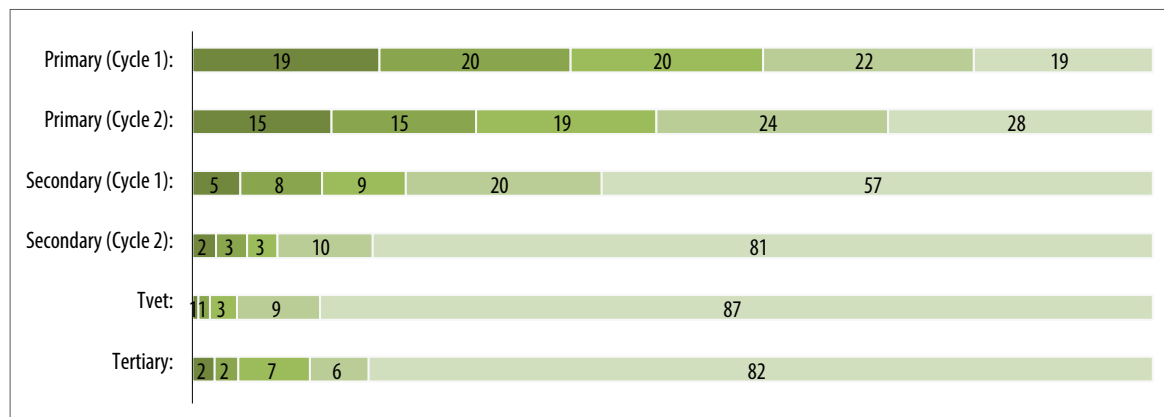
Figure 5.2: Primary net and gross enrolment rates in 2013/14, against baseline in 2009/10 and ESDP IV targets



Source:

293. In Ethiopia, the poorest are equally represented in primary cycle one, but they are increasingly under-represented at higher levels and virtually excluded in TVET and higher education. The 2011 Welfare Monitoring Survey provides data to disaggregate school attendance by relative household wealth. In primary cycle one, 19 percent of children are from the poorest 20 percent of the population, suggesting that the poorest are fairly equally represented in school as those from other wealth quintiles in the population (Figure 5.3). However, at higher levels, the poorest are underrepresented. For example, the poorest 20 percent of households comprise only 15 percent of the student population in cycle 2 primary. By higher education, the poorest comprise two percent of the student population and 1 percent of the TVET student population. The wealthiest households dominate education participation at higher levels. They comprise 82 percent of higher education students and 87 percent of TVET students.

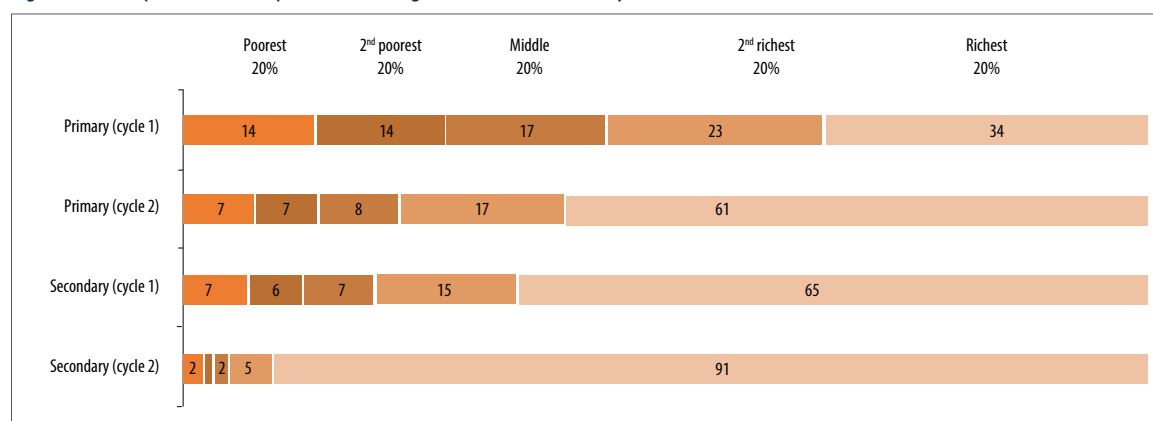
Figure 5.3: Composition of student according to household wealth by levels of education



Source: 2011 Ethiopian Welfare Monitoring Survey.

294. Under-representation of the poorest is a product of incompleteness of schools as well as inability to enter the next level. Comparing how well represented the poorest are among completers with students in a particular education level helps to indicate the source of disparity in participation. For example, while 19 percent of primary school students are from the poorest 20 percent of households, only 15 percent of those who have completed primary are from the poorest 20 percent of households (Figure 5.4). Given that the percent of students in cycle 2 primary school from the poorest quintile is also 15 percent, it may be that the reason for the poorest being less represented in cycle 2 primary is a product of low completion of cycle 1 primary rather than low transition. For higher levels of education, low completion as well as transition emerges as possible sources for disparity in education participation. The probability of entering the primary cycle two by age 11 of the children coming from the highest income quintile is three times that of children coming from the poorest income quintile.

Figure 5.4: Composition of completers according to household wealth by education level



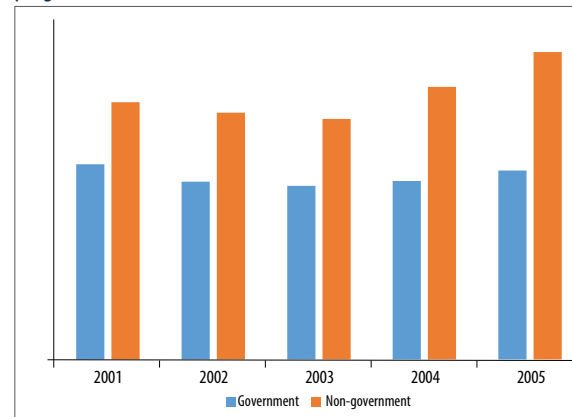
Source: 2011 Ethiopian Welfare Monitoring Survey.

295. In primary and secondary education there were significant strides made towards achieving gender parity. The Gender Parity Index (GPI) in primary increased from 0.93 to 0.94. GPI in G1-4 has remained around 90 percent. GPI in the second cycle of primary education has improved nationally to 0.98. The GER for girls in secondary education has increased considerably over the past four years, improving the GPI for the first cycle of secondary education (grades 9-10) from 0.80 in 2009/12 to 0.92 in 2012/13, and the GPI for the second cycle of secondary education (grades 11-12) from 0.56 in 2009/10 to 0.81 in 2012/13. Looking at the regions, however, we can see that this hides a significant improvement in some regions (particularly, Afar and Somali); these improvements being offset by a clearing of over-age girls in Addis Ababa (GPI declining from 1.30 to 1.18). Despite positive discrimination policies, female enrolment in higher education is still only 30 percent of total, the same level as in 2001.

5.3 Internal efficiency

296. Efficiency refers to the translation of inputs into outputs. In this report we use the definition of the Coefficient of Efficiency considering all those pupil-years as effective which lead to promotion to the next higher grade. If a pupil got promoted, the resources spent on him or her during that year is considered to have been effectively spent, while resources spent on pupils who drop out or are made to repeat the same grade are deemed wasteful. With this definition, the efficiency of primary education in 2004 (2011/12) works out to be 78.9 percent in Ethiopia as a whole. Nationally, the average degree of efficiency did not improve in the last five years, although differences arose between regions and *woredas*, with some showing marked improvement and others becoming worse.

Figure 5.5: Proportion of female enrolment in undergraduate programs



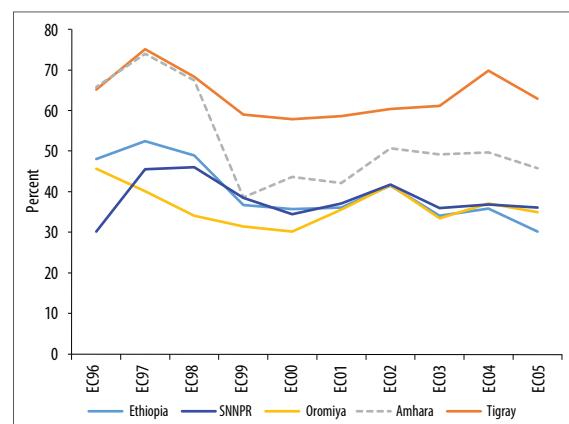
Source: EMIS.

297. Drop-outs remain stubbornly high in Ethiopia as a whole. Drop-outs and repetition remain a problem throughout primary school, with only three-quarters of students progressing to the next grade in any one year. The problem remains particularly acute in Grade 1, with only 68 percent of students progressing to Grade 2.

298. The EMIS data for the country as a whole show that the rate of uninterrupted progression from first to fifth grade was only 30 percent in 2012/13 (Figure 5.6). It implies that of those pupils who entered Grade 1 in 2012/13, only 30 percent would reach Grade 5 in 2016/17, at the present rates of promotion. The others would either repeat some years and reach Grade 5 later or drop out before then.

299. The uninterrupted progression rate is below 50 percent in all the major regions except Tigray. A cause of serious concern is that the national average has declined over the past decade, largely due to an especially steep fall in the case of Amhara. A fall in the rate of uninterrupted progression implies a rise in the rate of repetition and/or dropouts.

Figure 5.6: Rate of uninterrupted progression from G1 to G5



Source: EMIS.

300. Constraints to improving efficiency come from both demand and supply sides: From the demand side, pupil home factors—such as being over-aged, having health problems, having less than three meals per day, being an orphan or having no one literate in the household, not having attended pre-school, being pastoralist or not learning in home language—are key factors in determining students’ absenteeism and drop-out.

301. Table 5.1 reports the results of regression estimating the predictors of absenteeism during the school year, including background characteristics only in Column 1 and with the addition of test-scores in Column 2. It shows that older pupils, those with health problems, poorer nutrition, longer travel times and those who spend time on paid work are more often absent. Also, pastoralist pupils, those not instructed in their mother tongue and those who have dropped-out or repeated a grade have higher levels of absenteeism. When differences in their test scores are accounted for, girls have lower levels of absence and orphans higher levels, while there is no difference according to whether pupils undertake paid work. While many of these findings are unsurprising, the evidence on mother tongue instruction is notable.

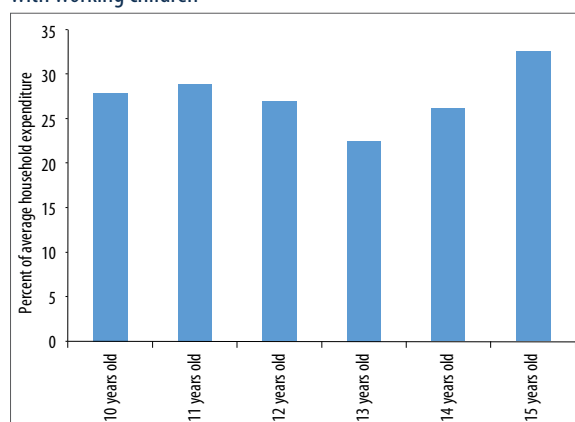
302. Also children aged 10 to 15, when working, were found to contribute from one quarter to one third of their families’ income. This represents very high opportunity costs for such families to send such children to school.

303. From the supply side, classroom shortage and high pupil teacher ratio remain binding constraints to efficiency of primary schools in about a quarter of all *woredas*. In general, *woredas* that managed to hire more teachers improved their efficiency, while those who suffered a decline in teacher availability also suffered deterioration in efficiency.

Classroom shortages are probably as binding a constraint to improving efficiency as teacher shortages. Results of multivariate regression of efficiency in primary (1-8) education, combining *woreda*-level EMIS and financial data showed that both teacher availability and per-pupil availability of non-salary funds have significant impact on output efficiency

304. In secondary education, high pupil-section ratios accompanied by relatively low pupil-teacher ratios suggests that efforts need to be made to make more classrooms available so that teachers can increase their teaching load/contact time with students.

Figure 5.7: Contribution of working children to household consumption as percentage of average consumption of households with working children



Source: 2011 Ethiopia Household Income, Consumption and Expenditure Survey.

Table 5.1: Pupil level factors and log of absenteeism, class fixed effects

VARIABLES	(1) Absence	(2) Absence (+ prior scores)
Age (years)	0.0261 (4.686)***	0.0332 (5.787)***
No health problems	-0.0993 (-5.032)***	-0.0879 (-4.541)***
Girl	-0.0223 (-1.275)	-0.0341 (-1.960)*
Has 3+ meals per day	-0.0646 (-2.743)***	-0.0398 (-1.674)*
PCA pupil durable assets	-0.0090 (-1.398)	-0.0019 (-0.302)
Orphan (single or double)	0.0320 (1.531)	0.0380 (1.844)*
No-one in household literate	0.0255 (0.802)	0.0017 (0.054)
Attended pre-school	-0.0144 (-0.802)	-0.0102 (-0.581)
Time taken to travel to school	0.0014 (2.988)***	0.0017 (3.515)***
Ever repeated a grade	0.0952 (4.854)***	0.0251 (1.249)
Ever dropped-out	0.0780 (3.349)***	0.0595 (2.560)**
Reads books at home	-0.0356 (-1.453)	-0.0061 (-0.254)
Child learns in home language	-0.1160 (-2.742)***	-0.0971 (-2.296)**
Pastoralist	0.1047 (2.647)***	0.0510 (1.274)
Pupil spends time on paid work	0.0391 (1.689)*	0.0182 (0.789)
Constant	0.9706 (12.908)***	-0.1196 (-0.169)
Observations	7,987	7,987
R-squared	0.026	0.055
Number of class 1	272	272

1 Robust t-statistics in parentheses.

2 *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

5.4 External efficiency - labour market outcomes

305. Labor markets reward education attainment. Higher levels of educational attainment are associated with higher earnings nationally but also within both the formal and informal sectors, including agriculture. Estimates of Mincerian individual earnings functions using the 2011 Ethiopian Household Income, Consumption and Expenditure Survey (HICES) reveal a positive association between educational attainment and completed education level (Figure 5.8). For example, individuals with at least some primary education, representing 32 percent of employed individuals, earn 34 percent higher than those with no education, accounting for differences in gender and experience. 6.9 percent of workers have completed primary education and earn 115 percent higher than those without any education. Those with post-secondary education (1.5 percent of workers) earn 306 percent higher or more than four times than that of workers with no education. The association between earnings and education is not purely the result of working in different sectors as large differences exist within employment sectors. For example, among households exclusively employed in household agriculture, those with at least some primary education earn 28 percent higher than those with no education; those with primary education earn 79 percent higher than those with no education.

