



Economic growth and employment patterns, dominant sector, and firm profiles in Ethiopia: Opportunities, challenges and Prospects

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In this paper, the evolution of macroeconomic policies in Ethiopia and their outcome in terms of output growth both aggregate and sectoral, productivity changes, and employment structure has been investigated. The various reforms undertaken in Ethiopia since the 1990s seem to have positively impacted economic performance. Although the sectoral composition of the Ethiopian economy has changed from agriculture to services, changes in the composition of employment have lagged behind. Both employment expansion and productivity growth have been the sources of output growth in recent years. Economy-wide labour productivity growth has been accompanied by employment growth, but the former has been strong, outpaced the growth of employment. The within-sector productivity growth accounts for much of the aggregate labour productivity growth in Ethiopia. Structural change has also played an important role for enhancing labour productivity growth in the country. Labour productivity levels have remained low in agriculture and manufacturing sectors.

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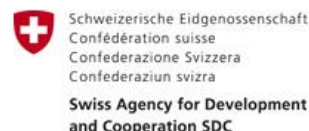


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Abstract

In this paper, the evolution of macroeconomic policies and their outcome in terms of output growth both aggregate and sectoral, productivity changes, and employment structure has been investigated using data from Ethiopia. In addition, the study assessed the nexus between economic growth, productivity, and employment patterns. The various reforms undertaken in Ethiopia since the 1990s seem to have positively impacted both overall economic performance and of labour market. Although the sectoral composition of the Ethiopian economy has changed from agriculture to services, changes in the composition of employment have lagged behind. Both employment expansion and productivity growth have been the sources of output growth in recent years. Economy-wide labour productivity growth has been accompanied by employment growth, but the former has been strong, outpaced the growth of employment. The within-sector productivity growth accounts for much of the aggregate labour productivity growth in Ethiopia. Structural change has also played an important role for enhancing labour productivity growth in the country. Labour productivity levels have remained low in agriculture and manufacturing sectors. Note that wholesale and retail and construction sectors have been characterized by low productivity and earnings, with a high degree of informality.

Abbreviations

ADLI	Agricultural Development-Led Industrialization
AfDB	African Development Bank
DBE	Development Bank of Ethiopia
EDRI	Ethiopian Development Research Institute
EIA	Ethiopian Investment Agency
ERCA	Ethiopian Revenue and Customs Authority
FeMSEDA	Federal Micro and Small Enterprises Development Agency
FDI	Foreign Direct Investment
GDP	Gross domestic product
GTP	Growth and Transformation Plan
GVO	Gross Value of Output
HHI	Herfindahl-Hirschman Index
ICT	Information and Communication Technologies
IDS	Industrial Development Strategy
LIDI	Leather Industry Development Institute
MDG	Millennium Development Goals
MOFED	Ministry of Finance and Economic Development
MOI	Ministry of Industry
MoST	Ministry of Science and Technology
MOT	Ministry of Trade
MPDI	Manufacturing Product Diversification Index
MSEs	Micro- and Small-scale Enterprises
MVA	Manufacturing value added
NBE	National Bank of Ethiopia
PASDEP	Plan for Accelerated and Sustained Development to End Poverty
R&D	Research and Development
SDPRP	Sustainable Development for Poverty Reduction Program
SMEs	Small and Medium-sized Enterprises
TIDI	Textile Industry Development Institute
TVET	Technical and Vocational Education and Training
VAT	Value Added Tax
WDI	World Development Indicators
WTO	World Trade Organization

1. Introduction

Ethiopia is located in the north-eastern part of Africa (3° and 15° north of the equator and 33° and 48° east of the Greenwich Meridian). It is bordered by Sudan and South Sudan to the west, Eritrea to the North, Djibouti and Somalia to the east, and Kenya to the south. With a population of more than 84 million and GDP per capita of about \$359 in 2012/13 (at 2010/11 constant prices), Ethiopia is the second populous country in Africa. One of the world's oldest civilizations, Ethiopia has shown solid progress in socioeconomic fronts. The government aspires to reach lower middle income status over the next decade.

The year 1992 witnessed a more liberalized policy regime along with significant policy and institutional reforms. A variety of market-based reforms were introduced to reverse the past policies. The new government adopted an overall development strategy known as Agricultural Development-Led Development Industrialization (ADLI) strategy in order to stimulate farm output and rural incomes, thereby generating broad-based growth and reduce poverty. The strategy focuses on increasing the production and productivity of smallholder agriculture through complementary intervention such as promotion of improved agricultural technologies, provision of credit services, development of infrastructure, and improvement of primary education and health care services (MoFED, 2002, 2006). The focus on broad-based growth and poverty reduction has been underscored in the series of poverty reduction programs introduced since early 2000s.

The socioeconomic reforms and interventions have positively influenced growth and investment as growth has taken off, with double-digit growth rates recorded since 2003/04. The growth is driven by improvements in all sectors but mainly by fast growing services and agricultural sectors. Although high and sustained economic growth is necessary, if not sufficient, for reducing poverty, there is no guarantee that this will automatically reduce poverty. The pattern and sources of growth and the manner in which its benefits are distributed among the poor segments of the population are important for growth to have a poverty-reducing effect. In that regard, employment, earnings and the labour market play a crucial role in poverty reduction. The availability of employment opportunities and their characteristics constitute an essential transmission channel from growth to poverty reduction. The policy and institutional reforms that have been undertaken in Ethiopia since the 1990s are expected to affect the structure of the overall economy and of the performance of the labour market. This study attempts to assess policies, the nature and sources of economic growth, and labour market in Ethiopia in the context of structural transformation.

The report is structured as follows. Chapter 2 discusses about the country's economic and social development imperatives. Chapter 3 presents an overview of the macroeconomy, while chapter 4 discusses population, labour force, and employment. Chapter 5 deals with employment growth and labour productivity. Structural change and productivity decomposition analysis, and the Ethiopian manufacturing sector are discussed in Chapter 6 and 7, respectively. Chapter 8 concludes.

2. Ethiopia's economic and social development imperatives: An overview of policies and strategies since 1990s

2.1 Overview of policies and strategies

In the early 1990s, the Government of Ethiopia introduced an agriculture-based development strategy known as Agricultural Development Led Industrialization (ADLI). The basis for adoption of this strategy is the conviction in strategic importance and centrality of the agricultural sector for the overall economy, and the advantage in using the abundant resources of land and labour, while progressively increasing capital share in the resource endowment. All subsequent plans recognize ADLI as the overall development framework.

The focus on broad-based growth and poverty reduction has been underscored in the series of poverty reduction programs introduced since early 2000s. The first of such series called Sustainable Development for Poverty Reduction Program (SDPRP) was implemented between 2000/01 and 2004/05. The program aimed at building a more market oriented economy that would lead to more rapid development, reducing the dependency on food aid, and allowing the poor to benefit more from economic growth.

In 2000/01, the Government launched the first of the poverty reduction strategy papers, the Sustainable Development for Poverty Reduction Program (SDPRP)¹, which aimed at: building a more market oriented economy that would lead to more rapid development; ending the dependency on food aid; and allowing the poor to benefit more from economic growth. The development strategy was anchored on four pillars:

- Agriculture Development Led Industrialization (ADLI),
- Reform of the Justice System and the Civil Service
- Decentralization and empowerment, and
- Capacity building in public and private sectors.

As one of the countries that embraced the principles of the Millennium Development Goals (MDGs) and the African Union's New Partnership for Africa's Development (NEPAD), Ethiopia sought to re-align the SDPRP with the MDGs. In 2004, a comprehensive needs assessment was undertaken to compare the current situation with MDG targets and thereby identifying the

¹This is the equivalent of Poverty Reduction Strategy Papers (PRSP) being developed and implemented by a number of countries in sub-Saharan Africa, with the help of the World Bank and International Monetary Fund (IMF).

combination of public investments that would enable the country to meet the targets by 2015². The outcomes of the MDG assessment have formed the key elements in the formulation of the second generation of poverty reduction plan, known as Plan for Accelerated and Sustained Development to End Poverty (PASDEP).³ The PASDEP was Ethiopia's guiding strategic framework for between 2005 and 2010. It carried forward important strategic directions pursued under the SDPRP—related to human development, rural development, food security, and capacity-building— but also embodies some bold directions. Foremost among them was a major focus on growth, with a particular emphasis on greater commercialization of agriculture and private sector development and scaling-up of efforts to achieve the MDGs. PASDEP builds on eight pillars, namely: building all-inclusive implementation capacity; a massive push to accelerate growth; creating the balance between economic development and population growth; unleashing the potentials of Ethiopia's women; strengthening the infrastructure backbone of the country; strengthening human resource development; managing risk and volatility; and, creating employment opportunities. PASDEP also emphasized promotion of productive employment creation through strengthening small and medium enterprise development.

Recognizing the centrality of structural transformation, the Government of Ethiopia has pursued the Growth and Transformation Plan (GTP), which was adopted in 2010/11. GTP is a continuation of the five-year plans within the framework of the PRSPs and beyond. It builds on the achievements and weaknesses of PASDEP. Unlike the previous programs, the GTP, which provides the overarching framework for achieving poverty reduction and other MDGs, gives due emphasis on promoting the manufacturing sector which has received little attention in the previous development programs. The Government of Ethiopia sets lower and upper growth goals during the GTP period: achieving 11-15% gross domestic product (GDP) growth each year over the period; this would enable Ethiopia to achieve its Millennium Development Goals (MDGs) by 2015 and to rise to middle-income status by 2025. GTP targets economic sectors such as agricultural and rural development, industry, trade, mining, and infrastructure development. The social sector plan is composed of education, training, and health development. The emphasis laid on the infrastructural development is also notable in the plan. Roads, railways, energy, telecommunication, potable water and irrigation development, transport services, maritime transport, air transport

² MOFED: *The Millennium Development Goals (MDGs) Needs Assessment Synthesis Report*. Addis Ababa, December 2005.

³ MOFED: *Building on Progress: A Plan for Accelerated and Sustained Development to End Poverty (PASDEP) – 2005/6-2009/2010*. Addis Ababa. October 2005.

services, and urban and construction development are the components of the infrastructural development plan. The achievement in the development of these sectors could indeed create a solid foundation for the transformation process by reducing the transaction costs for society and enable a smoother economic interaction.

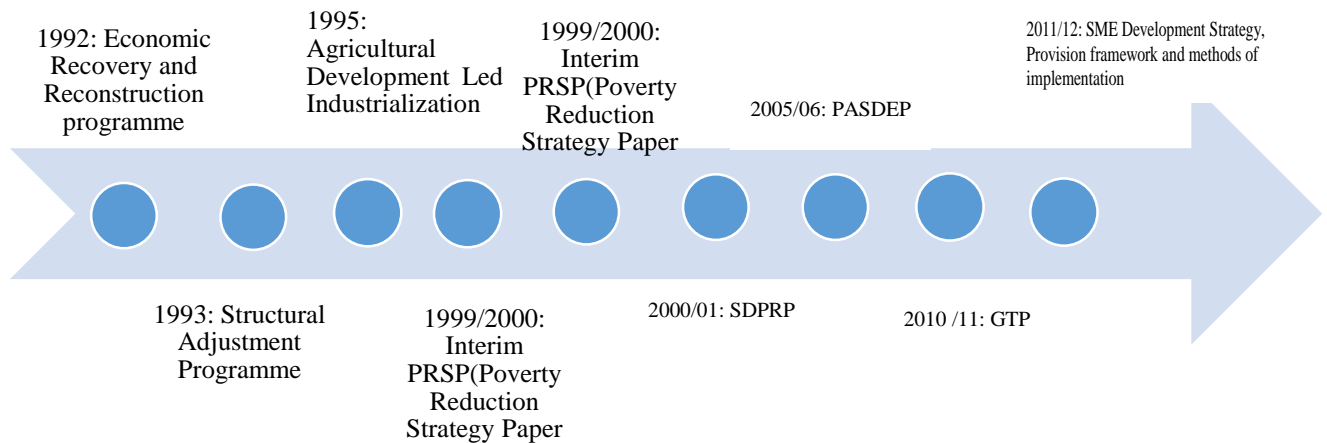
The GTP also articulates the importance of small and microenterprises for industrialization and enhancing job creation, thereby addressing the challenges of unemployment in the country. The Government of Ethiopia also considers the importance of SMEs for strengthening sustainable rural-urban and urban-to-urban functional and economic linkages. Accordingly, various support measures have been providing to the development of SMEs in the country including access to credit services, preferential land lease, training services, and special support for business development services.

The GTP identifies eight manufacturing industries to be of particular importance to the realization of the growth and industrialization aspirations of the country (MoFED, 2010):

1. Textile and garment industry;
2. Leather and leather products industry;
3. Sugar and sugar related industries;
4. Cement industry;
5. Metal and engineering industry;
6. Chemical industry;
7. Pharmaceutical industry; and
8. Agro-processing industry.

While maintaining the emphasis accorded to the agro-processing and construction industries, the GTP also gives priorities to the chemical and metallurgical industries with the motive to assume the leading role of the economy to the industrial sector. Figure 1 portrays the evolution of government policies, strategies and plans.

Figure 1: Development Plans and Strategies underlying the Macro Policy Developments



Source: Ferede (2014)

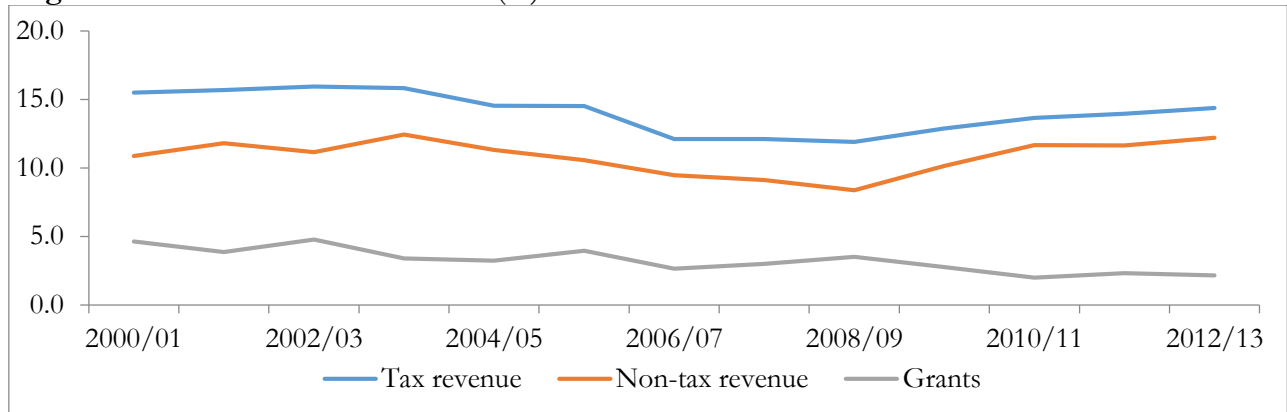
2.2 Fiscal and monetary policy developments

2.2.1 Fiscal policy

The fiscal policy focuses on maintaining the deficit at a sustainable level by strengthening domestic revenue generation capacity while enhancing pro-poor public spending. The fiscal policy focused on raising domestic revenue and limiting government expenditure to soften its impact on inflation since 1990s. Accordingly, efforts have been made in reforming the tax policy and administration, redirecting the overall expenditure to development and poverty oriented social and infrastructure sectors (e.g. education, health, road, agriculture and food security, and water). In particular, the centrepiece of focus of fiscal policy has shifted to price stability since 2005/06 due to high inflationary pressures caused by global economic and financial crisis as well as domestic factors (e.g. high domestic demand and limited supply).