Table 5.2: Multivariate regression of efficiency in primary education

Dependent variable: Coefficient of efficiency (G1-G8)	
Explanatory variables	Coefficient
PTR 1-8	-0.094***
GEQIP per pupil	0.656***
Subsidies and grants per pupil	11.440***
Education share of woreda expenditure (excluding GEQIP)	0.460
Constant	-311.500***
Number of woredas = 275 Adjusted R ² = 0.53 Prob>F = 0.000	

*** means significant at 99% level of confidence.

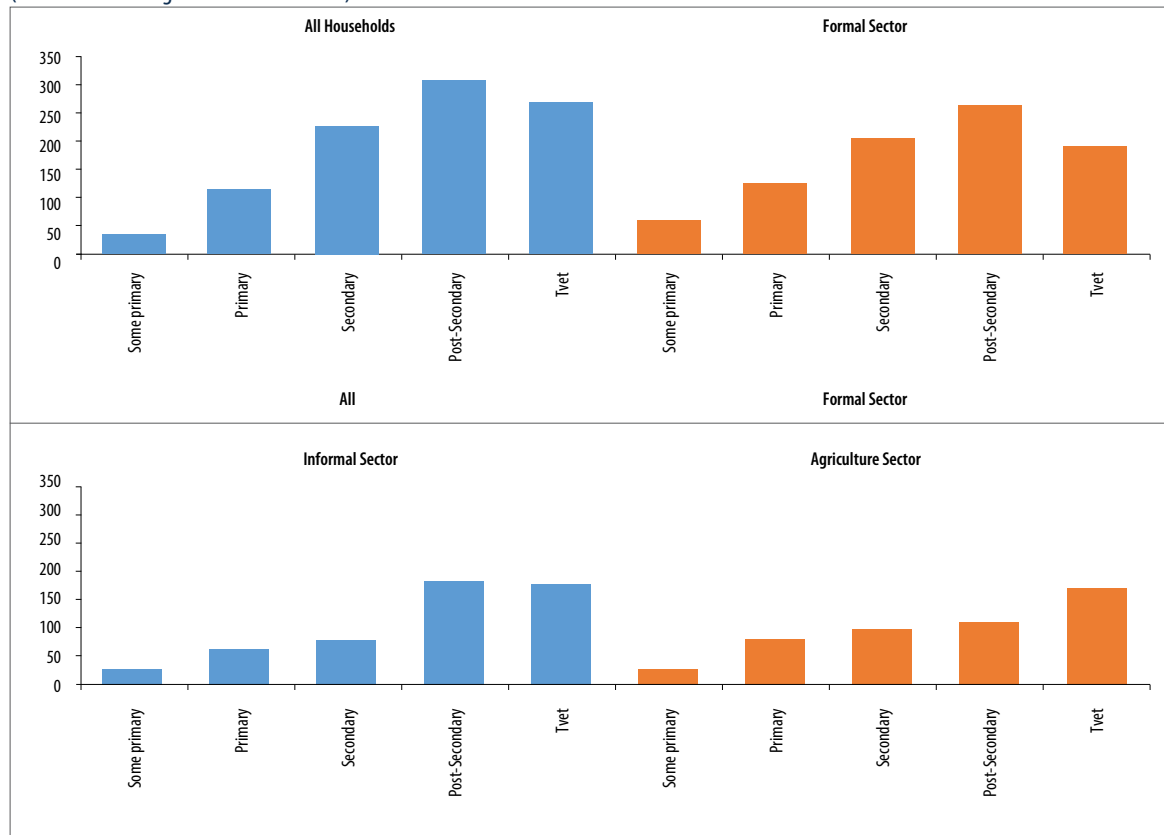
Note: Data are from EMIS and Financial Accounts (BOOST) for 2011/12 (EC2004).

5.5 Government education expenditures

306. In the education sector, the budget for higher education, and for the training of secondary and higher education teachers, gets formulated first. This is because these functions fall entirely within the domain of the federal government.² Budgets for TVET and for training of primary school teachers get formulated at the regional level. The budgets for school level inputs get formulated at the *woreda* level. The final consolidated budget proposal is submitted to the Council of Ministers by the end of May, and after its review, submitted to the House of People's Representative for approval by the beginning of June. Budget is announced for the new fiscal year (labelled approved budget). Revisions are made and adjusted budget follows. Finally, budget implementation results in 'actual expenditure'. The process of federal budget formulation is replicated at both the regional and *woreda* levels.

² Universities are fiscally autonomous, although during construction they come under the Ministry of Education.

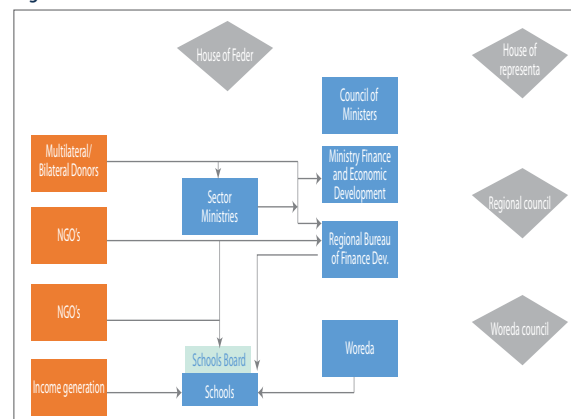
Figure 5.8: Percent difference in income between level of education and no education (Mincerian earnings function estimates)



Source: 2011 Ethiopia Household Income, Consumption and Expenditure Survey.

307. The GoE is very committed to investing in education, as evidenced by the steady share of education budget in the total government budget at 20 percent for the last ten years. The share of education out of government recurrent budget increased to more than 33 percent in 2004EC (2011/12), showing the government’s efforts in recruiting a significant number of new teachers to support the system. The share of education in the government capital budget declined to less than 15 percent as more infrastructure projects required substantial government investment in sectors other than education.

Figure 5.9: Flow of funds to schools

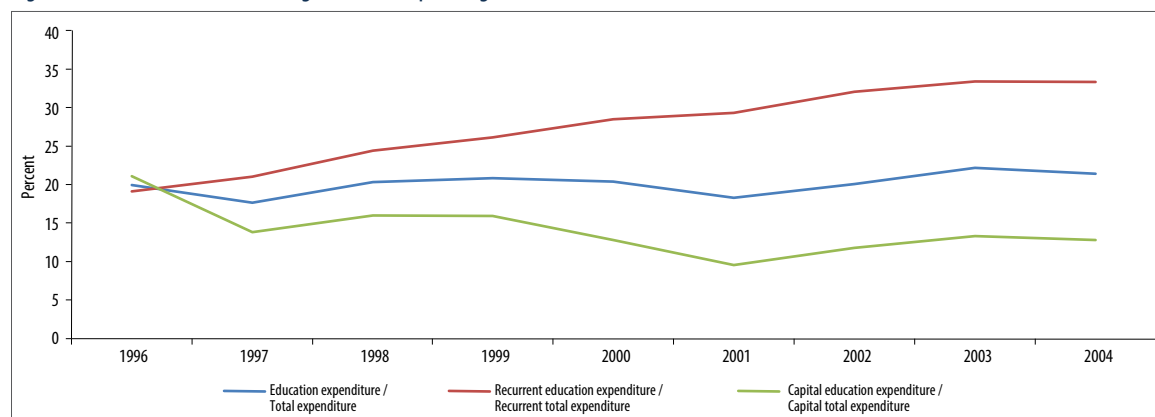


Source:

308. Education's share of GDP has actually been on a general downward trend, partially reversed from 2001 to 2003 but falling again in 2004 to 3.9 percent (Figure 5.12). This is due to a falling share of government expenditure in GDP, from 23 percent in 1996 to 18 percent in 2004. We can therefore say that the huge increases in public real education spending

have been made possible not by increasing priority placed by the GoE on education but by sustained economic growth. As share of GDP, Ethiopia in fact spends less than SSA average (4.7%) and way below Kenya (6.7%) and Tanzania (6.2%)³.

Figure 5.10: Education as share of government spending



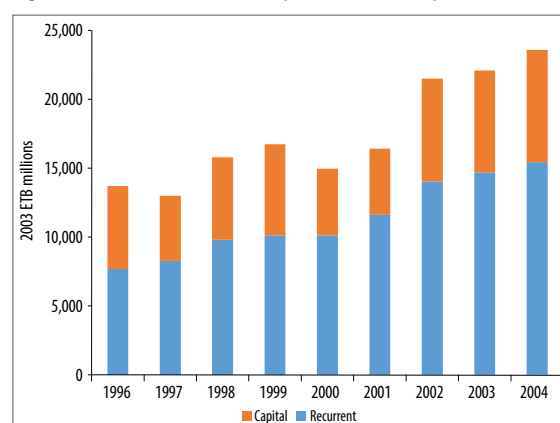
Source: World Bank staff calculations, based on MoFED Data in BOOST Format.

5.6 Trends in sub-sectors' expenditures

309. Public spending in higher, secondary and non-typical⁴ subsectors tripled 1996-2004, whilst teacher training college spending doubled and primary spending increased by 60 percent. TVET, on the other hand, saw a fall in nominal terms from 1996 to 1999 as capital spending in the subsector was slashed, before rebounding somewhat so that in real terms spending was roughly the same in 2004 as in 1996.

310. Higher education has been the biggest subsector by spending since 1999 (Table 5.3F), when construction of the second generation of universities started. It now accounts for 42 percent of education spending, the same as primary and secondary combined (with 32 and 10 percent shares, respectively). TVET's share has decreased over the period from 11 to 6 percent. Very small amounts continue to be assigned to non-typical education, which includes special, adult and alternative education. However, it is likely that some of this spending appears as primary⁵.

Figure 5.11: Public Education Expenditures, 2003 prices



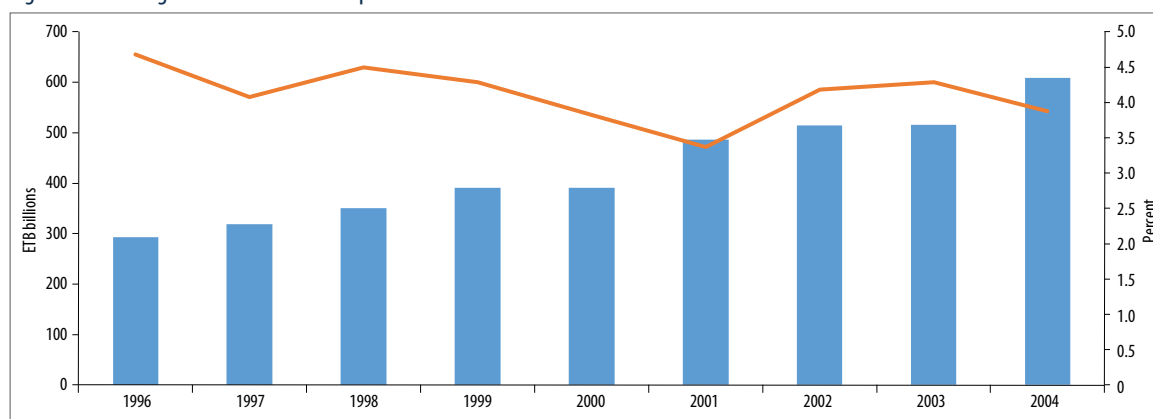
Source: MoFED data in BOOST format.

³ World Bank databank.

⁴ Non-typical education captures special needs education, alternative basic education and adult education, where these can be distinguished from primary and secondary education.

⁵ Furthermore, our subsectoral analysis does not include Somali region since it was not possible to disaggregate by subsector. This is likely the region with most non-typical spending due to increased importance of alternative basic education in the region.

Figure 5.12: Real growth in sub-sector expenditures



Source: MoFED data in BOOST format.

Table 5.3: Public education expenditure and GDP

2003 ETB millions	1996	1997	1998	1999	2000	2001	2002	2003	2004
Recurrent	7,663	8,252	9,821	10,128	10,135	11,601	14,020	14,682	15,434
Admin	745	1,489	1,216	1,483	1,162	1,224	1,428	1,082	1,265
Primary	4,318	3,986	5,314	5,112	5,039	5,462	6,022	7,099	7,015
Secondary	557	540	682	925	959	1,171	1,941	1,729	1,862
TVET	600	491	414	372	362	580	780	773	825
CTE	223	233	361	336	348	333	433	475	495
Higher	1,197	1,482	1,787	1,857	2,228	2,747	3,363	3,450	3,889
Non-typical	22	32	47	41	36	84	51	75	83
Capital	6,039	4,744	5,961	6,627	4,817	4,806	7,468	7,417	8,156
Admin	1,633	1,072	482	534	306	36	98	77	77
Primary	435	458	392	440	402	340	578	468	447
Secondary	94	96	149	150	84	371	520	574	508
TVET	899	786	823	234	197	252	431	336	637
CTE	313	684	421	337	215	45	77	99	222
Higher	2,662	1,640	3,693	4,930	3,611	3,747	5,721	5,798	6,126
Non-typical	2	8	1	2	2	14	43	64	140
Grand Total	13,702	12,996	15,782	16,755	14,952	16,406	21,488	22,099	23,590
Admin	2,379	2,561	1,698	2,018	1,468	1,261	1,526	1,159	1,341
Primary	4,753	4,444	5,706	5,553	5,441	5,802	6,601	7,567	7,462
Secondary	651	636	831	1,075	1,044	1,542	2,462	2,302	2,370
TVET	1,499	1,277	1,237	606	558	832	1,211	1,109	1,461
CTE	536	917	782	673	563	378	510	574	717
Higher	3,860	3,122	5,480	6,788	5,839	6,493	9,084	9,248	10,016
Non-typical	24	39	48	43	39	98	94	139	222

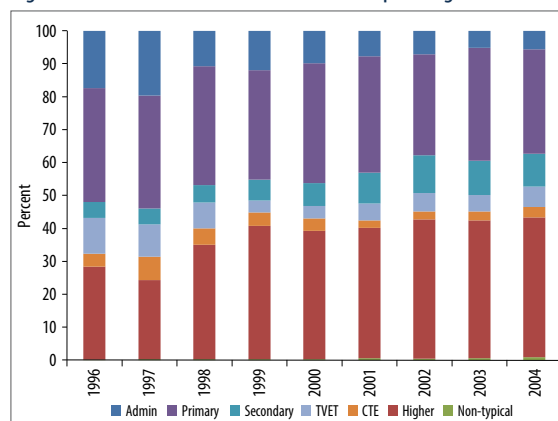
Source: MoFED data in BOOST format.

311. As a share of recurrent spending on education, primary is by far the largest subsector, accounting for 45 percent of the budget, compared to 25 percent for higher, 12 percent for secondary and 5 percent for TVET (Figure 5.14). This dominance of the recurrent budget is waning, however, as recurrent commitments in secondary and higher increase. Two major donor-funded programs (PBS and GEQIP) have been providing substantial financing to the sector. PBS is financing approximately 30 percent of teacher salaries. GEQIP is financing more than 80 percent of government discretionary funds at the school level (GEQIP/PBS).

312. The capital budget is dominated by higher education which accounted for around 75 percent in each of the last six years (Figure 5.15), up from just 35 percent in 1997. In real terms, primary capital spending has stagnated, reflecting the policy to mobilize communities' contribution for primary school construction and increasing pressure for capital spend for the secondary sector, where all new construction must conform to strict MoE guidelines, including the use of concrete as the main building material; capital spending on secondary education in real terms has increased by 539 percent since 1996, but still only accounts for six percent of capital spending.

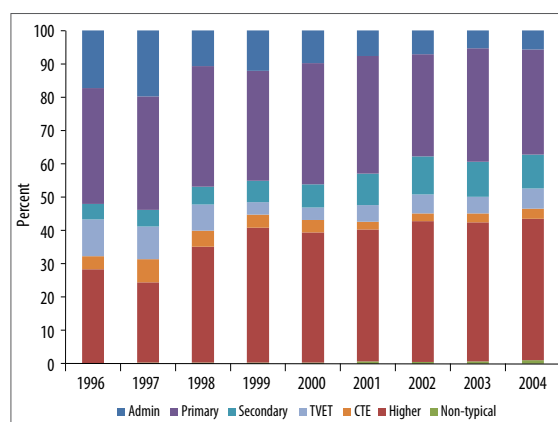
313. Capital expenditure in higher education has dwarfed that in the other subsectors. Starting with construction of the second generation of universities (11 universities constructed between 1998-2001) and continuing with the construction of a third generation of universities (nine universities constructed from 2002 to 2004), higher education capital expenditure has been between ETB3.5 and ETB6 billion (2003

Figure 5.13: Subsector shares of education spending



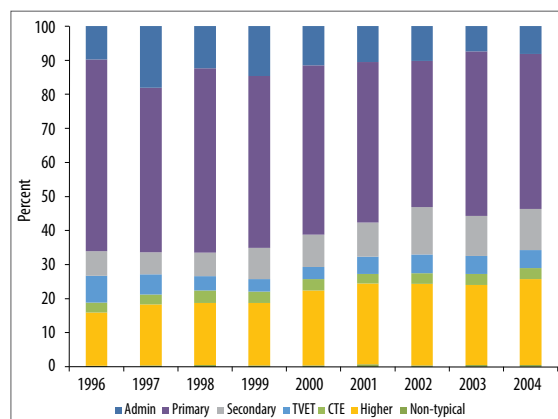
Source: MoFED data in BOOST format.

Figure 5.14: Subsector shares of recurrent education spending



Source: MoFED data in BOOST format.

Figure 5.15: Subsector shares of capital education spending



Source: MoFED data in BOOST format.

prices) for seven years and accounted for nearly three-quarters of capital expenditure in education⁶. Around 70 percent of this expenditure has been on construction. As a result of this investment, enrolment in government universities has grown from 116,000 in 1998 to 380,000 in 2005 (FTE). Construction is set to continue over the next few years, with ten new universities in the pipeline. Around one-quarter of construction expenditure was for residential buildings (nearly ETB4 billion over 2003 prices for 2001-04). There is a huge variation between institutions with the figure less than 10 percent in five institutions and over 40 percent in another five, though data is not wholly comparable as different universities are in different stages of their life cycle. The figure for new universities is 30 percent⁷. 25 percent of the higher capital budget went to the purchase of fixed assets, ETB5.3 billion (2003 prices) for 2001-04. Of this, around 60 percent went to the purchase of plant, machinery and equipment.

- 314. There is large variance in the economic composition of sub-sectoral spending.** Salaries account for the bulk of general education recurrent spending, peaking at 96 percent for primary and 87 percent for secondary in EC2001 before GEQIP began and provided much needed funds for non-salary recurrent spending, including textbooks and teacher training. Salary shares have declined to 83 percent and 81 percent of recurrent spending in primary and secondary education, respectively. This is good news, while it is still far below the Global Partnership for Education benchmark of one-third for primary and sub-Saharan Africa averages of 30 percent for primary and 45 percent for secondary⁸. Salary (and allowances) as percentage of recurrent spending is far lower in higher levels of education (Figure 5.16). This reflects the higher requirements for non-personnel inputs such as equipment and teaching materials. Even so, it is noticeable that salary share has increased in higher education since the second generation of universities began coming online and lecturer salaries begin to put pressure on non-salary recurrent spending.
- 315. The per student recurrent spending in higher education is 26 times that of primary education and 10 times that of secondary education.** Within recurrent expenditures, salary accounted more than 90 percent in primary education, more than 80 percent in secondary education, 60 percent in TVET and only less than 40 percent in higher education. In fact for higher education, more than 50 percent of recurrent spending was not directly academically related as they covered food and housing subsidies as well as other administrative costs.

5.7 Non-government education expenditures

- 316. Household survey data showed that at aggregate level families in Ethiopia spent 0.69 percent of their total expenditures on education.** Education expenditures comprise of 1.6 percent for households from the formal wage earning sector, 0.7 percent for the informal sector and 0.2 percent from the agriculture sector. Per capita consumption among formal households is 1.3 times higher than informal sector households and 2.4 times higher than the agriculture household. The 25th percentile of expenditures per capita of the formal sector is higher than the 75th percentile of expenditures per capita of the agriculture sector.

⁶ Though it should be noted that a considerable proportion of this expenditure has gone on expansion of existing universities.

⁷ New universities come under the Ministry of Education: for 2001 to 2003 this includes all second and third generation universities, for 2004 just third generation universities.

⁸ UIS education database.

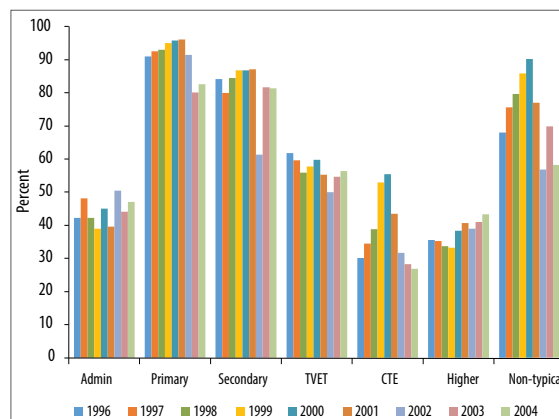
317. Household survey data also showed that a majority of households who sent their children to public secondary schools have the same spending power as households that sent their children to private secondary schools. For example, households whose total annual expenditures per capita is ETB7,000 either (i) send their children to public secondary schools and pay an estimated average of ETB30 annually or (ii) send their children to private secondary schools and pay an average of ETB168 annually. This suggests that private secondary education can be affordable and that families of the same spending power may decide to send their children to private schools if they are available and are willing to pay more for better quality education.

5.8 Equity of education financing

318. Public education expenditure tends to benefit the wealthiest households the most because of higher attendance rates in school, especially in higher education.

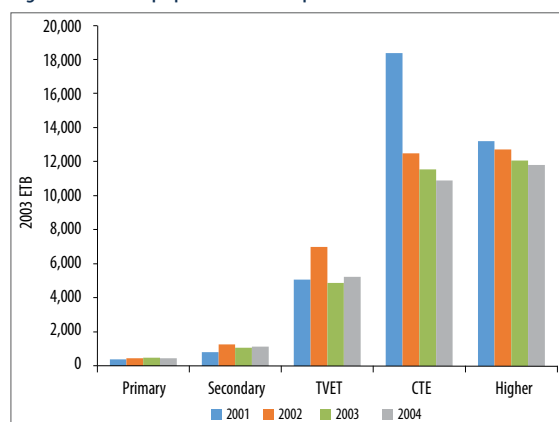
As discussed previously, public recurrent expenditure per student at the primary level is 557 ETB, at the secondary level, 1,398 ETB, and substantially more at the higher education level, at 14,493 ETB. In order to benefit directly from this expenditure, a child has to be attending school. Because the wealthiest households are more able to send their children to school, especially higher levels, the distribution of public expenditure benefits the wealthiest the most (Figure 20). This finding suggests that public subsidization of education benefits the wealthiest households much more than the poorest households. It assumes that the benefit of public spending is equally distributed to all students in the level of education. If public spending within levels of education were targeted towards the poorest, this benefit to the wealthiest would be mitigated to some extent; however, this does not appear to be the case in Ethiopia.

Figure 5.16: Salary share of recurrent spending



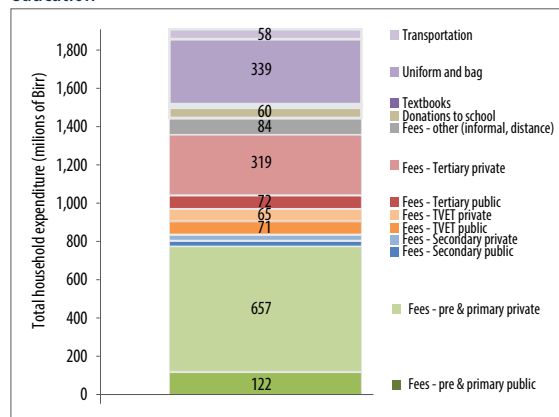
Source: MoFED data in BOOST format.

Figure 5.17: Per-pupil recurrent expenditure



Source: MoFED data in BOOST format and EMIS data.

Figure 5.18: Allocation of national household expenditure on education

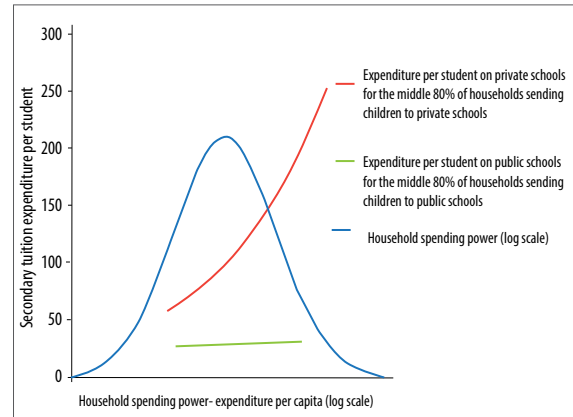


Source:

319. The average boy from the wealthiest 20 percent benefits three times more from public education subsidization than the average girl from the poorest 20 percent. When gender differences in education participation in public schools are considered, the differences in who directly benefits from public education become starker (Figure 21). For example, boys from wealthiest 20 percent of the population benefit 3 times more than girls from the poorest 20 percent of the population. This is due to boys in the wealthiest 20 percent having much higher attendance in secondary school and higher education, where government subsidization is highest.

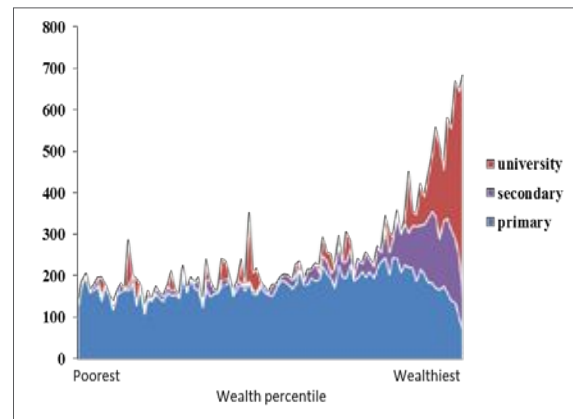
320. The share of private education expenditure by the poorest households is higher than the share of public education expenditure from which they benefit. Poorest households benefit less from public education expenditure because of lower participation in public school, but how does this compare to their contribution to private education expenditure? The richest households, by virtue of higher attendance in public schools and higher education, benefit from 39 percent of total public education expenditure; however, they only contribute 31 percent of total private education expenditure (Figure 22). The poorest, on the other hand, contribute 14 percent of total private expenditure on education but benefit from only 13 percent of total public recurrent expenditure. In other words, the poorest are larger direct contributor to education financing than they are a beneficiary of financing ignoring indirect contributions through, for example, taxes.

Figure 5.19: Affordability of private secondary school



Source:

Figure 5.20: Average benefit from public recurrent education expenditure due to public school attendance by wealth percentile



Source:

5.9 Effectiveness

321. Effectiveness refers to the degree to which learning outcomes are achieved.

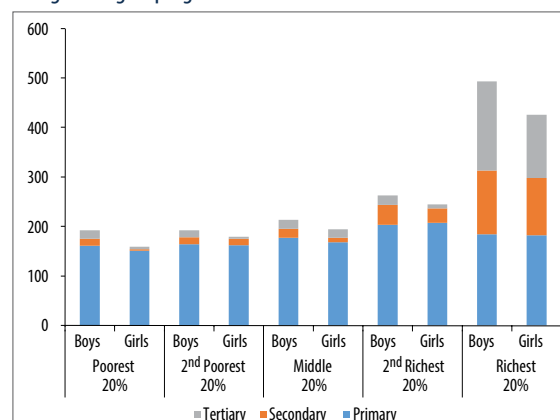
In this review, the analysis of effectiveness is limited to learning/effectiveness of primary first cycle only, using standardized time series data available from the Young Lives Study. Young Lives Study showed that primary schools in Ethiopia helped students learn. The average improvement in scores after one year of schooling is 30 points (scores standardized at average of 500 with a standard deviation of 100), with little difference in achievement and progress between gender but significant difference in achievement and progress between urban/rural (urban pupils achieving 548.5 while rural students only reach 481.2 at the end of the school year in mathematics) and between government/non-government schools.

322. The level of learning is low, however.

For mathematics, only less than three percent of Grade 4 students performed at expected grade level. The majority of students performed at the level that is two years behind the expected grade level. For reading comprehension, only less than one percent of students performed at the expected grade level. 64 percent performed at the level of one year and 35 percent performed at the level of two years and more behind the expected grade level.