Revenue: The main sources of expenditure financing are domestic revenues and external grants. The Government of Ethiopia is committed to expand its domestic revenue mobilization efforts in order to ensure fiscal sustainability. The share of tax revenues in GDP was below 14.4% in 2012/13. Two phases can be distinguished. First, tax revenue as a share of GDP declined between 2000/01 and 2008/09. Second, it increase between 2009/10 and 2012/13. On the other hand, non-tax revenue as a share GDP increased from 10.9% in 2000/01 to 12.2% in 2012/13. External grants have remained small as a share of GDP, accounting for 2.2% of GDP in 2012/13.

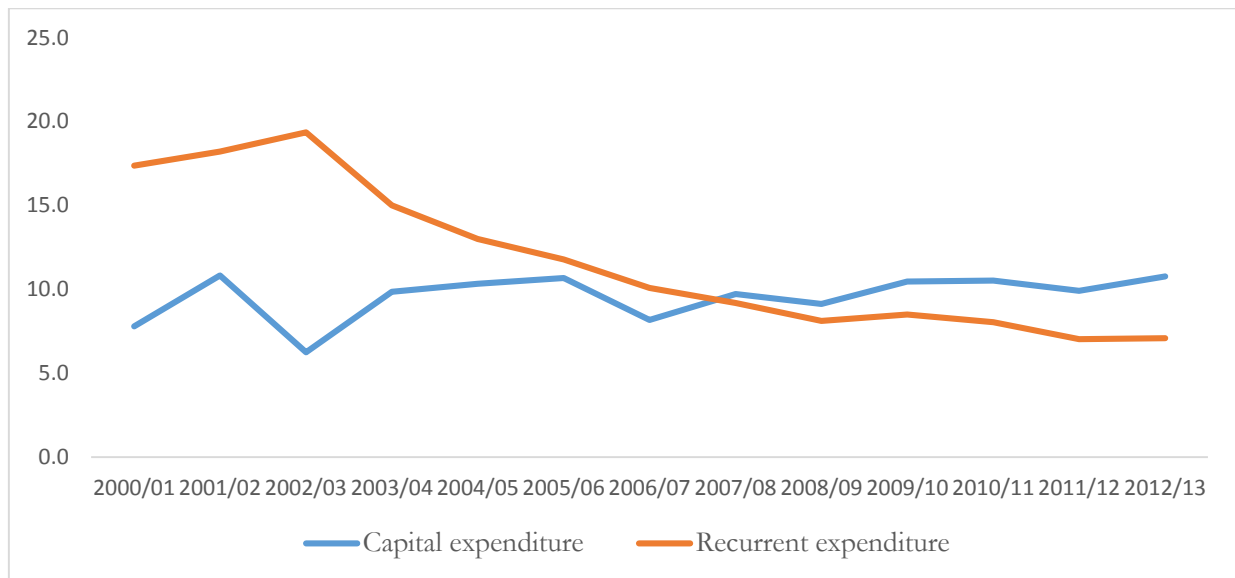
Figure 2: Revenue as a share of GDP (%)



Source: Computed based on data from MoFED

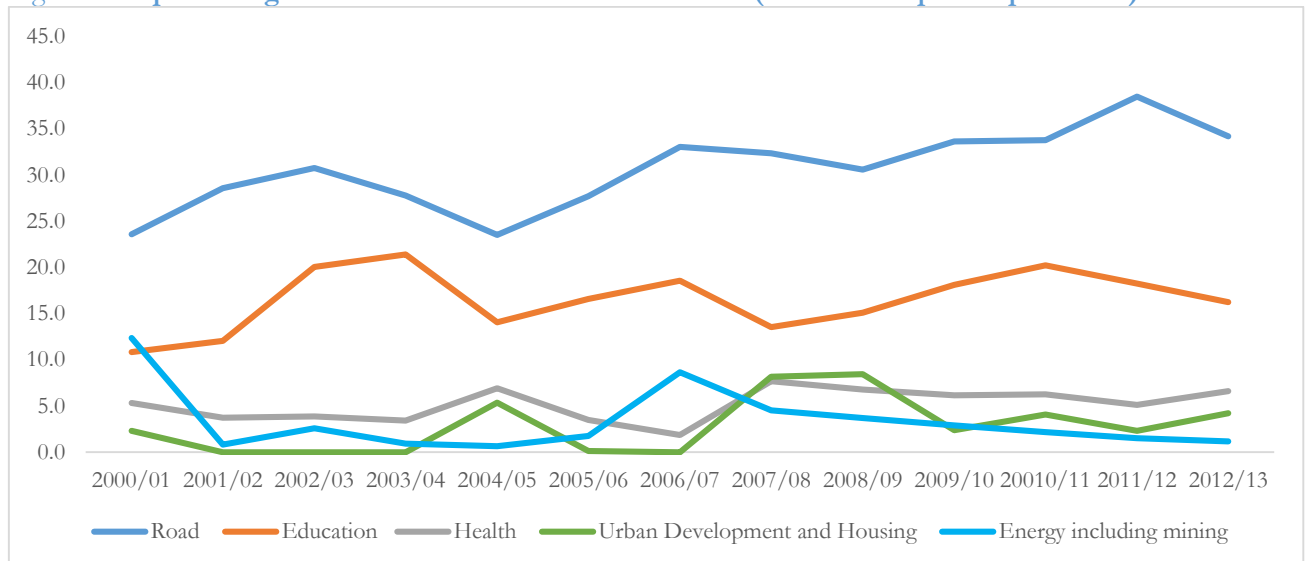
Government expenditure and budget deficit: total government expenditure as a share of GDP declined slightly from 25.2% of GDP in 2000/01 to 17.9% of GDP in 2012/13. The share of capital expenditure increased from 7.8% of GDP to 10.8% over the same period, due to massive investment by the public sector, especially in roads, education, health and energy (Figure 4). For instance, capital budget allocated to roads increased from 23.6% of total capital expenditure in 2000.01 to 34.2% in 2012/13.

Figure 3: Share of recurrent and capital expenditure in GDP (%)



Source: Computed based on data from MoFED

Figure 4: Capital budget allocation to selected infrastructure (% of total capital expenditure)

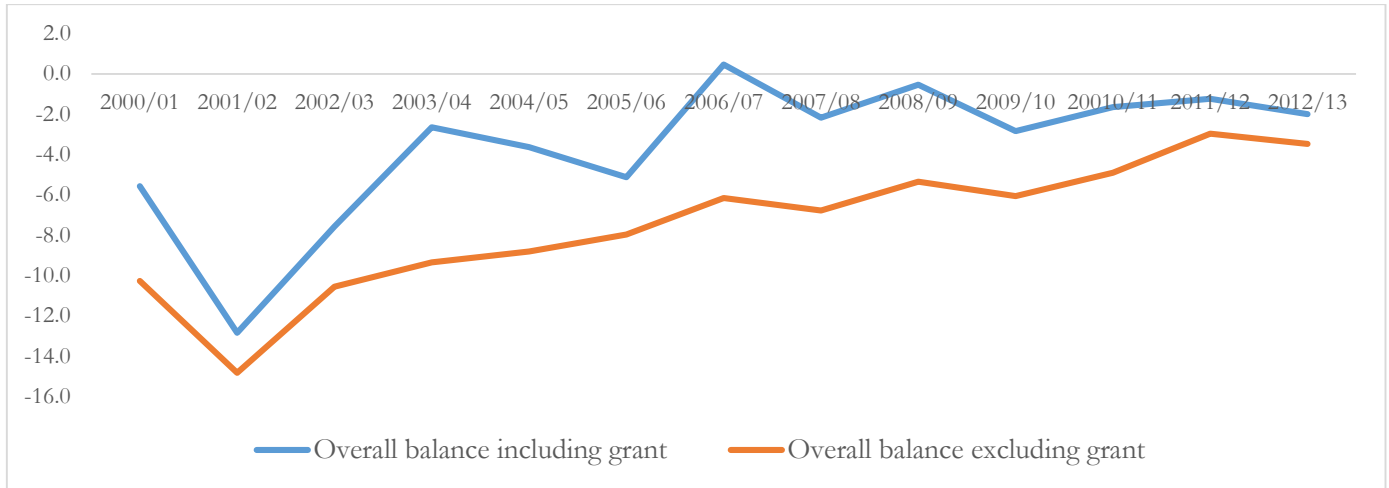


Source: Computed based on data from MoFED

Ethiopia's strong fiscal management efforts have led to improvement in the overall fiscal position. The fiscal deficit excluding grants declined from 10.3 of GDP in 2000/01 to from 3.5% of GDP in 2012/13. Maintaining budget at a low level is a corollary to contain inflation at single digit (Figure 5). Fiscal policy measures including reducing the government budget deficit and refraining

from financing budget deficit from direct advance borrowing of the central bank were introduced to curtail inflation in the country.

Figure 5: Fiscal balance as share of GDP (%)

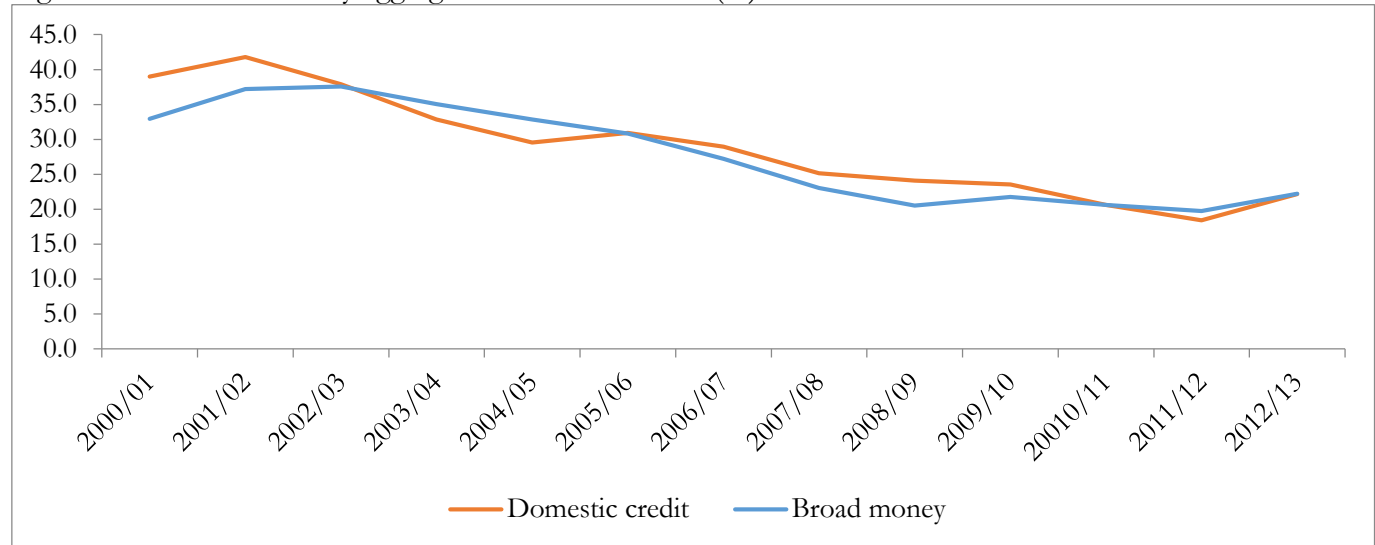


Source: Computed based on data from MoFED

2.2.2 Monetary policy developments

The central focus of monetary policy has been to curb inflationary situations and exchange rate management. Broad money supply as a share of GDP declined to 22.2% in 2012/13 from 32.9% in 2000/01. Similarly, domestic credit as share of GDP substantially declined from 39% to 22.2% over the same period.

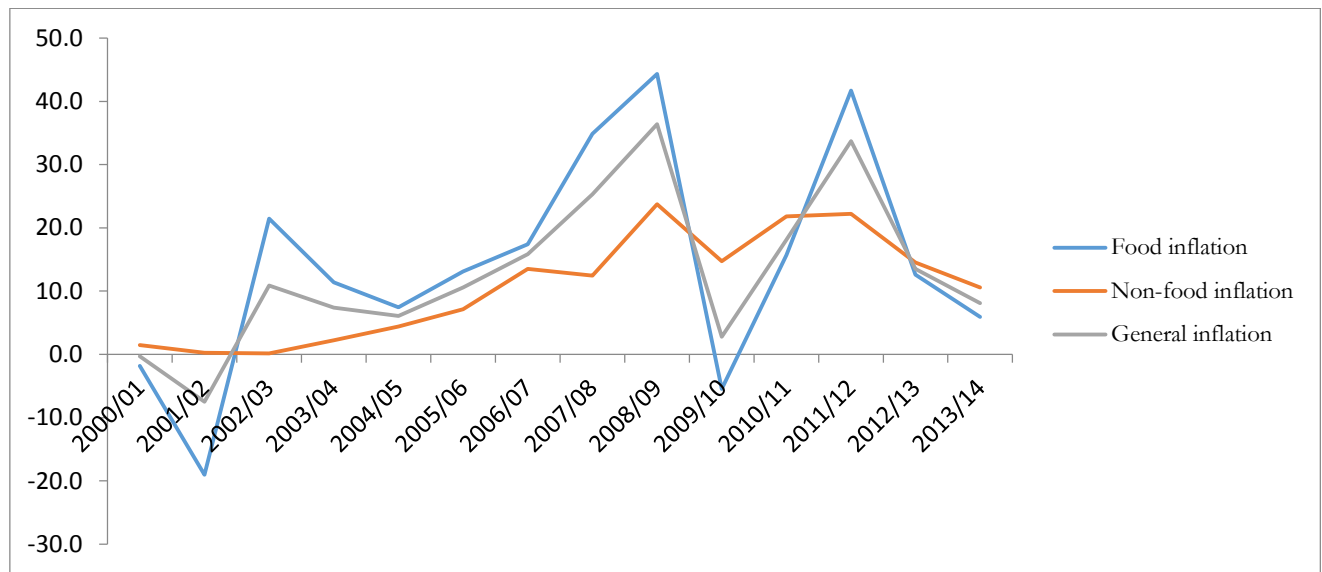
Figure 6: Selected monetary aggregates as share of GDP (%)



Source: NBE (2014)

Inflation: The imbalance between demand and supply is often reflected in the prices of goods and services. Between 2001/02 and 2011/12, the average annual rate of inflation in the country was 14% (Figure 7). Three phases of inflation patterns can be distinguished. First, inflation declined between 2002/03 and 2004/05. Second, inflation has accelerated between 2005/06 and 2008/09 and reached its peak in 2008/09 (36.4%). Food inflation contributed the largest proportion to overall inflation. Third, overall inflation declined to 2.8% in 2009/10. Nevertheless, the general inflation rebounded in 2011/12, staggering around 33.7%. Both food and non-food inflation increased after 2010/11. A combination of factors were responsible for the rebound of inflation in 2011/12 including increased inflow foreign exchange and absence of sterilization, rising prices of imported inputs, malfunctioning of the domestic market, and supply constraints. However, inflation has come down to a single digit in 2013/14.