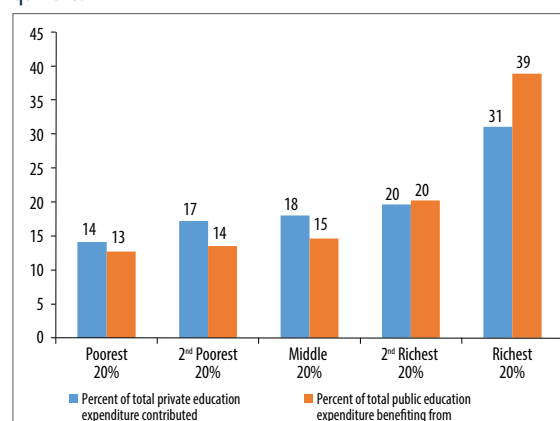
323. Pupil characteristics include being over-aged, being a girl, not having 3 meals a day, being poor, orphan or in households with no one being literate etc explained the difference in learning outcomes.

Figure 5.21: Average direct benefit from public recurrent education expenditure due to public school attendance by wealth and gender grouping



Source: 2011 Ethiopia Welfare Monitoring Survey.

Figure 22: Comparing the contribution to total private education expenditure and benefit of total public expenditure by wealth quintiles

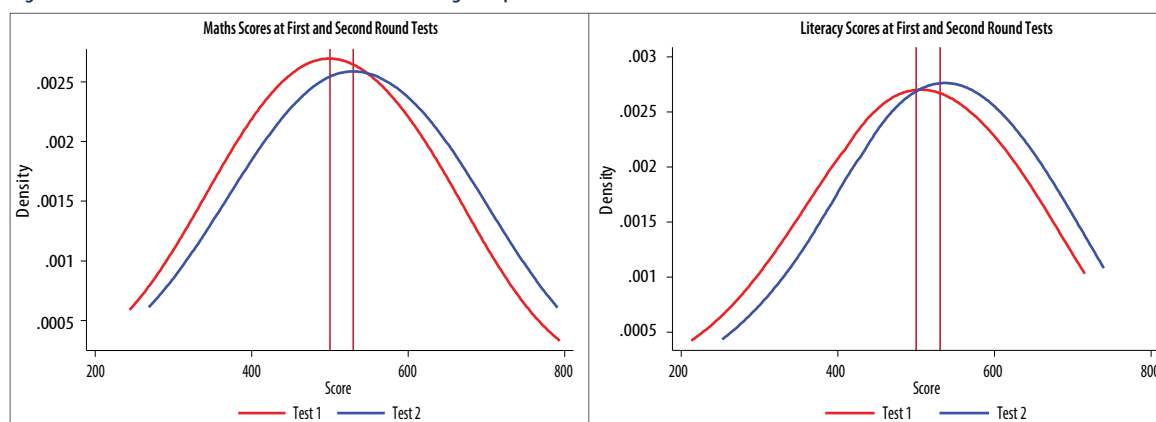


Source: 2011 Ethiopia Welfare Monitoring Survey and 2011 Ethiopia Household Income, Consumption and Expenditure Survey.

324. Analysis of “value-added” to pupil learning by schools showed that around a quarter of schools add significantly more value. There is a large difference in effectiveness between the highest and lowest performing schools, amounting to 80 points or more on the test-score scale, equivalent to almost one standard deviation. If interpreted in terms of the average progress made by pupils during the period of the survey, the difference in value-added at the extremes amounts to more than two years of schooling.

325. School factors such as teacher education, teachers’ knowledge, efforts and pedagogical competencies, availability of school grants and textbooks, electricity, library and reading materials, having experienced and educated school leaders etc. explained the difference between highly effective and lowly effective schools.

Figure 5.23: Distribution of mathematics and reading comprehension scores at wave 1 and 2



Source: Young Live Study 2012.

5.10 Summary of key recommendations

326. The review findings call for: (a) potential for resource reallocation within the education sector to improve equity in the distribution of benefits from public education spending; (b) potential for savings and reallocation to improve efficiency of general education, by targeting available resources to address the most binding input constraints; (c) potential to improve quality through ensuring essential inputs and processes; and (d) potential for leveraging additional resources for education. In order to realize these potentials, the credibility of the education and financial data need to be further improved to enable realistic target setting and planning.

Table 5.4: Competency levels (all pupils)

Competency level	Number of Pupils	Percentage of Pupils	Cumulative Percentage	Number of Pupils	Percentage of Pupils	Cumulative Percentage
0 (Below Level 1)	853	8.66	8.66	466	6.05	6.05
1 (Early Foundational)	2,121	21.54	30.21	1,437	18.67	24.72
2 (Foundational)	5,152	52.33	82.53	840	10.91	35.64
3 (Emerging)	1,473	14.96	97.49	4,902	63.69	99.32
4 (Grade level)	247	2.51	100.00	52	0.68	100.00
Total	9,846	100.00		7,697	100.00	

Source:

Table 5.5: Pupil characteristics and learning, class fixed effects

Variables	(1) Maths T1	(2) Maths T2	(3) Reading T1	(4) Reading T2
Age (years)	5.3640	0.4499	3.1895	-0.7668
	(6.871)***	(0.860)	(4.213)***	(-1.746)*
No health problems	5.6455	0.2346	9.7398	2.1706
	(2.648)***	(0.140)	(4.381)***	(1.538)
Girl	-10.2031	-4.4330	0.1650	4.8107
	(-4.850)***	(-3.033)***	(0.092)	(3.866)***
Has 3+ meals per day	18.2975	6.6820	12.6032	2.1339
	(6.601)***	(3.283)***	(4.880)***	(1.214)
PCA pupil durable assets	4.5648	1.7210	4.9427	0.8929
	(7.583)***	(3.450)***	(8.505)***	(1.896)*
% days absence W1-W2	-3.3064	-1.8387	-3.1255	-1.4661
	(-10.126)***	(-7.424)***	(-9.987)***	(-7.736)***
Orphan (single or double)	2.8872	-3.2279	2.6308	-3.3137
	(1.181)	(-1.954)*	(1.125)	(-1.975)**
No-one in household literate	-9.1339	-5.7685	-14.3049	-1.8481
	(-2.544)**	(-1.847)*	(-3.878)***	(-0.636)
Attended pre-school	2.6854	-0.3207	6.3172	3.3394
	(1.227)	(-0.183)	(2.850)***	(2.348)**
Time taken to travel to school	0.2292	0.0584	0.1789	-0.0079
	(4.040)***	(1.418)	(3.144)***	(-0.227)
Ever repeated a grade	-39.6920	-5.0135	-38.7614	-4.2894
	(-17.029)***	(-2.687)***	(-16.220)***	(-2.956)***
Ever dropped-out	-6.1516	-2.1293	-13.4413	-3.7113
	(-2.347)**	(-1.145)	(-5.579)***	(-2.090)**
Reads books at home	17.5734	6.2704	17.3460	3.6314
	(6.282)***	(3.245)***	(5.830)***	(1.932)*
Child learns in home language	3.8083	-2.2792	14.5838	5.4488
	(1.110)	(-0.771)	(4.091)***	(1.920)*
Pastoralist	-24.1437	-4.3839	-37.9640	-8.0455
	(-5.047)***	(-1.350)	(-7.656)***	(-2.476)**
Pupil spends time on paid work	-10.4830	0.2447	-12.1998	-1.0128
	(-4.040)***	(0.122)	(-4.414)***	(-0.622)
Constant	432.6776	620.6550	447.7144	609.2963
	(39.844)***	(8.293)***	(44.496)***	(8.844)***
Observations	9,291	9,291	9,291	9,291
R-squared	0.106	0.477	0.118	0.447
Number of class ¹	272	272	272	272

3 Robust t-statistics in parentheses

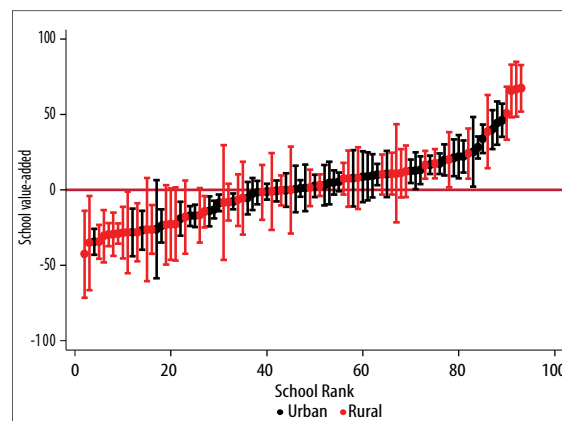
4 *** p<0.01, ** p<0.05, * p<0.1

Note: additional controls included for W1 test scores in maths and reading are included in the 'T2' models

Resource reallocation to improve equity

327. If the role of public finance is to counteract the inequality in access to education, resulting from unequal income distribution, the government ought to be directing more than 20 percent of public resources towards the lowest income quintile, whereas it is currently directing only 13 percent towards the poorest quintile, less than even the 14 percent share of out-of-pocket expenditure on education contributed by this quintile. At the other pole, 39 percent of the benefits of public education spending goes to the highest income quintile, which contributes 31 percent of out-of-pocket spending. Correcting for this anomaly calls for a reallocation of public education spending, from higher education (which caters largely to the top quintile) to lower primary education (which caters to all classes and disproportionately more to the poorest quintile).

Figure 5.24: School value-added in mathematics: rural and urban



Source:

Table 5.6: Differences between classes that add high and low value to pupil learning

Characteristic	Maths			Reading		
	High VA	Low VA	Sig	High VA	Low VA	Sig
School Characteristics						
Electricity	0.75	0.73		0.85	0.66	***
Water improved source	0.75	0.72		0.78	0.72	
Library	0.72	0.68		0.68	0.70	
Radio	0.88	0.53	***	0.76	0.61	*
Years of principal experience	4.16	3.45		4.42	3.39	**
Principal education Post-Sec Cert	0.02	0.14	***	0.02	0.12	**
Principal education Post-Sec Dip	0.37	0.44		0.37	0.48	
Principal education University	0.38	0.29		0.54	0.27	***
School is cluster resource centre	0.49	0.64	*	0.54	0.63	
School teachers only shift classes	0.58	0.73	*	0.49	0.87	***
Teachers monitor student attendance	0.49	0.76	***	0.54	0.75	***
Class Characteristics						
Class size	52.88	52.70		54.37	49.60	
Grade 5	0.48	0.41		0.53	0.43	
Class assets index	-0.01	-0.40	*	-0.06	-0.30	
Class has electric light	0.45	0.26	**	0.6	0.24	***
Class has radio	0.39	0.12	***	0.27	0.13	*
Every child has maths textbook	0.64	0.76		0.55	0.55	
Minutes regular maths instruct	222.59	214.70		185.46	171.82	

Table 5.6: Differences between classes that add high and low value to pupil learning

Characteristic	Maths			Reading		
	High VA	Low VA	Sig	High VA	Low VA	Sig
Teacher Characteristics (subject specific)						
Teacher is male	0.73	0.66		0.46	0.45	
Teacher score on maths test, %	63.13	55.79	***			
Teacher years of experience	11.64	10.86		11.38	13.14	
Teacher assets	0.08	-0.09		0.29	-0.08	
Teacher % days absence W1-W2	3.20	4.32		2.69	4.09	*
Teacher education Post-Sec Cert	0.10	0.14		0.60	0.09	
Teacher education Post-Sec Dip	0.46	0.5.		0.49	0.30	**
Teacher education University	0.15	0.03	**	0.21	0.01	***
Teacher specialized in subject taught/tested	0.63	0.51		0.48	0.49	
Pupil Characteristics (class average)						
Average maths score W1	515.36	490.58		537.43	489.58	***
Average maths score W2	569.51	484.31	***	568.62	489.77	***
Average reading score W1	496.52	497.40		523.32	481.26	***
Average reading score W2	539.38	516.46		590.03	480.43	***

t-test significance ***> $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Classes were defined as high/ low value added when they were in the top/ bottom quantile of classes for that subject.

328. The case for such a reallocation of resources from the highest to the lowest level in the education ladder is made stronger by the following facts: (i) more than half the recurring public expenditure on higher education is on provision of free food and lodging to all students in residence, many of who can afford to bear at least part of this cost; (ii) serious classroom and teacher shortages exist in primary schools in particular regions and districts, addressing which will have high marginal impact on efficiency and school performance; and (iii) improved efficiency at lower primary level will increase the access of pupils from poorer households to higher levels, thereby also contributing to improved equity in the distribution of benefits.

329. The provision of free higher education services is based on the rationale that the beneficiaries will pay back after graduation and finding employment, through the “graduate tax”. However, actual level of cost recovery through this instrument is negligible and is not even being reported in any official publication. Moreover, while the graduate tax is in theory a suitable instrument for recovering the academic cost of providing higher education, the non-academic recurring costs need to be, and can be, recovered more quickly. While it may not be politically feasible to withdraw or cut down on subsidies being provided to university students, it should be possible to at least freeze the aggregate amount of subsidy in nominal Birr, and gradually shift a part of the non-academic recurring cost onto the students, complemented by financial assistance to the few students from lower income households who gain admission in higher educational institutions.

Resource reallocation to improve efficiency

- 330. Additional resources for non-salary recurring inputs, provided through GEQIP, have not had a visible impact on average efficiency in primary education, even though efficiency has improved in better equipped *woredas* and schools.** The average has been pulled down by a lagging quarter of the *woredas*, where efficiency has declined in spite of additional non-salary funding, in the absence of addressing the binding constraint, i.e., teacher and classroom shortages.
- 331. The persistence of acute shortages of teachers and classrooms in lower primary education in the case of the lagging quartile of *woredas* shows that the existing structure of inter-governmental grants is unable to address such shortages, which are concentrated in a few regions and *woredas*.** Formula-based general purpose grants from federal to regional and from regional to *woreda* governments cannot address such concentrated shortages. Nor can the existing GEQIP school grant in its present design, being distributed to all schools proportional to enrolment.
- 332. Some mechanism for transferring teachers from one *woreda* to another has to be worked out.** It should ideally be done in a way that makes it gainful for both parties involved in the transfer, and at minimum additional cost to the public exchequer per transfer. An exchange system could be created wherein *woredas* that have large teacher shortfalls can post their needs/demands—and those that have extra teachers can choose to offer some on transfer. Suppose a rule is established whereby the donor *woreda* is required to transfer 90 percent of the budget for Remuneration of Transferred Teachers to the recipient *woreda* (it could be a time bound contract), on the condition that the latter allocates 10 percent and commits to take on all future increases in salary and allowances. For the Donor, the benefit is the 10 percent immediate saving, plus further saving in the future since the continuing commitment towards the lent-out teachers remains fixed in nominal Birr. For the Recipient, the benefit is the ability to hire additional teachers with minimal initial cost and longer time to mobilise internal financing. For the nation as a whole, the benefit is better utilization of available teacher capacity and hence improvement in efficiency at lower cost (than if all *woredas* simply keep going after desired PTR targets, as fast as their financing capacity permits).