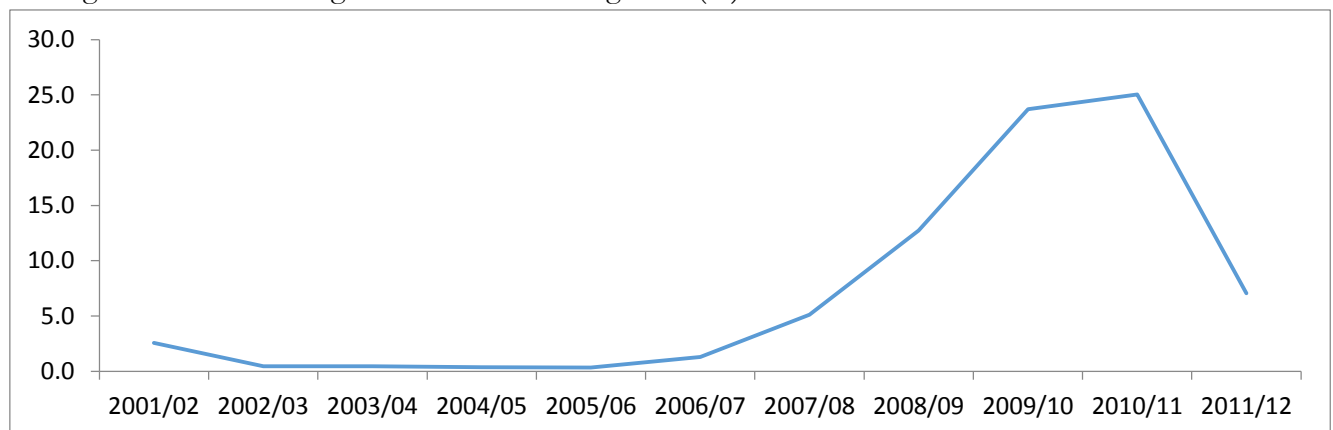
Figure 7: Trends in inflation



Source: MoFED

Foreign exchange: Foreign exchange management has been central in government's monetary policy since the early 1990s, which the country followed a managed floating exchange rate regime, with periodic devaluations. While the extent of depreciation in nominal exchange rate was low between 2001/02 and 2007/08, it was relatively high between 2008/09 and 2010/11 owing to limited foreign exchange reserves following the global financial and economic recession. The National Bank of Ethiopia has adjusted the nominal exchange rate in September 2010/11.

Figure 8: Annual changes in nominal exchange rate (%)

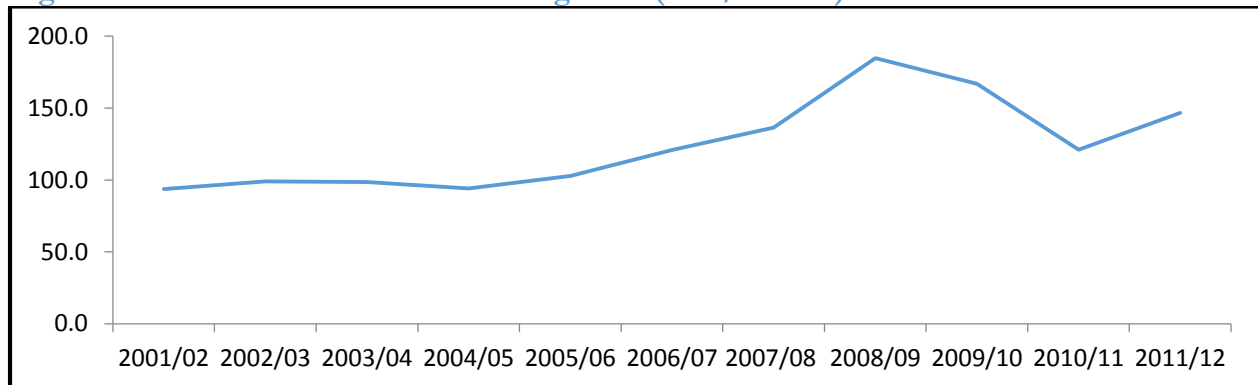


Source: National Bank of Ethiopia

Between 2001/02 and 2011/12, the average annual change in the nominal exchange rate (birr per USD) was lower than the domestic inflation rate, indicating that the real effective exchange rate has declined (Figure 7). For instance, the real effective exchange rate appreciated between 2005/06 and 2009/10 due to relatively higher domestic inflation rate compared with the country's major

trade partners. This has adversely affected the competitiveness of the country's export commodities. However, appreciation of the real exchange rate slowed down between 2010/11 and 2011/12 due to reduced domestic inflation and adjustments in the nominal exchange rate.

Figure 9: Trends in real effective exchange rate (2001/02=100)



Source: National Bank of Ethiopia

Financial institutions: The major financial institutions operating in Ethiopia include banks, insurance companies and micro-finance institutions. The number of banks operating in the country reached 19 of which 16 were private, and the remaining 3 state-owned. Bank branches also have increased from 283 in 2000/01 to 2,208 in 2013/14 (NBE, 2014). There are 17 insurance companies in the country, with 332 branches across the country. The number of micro-finance institutions operating in the country reached 31 in 2013/14. This expansion in banks leads to a fall in population per branch and improved access to financial services in the country. For instance, population per bank branch decreased from 503,597 in 2005/06 to 342,387 in 2010/11 (MoFED, 2014a).

Overall, the macro economy generally remained stable and conducive for sustained economic growth. Yet, the macro management has at times faced with two major challenges in the post-reform period: rising inflation and the shortage of foreign exchange. The major causes of inflation were both internal such as malfunctioning of the domestic market, supply shortage, increasing aggregate demand, etc. and among the external factors mounting international prices of food and non-food (e.g. petroleum) commodities. Similarly, a fall in exports (e.g. due to global economic and financial crisis), rising imports, etc. have put pressures on the foreign exchange reserves of the country.

2.3 Trade policy and investment policy

2.3.1 Trade policy

The Government of Ethiopia has undertaken trade reforms aimed at dismantling quantitative restrictions and reducing the level and dispersion of tariff rates since the early 1990s. Ethiopia started revising its tariff schedules in 1993 in line with the Structural Adjustment Program of the World Bank and International Monetary Fund (Yusuf *et al.*, 2013). The initial measures were aiming at reducing the maximum tariff rate from 230 to 80 percent. The country has revised the schedule seven times. Currently, a six-band international harmonized system (HS) tariff schedule is used with a minimum rate of 5 percent and a maximum rate of 35 percent. The weighted average tariff rate is 17.5 percent. Note that different tariff rates are given to raw materials, intermediate inputs, finished and capital goods. Considering the importance of capital goods to the development of the country and cognizant of the fact that the country has extremely low capacity to produce machinery and equipment, the maximum tariff rates are set at 5 percent. The Government of Ethiopia provides special privileges to investors in the form of duty free importation of capital goods. Up to 35 percent tariff rate is imposed on most finished products, whereas intermediate inputs and raw material inputs face lower tariff rates.

Tariff reform has been accompanied by progressive reduction in non-tariff barriers with the implementation of trade facilitation programs (i.e. adoption of the Harmonized Commodity Description and Coding System of the World Customs Organization for classification of internationally traded goods, introduction of the Automated System for Customs Data Management of UNCTAD, application of the GATT/WTO valuation system) (Yusuf *et al.*, 2013).

The Ethiopian government is also engaged with multilateral and regional trade negotiations, all of which demand increased liberalization of the country's trade regime and eventual total elimination of tariff and non-tariff barriers. These negotiations are accession to the World Trade Organization (WTO), the New Economic Partnership Agreement (EPA) with the European Union, Common Market for Southern and Eastern Africa (COMESA) Free Trade Agreement (FTA), Tripartite free trade area (TFTA) consisting of COMESA, the East African Community (EAC) and Southern African Development Community (SADC) member countries, Inter- Governmental Authority for Development (IGAD) and the Sana'a Forum for Co-operation (SFC). Note that while TFTA, COMESA FTA, IGAD and SFC are all Sub-Saharan regional economic integration agreements, i.e. South-South cooperation, the Economic Partnership Agreement with the European Union is a North-South agreement. It should be noted that although national development strategies included at least some mention of trade and trade-related indicators, a coherent trade policy is lacking in Ethiopia.

Tariff structure: Commodities imported into Ethiopia are subject to a number of taxes, such as customs duty, excise tax, value added tax (VAT), surtax and withholding tax.⁴ Customs duty has 6 bands or groups of rates which are applied to imported goods. These bands of rates are 0%, 5%, 10% 20%, 30% and 35%, i.e. goods imported into the country are subject to a maximum duty rate of 35%. Tariff rates differ whether or not goods are imported from COMESA member countries (Table 1). Ethiopia grants a 10% reduction of tariffs for goods imported from COMESA member countries. Imported goods with zero tariff lines accounted for a small proportion (4.5%) of total lines. Some raw materials such as pharmaceuticals are exempted from custom duties. Other goods which are used as inputs for the domestic production purposes are subject to lower tariff rates.

Table 1: Distribution of tariff bands (%)

COMESA tariff rates	Other tariff rates
0	0
4.5	5
9	10
18	20
27	30
31.5	35

Source: Ethiopian Revenues and Customs Authority (ERCA)

2.3.2 Investment policy

The Government of Ethiopia has undertaken both administrative and institutional measures to encourage the private sector in the country since 1990s. The following measures have been undertaken to revitalize the private sector (MoFED, 2014).

- Creating a stable macroeconomic environment;
- Massive push in investment in infrastructure development which attempts to address equitable regional distribution and directing investment in favor of government development orientation;
- Efforts taken to conduct successive revision of the investment code in order to accommodate emerging issues and to tackle bottlenecks during implementation;
- Measures taken to rationalize domestic trade (e.g. deregulate domestic prices and remove price subsidies including fuel subsidies, and streamlining the investment licensing procedures);
- Remove export taxes;

⁴ Note that all imports entering the country are subject to different types of taxes unless exempted by law. For instance, goods for investment purposes (e.g. machinery) are not subject to taxes.

- Reduce import tariffs; and
- Provide tax holiday's

Policy reforms and their streamlined implementation have stimulated both domestic and foreign investors.⁵ Investment Proclamation No.769/2012 details the procedures of obtaining investment permits, mechanisms for expanding investment as well as transfer of ownership of investment. The Proclamation indicates that the minimum capital requirements from foreign investors for single investment project is USD 200,000 while for a joint investment the requirement is USD150,000. Regulation 270/2012 of the investment proclamation identifies activities reserved for domestic and those allowed to foreign investors.⁶ An investment permit obtained from the pertinent body (i.e. the Ethiopian Investment Commission) leads to benefits detailed in Regulation 270/2012. Incentive schemes are categorized by activity (about 15 subsectors) and region (Addis Ababa and its surrounding and other regions). Investment incentives are of fiscal and non-fiscal types (EIFTRI/AEMFI, 2014). For instance, investors who are investing in new manufacturing enterprises (e.g. manufacturing and agro-processing) are entitled to receive income tax deduction of up to 30% depending on investment location. The size of income tax deduction increases with distance from Addis Ababa. There are also non-fiscal incentives for investors such as import of machinery and equipment through supplier credit and loss carry forward.

2.4 Labour market aspects of development policies

In Ethiopia, policy formulation and implementation has been undertaken on the basis of the five year planning period. The five year economic plans both guide the overall economic development strategy and the public investment program. The Government of Ethiopia gives due emphasis to employment creation, both in the context of poverty reduction through creating employment opportunities and using labour resource for growth as one of the most important resources the country is endowed with. The main problem in the formal private sector is how to create more jobs to absorb the growing number of the labour force, while the challenge in the informal sector is to increase income.

⁵ Between 2001/02 and 2011/12, a total of 52,190 projects registered at the Ethiopian Investment Commission.

⁶ According to Regulation No.270/2012, the following activities have been exclusively reserved for Ethiopian nationals. Banking, insurance and microcredit and saving services; packaging, forwarding and shipping services; broadcasting services; Mass media services; Attorney and legal consultancy services; preparation of traditional medicines; advertisement, promotion, and translation works; and air transport services using aircraft with seating capacity up to 50 passengers. Investment activities in the production of weapons and ammunitions and telecommunication services are reserved for joint venture with the government. All other activities are open to foreign investors.

Active labour market policies are not only useful tool for job creation, but also used to facilitate adjustment to changes in the structure of production brought about by development policies. Active labour market policies can be found in the development plans of the country. Job creation has been articulated as one of the eight pillar strategies of the Plan for Accelerated and Sustained Development to End Poverty (PASDEP). It is widely recognized that employment, earnings and the labor markets play a crucial role in poverty reduction through promoting both economic growth and enhancing its effectiveness in reducing poverty. GTP also recognizes the critical role of private sector development for employment creation, especially through the development of SMEs and labour-intensive manufacturing industries.

The development of the urban development and good governance package has been guided by the Urban Development Policy of Ethiopia which was introduced in 2005 (Asfaw *et al.*, 2011; Elliott School of International Affairs, 2014). The key aspects of the urban development policy include, among others, expansion of micro and small enterprise, housing development, land infrastructure provision, social services, and urban planning and environments.

Active labour market policies are intended to facilitate the reintegration of the unemployed into the labour market as well as the reallocation of labour necessitated by structural change or geographical, occupational, and skill mismatches. They include measures such as retraining schemes for displaced workers, job-search assistance, direct employment creation programs such as public works schemes, credit and training programs to promote self-employment; and employment subsidies to promote the hiring of vulnerable groups such as low-skilled workers and new entrants to the labour force.

Labour market interventions of development plans focus on two dimensions: demand and supply side of job creation. The demand side of job creation refers to the ability of the economy to create jobs for various skill categories in the economy, while the second dimension refers to whether or not the skill levels of available pool of persons match with the type of skill that the economy requires. There is also a third element, labour market institutions, which relates to the governance of labour market relations and labor market services.

2.3.1 Demand side interventions in the labour market

Interventions in the demand side of the labour market intend to stimulate the job creating potential of the economy with a focus on promoting the private sector for employment generation and ensuring effective and efficient public sector employment. Specifically, development of small and

microenterprises, promoting labour-intensive manufacturing industries, and labour-intensive infrastructural development have been the key areas of government intervention.

Small and microenterprises (SMEs): The objectives of the strategy are to strengthen MSEs in order to facilitate economic growth and bring about equitable development⁶, create long-term jobs and etc. For instance, the government sets a target of creating about 3 million jobs through SMEs alone during the GTP period. Efforts have been put in place to establish a favourable environment for development and growth of SMEs including creating an enabling legal, institutional and other supports. In 2011, the Government of Ethiopia has adopted a SME development strategy: *Micro and Small Enterprise Development Strategy, provision framework and methods of implementation* (GoE, 2011). The strategy sets out the goal of providing the following kinds of support: credit services, entrepreneurship and business management training, appropriate technology research, market support, information and counseling, business development services, and infrastructure provision, including roads, electricity, and water and access to land and workplaces. These activities are coordinated and assisted by the Federal Micro and Small Enterprises Development Agency (FeMSEDA) and by the Regional Micro and Small Enterprises Development Agency at regional levels.

The government's strategic emphasis has been on the growth of labour-intensive sectors, and on facilitating the growth of SMEs. In particular, employment creation through the growth of the SME sector requires the integration of efforts to increase educational attainment, both via general education and TVET skills training, with the provision of capital for the unemployed, and with specialized programs to promote opportunities for self-employment.

Integrated housing and infrastructure development program (IHIDP) and jobs:

The Government of Ethiopia is playing active role in generating jobs in both rural and urban areas. Two key programs are worth mentioning: Integrated Housing Development Program and Infrastructural Development. While the latter focuses on constructing low cost and affordable housing for low income urban population, the former on urban renewal programs and infrastructural development (see Box 1). Households are benefiting from these through active participation in natural resources conservation and infrastructural development, especially rural roads. The program intends to accelerate employment creation in the construction sector by supporting the formation and development of MSEs (Kibru, 2012). In particular, the program stimulates the creation of SMEs in the construction sector by screening qualified workers, and organizing them in groups to form legal business enterprises. The program supports SMEs through offering contracts to work on the housing projects in order to build affordable housing. The program also provides wide-ranging support to the SMEs, including access to land, access to credit, input provision (e.g. re-bars, cement, and iron) on credit, machinery leases at favorable conditions, and skills training (though not all firms receive all types of support).

The urban integrated housing program, which has been implemented across urban centres in the country to upgrade slum urban areas, generates employment opportunities for both skilled and unskilled labour force.

Box 1: Integrated Housing and infrastructure Development Program (IHDIP)

An IHDIP has been introduced and being implemented as indicated in the GTP. Both the housing and infrastructural development programs are meant to promote domestic saving, supply low cost and affordable houses, reduce urban slums, and improve urban environment. Between 2010/11 and 2012/13, about 95,000 houses are under construction across the country which created about 481,000 jobs (MoFED, 2014). About 24,068 houses have been transferred to users, of which 26 per cent were women. In 2012/13, about 111,993 jobs have been created in urban areas through the housing program by organizing 1,000 micro and small enterprises, contractors, and consultants. The IHDIP is an innovative program designed to provide low-cost and affordable housing while also generating employment and building human capital and entrepreneurship in the construction sector.

In addition, about 502,300 skilled and unskilled employment opportunities have been created through the federal road construction and maintenance projects, and the Universal Rural Road Access Program (URRAP) in 2012/13. There is also massive employment opportunities created in the railway sector, which is being under construction in the Addis Ababa Light Rail Transit and Addis Ababa-Djibouti railway.

Source: MoFED (2014)

Labour-intensive public employment programs have also been instrumental in generating employment. Specifically, public works are implemented in the form of food-for-work (FFW), cash for-work (CFW) programs or employment generation schemes and employment-based safety nets. It is worth mentioning the Productive Safety Net Program (PSNP), which has been instrumental in employing the rural poor in building roads and other infrastructure in drought prone areas of the country (Box 2).

Box 2: The Ethiopian Productive Safety Net Program (PSNP)

The Government of Ethiopia together with development partners designed a strategy to support the needs of chronically food insecure households and to develop long-term solutions to the problem of food insecurity. Accordingly, the Productive Safety Net Program (PSNP) introduced to protect and build the capacity of vulnerable and poor households in drought prone areas of Ethiopia in 2005. Based on previous experience of PSNP implementation, the Ethiopian government enhanced its effort to address both relief and development between 2010 and 2014, with harmonized donor support (ESSP, 2014). Recent assessment by Hoddinott and Seyoum (2014) indicates food security has improved in PSNP operating areas. In addition, households supported by PSNP have shown improvements in durable assets, livestock, health, and investment in schooling. In particular, girls' schooling attainment increased substantially. The PSNP has also contributed to local enabling environment for community development through investment in infrastructure and natural capital. This has been effected through public work employment. Environmental conservation activities have been key in PSNP public work employment, which include terracing, digging and maintaining irrigation canals, tree planting, establishing enclosures for pasture, constructing soil band. According to Guush *et al* (2013), beneficiary households worked on average 25 days of work per month in Tigray and SNNPR, while they worked on average 20 days per month in Amhara between 2006 and 2010. Impact assessment studies (e.g. Hoddinott and Seyoum, 2014; ESSP, 2014) indicate that PSNP beneficiaries have shown increased use of chemical fertilizers compared with non-beneficiaries. Overall, the PSNP has been instrumental in improving household livelihood, human capital, employment creation, and environmental assets.

Source: Ferede (2014)

2.3.2 Supply side interventions

The supply side of employment stimulation focuses on whether or not the skill levels of available pool of persons match with the type of skill that the economy requires. This refers to improving and raising the skill-intensity of the labour force to improve labour productivity, through education and training. In rural areas, labour productivity is enhanced by agricultural intensification and/or raising labour productivity in off-farm and informal sectors.

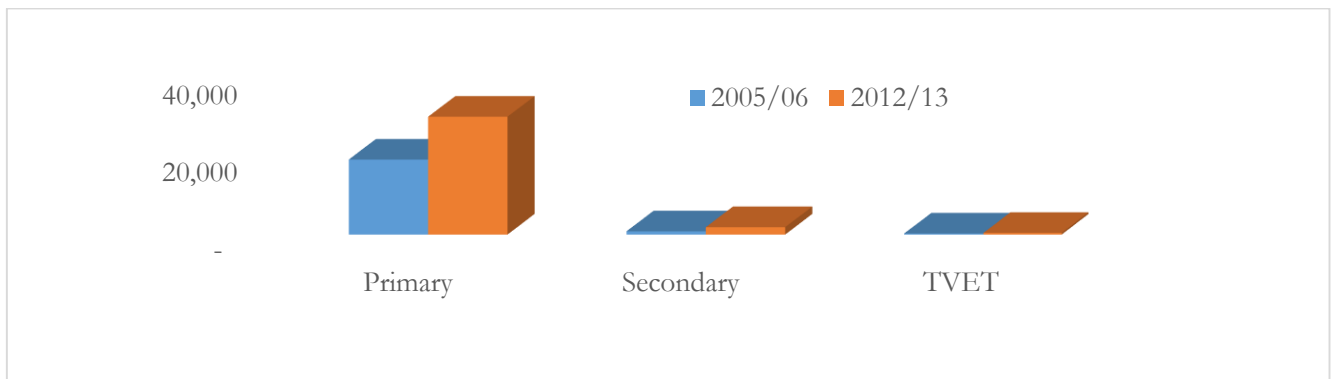
The Government of Ethiopia adopted a new education policy in 1994 that dramatically changed the education system in the country. The new education policy focuses on producing skilled labour force rather than a large cohort of relatively unskilled secondary school graduates. According to the new education policy, there are two levels of primary education: lower primary (1-4 grades), and upper primary education (Grades 5–8). Similarly, while grades 9–10 are the first cycle of secondary school, grades 11-12 are considered college or university preparatory levels or second cycle of secondary education. Note that a national exam is given upon the completion of grade 10. And those who passed the exam promoted to the second cycle of secondary education. Those who do not score well enough to continue in secondary school have the opportunity to pursue formal Technical and Vocational Education and Training (TVET), which takes from one to three years.

The Government of Ethiopia has been pouring a substantial amount of resources to the education sector to expand access to education and improve the skill intensity of the growing work force. For instance, the education sector accounted for 17.5% of the total budget in 2012/13, with TVET and higher education accounted for 10.8% and 21.4% of the total education budget, respectively.

To enhance self-employment and produce skilled workers for SMEs, the Government of Ethiopia has adopted the national TVET strategy in 2008 (MoE 20008). The number of technical and vocational schools has increased considerably in Ethiopia in recent years, leading to several fold increase in the number of university and technical school graduates. The number of TVET institutions increased from 264 in 2005/06 to 437 in 2012/13, and enrollment 123,557 in 2005/06 to 237,877 in 2012/13 (MoE, 2013). Similarly, university enrollment has substantially increased. For instance, enrollment in the undergraduate program increased from 180,117 in 2005/06 to over half million in 2012/13. Accordingly, university graduates in the undergraduate program reached 79, 786 in 2012/13, a massive addition to the pool of educated work force in the country. The skills profile of the workforce has been rising.

Although access to education at all levels increased across the country, employment opportunities, especially in the formal private sector, have not kept pace with increasing number of graduates. The problem is compounded by a lower quality of education and skill mismatches (Kibru, 2012). There are various reasons for the low quality of education including shortfall in financing, short supply of textbooks, inadequate qualification and motivation of teachers, inadequate non-salary recurrent expenditures, and weak leadership and management capacity of the education bureaucracy are among the key challenges facing the education system.

Figure 10: Number of schools and TVET in Ethiopia



Source: MoE (2006, 2013)

2.2.3 Labour market institutions, proclamations, and labour market information

(a) Labour market regulations and proclamations

Ethiopia adopted the “Labour Relations Proclamation” in 1960 which provided rules on the employment relationship and to authorize the creation of workers’ and employers’ organizations. Following the change in the socioeconomic setting, the earlier labour proclamation was replaced by Proclamation No. 42/1993 which brought significant change in the labour market. For instance, changes include abolishment of central public sector employment, the end of guaranteed employment in the public sector for college and university graduates; the ease of conditions allowing temporary employment; the shortening of probation contracts from 90 to 45 days; widening the range of cases where dismissal is not unlawful (De Gobbi, 2006). The 1993 labour proclamation serves as a legal framework for the worker-employer relationship. The main objectives is to maintain industrial peace, establish a system in which employees and employers operate in the spirit of harmony and cooperation, ensure the right for form associations (for the employees and employers), and redefine the role of the state. The right and obligations of both workers and employers has been defined in line with market-oriented policies in the proclamation (Nzinga *et al.*, 2012). However, the right to organize is often limited to a small portion of workers, mainly wage workers in the formal sector. Workers in agriculture and in the informal economy, a major part of the labour force, do not benefit from the right to organize. The right to form union of workers is also provided in the most recent Proclamation (No. 377/2003), which was promulgated in the spirit of the International Labour Convention and the national constitutional principles.

It should be noted that Proclamation No. 377/2003 regulates the employment relationship in the private sector, while Federal Servants Proclamation No. 262/2002 guides the employment relationship in the public sector. According to the Federal Civil Servants Proclamation, employees in the public sector can be hired either temporarily or for an indefinite period.

(b) Labour market institutions

In terms of key institutional actors in the labour market in Ethiopia, in addition to workers and employers groups, include the Ministry of Labour and Social Affairs (MoLSA), the Ministry of Women, Children and Youth Affairs, The Ministry of Education (MoE), the Ministry of Urban Development, Housing and Construction, and the Central Statistical Agency (CSA). And private employment agencies and other private firms.

The Ministry of Labour and Social Affairs (MoLSA) is empowered to coordinate the labour administration system of the country at the federal level. It is responsible for facilitating the match between labour supply and demand as well as organizing, coordinating and monitoring of the labour administration system. The Ministry is mainly concerned with occupational safety and health measures, labour inspection, and industrial relations and labour statistics (to some extent). MoLSA as well its regional counterparts (Bureau of Labour and Social Affairs, BoLSA) provide technical and advisory assistance, including assistance to the content of collective agreements and bargaining skills, to trade unions. But limited capacity, inadequate partnership with the private sector and lack of a comprehensive employment policy have reduced the effectiveness of MoLSA and BoLSAs. Public employment services are provided through BoLSAs and their zonal branches. There are no public employment offices at district (Woreda) level. Public employment services are currently limited to placing suitable registered job seekers in available registered positions.

The Ministry of Women, Children and Youth Affairs (MoWCYA) is involved in promoting women and youth development and participation in the country. In addition, the ministry in collaboration with the European Union also provides training to vulnerable women with skills and opportunities that can help them create a better future for themselves and their families under the ‘Women Empowerment and Gender Equality’ program.⁷ Ethiopia has also prepared a National Women Policy in 1993 and Youth Policy in 2004 to ensure women and youth participation in the country’s development.

⁷

http://eeas.europa.eu/delegations/ethiopia/press_corner/all_news/news/2014/17022014eu_train_women_en.htm

The Ministry of Urban Development, Housing and Construction plays a key role in employment creation through promotion of Small and Microenterprise (SMEs). Accordingly, the Small and Microenterprises Development Strategy adopted in 1998 and revised in 2011, and the Federal Micro and Small Enterprises Development Agency (FeMSEDA) has been established in 1998. Likewise, the Ministry of Education plays an important role in employment creation by preparing the youth for the labour market through general education, TVET, and higher education. The TVET program is specifically tailored to the needs of SMEs and preparing youth for self-employment.

Confederation of Ethiopian Trade Union (CETU): The main functions of CETU include facilitate conducive working conditions for workers in working place, maintain healthy relationship between employees and employers, maintain workers' constitutional right, and provide different kinds of training to workers. In terms of job security, workers in unions are more secured because unions handle different workers' rights on their behalf. The CETU also provides training activities that help workers understand about their right and obligation.

(c) Labour market information (LMI)

Labour market information is a key for matching the supply and demand of labor is the lack of Labor Market Information (LMI) and job search skills. Players in the labour market need timely and reliable data to enable them to make accurate and informed decisions. There are different institutions producing LMI in the country including MoLSA, CSA, MoE, FeSMEDA, and CETU. CSA usually disseminate labour market information to users through CD, hard copy and workshops. CSA produces statistical analysis and reports on labour market (e.g. NLFS, UEUS, Censuses, etc.).

The Ministry of Labour and Social Affairs (MoLSA) of the Federal Democratic Republic of Ethiopia is responsible for collecting, processing, analyzing and disseminating the labour market information (LMI) at national level. Accordingly, the Ministry produces an annual labour market information bulletin based on data obtained from different sources including information collected from various sources like Census, labour force survey, job matching information obtained from the regional employment exchange offices, and the education statistics of the Ministry of Education. The Ministry of Civil Service only compile, organize and report information related to government employees by education (skill) level and other socio-demographic characteristics. Both the Ministry of Civil service and Ethiopian Investment Agency disseminate LMI mainly through hard copy but efforts are being made to disseminate labour market information through their websites.

There also private enterprises that generate labour market information in Ethiopia including Ezega and Ethiojobs which have become increasingly important sources of labour market information for both employers and job seekers (MoLSA, 2011). These private firms generate both the supply of and demand for labour, though the labour market information is not comprehensive.

However, there is lack of coordination among LMI producers in the country, and labour market information system has remained largely uncoordinated (MoLSA, 2011). For instance, MoLSA generates LMI data from a variety of sources on ad-hoc basis such as from CSA, newspapers (vacancies), private job websites (e.g. Ezega and Ethiojobs), and Ethiopian Employer Federation (EEF) on industrial work accidents and strikes).