Ensuring essential inputs and processes to improve quality

- 333. Minimum school resources including infrastructure (electricity, water, sanitation), learning resources (textbooks and reference materials) and discretionary funds should be ensured at every schools as these are factors that have positive impacts on student learning.** Schools should monitor the teaching/contact time and reduce the time teachers being in school but not teaching. Teachers' increased efforts in monitoring student attendance will reduce their absenteeism. Teacher professional development should address teachers' pedagogical challenges and increase their knowledge. Strengthening the system quality assurance capacity will likely bring long-term improvement in learning.

Leveraging additional resources for education

- 334. Ethiopia's ambitions to become a middle-income country (MIC) by 2025 and its education sector development targets (ESDPV) are admirable, but the achievement of these targets depends on the commitment of all stakeholders: government, families, communities, schools, educators, and administrators.** The resources required are very large, necessitating that all key financiers of the system: the government, families and development partners to step up their efforts.
- 335. Given that a steady 20 percent share of the government budget has been allocated to education over the past decade and the medium-term fiscal framework implies a constrained envelope for government spending as a whole, public resources for education are unlikely to rise above the current level of around 4 percent of GDP.** However, the relatively low share of education in private household expenditures imply that additional resources could be leveraged from private sources. Such potential could be tapped in the case of secondary, TVET and higher education.
- 336. Analysis of the results of the 2011 Household Income, Consumption and Expenditure Survey shows that a majority of households who send their children to public secondary school have the same spending power as households that send their children to private secondary schools.** Yet non-government providers account for less than 5 percent of enrolment in grade 9; and the growth of aggregate supply has failed to keep pace with the growth in demand for general secondary (grades 9-10) education. These facts suggest that it is worthwhile to tap the unused potential for expanding private provision of general secondary education, so as to fulfil the unmet demand with least additional public spending. Higher enrolment of pupils from higher and middle income households in private secondary schools will enable public resources to benefit larger numbers from lower income families.
- 337. A subsector where demand has apparently declined due to unfulfilled expectations is TVET, where employment and earnings prospects do not seem worth the investment to many households.** Low external efficiency, meaning too few among TVET graduates finding the jobs they aspired for, has been the main reason for the recent decline in enrolment. Developing a partnership with the potential employers could perhaps be a more effective way to address technical training needs and at the same time leverage additional resources from the private sector. A public-private partnership approach is also an option for further expansion of higher education in the future, having already created a significant number of publicly funded universities in the country.

Strengthening credibility of EMIS data

- 338. The grade-specific enrolment, repeater and readmitted numbers reported by many of the *woredas* do not fulfil even a simple consistency criterion, namely, that the drop-out rates implied by the reported data must not be negative.** Of a total of over 800 *woredas* for which EMIS data is available for the five successive years, 2008/09 to 2012/13 (EC01 to EC05), only 37 percent of all *woredas* in the country are credible and can be used for analysing output efficiency of schools and its determinants. Data submitted by the remaining 63 percent of *woredas* are not suited for such analysis. Data submitted by schools and *woredas* need to be checked for consistency and reliability.

Realistic planning and target setting

- 339. Education sector goals and targets need to take into account not only the constraints on supply but also on the demand for education.** For instance, the fact that enrolment drops as one moves from lower to upper primary education is, to a significant extent, influenced by the opportunity cost of sending 10-14 year old children to school when they could be doing some work and contributing significantly to family income. While the first milestone of getting all children (or at least 95 percent) to enter primary education in time is within reach in the majority of regions, this is not the case with respect to the second milestone of getting more than 95 percent to complete the primary cycle. Achieving the latter requires not only improvements in service delivery but also easing of the economic constraints on poor households.
- 340. Additional primary teacher recruitment needs to be carefully regulated to ensure that it is targeted at those schools/woredas where teacher shortage is clearly a binding constraint to improving efficiency and effectiveness.** It is possible to use EMIS data to generate simple indicators of adequacy/inadequacy of (i) teachers and (ii) classrooms, and establish simple guidelines that *woreda* councils could use while allocating scarce resources. The ratio of Teachers per Section (TPS) = PSR / PTR is a useful indicator. If PTR is much worse than desired target (in a school or *woreda*) AND TPS is way below 1, then it clearly means that teacher shortage is a binding constraint and of HIGH priority to address. On the other hand, if PSR is much worse than target and TPS is way higher than 1, classrooms/sections are the most binding constraint and of top priority.

Reform options

- 341. The following are some reform options for addressing the problems highlighted above:**
- Safeguard the financing for the educationally disadvantaged areas and groups to improve their access to education. This should cover:
 - ECD/pre-schools (to improve the school readiness),
 - Grade 1-4 (increasing enrolment of the last 10% and reducing drop-outs),
 - Grade 5-8 (increasing the supply and addressing the demand constraints for the bottom half);
 - Grade 9-10 (increasing the supply and addressing the demand constraints in rural areas);
 - Preparatory schools (Grade 11-12), universities and TVET programs: ensure that financial aids are available and used to increase their access to
 - Introduce a cap on the amount of subsidy to cover non-academic costs (on food and lodging) incurred by higher educational institutions;
 - Reallocate savings on higher education recurring expenditure to initiate a new Special Grant from federal via regions to woredas, targeted at those woredas with most acute shortages of primary teachers and classrooms’;
 - Establish an appropriate mechanism for transfer of teachers across woredas to reduce the wide inter-*woreda* variance in PTR;
 - Establish and publicize guidelines for regions/woredas to ensure that additional teacher recruitment is targeted at those woredas/schools where teacher shortage is clearly a binding constraint;

- Within secondary education, shift the emphasis of additional investments from teacher recruitment to the creation of additional classroom space;
- Conduct an in-depth study of the demand and supply of TVET training and explore the possibility of a public-private partnership approach to leverage additional resources as well as to improve external efficiency;
- Encourage families to invest in learning materials (in addition to their current investment in uniforms, bags and transport);
- Develop a conducive policy framework for expansion of non-government provision in secondary and higher education, thereby leveraging additional resources;
- Ensure that data reported by schools and woredas through the Education Management Information System (EMIS) are subjected to adequate and effective consistency checks;
- Monitor and analyse the sector financing using unit cost approach. Items within the recurrent expenditures that are deemed essential for the efficiency/quality of delivery should gradually be funded domestically to ensure sustainability;
- Build capacity building to analyse several sources of data (administrative reports, census, surveys and in-depth studies) to analyse, triangulate and interpret the data and identify system challenges and potential solutions;
- Strengthen the system quality assurance including:
 - assessing students regularly (classroom assessment) and use examination and national (and international) assessment data to provide feedback to schools and policy makers;
 - strengthening teacher training programs (both pre and in-service) and developing teacher competency validation processes (accreditation, licensing and career development);
 - using school inspection data to inform school improvement planning, teacher and school leaders' development; and
 - conducting school effectiveness analysis using student/teacher/school characteristics.

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WATER AND SANITATION

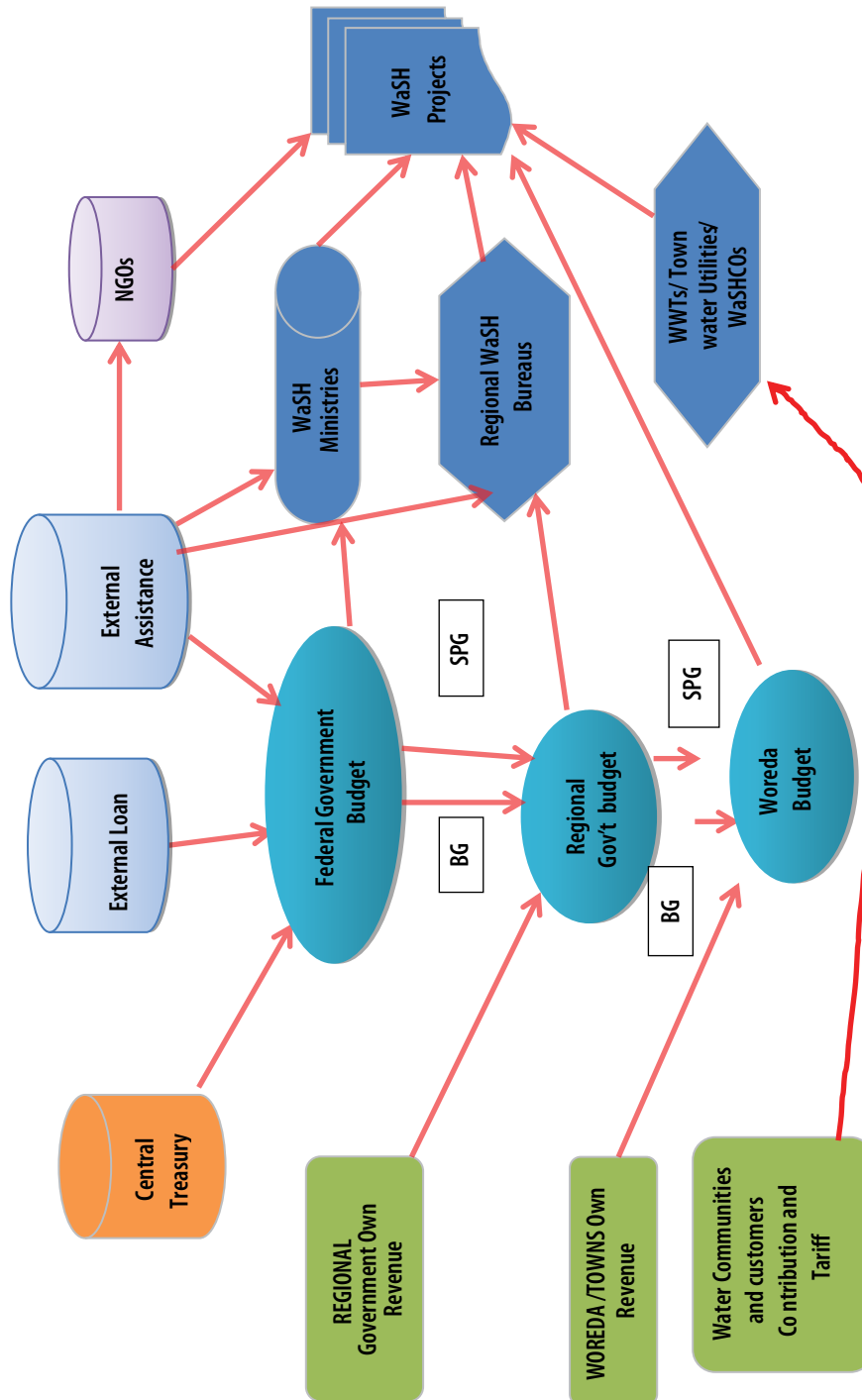
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ANNEXES

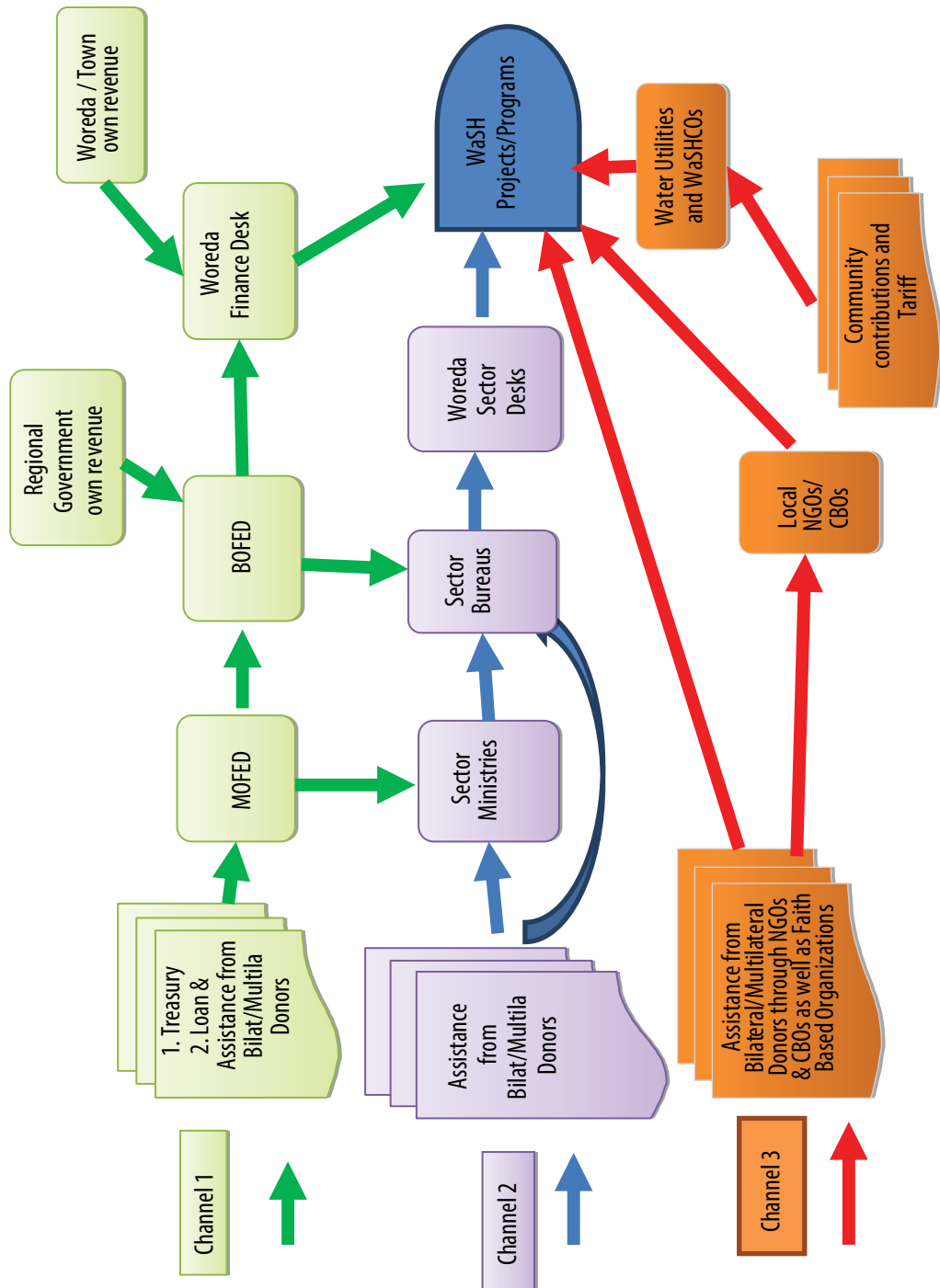
Annex 1: Policy and Institutional Developments since 1990's

1995-96	Ministry of Water Resources established
1994-95	Regional Water Bureau created
1999	National Water Policy issued
2000	Water Resources Management Proclamation issued and ratified
2001	Water Sector Strategy formulated
2002	Ethiopian Guidelines for Drinking Water Quality Developed and endorsed
2002	Environmental Pollution Control proclamation
2002	Public Health proclamation
2002	Water Sector Development Program - WSDP (2002-2016) developed
2003	National Water Supply and Sanitation Master Plan developed
2004	Decentralization of Rural Water Supply Responsibilities to <i>Woredas</i>
2005	Water Resource Management Regulation issued 2005
2005	Universal Access Plan (2005-2012) developed for water supply and sanitation
2006	First WASH Multi-Stakeholder Forum (annual sector review)
2006	Memorandum of Understanding was signed b/n MoWIE, MoH and MoE
2006	National Hygiene and Sanitation Strategy developed
2008	Universal Access Plan (UAP) for water supply and sanitation revised
2012	Memorandum of Understanding b/n MoWIE, MoH and MoE revised
2012	Universal Access Plan (UAP) for water supply and sanitation revised
2013	WaSH Implementation Framework signed
2013	One WaSH National Program developed

Annex 2: Source and flow of Fund to WSS



Annex 3: Funding Channel to the WSS



Annex 4: Potential risks of some SOEs financing

EEPCo is showing signs of debt service difficulties are expected to intensify in the near future. EEPCo has low domestic tariff rate. The company incurs large expense on although its operating expenses (mostly based on hydropower) are low. However, the medium and long term financial feasibility, especially in the wake of huge existing and even larger future debt obligations, EEPCO will be exposed to high risk of debt service difficult. In this regard, EEPCO needs to review its tariff structure in order to bring it to competitive levels. the latest poverty assessment report (World Bank, 2014), found out that the low electricity tariffs benefit high income groups more than people with lower income. The company borrowing from domestic banks through corporate bond on CBE which accounted for 79.1 percent of corporate bonds holding of CBE.