3. An overview of the macroeconomy

3.1 Growth episode and sectoral pattern of growth

Ethiopia has experienced solid progress in key economic and social indicators and is one of Africa's fastest-growing economies, with near double-digit GDP growth over the past decade and large-scale infrastructural development since early 2000s. Average annual GDP growth increased from 2.3% during the 1980s to over 10% in the period from 2003/04 to 2012/13, and has been even higher in more recent years. The country registered an average annual growth rate of 9.5% between 2000/01 and 2012/13, well above the population growth rate of 2.6% implying real GDP per capita increased by about 6.9%.

Despite strong policy emphasis on agriculture, its contribution to overall growth has been not only limited but also declining: declined from 70.1% in 2000/1 to 33.2% in 2012/13. The growth contribution of the manufacturing has remained minimal.⁸ The service sector continued to be the main engine of growth of the economy, accounting for 43% of the growth of overall GDP in 2012/13.

Decomposition of aggregate demand reveals that private consumption expenditure accounted for a large share of overall demand growth between 2000/01 and 2012/13. The share of investment in GDP improved from 9.4% to 34.6% in 2012/13, due to massive investment in infrastructure by the government. Disaggregating investment by ownership indicates that the share of public sector investment increased substantially 45.2% of total investment in 2000/01 to 96.2% in 2010/11, while the share of private investment declined over the same period (Figure 9).

Similarly, both exports and imports of goods and services increased, but the latter grew faster than the former, implying widening of external imbalance which accounted for 18.1% of GDP in 2012/13, leading to increasing dependence on external sources of financing. The gap between saving and investment remained high, leading to increased reliance on capital inflows from abroad. Heavy dependence on external sources of investment financing has led to accumulation of external debt.

Growth decomposition analysis of Ethiopia's double-digit growth indicates that Ethiopia had high rates of capital accumulation in the public sector, which exceeded even the comparable figure for

⁸ The growth contribution of sectors can be computed using growth decomposition method as: $g = \sum_i s_i g_i$ where s_i share of sector i in GDP and g is growth rate.

East Asian economies in the 1980s (Bienen, *et al.*, 2014).⁹ A recent macroeconomic assessment by MoFED (2014) indicates that Ethiopia's growth has been driven by physical capital accumulation, mainly public-led investment in infrastructure (MoFED, 2014a).¹⁰ The contribution of total factor productivity (TFP) has remained low including labour productivity. A low TFP growth is not surprising since some of the factors that normally support high TFP growth are absent in Ethiopia including strong initial human and physical capital conditions, terms of trade and openness, low inflation, a competitive real exchange rate, low government consumption, high international reserve coverage, and low external debt.

Table 2: Key economic indicators

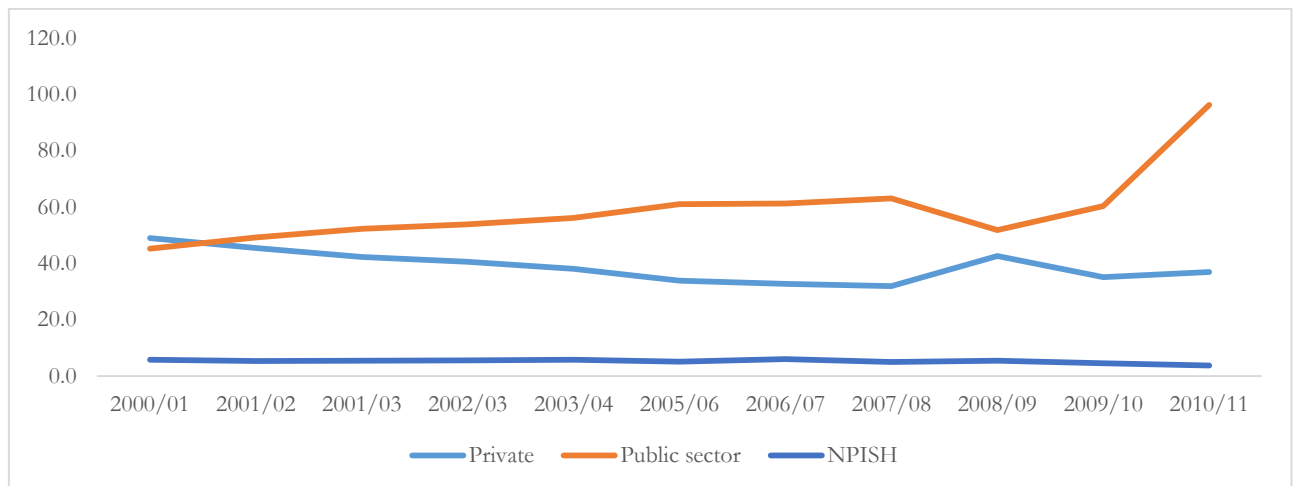
	2000/01	2005/06	2012/13
Population	64.6	73.1	84.8
GDP (billions of ETB, 2010/11 constant prices)	198.3	277.0	556.5
GDP real growth rate	1.6	11.5	9.7
GDP per capita (ETB, 2010/11 constant prices)	3,071.5	3,789.6	6,562
Sectoral shares in GDP (%)			
Agriculture	56.4	52.3	42.8
Manufacturing	4.1	4.0	4.2
Other industry	5.2	6.2	8.2
Services	36.3	38.6	44.8
Sectoral contributions to total growth (%)			
Agriculture	70.1	46.9	32.2
Manufacturing	1.9	3.5	4.8
Other industry	4.3	4.9	19.8
Services	23.7	44.7	43.2
Demand indicators (% of GDP, current prices)			
Private consumption	86.9	81.6	75
Government consumption	10.1	13.5	7.3
Investment	9.2	28.6	33
Net external balance	-6.2	-23.8	-15.3
Export of goods and services	4.5	14.5	12.7
Import of goods and services	-10.7	-38.3	-28

Source: Computed based on data from MoFED

Figure 11: Investment by sector (% of total investment)

⁹ See IMF (2012) on Ethiopia's Growth Accounting.

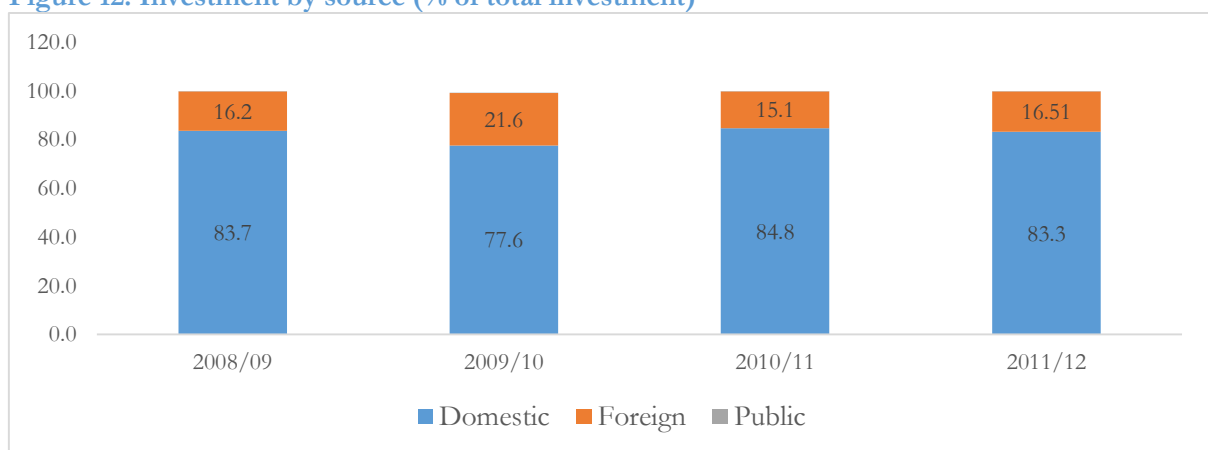
¹⁰ Growth decomposition using Growth Accounting approach indicates that accumulation of physical capital has been the major driver of rapid economic growth, and this is in line with government's massive physical investments in infrastructure across the country (MoFED, 2014a). The contribution of labour force to GDP growth was rather low (29%) between 2005/06 and 2010/1. Similarly, the contribution of total factor productivity to growth was low over the same period.



Source: Computed based MoFED data (National income Accounts)

Since the late 1990s, the Government of Ethiopia has attempted to implement a series of reforms to encourage and attract private. The economy has responded favourably in terms of enhanced participation of the private sector. A total of 6,320 and 4,329 investment projects had been given investment permits. In terms of ownership, a large proportion of investment permits were given to domestic private investors (Figure 12). The share of foreign direct investment in total private investment slightly increased between 2008 and 2011/12.

Figure 12: Investment by source (% of total investment)



3.2 Selected infrastructure indicators

3.2.1 Roads

The government has initiated and implemented a series of road sector development programs since mid-1990s. The focus has been constructing asphalt, gravel and rural roads. As a result, the national road network increased from 36,550 kms in 2000/01 to 56,190kms in 2012/13 (Table 3). Road density per 1000 persons increased to 0.8 km in 2011/12. Road density per 1000 km² also increased to 57.4 km in 2012/13 from 30 km per 1000 km² in 2000/01. The proportion of good condition roads also increased from 28% in 2000/01 to 86% in 2012/13 indicating remarkable improvements in the quality of roads.

Table 3: Trends in selected road indicators

Major Indicators	2000/01	2001/02	2004/05	2008 /09	2009 /10	2010/ 11	2011/12	2012/13
Total road net-work (Kms)	32871	33297	37018	46812	48800	53143	56190	58300
Road densities per 1000 km ²	29.88	30.27	33.6	42.6	44.5	48.1	57.4	78.2
Road densities per 1000 persons	0.5	0.49	0.51	0.57	0.64	0.65	0.75	1
Proportion of good condition roads (%)	28	30	39	54	81	82	86	86
Time taken to arrive all weather road(in hours)	N/A	N/A	N/A	N/A	3.7	3.5	2.9	2.1

Notes: N/A-not available

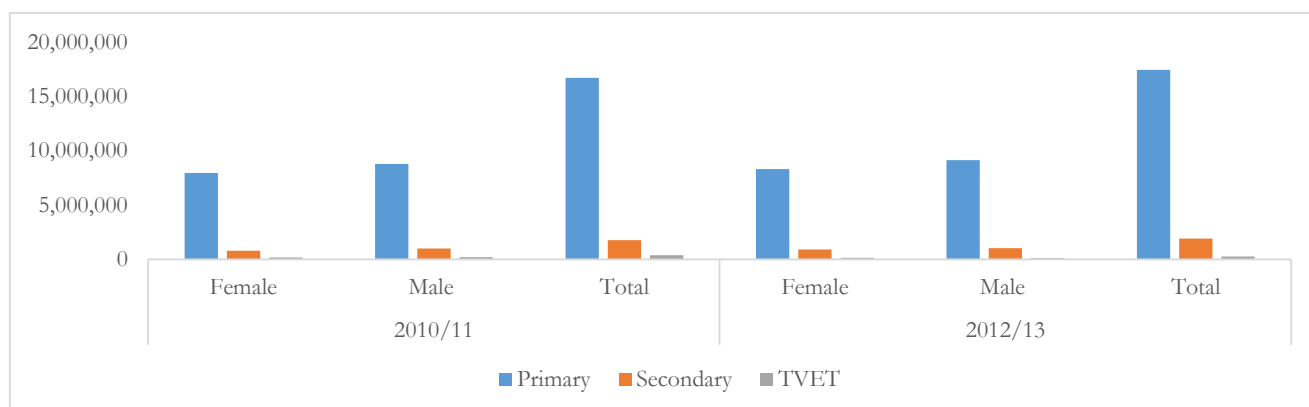
Source: MoFED (2014)

3.2.2 Education

The number of students enrolled in formal education increased substantially in the country. About 17.4 and 1.9 million students were enrolled in primary (grades 1-8) and secondary (grades 9-12) education levels in 2012/13 (Figure 13). Similarly, about 553,848 students were enrolled in the undergraduate program in both government and non-government higher education in 2012/13. Net enrolment rates increased at primary and secondary education levels (Table 4).¹¹

Figure 13: Enrolment level

¹¹Net enrolment rate (NER) is the ratio of properly aged students to the number of students in school. For primary education, NER is obtained by dividing the number of children between 7-14 years old to the number of children in school.



Source: MoE (2013)

Table 4: Selected education related indicators

	2001/02	2010/11	2012/13
Gross primary (1-8) enrollment rate (%)	61.6	96.4	95.3
Net primary (1-8) enrollment rate (%)	52.2	85.3	85.9
Gross secondary (9-10) enrollment rate (%)	17.1	38.4	38.4
Net secondary (9-10) enrollment rate (%)	7.4	16.3	19.4

Source: MoE (2013) and MoFED (2014)

3.3 Poverty and inequality

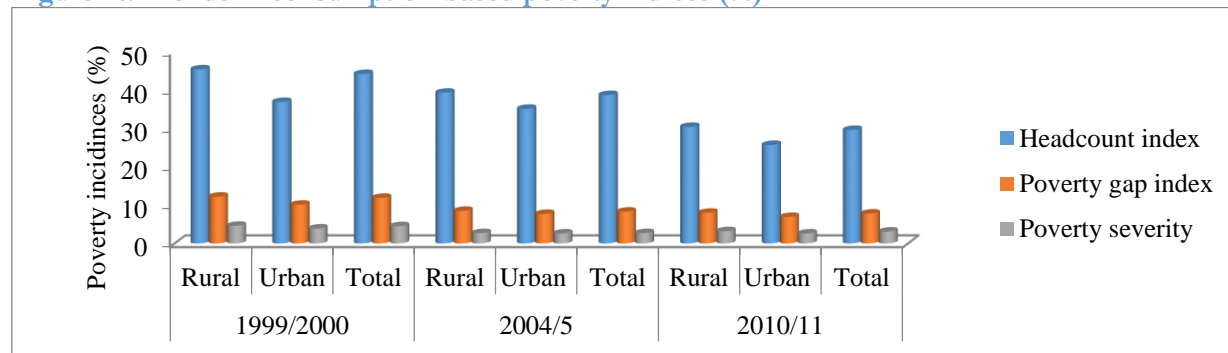
Economic growth brought with it positive trends in reducing poverty in both urban and rural areas. Poverty incidence (or headcount poverty index) decreased from 38.7% in 2004/05 to 29.6% in 2010/11, a reduction of 9.1percentage point for the last six years (Figure 14). Ethiopia has apparently outperformed many sub-Saharan African (and some non-African) countries regarding poverty reduction (IMF, 2013).

Poverty declined in both rural and urban areas, the rate of decline in poverty incidence was higher in the latter than the former. The boom in construction activities, increased private sector investment (e.g. in services), expansion of SMEs, etc. might have contributed to a fall in urban poverty. However, poverty severity increased by 14% in 2010/11 compared with the 2004/05 level, indicating that growth has failed to adequately reach the poorest segment of the population (MoFED, 2013).

Inequality, measured by Gini coefficient, has shown an increasing trend between 1999/2000 and 2010/11 (Figure 15). At national level, the consumption inequality indicator increased from 0.28 to 0.30, an increase of about 0.6% per year. Labour-intensive infrastructural development, expansion of SMEs, improved access to credit, training, etc. could have contributed to the decline in urban inequality in 2010/11. Despite these efforts by the government, inequality has remained

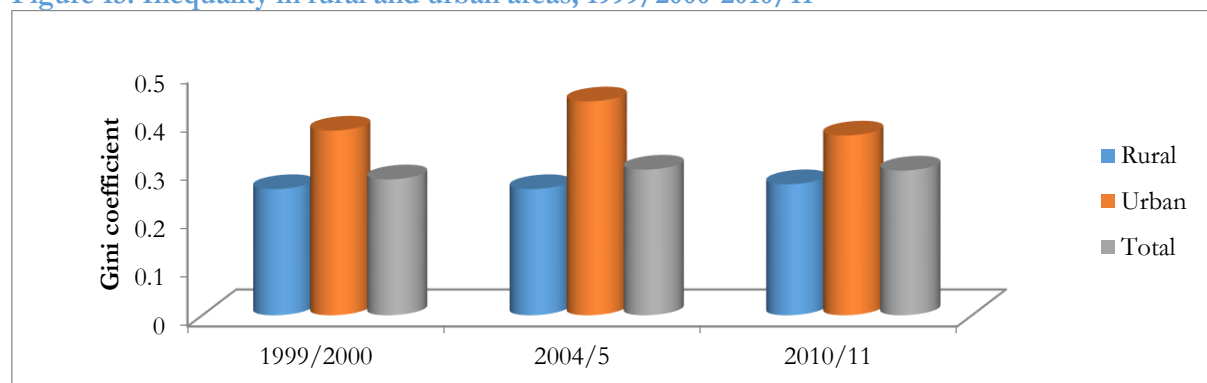
high in urban areas compared with rural areas, suggesting a need for more pro-poor productive employment creation and skill development interventions. Similarly, in rural areas, together with a strong push in agricultural productivity improvement, development of productive non-farm employment is equally crucial in order to reduce rural inequality.

Figure 14: Trends in consumption-based poverty indices (%)



Source: MoFED (2011)

Figure 15: Inequality in rural and urban areas, 1999/2000-2010/11



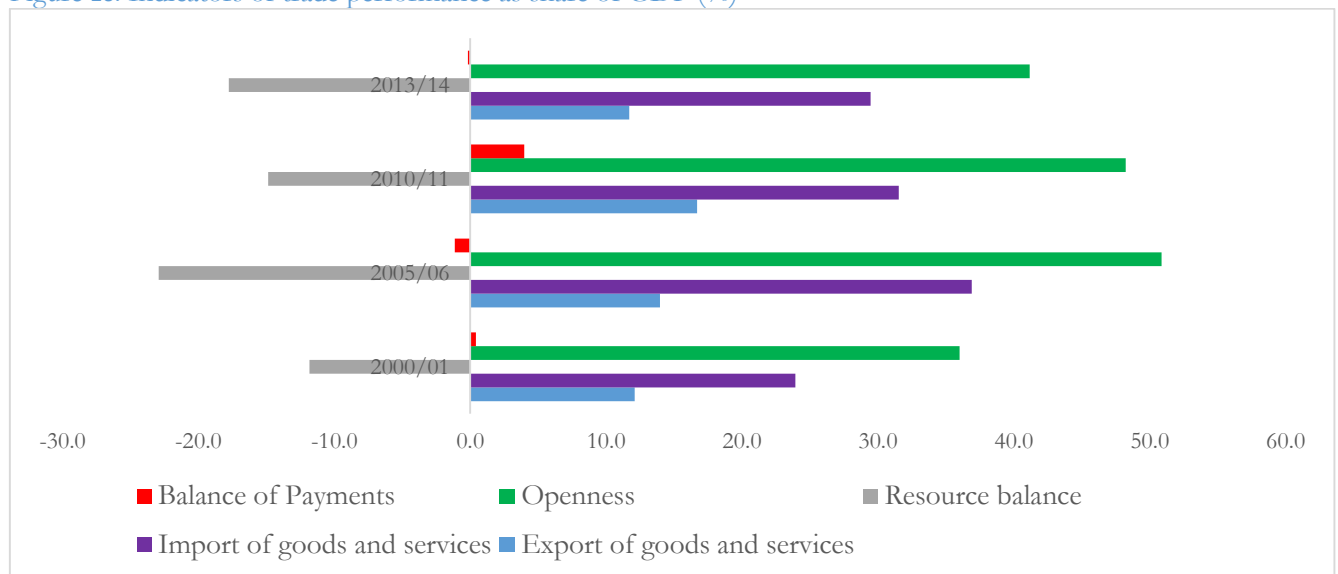
Source: MoFED (2011)

3.4 Trade performance

The country's integration into the global market has increased as measured by the ratio of exports and imports of goods and services to GDP which is often used as a measure of openness. The level of openness increased from 36.0% in 2000/1 to 41.2% in 2013/14 and this is largely driven by imports of goods and services (Figure 16). As result, current account deficit widened, reached at 17.8% of GDP in 2013/14, higher (by about 6 percentage points) compared with the 2000/01 level. As a result, balance of payments deteriorated from 0.41% of GDP in 2000/01 to -0.17% of GDP in 2013/14. The surge in private transfers helped to ease further contraction in the balance of payments. Receipts from private transfers have increased from ETB 3.1 billion in 2000/01 to

ETB 77.1 billion in 2013/14. Remittances surpassed foreign exchange earnings from merchandise exports since 2002/03.

Figure 16: Indicators of trade performance as share of GDP (%)



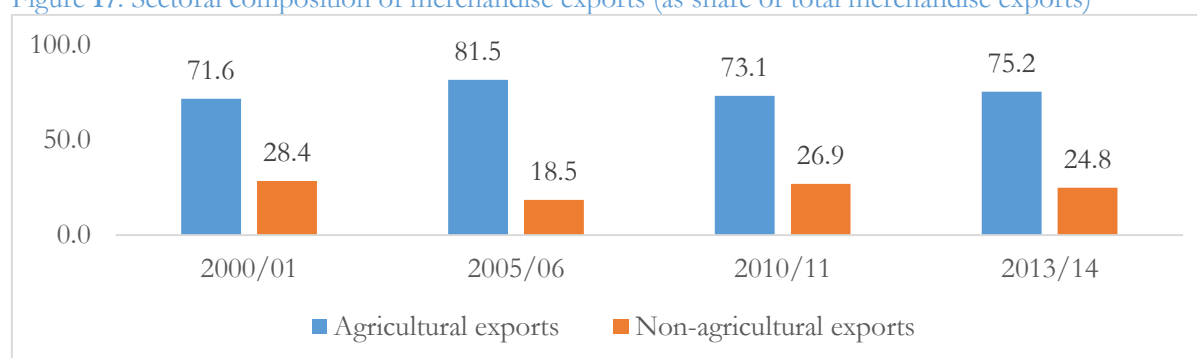
Source: Computed based on data from MoFED (National Income Accounts)

3.4.1 Structure of exports and market destinations

(a) Structure of exports

Ethiopia exports mainly agricultural commodities, accounting for about three-fourth of total merchandise exports in 2013/14 (Figure 17). Export of non-primary commodities has remained low as a share of total merchandise exports. Not only are the shares of non-primary products in total exports small, but their shares have been declining over time, indicating that the country has become increasingly dependent on primary exports.

Figure 17: Sectoral composition of merchandise exports (as share of total merchandise exports)



Source: ERCA

Is there export commodity diversification? The export structure has not changed as the country exports a narrow range of primary commodities to the international market. Export expansion can be achieved in two ways: through the extensive margin (e.g. new products or new markets) or the intensive margin (e.g. more of existing products) (Ofa *et al.*, 2012). Export diversification helps to build resilience, especially in economically weak countries to external economic shocks. In 2000/01, coffee, leather and leather products, chat, oilseeds, and gold were the top five exports, accounting for 93.8% of total merchandise exports, which coffee alone accounted for 45% of total exports (Table 5). In 2013/14, the top five export commodities were coffee, oilseeds, gold, pulses, and live animals, accounting for 76% of total merchandise exports, suggesting some degree of horizontal export diversification has taken place, i.e. diversification within the primary export products, rather than vertical diversification towards the manufacturing sector. Note that the dominance of coffee gradually diminished, accounting for only 23% of total merchandise exports in 2013/14. Primary export supply has become diversified and this primary export diversification is towards higher-value agricultural products such as cut flowers, oilseeds and pulses. For instance, flower export has shown an increasing trend: increased to 6.4% in 2013/14. Similarly, export of pulses increased over the same period. Using the Herfindahl-Hirschman index (HHI),¹² total exports showed a declining export concentration trend, indicating some degree of export diversification (Figure 18) (Ferede, 2013). Ethiopia's exports are poorly diversified, and are in fact moving toward further concentration in products it exports over the period 2000/01-2013/14.

Table 5: Share of export commodities (% of total merchandise exports)

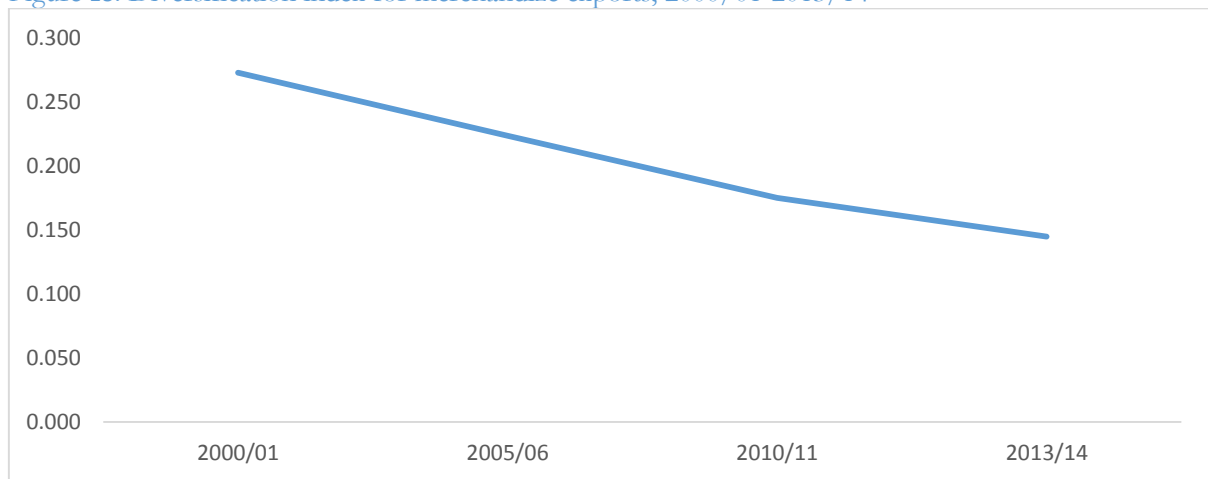
	2000/01	2005/06	2010/11	2013/14
Coffee	45.0	38.3	32.4	23.0

¹² The Herfindahl-Hirschman Index (HHI) is given by: $HHI = \sum s_i^2$ where s_i is the share of export product i in total exports.

Oil Seeds	8.0	22.9	12.6	20.9
Leather & Leather Products	18.8	8.1	4.0	4.1
Chat	15.1	9.6	9.1	9.5
Gold	7.0	7.0	18.0	14.6
Pulses	2.2	4.0	5.3	8.0
Meat products	0.4	2.0	2.4	2.4
Live Animals	0.0	3.0	5.7	6.0
Flowers	0.0	2.4	6.8	6.4
Fruits & Vegetables	1.4	1.4	1.2	1.5
Sugar	2.0	0.0	0.0	0.0
Textile and textile products	0.0	1.2	2.4	3.5
Bee's Wax	0.2	0.2	0.1	0.1

Source: ERCA

Figure 18: Diversification index for merchandize exports, 2000/01-2013/14

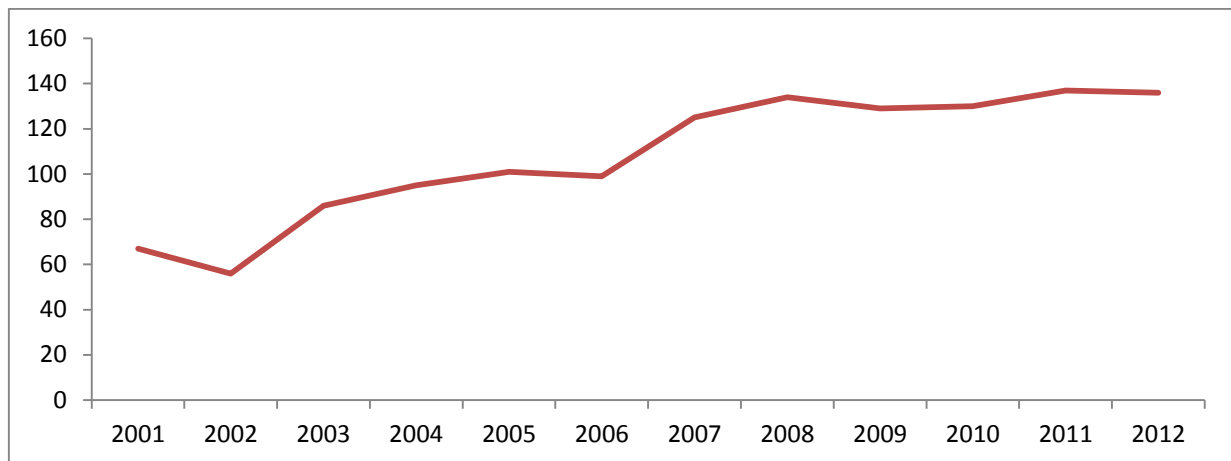


Source: Computed based on ERCA data

(b) Export market destinations

Export market diversification is equally important, as an over-reliance on a single market has the obvious disadvantage as exporting to a number of countries also indicates the country's ability to compete internationally. The number of market destinations more than doubled between 2001 and 2012: from 67 in 2001 to 136 in 2012, indicating a more diversified market for the country's exports (Figure 19).

Figure 19: Number of Ethiopia's export market destinations

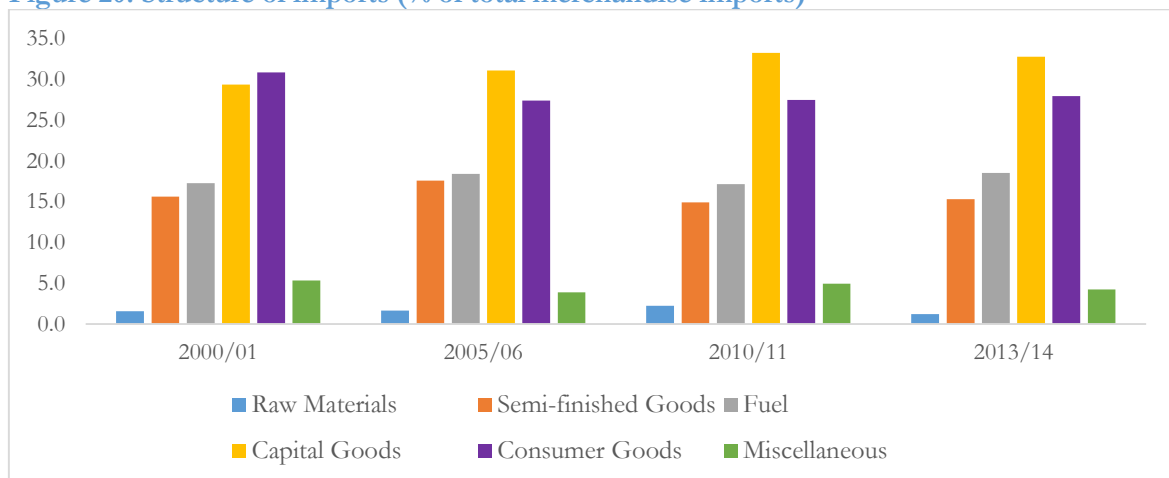


Source: Computed from UNCOMETRADE

3.4.2 Composition of imports

The structure of imported items hardly changed in the last decade. Import of capital goods accounted for a third of total imports in 2013/14, followed by consumer goods (29.7%) (Figure 20). Imports of capital goods, of consumer goods and fuel accounted for about 79% of total imports in 2013/14.