Table 1. Stock of Corporate Bond Holding of Commercial Bank of Ethiopia, Million Birr

	2009/10	2010/11	2011/12	2012/13	2013/14	Share
EEPCO	16,600	29,600	49,000	65,100	86,300	79.1
DBE	4,095	1,800	1,871	689	43	0.0
Saving Houses Dev't Enterprises	-	-	-	925	-	0.0
Railway Corporation	-	-	-	-	5,100	4.7
Regional States	7,033	8,878	11,016	12,746	17,695	16.2
Total corporate bond	27,727	40,278	61,787	79,459	109,138	100.0

Source: NBE Quarterly Bulletin

Ethio telecom has made two major investment activities in the last decade through external borrowing. The initial investment came in 2006, when the company signed a US\$1.5 billion loan with the Chinese ZTE. Recent Telecom is engaged in expansion work with total borrowing of \$1.5 billion from Huawei, ZTE and Ericsson. In the last few years, the company registered an operation profit (measured as Earnings before Interest, Taxes, Depreciation, and Amortization (EBITDA)) equivalent to US\$0.65 billion in 2012/13 with slightly lower results in the two previous years (US\$0.5 billion and US\$0.4 billion, respectively). The financial performance telecom improved despite poor quality of service.

EAL has seen huge operational expansion inclusive of substantial increment of its asset base in the last ten years. Its revenue is accompanied by significant leverage and thin profit margins. The bulk of EAL's financing comprises external debt (97.8 percent) are devoted to the purchase of aircrafts for the passenger and cargo services. Large expansion activities of the company through loan financed purchase of aircrafts and construction of infrastructure potentially affect its profitability and debt servicing. Ethiopian airlines profit margin (the ratio of net profit over operating revenue) declined from 10 percent to 5 percent in 2009/10 -2012/13. As the same time, the interest coverage ratio (the ratio of revenue before interest and taxes over interest expenses) deteriorated from 11.3 to 1.9 indicating high cost involved in debt services. The main risk to the company includes foreign currency risk, fuel price risk and interest rate risks for which the Ethiopian airlines formally adopted risk management tools.

As newly reestablished entity, the Ethiopia railway corporation started to invest on new railway projects. Since there was not functional railway system, the company has not generated any revenue since 2007/08. However, in recent years, the company's capital expenditure is increasing as a result of ambitious railway infrastructure investment that is financed from external and domestic loans. The company contracted \$2.8 billion and \$1.2 billion loans from external sources in FY13 and FY14 and issued corporate bond worth of Birr 3.1 billion to CBE through third quarter of FY 14 for its investment activities indicating the capital spending will increase in the coming years.

The drive for public investments has absorbed large shares of credit from the domestic financial system which potentially affect the state owned Commercial Bank of Ethiopia. Domestic credit to the public sector was estimated at 25 percent of GDP in FY2013/14, where the CBE is the dominant provider of credit to the SOEs. With the CBE fully government owned, there is high financial sector interconnectedness between the SOEs, CBE, and the FG that can have financial stability implications. The high concentration of loans to SOEs and holding of SOE corporate debt in state-owned banks increases the risk that, should the SOEs fall into financial difficulty, it could sharply increase the nonperforming loans in the state-owned banks' portfolio. Conversely, should the state-owned banks fall into financial difficulty, it could suspend extending new loans to the SOEs, or demand repayment of the principal instead of rolling over the existing debt. This could starve off an important source of financing for the SOEs and could lead to the contraction of activities that support economic growth dependent on SOE investments.

Table 2: Summary of Region/Woreda transfer formula

Region	General approach	Current	Capital
Amhara	Expenditure need by sectors: education, health, agriculture, general administrative services	(75%): Unit cost of service provision	(15%): infrastructure deficit
Oromia	Education, health, agriculture, water, MSE	Costs for service delivery	Infrastructure deficit
Tigray	Agriculture, education, health, water, rural roads and administrative services	Regression equation and cost drivers	Capital expenditures need
SNNP	Expenditure need and fiscal capacity: sectors which cover 90% of expenditure zones		
Gambella	Per capita approach: per capita total share, per capita expenditure need, per capita revenue capacity		
Benishangul Gumuz	Per capita approach: education, health, agriculture, water	(60%): Equity in access to services	(30%): Level of development
Afar	Education, health, pastoral agriculture rural development	Expenditure needs by sector	Inter-woreda differences in infrastructure
Somalia	Education, health, drinking water, agriculture and rural development	Recurrent and capital budget needs	Infrastructure deficit based on inter-woreda comparison
Dire Dawa	Urban Kabeles only: elementary education municipal and non-municipal service services	Unit cost per user* potential users	Indicators of local development
Harari	Sectors and Kabeles	Standard price (per patient for health and capitation grants for education) & inflation	Five-year development plan: rural and urban roads and community development.
Addis Ababa	10 sub-cities	(Unit cost for health, education, police and solid waste) and average expenditure growth for all others	Sub-city request + own fiscal effort

Annex 5: Ethiopia Expenditure Standard Tables based on the Ethiopia BOOST Database

(Actual expenditure values presented in billions of local currency, as a share of totals, and as share of GDP)

Economic Classification

Table 1a. Expenditures By Economic Classification

Billions of local currency	2008/09	2009/10	2010/11	2011/12	2012/13
6100 Personnel Services	17.7	20.6	26.2	34.6	42.0
6110 Emoluments	16.0	18.5	23.2	30.2	36.7
6120 Allowances and benefits	0.7	1.0	1.5	2.1	2.4
6130 Pension contributions	1.0	1.1	1.5	2.2	2.9
6200 Goods and Services	12.9	15.9	17.6	22.4	26.5
6210 Goods and supplies	6.1	5.6	6.9	10.4	11.2
6230 Traveling and official entertainment	1.3	1.7	2.1	3.0	3.8
6240 Maintenance and repair services	1.2	1.4	2.1	2.3	3.0
6250 Contracted services	2.2	2.5	3.3	4.0	5.2
6270 Training services	1.0	1.5	2.3	2.1	2.5
6280 Stocks of emergency and strategic goods	1.1	3.2	1.0	0.7	0.8
6300 Fixed Assets and Construction	22.1	31.3	40.5	57.7	82.2
6310 Fixed assets	3.6	6.1	8.0	13.8	12.8
6320 Construction	18.5	25.2	32.5	43.9	69.4
6340 NOT MAPPED	0.0	0.0	0.0	0.0	0.0
6400 Subsidies, Grants and Payments	9.8	12.5	15.4	20.5	16.0
6410 Subsidies, investments & grant payments	7.4	9.6	10.7	16.8	10.6
6430 Debt servicing and repayments	2.4	2.9	4.7	3.7	5.4
6440 Pension payments	0.0	0.0	0.0	0.0	0.0
Grand Total	62.4	80.4	99.8	135.2	166.7

Table 1b. Expenditures By Economic Classification

As a share of total, %	2008/09	2009/10	2010/11	2011/12	2012/13
6100 Personnel Services	28.4	25.7	26.3	25.6	25.2
6110 Emoluments	90.3	89.9	88.5	87.4	87.4
6120 Allowances and benefits	3.8	4.7	5.7	6.1	5.8
6130 Pension contributions	5.8	5.5	5.8	6.5	6.9
6200 Goods and Services	20.6	19.8	17.7	16.6	15.9
6210 Goods and supplies	47.6	35.0	38.9	46.3	42.2
6230 Traveling and official entertainment	10.1	10.6	12.0	13.3	14.4
6240 Maintenance and repair services	9.2	8.9	11.9	10.3	11.3
6250 Contracted services	16.7	16.0	18.9	17.7	19.5
6270 Training services	7.6	9.3	12.9	9.2	9.4
6280 Stocks of emergency and strategic goods	8.8	20.1	5.5	3.3	3.2
6300 Fixed Assets and Construction	35.4	39.0	40.6	42.7	49.3
6310 Fixed assets	16.1	19.6	19.8	23.9	15.6
6320 Construction	83.9	80.4	80.2	76.1	84.4
6340 NOT MAPPED	0.0	0.0	0.0	0.0	0.0
6400 Subsidies, Grants and Payments	15.6	15.6	15.4	15.2	9.6
6410 Subsidies, investments & grant payments	75.6	76.7	69.2	82.0	66.4
6430 Debt servicing and repayments	24.4	23.3	30.8	18.0	33.6
6440 Pension payments	0.0	0.0	0.0	0.0	0.0
Grand Total	100.0	100.0	100.0	100.0	100.0

Table 1c. Expenditures By Economic Classification

As a share of GDP, %	2008/09	2009/10	2010/11	2011/12	2012/13
6100 Personnel Services	5.2	5.3	5.1	4.6	4.9
6110 Emoluments	4.7	4.8	4.5	4.0	4.2
6120 Allowances and benefits	0.2	0.2	0.3	0.3	0.3
6130 Pension contributions	0.3	0.3	0.3	0.3	0.3
6200 Goods and Services	3.8	4.1	3.4	3.0	3.1
6210 Goods and supplies	1.8	1.4	1.3	1.4	1.3
6230 Traveling and official entertainment	0.4	0.4	0.4	0.4	0.4
6240 Maintenance and repair services	0.3	0.4	0.4	0.3	0.3
6250 Contracted services	0.6	0.7	0.6	0.5	0.6
6270 Training services	0.3	0.4	0.4	0.3	0.3
6280 Stocks of emergency and strategic goods	0.3	0.8	0.2	0.1	0.1
6300 Fixed Assets and Construction	6.5	8.1	7.9	7.7	9.5
6310 Fixed assets	1.1	1.6	1.6	1.8	1.5
6320 Construction	5.5	6.5	6.3	5.9	8.0
6340 NOT MAPPED	0.0	0.0	0.0	0.0	0.0
6400 Subsidies, Grants and Payments	2.9	3.2	3.0	2.7	1.9
6410 Subsidies, investments & grant payments	2.2	2.5	2.1	2.3	1.2
6430 Debt servicing and repayments	0.7	0.8	0.9	0.5	0.6
6440 Pension payments	0.0	0.0	0.0	0.0	0.0
Grand Total	18.5	20.8	19.4	18.1	19.3

Table 2a-c. Expenditures By Economic and Administrative Classification

Billions of local currency	2008/09	2009/10	2010/11	2011/12	2012/13
6100 Personnel Services	17.7	20.6	26.2	34.6	42.0
1 Federal	6.1	7.0	7.7	10.5	13.7
2 Local	11.6	13.6	18.5	24.1	28.2
6200 Goods and Services	12.9	15.9	17.6	22.4	26.5
1 Federal	8.6	10.4	10.8	12.7	13.1
2 Local	4.3	5.5	6.9	9.7	13.4
6300 Fixed Assets and Construction	22.1	31.3	40.5	57.7	82.2
1 Federal	14.2	22.7	29.9	36.6	49.5
2 Local	7.9	8.6	10.5	21.1	32.7
6400 Subsidies, Grants and Payments	9.8	12.5	15.4	20.5	16.0
1 Federal	8.4	10.7	12.4	17.7	12.0
2 Local	1.4	1.8	3.0	2.8	4.0
Grand Total	62.4	80.4	99.8	135.2	166.7
As a share of total, %					
6100 Personnel Services	28.4	25.7	26.3	25.6	25.2
1 Federal	34.5	33.8	29.5	30.3	32.7
2 Local	65.5	66.2	70.5	69.7	67.3
6200 Goods and Services	20.6	19.8	17.7	16.6	15.9
1 Federal	66.6	65.3	61.1	56.5	49.4
2 Local	33.4	34.7	38.9	43.5	50.6
6300 Fixed Assets and Construction	35.4	39.0	40.6	42.7	49.3
1 Federal	64.3	72.4	74.0	63.5	60.2
2 Local	35.7	27.6	26.0	36.5	39.8
6400 Subsidies, Grants and Payments	15.6	15.6	15.4	15.2	9.6
1 Federal	86.2	85.6	80.7	86.2	75.3
2 Local	13.8	14.4	19.3	13.8	24.7
Grand Total	100.0	100.0	100.0	100.0	100.0
As a share of GDP, %					
6100 Personnel Services	5.2	5.3	5.1	4.6	4.9
1 Federal	1.8	1.8	1.5	1.4	1.6
2 Local	3.4	3.5	3.6	3.2	3.3
6200 Goods and Services	3.8	4.1	3.4	3.0	3.1
1 Federal	2.5	2.7	2.1	1.7	1.5
2 Local	1.3	1.4	1.3	1.3	1.6
6300 Fixed Assets and Construction	6.5	8.1	7.9	7.7	9.5
1 Federal	4.2	5.9	5.8	4.9	5.7
2 Local	2.3	2.2	2.0	2.8	3.8
6400 Subsidies, Grants and Payments	2.9	3.2	3.0	2.7	1.9
1 Federal	2.5	2.8	2.4	2.4	1.4
2 Local	0.4	0.5	0.6	0.4	0.5
Grand Total	18.5	20.8	19.4	18.1	19.3

Table 3a. Expenditures By Economic and Functional Classification

Billions of local currency	2008/09	2009/10	2010/11	2011/12	2012/13
6100 Personnel Services	17.7	20.6	26.2	34.6	42.0
100 Administration and General	5.9	6.4	8.5	11.2	12.3
200 Economic	4.1	5.2	5.2	6.8	9.9
300 Social	7.5	8.9	12.3	16.2	19.2
400 Others	0.0	0.0	0.0	0.0	0.0
500 Municipal Functions	0.2	0.1	0.3	0.4	0.5
6200 Goods and Services	12.9	15.9	17.6	22.4	26.5
100 Administration and General	3.5	4.3	6.0	7.5	9.1
200 Economic	5.8	6.1	4.4	5.4	7.4
300 Social	3.3	5.3	7.0	9.1	9.5
400 Others	0.0	0.0	0.0	0.0	0.0
500 Municipal Functions	0.2	0.2	0.2	0.4	0.5
6300 Fixed Assets and Construction	22.1	31.3	40.5	57.7	82.2
100 Administration and General	2.1	3.1	3.4	5.8	5.4
200 Economic	14.7	20.1	26.6	38.1	60.1
300 Social	4.6	7.4	9.4	13.0	15.5
400 Others	0.2	0.1	0.4	0.1	0.2
500 Municipal Functions	0.5	0.7	0.7	0.7	1.0
6400 Subsidies, Grants and Payments	9.8	12.5	15.4	20.5	16.0
100 Administration and General	0.5	0.6	0.9	1.4	2.1
200 Economic	3.6	3.4	5.0	8.9	4.1
300 Social	1.9	2.3	2.6	3.5	1.2
400 Others	3.7	5.8	6.5	6.1	7.9
500 Municipal Functions	0.1	0.4	0.3	0.6	0.7
Grand Total	62.4	80.4	99.8	135.2	166.7

Table 3b. Expenditures By Economic and Functional Classification

As a share of total, %	2008/09	2009/10	2010/11	2011/12	2012/13
6100 Personnel Services	28.4	25.7	26.3	25.6	25.2
100 Administration and General	33.5	30.8	32.3	32.4	29.3
200 Economic	23.4	25.2	19.7	19.8	23.6
300 Social	42.2	43.2	46.8	46.7	45.8
400 Others	0.1	0.1	0.1	0.1	0.1
500 Municipal Functions	0.9	0.7	1.1	1.1	1.2
6200 Goods and Services	20.6	19.8	17.7	16.6	15.9
100 Administration and General	27.4	27.0	34.2	33.4	34.5
200 Economic	45.2	38.3	24.9	24.2	28.1
300 Social	25.7	33.6	39.4	40.7	35.7
400 Others	0.1	0.0	0.0	0.0	0.0
500 Municipal Functions	1.6	1.0	1.4	1.6	1.7
6300 Fixed Assets and Construction	35.4	39.0	40.6	42.7	49.3
100 Administration and General	9.7	9.7	8.4	10.1	6.6
200 Economic	66.4	64.3	65.7	66.0	73.0
300 Social	20.9	23.6	23.2	22.6	18.9
400 Others	0.8	0.3	1.1	0.2	0.2
500 Municipal Functions	2.2	2.1	1.7	1.2	1.2
6400 Subsidies, Grants and Payments	15.6	15.6	15.4	15.2	9.6
100 Administration and General	5.2	4.8	6.1	6.7	13.3
200 Economic	36.4	27.4	32.2	43.4	25.5
300 Social	19.0	18.3	17.1	17.2	7.4
400 Others	38.0	46.6	42.4	29.7	49.2
500 Municipal Functions	1.4	2.9	2.2	3.1	4.6
Grand Total	100.0	100.0	100.0	100.0	100.0

Table 3c. Expenditures By Economic and Functional Classification

As a share of GDP, %	2008/09	2009/10	2010/11	2011/12	2012/13
6100 Personnel Services	5.2	5.3	5.1	4.6	4.9
100 Administration and General	1.8	1.6	1.6	1.5	1.4
200 Economic	1.2	1.3	1.0	0.9	1.1
300 Social	2.2	2.3	2.4	2.2	2.2
400 Others	0.0	0.0	0.0	0.0	0.0
500 Municipal Functions	0.0	0.0	0.1	0.1	0.1
6200 Goods and Services	3.8	4.1	3.4	3.0	3.1
100 Administration and General	1.0	1.1	1.2	1.0	1.1
200 Economic	1.7	1.6	0.9	0.7	0.9
300 Social	1.0	1.4	1.4	1.2	1.1
400 Others	0.0	0.0	0.0	0.0	0.0
500 Municipal Functions	0.1	0.0	0.0	0.0	0.1
6300 Fixed Assets and Construction	6.5	8.1	7.9	7.7	9.5
100 Administration and General	0.6	0.8	0.7	0.8	0.6
200 Economic	4.3	5.2	5.2	5.1	6.9
300 Social	1.4	1.9	1.8	1.7	1.8
400 Others	0.1	0.0	0.1	0.0	0.0
500 Municipal Functions	0.1	0.2	0.1	0.1	0.1
6400 Subsidies, Grants and Payments	2.9	3.2	3.0	2.7	1.9
100 Administration and General	0.1	0.2	0.2	0.2	0.2
200 Economic	1.1	0.9	1.0	1.2	0.5
300 Social	0.5	0.6	0.5	0.5	0.1
400 Others	1.1	1.5	1.3	0.8	0.9
500 Municipal Functions	0.0	0.1	0.1	0.1	0.1
Grand Total	18.5	20.8	19.4	18.1	19.3

Functional Classification

Table 1a. Expenditures By Functional Classification

Billions of local currency	2008/09	2009/10	2010/11	2011/12	2012/13
100 Administration and General	12.1	14.3	18.9	25.8	29.0
110 Organs of State	2.4	3.0	3.5	4.5	5.1
120 Justice and Security	3.4	4.2	5.7	7.7	8.8
140 Defense	3.8	4.0	4.6	6.3	6.5
150 General Services	2.6	3.1	5.0	7.2	8.5
200 Economic	28.2	34.9	41.1	59.2	81.5
210 Agriculture and Rural Development	11.6	12.4	10.7	15.8	17.1
220 Water Resources	2.5	3.9	4.7	8.1	12.1
230 Trade and Industry	0.9	1.1	1.3	2.9	4.7
250 Mines and Energy	0.3	0.2	0.2	0.1	0.2
260 Transport and Communication	0.3	0.9	1.2	1.1	1.2
270 Construction	12.6	16.5	22.9	31.2	46.3
300 Social	17.3	23.9	31.2	41.9	45.4
310 Education	11.9	16.0	22.1	29.5	34.6
320 Information and Communication	0.2	0.4	0.2	0.3	0.2
330 Culture and Sport	0.6	0.6	0.9	1.2	1.5
340 Health	4.5	6.8	7.8	10.3	8.5
350 Labor and Social Affairs	0.1	0.1	0.1	0.3	0.5
360 Prevention and Rehabilitation	0.0	0.1	0.1	0.1	0.1
400 Others	3.9	5.9	7.0	6.2	8.1
410 Transfers	1.4	2.7	2.3	2.3	2.6
420 NOT MAPPED	0.2	0.2	0.1	0.1	0.1
430 Subsidies to regions	0.0	0.0	0.0	0.0	0.0
450 Debt	2.1	2.9	4.5	3.6	5.3
460 Contingencies	0.2	0.2	0.1	0.2	0.0
470 Miscellaneous	0.0	0.0	0.0	0.0	0.0
500 Municipal Functions	1.0	1.3	1.6	2.1	2.7
510 Administration and General Services	0.3	1.0	1.2	1.6	2.1
520 Economic	0.6	0.3	0.3	0.4	0.5
530 Social	0.0	0.1	0.0	0.0	0.1
560 NOT MAPPED	0.0	0.0	0.0	0.0	0.0
Grand Total	62.4	80.4	99.8	135.2	166.7

Table 1b. Expenditures By Functional Classification

As a share of total, %	2008/09	2009/10	2010/11	2011/12	2012/13
100 Administration and General	19.4	17.8	18.9	19.1	17.4
110 Organs of State	19.7	21.1	18.6	17.6	17.5
120 Justice and Security	27.9	29.6	30.3	30.0	30.5
140 Defense	31.2	27.7	24.5	24.5	22.5
150 General Services	21.1	21.7	26.6	28.0	29.4
200 Economic	45.1	43.4	41.2	43.8	48.9
210 Agriculture and Rural Development	41.1	35.5	26.0	26.6	20.9
220 Water Resources	8.9	11.3	11.5	13.7	14.9
230 Trade and Industry	3.1	3.0	3.3	5.0	5.8
250 Mines and Energy	0.9	0.4	0.4	0.2	0.2
260 Transport and Communication	1.2	2.4	3.0	1.8	1.4
270 Construction	44.7	47.3	55.8	52.7	56.8
300 Social	27.6	29.8	31.3	31.0	27.2
310 Education	69.1	66.7	70.8	70.5	76.1
320 Information and Communication	1.0	1.7	0.6	0.7	0.4
330 Culture and Sport	3.2	2.6	2.8	3.0	3.3
340 Health	25.9	28.4	25.1	24.7	18.7
350 Labor and Social Affairs	0.4	0.4	0.5	0.8	1.2
360 Prevention and Rehabilitation	0.2	0.2	0.3	0.3	0.2
400 Others	6.3	7.4	7.0	4.6	4.8
410 Transfers	35.4	45.0	32.9	36.7	32.7
420 NOT MAPPED	5.7	2.9	1.7	1.2	0.9
430 Subsidies to regions	0.0	0.0	0.0	0.0	0.0
450 Debt	54.8	49.0	64.5	58.1	66.0
460 Contingencies	3.9	3.0	0.9	3.8	0.2
470 Miscellaneous	0.2	0.1	0.1	0.2	0.2
500 Municipal Functions	1.6	1.6	1.6	1.5	1.6
510 Administration and General Services	32.8	72.9	76.0	77.7	78.3
520 Economic	63.0	22.0	21.7	20.7	18.2
530 Social	4.2	5.1	2.3	1.7	3.6
560 NOT MAPPED	0.0	0.0	0.0	0.0	0.0
Grand Total	100.0	100.0	100.0	100.0	100.0

Table 1c. Expenditures By Functional Classification

As a share of GDP, %	2008/09	2009/10	2010/11	2011/12	2012/13
100 Administration and General	3.6	3.7	3.7	3.5	3.4
110 Organs of State	0.7	0.8	0.7	0.6	0.6
120 Justice and Security	1.0	1.1	1.1	1.0	1.0
140 Defense	1.1	1.0	0.9	0.8	0.8
150 General Services	0.8	0.8	1.0	1.0	1.0
200 Economic	8.3	9.0	8.0	7.9	9.4
210 Agriculture and Rural Development	3.4	3.2	2.1	2.1	2.0
220 Water Resources	0.7	1.0	0.9	1.1	1.4
230 Trade and Industry	0.3	0.3	0.3	0.4	0.5
250 Mines and Energy	0.1	0.0	0.0	0.0	0.0
260 Transport and Communication	0.1	0.2	0.2	0.1	0.1
270 Construction	3.7	4.3	4.5	4.2	5.4
300 Social	5.1	6.2	6.1	5.6	5.3
310 Education	3.5	4.1	4.3	4.0	4.0
320 Information and Communication	0.1	0.1	0.0	0.0	0.0
330 Culture and Sport	0.2	0.2	0.2	0.2	0.2
340 Health	1.3	1.8	1.5	1.4	1.0
350 Labor and Social Affairs	0.0	0.0	0.0	0.0	0.1
360 Prevention and Rehabilitation	0.0	0.0	0.0	0.0	0.0
400 Others	1.2	1.5	1.4	0.8	0.9
410 Transfers	0.4	0.7	0.4	0.3	0.3
420 NOT MAPPED	0.1	0.0	0.0	0.0	0.0
430 Subsidies to regions	0.0	0.0	0.0	0.0	0.0
450 Debt	0.6	0.8	0.9	0.5	0.6
460 Contingencies	0.0	0.0	0.0	0.0	0.0
470 Miscellaneous	0.0	0.0	0.0	0.0	0.0
500 Municipal Functions	0.3	0.3	0.3	0.3	0.3
510 Administration and General Services	0.1	0.2	0.2	0.2	0.2
520 Economic	0.2	0.1	0.1	0.1	0.1
530 Social	0.0	0.0	0.0	0.0	0.0
560 NOT MAPPED	0.0	0.0	0.0	0.0	0.0
Grand Total	18.5	20.8	19.4	18.1	19.3

Table 2a-c. Expenditures By Functional and Administrative Classification

Billions of local currency	2008/09	2009/10	2010/11	2011/12	2012/13
100 Administration and General	12.1	14.3	18.9	25.8	29.0
1 Federal	5.8	7.2	9.7	12.7	13.5
2 Local	6.3	7.1	9.2	13.1	15.5
200 Economic	28.2	34.9	41.1	59.2	81.5
1 Federal	20.1	26.2	29.4	38.3	48.9
2 Local	8.1	8.7	11.7	20.9	32.6
300 Social	17.3	23.9	31.2	41.9	45.4
1 Federal	7.6	12.0	15.9	20.7	18.5
2 Local	9.6	11.9	15.3	21.2	26.9
400 Others	3.9	5.9	7.0	6.2	8.1
1 Federal	3.7	5.4	5.9	5.8	7.5
2 Local	0.2	0.5	1.1	0.4	0.6
500 Municipal Functions	1.0	1.3	1.6	2.1	2.7
2 Local	1.0	1.3	1.6	2.1	2.7
Grand Total	62.4	80.4	99.8	135.2	166.7
As a share of total, %					
100 Administration and General	19.4	17.8	18.9	19.1	17.4
1 Federal	48.3	50.2	51.4	49.3	46.5
2 Local	51.7	49.8	48.6	50.7	53.5
200 Economic	45.1	43.4	41.2	43.8	48.9
1 Federal	71.2	75.0	71.6	64.7	60.0
2 Local	28.8	25.0	28.4	35.3	40.0
300 Social	27.6	29.8	31.3	31.0	27.2
1 Federal	44.2	50.3	50.9	49.3	40.8
2 Local	55.8	49.7	49.1	50.7	59.2
400 Others	6.3	7.4	7.0	4.6	4.8
1 Federal	95.5	90.8	83.9	93.2	92.5
2 Local	4.5	9.2	16.1	6.8	7.5
500 Municipal Functions	1.6	1.6	1.6	1.5	1.6
2 Local	100.0	100.0	100.0	100.0	100.0
Grand Total	100.0	100.0	100.0	100.0	100.0