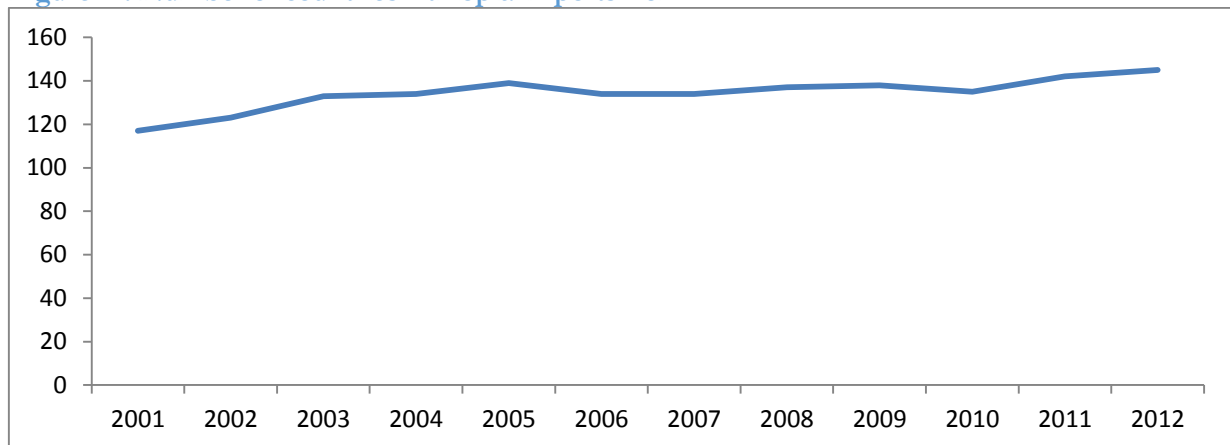
Figure 20: Structure of imports (% of total merchandise imports)



Source: Computed based on ERCA data

Ethiopia imports from a large number of countries: increased from 117 in 2001 to 145 in 2012 (Figure 21). However, the country depends on few countries for its imports. In 2012, the share of imports originating from the top five countries (i.e. China, Saudi Arabia, India, USA, and Italy) increased to 55% (Ferede, 2013).

Figure 21: Number of countries Ethiopia imports from



Source: Computed based on UNCOMTRADE

4. Population, labour force, and employment

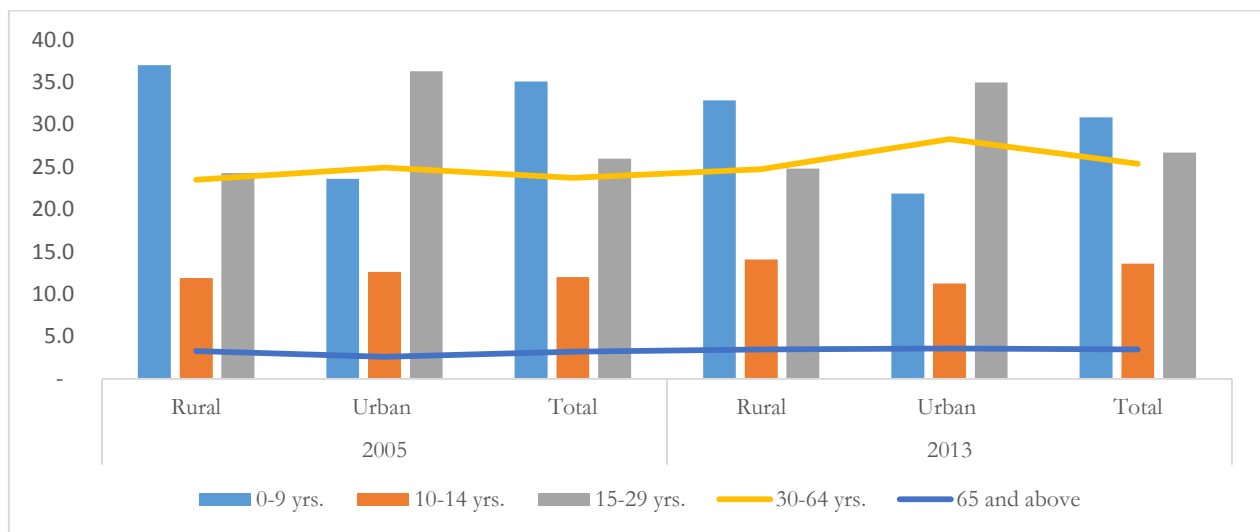
4.1 Population and labour force

Ethiopia is the second most populous country in Africa (after Nigeria). Ethiopia is also characterized by a very high rate of population growth: about 2.6% between 1994 and 2007, which is lower than the 2.8% annual growth registered between the 1984 and 1994 censuses (CSA, 2008). Population growth has recently decelerated from an average of about 3 percent per year in the early 1990s to nearly 2.5 percent in the 2000s. The total population more than doubled during the past three decades, increased from 29.1million in 1972 to 85.9 million in 2013 (NOP, 2000; CSA, 2014). The total population of the country is projected to reach 94.4 million by the year 2017. The national labour force surveys point to an overwhelmingly rural population, accounting for 86% and 82% in 2005 and 2013, respectively (Figure 22). The Ethiopian population is largely young population in both rural and urban areas, with close to 71% below 30 years of age in 2013. While the rural population is characterized by broad based population pyramids, large youth population features the urban areas. In addition, the proportion of the population in the 10-64 age group has increased from 62% in 2005 to 66% in 2013, which led to a falling dependency ratio. The large youth population (between the age of 10 and 29) in urban areas and broad-based rural population pyramid indicate a challenge for the country in terms of employment and job creation¹³ (see Broussard *et al.*, 2013).

The sharp increase in the annual growth rate of population from 0.2% at the beginning of the century to 3% in the 1980s and subsequently lower growth rates in recent years was mainly due to an increase in fertility rate and a decline in mortality. The estimated birth rate is about 31.5 and the death rate is close to 10 for every 1,000 people. Both figures are slightly lower than the low-income and Sub-Saharan Africa averages. Similarly, infant, maternal and under-five mortality rates declined in 2012/13. For instance, infant and under-five mortality rates (per 1,000 live births) declined from 77 and 123 in 2005/06 to 59 and 88 in 2012/13, respectively (MoFED, 2014b).

¹³ According to the 2007 census about a third of the population are 9 years or younger. In urban areas youth (15 – 29 years of age) account for well over a quarter of the population.

Figure 22: Demographic trends in Ethiopia



Source: National Labour Force Surveys (CSA, 2006, 2014)

Between 2005 and 2013, the working age population increased from 41million in 2005 to 55.6 million in 2013, which corresponds to a 3.9% increase per year. The labour force increased from 33.1 million to 44.4 million, a 3.8% growth per year. Over the same period, the urban labour force increased by 8.6%, while the rural labour force rose by 3.4%. The female labour force increased by about 4.2%, compared to the 4.0% male labour force over the same period. About 1.5 million persons are added to the labour force annually. Labour force participation rate remained high. In 2005, about 81% of working age population participated in the labour market, and the figure marginally declined to 80% in 2013. High labour force participation rate is common in developing economies, owing to absence of social security systems, low wages and income (ILO, 2011; Broussard *et al.*, 2013). Male labour force participation rate has shrunk by two percentage points in 2013. One possible explanation for the decline of the labour force participation rate might be due to improved access to education, especially young female age group as they postpone their entry into the labour market in order to pursue their studies (Table 6). A massive push in education has contributed to increases in school enrolment, and hence increasing the proportion of those that are economically inactive (see also Martins, 2014).

Table 6: Trends in labour force and participation rate

	2005			2013		
	Female	Male	Total	Female	Male	Total
Working age population (million)	21.1	19.9	41.0	28.0	27.7	55.6
Labour force (million)	15.8	17.3	33.1	20.9	23.5	44.4
Labour force participation rate (%)	75	87	81	75	85	80
Economically inactive (million)	5.6	3.0	8.6	7.8	4.7	12.5
Of which: students (%)	35	67.2	46.3	39.6	62.9	48.3

Source: National Labour Force Surveys, CSA (2005, 2013)

4.2 Employment and unemployment

The proportion of the employed population in the working age population has increased by 0.5 percentage points between 2005 and 2013 (Table 7). Employment rate has also shown a similar trend. The employment-to-population ratio increased over the same period. A plausible reason for a rise of participation and employment rates can be related to the entrance in the labour market of a large number of youth who completed their education.

Table 7: Selected labour market indicators

	2005			2013		
	Female	Male	Total	Female	Male	Total
Employment (% of total labour force)	92.2	97.5	95.0	93.5	97.3	95.5
Employed-to-population ratio	69.0	84.7	74.6	69.8	82.7	76.2
Unemployment (% of labour force)	7.8	2.5	5.6	6.5	2.7	4.5
Urban formal employment (% of employed)	8.2	3.7	5.9	23.3	68.1	60.1
Urban informal employment(% of employed)	5.2	3.3	4.3	15.4	11.9	13.5

Note: Formal and informal employment are for urban areas

Source: National Labour Force Surveys, CSA (2005, 2013)

Table 8 provides trends in employment by gender and age. Two observations can be made. First, the share of youth employment (between 15-24 years of age) declined from 27.1% of total employed population in 2005 to 25.5% in 2013, and the reduction originated from female employment. Second, the share of adult employed population between 45 and 64 years of age increased. While the share of female employment between this age group increased, that of male employment shrunk over the same period.

Table 8: Employment by age and gender

	2005			2013		
	Female	Male	Total	Female	Male	Total
Total employed (Million)	14.6	16.9	31.4	19.5	22.9	42.4
Of which (%):						
10-14 yrs.	13.4	16.3	15.0	16.2	16.4	16.3
15-24 yrs.	28.9	25.6	27.1	26.4	24.7	25.5
25-34 yrs.	23.9	21.4	22.6	23.8	21.6	22.6
35-44 yrs.	15.6	15.2	15.4	17.1	16.5	16.8
45-64 yrs.	15.7	16.5	16.1	14.4	16.2	15.4
65 and above	2.5	5.1	3.8	2.1	4.6	3.5

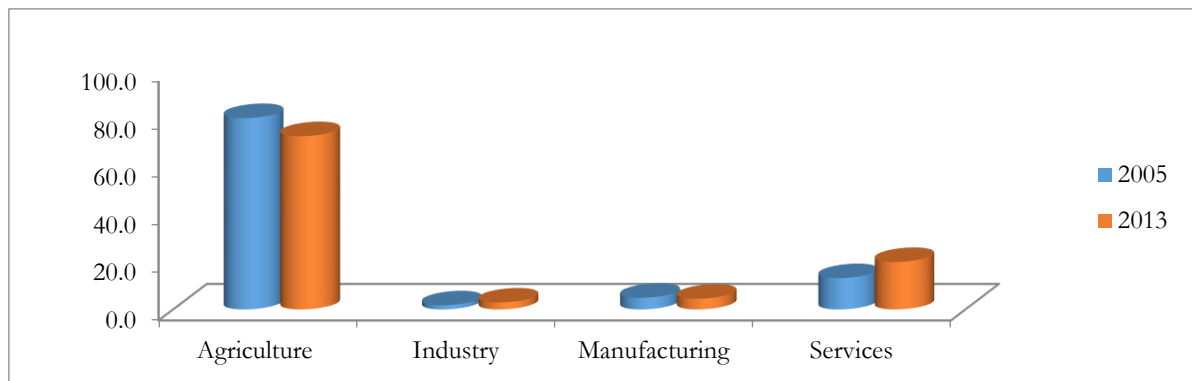
Source: National Labour Force Surveys, CSA (2005, 2013)

The sectoral structure of employment reveals that the share of employment in agriculture has declined significantly from 80.3 percent in 2005 to 72.7 percent in 2013, declined by about 7.6 percentage points (Figure 23). The services sector has assumed a greater role in employment generation, where its employment share increased from 13.1 percent in 2005 to 19.9 percent in 2013. The contribution of the manufacturing to total employment has remained low. It appears that Ethiopia has become a services-led economy without going through an industrial revolution and agricultural modernization. Nevertheless, the pace of overall employment has accelerated in recent years.

The official unemployment rate declined from 5.9% in 2005 to 4.5% in 2013.¹⁴ Unemployment is largely urban phenomenon where the unemployment rate was 16.5% in 2013. The urban employment-unemployment survey also indicates a higher unemployment rate in urban areas: 17.5% in 2012. The unemployment rate measures open unemployment only, as it does not include underemployment or disguised unemployment.

Figure 23: Trends in sectoral employment (% of total employment)

¹⁴ However, the unemployment rates are controversial owing to definitions.



Source: National Labour Force Surveys (2005, 2013)

While the share of formal employment increased in urban areas, informal employment declined from 4.3 percent in 2005 to 3.2 percent in 2013, declined by 1.2 percentage points. In 2005, of the 4.0 million employed people living in urban areas, 1.32 million were employed in the informal sector, and the figure increased to 1.33 million in 2013. This implies that while there are still a large number of work force employed in the urban informal sector, it has not grown significantly since 2005. The services sector has become a home for the vast majority of informal employment, accounting for 65.8% of total urban employment in 2012 (Table 9).

Overall, the employment structure features that the vast majority of jobs are essentially connected to the extraction of natural resources such as agriculture, dominated by smallholders. In addition, the informal sector has become important sources of livelihood, especially in urban areas. The informal sector jobs are precarious or unprotected as informal workers are less likely to have a formal work arrangements ensuring continuity of work and social protection. These features imply that inclusiveness has remained a concern despite record growth performance.