As a share of GDP, %					
100 Administration and General	3.6	3.7	3.7	3.5	3.4
1 Federal	1.7	1.9	1.9	1.7	1.6
2 Local	1.8	1.8	1.8	1.8	1.8
200 Economic	8.3	9.0	8.0	7.9	9.4
1 Federal	5.9	6.8	5.7	5.1	5.7
2 Local	2.4	2.3	2.3	2.8	3.8
300 Social	5.1	6.2	6.1	5.6	5.3
1 Federal	2.3	3.1	3.1	2.8	2.1
2 Local	2.8	3.1	3.0	2.8	3.1
400 Others	1.2	1.5	1.4	0.8	0.9
1 Federal	1.1	1.4	1.1	0.8	0.9
2 Local	0.1	0.1	0.2	0.1	0.1
500 Municipal Functions	0.3	0.3	0.3	0.3	0.3
2 Local	0.3	0.3	0.3	0.3	0.3
Grand Total	18.5	20.8	19.4	18.1	19.3

Table 3a. Expenditures By Functional and Economic Classification

Billions of local currency	2008/09	2009/10	2010/11	2011/12	2012/13
100 Administration and General	12.1	14.3	18.9	25.8	29.0
6100 Personnel Services	5.9	6.4	8.5	11.2	12.3
6200 Goods and Services	3.5	4.3	6.0	7.5	9.1
6300 Fixed Assets and Construction	2.1	3.1	3.4	5.8	5.4
6400 Subsidies, Grants and Payments	0.5	0.6	0.9	1.4	2.1
200 Economic	28.2	34.9	41.1	59.2	81.5
6100 Personnel Services	4.1	5.2	5.2	6.8	9.9
6200 Goods and Services	5.8	6.1	4.4	5.4	7.4
6300 Fixed Assets and Construction	14.7	20.1	26.6	38.1	60.1
6400 Subsidies, Grants and Payments	3.6	3.4	5.0	8.9	4.1
300 Social	17.3	23.9	31.2	41.9	45.4
6100 Personnel Services	7.5	8.9	12.3	16.2	19.2
6200 Goods and Services	3.3	5.3	7.0	9.1	9.5
6300 Fixed Assets and Construction	4.6	7.4	9.4	13.0	15.5
6400 Subsidies, Grants and Payments	1.9	2.3	2.6	3.5	1.2
400 Others	3.9	5.9	7.0	6.2	8.1
6100 Personnel Services	0.0	0.0	0.0	0.0	0.0
6200 Goods and Services	0.0	0.0	0.0	0.0	0.0
6300 Fixed Assets and Construction	0.2	0.1	0.4	0.1	0.2
6400 Subsidies, Grants and Payments	3.7	5.8	6.5	6.1	7.9
500 Municipal Functions	1.0	1.3	1.6	2.1	2.7
6100 Personnel Services	0.2	0.1	0.3	0.4	0.5
6200 Goods and Services	0.2	0.2	0.2	0.4	0.5
6300 Fixed Assets and Construction	0.5	0.7	0.7	0.7	1.0
6400 Subsidies, Grants and Payments	0.1	0.4	0.3	0.6	0.7
Grand Total	62.4	80.4	99.8	135.2	166.7

Table 3b. Expenditures By Functional and Economic Classification

As a share of total, %	2008/09	2009/10	2010/11	2011/12	2012/13
100 Administration and General	19.4	17.8	18.9	19.1	17.4
6100 Personnel Services	49.0	44.4	45.0	43.3	42.4
6200 Goods and Services	29.2	30.0	32.0	28.9	31.5
6300 Fixed Assets and Construction	17.6	21.3	18.0	22.4	18.7
6400 Subsidies, Grants and Payments	4.2	4.2	5.0	5.3	7.3
200 Economic	45.1	43.4	41.2	43.8	48.9
6100 Personnel Services	14.7	14.9	12.6	11.6	12.1
6200 Goods and Services	20.7	17.5	10.7	9.1	9.1
6300 Fixed Assets and Construction	52.0	57.8	64.7	64.2	73.7
6400 Subsidies, Grants and Payments	12.6	9.8	12.1	15.0	5.0
300 Social	27.6	29.8	31.3	31.0	27.2
6100 Personnel Services	43.3	37.3	39.3	38.6	42.3
6200 Goods and Services	19.2	22.3	22.3	21.8	20.8
6300 Fixed Assets and Construction	26.8	30.9	30.0	31.2	34.2
6400 Subsidies, Grants and Payments	10.8	9.6	8.4	8.4	2.6
400 Others	6.3	7.4	7.0	4.6	4.8
6100 Personnel Services	0.4	0.3	0.3	0.3	0.3
6200 Goods and Services	0.2	0.1	0.1	0.1	0.1
6300 Fixed Assets and Construction	4.5	1.4	6.2	1.4	2.3
6400 Subsidies, Grants and Payments	94.8	98.2	93.4	98.2	97.3
500 Municipal Functions	1.6	1.6	1.6	1.5	1.6
6100 Personnel Services	15.9	11.3	18.7	18.0	18.7
6200 Goods and Services	20.8	11.6	15.3	17.5	16.6
6300 Fixed Assets and Construction	49.8	49.5	44.0	34.2	37.5
6400 Subsidies, Grants and Payments	13.5	27.5	22.0	30.4	27.2
Grand Total	100.0	100.0	100.0	100.0	100.0

Table 3c. Expenditures By Functional and Economic Classification

As a share of GDP, %	2008/09	2009/10	2010/11	2011/12	2012/13
100 Administration and General	3.6	3.7	3.7	3.5	3.4
6100 Personnel Services	1.8	1.6	1.6	1.5	1.4
6200 Goods and Services	1.0	1.1	1.2	1.0	1.1
6300 Fixed Assets and Construction	0.6	0.8	0.7	0.8	0.6
6400 Subsidies, Grants and Payments	0.1	0.2	0.2	0.2	0.2
200 Economic	8.3	9.0	8.0	7.9	9.4
6100 Personnel Services	1.2	1.3	1.0	0.9	1.1
6200 Goods and Services	1.7	1.6	0.9	0.7	0.9
6300 Fixed Assets and Construction	4.3	5.2	5.2	5.1	6.9
6400 Subsidies, Grants and Payments	1.1	0.9	1.0	1.2	0.5
300 Social	5.1	6.2	6.1	5.6	5.3
6100 Personnel Services	2.2	2.3	2.4	2.2	2.2
6200 Goods and Services	1.0	1.4	1.4	1.2	1.1
6300 Fixed Assets and Construction	1.4	1.9	1.8	1.7	1.8
6400 Subsidies, Grants and Payments	0.5	0.6	0.5	0.5	0.1
400 Others	1.2	1.5	1.4	0.8	0.9
6100 Personnel Services	0.0	0.0	0.0	0.0	0.0
6200 Goods and Services	0.0	0.0	0.0	0.0	0.0
6300 Fixed Assets and Construction	0.1	0.0	0.1	0.0	0.0
6400 Subsidies, Grants and Payments	1.1	1.5	1.3	0.8	0.9
500 Municipal Functions	0.3	0.3	0.3	0.3	0.3
6100 Personnel Services	0.0	0.0	0.1	0.1	0.1
6200 Goods and Services	0.1	0.0	0.0	0.0	0.1
6300 Fixed Assets and Construction	0.1	0.2	0.1	0.1	0.1
6400 Subsidies, Grants and Payments	0.0	0.1	0.1	0.1	0.1
Grand Total	18.5	20.8	19.4	18.1	19.3

Administrative Classification

Table 1a-c. Expenditures by Administrative Classification

Billions of local currency	2008/09	2009/10	2010/11	2011/12	2012/13
1 Federal	37.3	50.8	60.9	77.5	88.4
15 Federal Government	37.3	50.8	60.9	77.5	88.4
2 Local	25.1	29.6	38.9	57.7	78.3
01 Tigray Region	1.7	2.0	2.7	4.6	6.1
02 Afar Region	0.6	0.7	1.0	1.3	2.0
03 Amhara Region	4.8	5.8	7.4	11.0	14.9
04 Oromiya Region	7.2	8.3	10.5	16.6	21.7
05 Somali Region	0.7	1.9	2.4	3.2	5.2
06 Benishangul Gumuz Region	0.3	0.4	0.7	1.0	1.3
07 SNNP Region	3.6	4.7	6.3	10.0	12.8
08 Gambella Peoples Region	0.2	0.3	0.5	0.7	0.4
09 Harari Peoples Region	0.2	0.2	0.2	0.4	0.6
10 Addis Ababa Administrative Area	5.6	4.9	6.8	8.3	12.5
11 Dire Dawa Administrative Area	0.3	0.3	0.4	0.6	0.8
Grand Total	62.4	80.4	99.8	135.2	166.7
As a share of total, %					
1 Federal	59.7	63.2	61.0	57.3	53.0
15 Federal Government	100.0	100.0	100.0	100.0	100.0
2 Local	40.3	36.8	39.0	42.7	47.0
01 Tigray Region	6.9	6.8	7.0	8.0	7.8
02 Afar Region	2.3	2.4	2.7	2.3	2.6
03 Amhara Region	18.9	19.5	19.1	19.1	19.0
04 Oromiya Region	28.5	28.2	27.1	28.7	27.7
05 Somali Region	2.8	6.3	6.1	5.6	6.6
06 Benishangul Gumuz Region	1.3	1.4	1.7	1.7	1.6
07 SNNP Region	14.2	15.9	16.2	17.2	16.3
08 Gambella Peoples Region	1.0	1.1	1.2	1.2	0.5
09 Harari Peoples Region	0.6	0.7	0.6	0.7	0.8
10 Addis Ababa Administrative Area	22.3	16.6	17.4	14.4	16.0
11 Dire Dawa Administrative Area	1.1	1.0	0.9	1.1	1.1
Grand Total	100.0	100.0	100.0	100.0	100.0

As a share of GDP, %					
1 Federal	11.0	13.2	11.8	10.4	10.2
15 Federal Government	11.0	13.2	11.8	10.4	10.2
2 Local	7.4	7.7	7.5	7.7	9.1
01 Tigray Region	0.5	0.5	0.5	0.6	0.7
02 Afar Region	0.2	0.2	0.2	0.2	0.2
03 Amhara Region	1.4	1.5	1.4	1.5	1.7
04 Oromiya Region	2.1	2.2	2.0	2.2	2.5
05 Somali Region	0.2	0.5	0.5	0.4	0.6
06 Benishangul Gumuz Region	0.1	0.1	0.1	0.1	0.1
07 SNNP Region	1.1	1.2	1.2	1.3	1.5
08 Gambella Peoples Region	0.1	0.1	0.1	0.1	0.0
09 Harari Peoples Region	0.0	0.1	0.0	0.1	0.1
10 Addis Ababa Administrative Area	1.7	1.3	1.3	1.1	1.4
11 Dire Dawa Administrative Area	0.1	0.1	0.1	0.1	0.1
Grand Total	18.5	20.8	19.4	18.1	19.3

Table 2a-c. Expenditures By Administrative and Economic Classification

Billions of local currency	2008/09	2009/10	2010/11	2011/12	2012/13
1 Federal	37.3	50.8	60.9	77.5	88.4
6100 Personnel Services	6.1	7.0	7.7	10.5	13.7
6200 Goods and Services	8.6	10.4	10.8	12.7	13.1
6300 Fixed Assets and Construction	14.2	22.7	29.9	36.6	49.5
6400 Subsidies, Grants and Payments	8.4	10.7	12.4	17.7	12.0
2 Local	25.1	29.6	38.9	57.7	78.3
6100 Personnel Services	11.6	13.6	18.5	24.1	28.2
6200 Goods and Services	4.3	5.5	6.9	9.7	13.4
6300 Fixed Assets and Construction	7.9	8.6	10.5	21.1	32.7
6400 Subsidies, Grants and Payments	1.4	1.8	3.0	2.8	4.0
Grand Total	62.4	80.4	99.8	135.2	166.7
As a share of total, %					
1 Federal	59.7	63.2	61.0	57.3	53.0
6100 Personnel Services	16.4	13.7	12.7	13.5	15.5
6200 Goods and Services	23.0	20.4	17.7	16.3	14.8
6300 Fixed Assets and Construction	38.1	44.7	49.2	47.3	56.1
6400 Subsidies, Grants and Payments	22.6	21.1	20.4	22.8	13.6
2 Local	40.3	36.8	39.0	42.7	47.0
6100 Personnel Services	46.1	46.1	47.6	41.8	36.1
6200 Goods and Services	17.1	18.6	17.7	16.9	17.1
6300 Fixed Assets and Construction	31.4	29.2	27.1	36.5	41.8
6400 Subsidies, Grants and Payments	5.4	6.1	7.6	4.9	5.0
Grand Total	100.0	100.0	100.0	100.0	100.0
As a share of GDP, %					
1 Federal	11.0	13.2	11.8	10.4	10.2
6100 Personnel Services	1.8	1.8	1.5	1.4	1.6
6200 Goods and Services	2.5	2.7	2.1	1.7	1.5
6300 Fixed Assets and Construction	4.2	5.9	5.8	4.9	5.7
6400 Subsidies, Grants and Payments	2.5	2.8	2.4	2.4	1.4
2 Local	7.4	7.7	7.5	7.7	9.1
6100 Personnel Services	3.4	3.5	3.6	3.2	3.3
6200 Goods and Services	1.3	1.4	1.3	1.3	1.6
6300 Fixed Assets and Construction	2.3	2.2	2.0	2.8	3.8
6400 Subsidies, Grants and Payments	0.4	0.5	0.6	0.4	0.5
Grand Total	18.5	20.8	19.4	18.1	19.3

ETHIOPIA PUBLIC EXPENDITURE REVIEW

The *Ethiopia Public Expenditure Review 2015* is the result of a body of programmatic fiscal work. The primary objective is to analyze recent fiscal developments in Ethiopia within the context of a broad infrastructure investment program for growth and poverty reduction.