Table 9: Distribution of informal employment by sector in urban areas (%)

	2010	2011	2012
Agriculture, Hunting, Forestry & Fishing	11.1	9.0	7.9
Manufacturing, Construction, Mining & Quarrying	20.6	25.8	26.3
Wholesale and Retail trade	19.8	33.3	33.3
Other services	48.5	31.8	32.5

Source: CSA-Urban employment-unemployment Survey

5. Employment growth and labour productivity

5.1 Employment growth

Aggregate employment growth (g_e), defined as the ratio of total value added to total employment (E), between time $t=0$ and $t=1$ can be expressed as:

$$g_e = \frac{E_1 - E_0}{E_0}$$

Note that aggregate employment is simply the sum of employment from different sectors of the economy. Let employment in the i -th sector at any year (t) be denoted as E_{it} . Thus aggregate employment growth can be expressed as:

$$g_e = \frac{\sum_i (E_{i1} - E_{i0})}{\sum_i E_{i0}}$$

Similarly, the share of each sector from total employment at time $t=0$ can be expressed as:

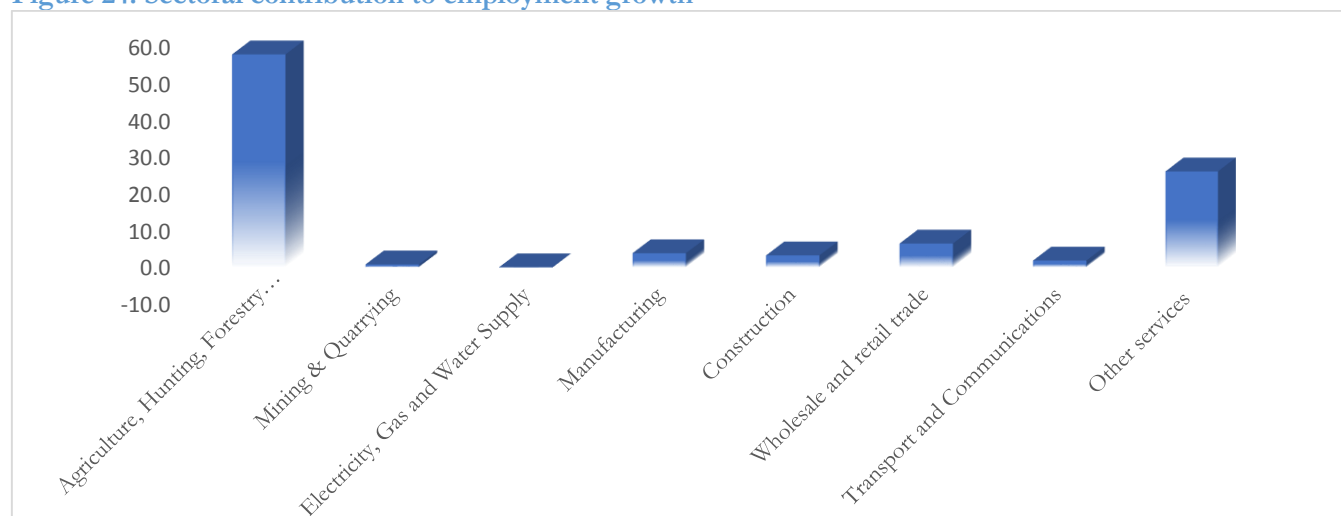
$$\psi_{i0} = \frac{E_{i0}}{E_0}$$

Where $\psi_{i,0}$ is the employment share of the i -th sector in total employment. Thus the sectoral contribution to aggregate employment growth is given by:

$$g_e = \sum_i \psi_{i0} g_i$$

On aggregate, employment grew on average by about 3.8% per year between 2005 and 2013. Sectoral contributions to total employment growth has been visible, with agriculture accounting for more than half of the total employment growth (Figure 24). While other services accounted for a quarter of aggregate employment growth that of manufacturing played a very small role in employment growth. Wholesale and retail trade contributed more to employment growth than manufacturing over the same period. The contribution of electricity and water to employment growth was negative.

Figure 24: Sectoral contribution to employment growth



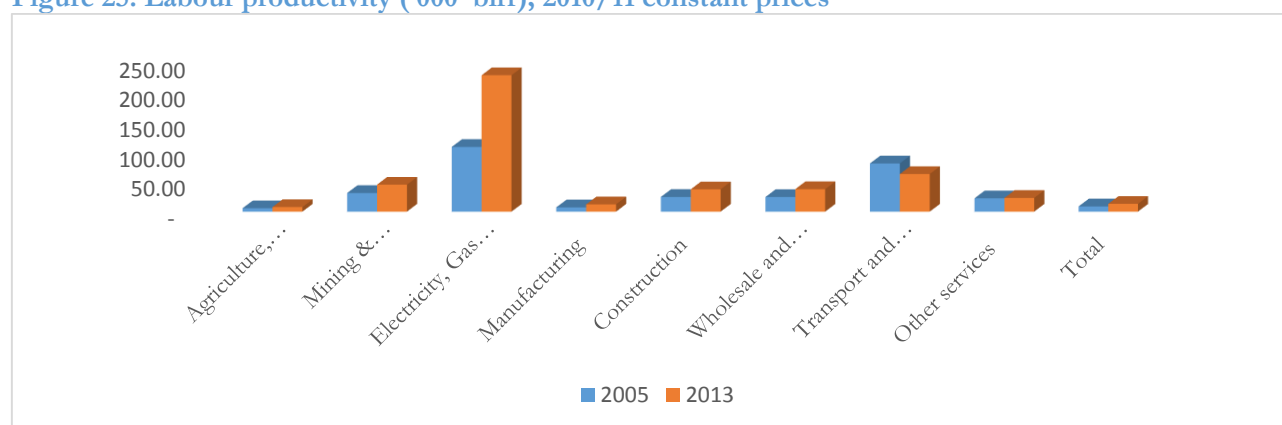
Source: Computed based on National Labour Force Surveys (CSA, 2006, 2014)

5.2 Labour productivity and earnings

5.2.1 Pattern and sectoral structure of labour productivity

Aggregate labour productivity increased from 8.9 thousand birr per worker in 2005 to 13.2 thousand birr in 2013 at 2010/11 constant prices, an increase of 5.1 percent per year. Sectoral variations are noticeable (Figure 25). Labour productivity levels have remained low in agriculture and manufacturing. Employment expansion has been accompanied by a contraction in labour productivity in the transport and communications in 2013.

Figure 25: Labour productivity ('000' birr), 2010/11 constant prices

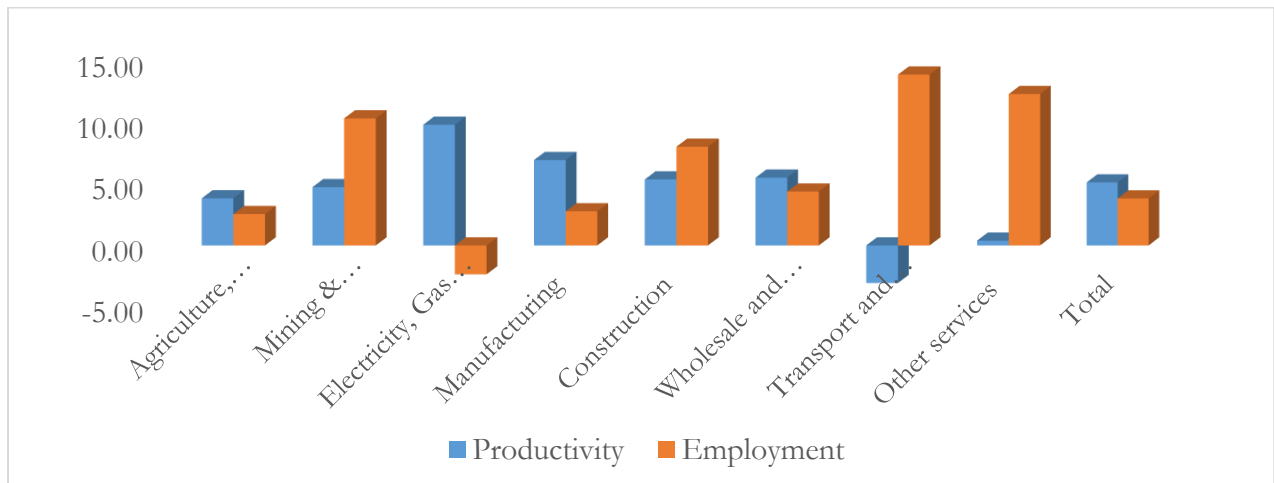


Source: Computed based on CSA (2006 & 2014); National labour force surveys

In terms of labour productivity growth, three main sectors stand out quite strongly between 2005 and 2013: manufacturing, construction and wholesale and retail trade (Figure 26). Note that wholesale and retail as well as construction sectors characterized by low productivity with a high

degree of informality. Labour productivity growth has been accompanied by a fall in employment in the electricity and water sector, indicating technological shifts in the sector. On the other hand, employment expansion has been accompanied by a decline in labour productivity in the transport and communication sector, indicating that this sector has become a ‘refuge’ sector.

Figure 26: Employment and labour productivity growth (%), 2005-2013

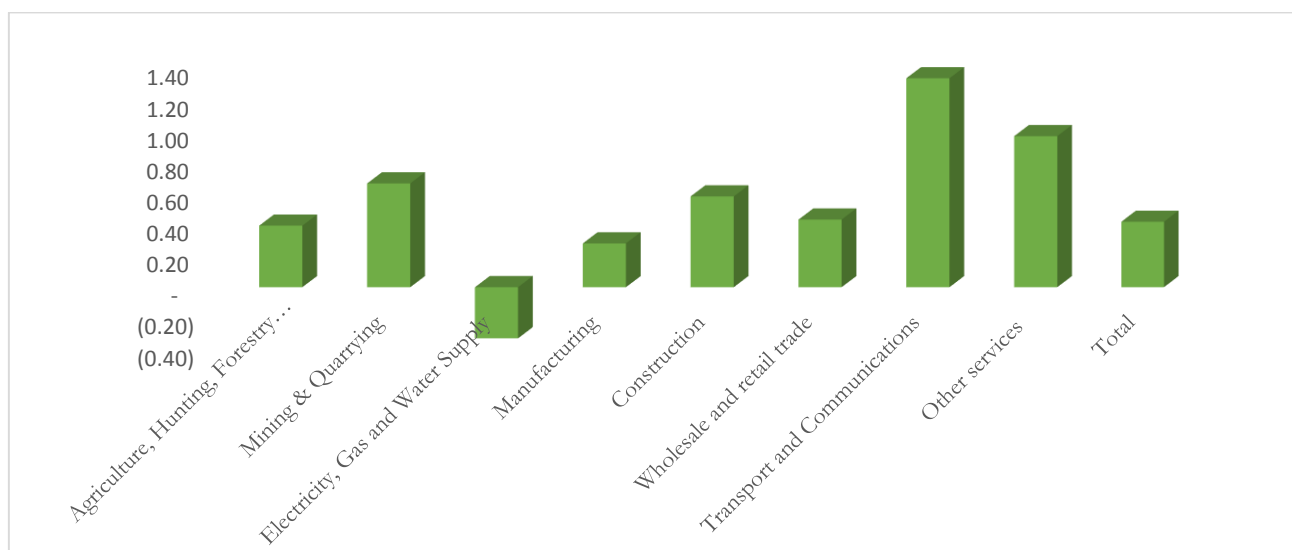


Source: Computed based on National Labour Force Surveys (CSA, 2006, 2014)

Although economy-wide labour productivity growth was accompanied by employment growth, the growth of the latter was not strong as reflected by the low value of the overall employment elasticity of 0.42 between 2005 and 2013 (Figure 27).¹⁵ Note that higher elasticities indicate employment-intensive growth, while elasticities in the low values indicate strong labour productivity growth (Kapsos, 2005). Employment elasticities have remained low (i.e. below the overall average) in agriculture, manufacturing and electricity and water, and these sectors registered lower employment growth over the same period.

¹⁵ Employment elasticity indicates the change in employment due to a change in value added or gross domestic product (GDP). Economy-wide employment elasticity is the ratio of the percentage change in employment to percentage change in GDP.

Figure 27: Employment elasticity



Source: Computed based on National Labour Force Surveys (CSA, 2006, 2014)

5.2.2 Earnings

While employment grew in the majority of sectors, real income declined except in mining and quarrying (Table 10). In 2012, the top four low paying sectors were hotels & restaurants, agriculture, wholesale and retail trade, and manufacturing; these sectors pay below the economy average wage. The monthly average real income was ETB 421.7 (or USD 23.4)¹⁶ in 2012, well below the US\$1.25 a day threshold, implying ‘working poor’ population. Labour mobility occurred from a low paying sector to another low paying sector. This type of labour reallocation is not useful from the point of view of productive employment and of achieving inclusive growth.¹⁷

Ethiopian employment problem is about the quantity as well as quality of jobs. The types of jobs that have been generated lack decent quality. The challenge confronting the country is not only to maintain, but to translate the rapid economic growth into sustained and inclusive development, based on economic diversification that creates decent jobs, and reduction of inequality and poverty rates.

¹⁶ In 2012, the exchange rate was: 1USD=18.0 Birr.

¹⁷ In the literature, a reallocation of labour from a low productivity sector to another low productivity sector does not help raise the overall productivity of the economy, and this is often called ‘structural burden’ (see Baumol *et al.*, 1985, 1989; Felipe *et al.*, 2007).

Table 10: Average real income by major sectors (Birr per month)

	2010	2012
Agriculture, Hunting, Forestry & Fishing	355.2	275.7
Mining & Quarrying	494.6	600.0
Manufacturing	385.0	341.6
Electricity, Gas and Water Supply	641.3	471.0
Construction	550.2	452.9
Wholesale and Retail trade	387.8	293.5
Hotels and Restaurants	213.0	249.0
Transport, Storage and Communications	603.6	508.3
Financial Intermediation	809.9	681.6
Real Estate, Renting and Business Activities	656.5	605.0
Average monthly payment	483.9	421.7

Source: CSA-Urban employment/unemployment survey

6. Structural change and productivity decomposition

6.1 Method of productivity decomposition

The importance of a sector for the overall economy depends not only on its role in generating scale economies, but also on how it absorbs resources such as labour from other sectors. An economy with a large pool of labour employed in low productivity sectors is said to benefit from a change in the sectoral composition of output if labour is transferred from a low to high productivity sectors. A shift analysis can be used to assess the extent of inter-sectoral labour mobility across sectors.

Let P denote the aggregate labour productivity:

$$P = \sum_i \sigma_i p_i$$

where σ_i is the employment share of sector i in total employment, and p_i denotes labour productivity in sector i : $p_i = \frac{VA_i}{L_i}$ where VA_i and L_i are value added and employment in sector i , respectively. Following Baily *et al.* (1996), McMillan and Rodrik (2011), Wells and Thirlwall (2003), Fagerberg (2000), the growth rate of aggregate labour productivity (\dot{p}) between time 0 and t can be decomposed into three elements:

$$\dot{p} = \frac{1}{p_0} \left[\sum_{i=1} (\sigma_{it} - \sigma_{i0}) p_{i0} + \sum_{i=1} (p_{it} - p_{i0}) \sigma_{i0} + \sum_{i=1} (\sigma_{it} - \sigma_{i0}) \sum_{i=1} (p_{it} - p_{i0}) \right]$$

Where p_0 is aggregate labour productivity at time 0. The right hand side of the equation consists of three components:

- (i) The first term is the employment effect (or structural change effect) which captures the weighted productivity effect of labour re-allocations across sectors, where the weights are the sectoral productivity levels at the beginning of the period. Note that if changes in employment shares are positively associated with productivity levels, this term will be positive. It is positive (negative) if industries with higher productivity attract more (less) labour resources and hence increase (decrease) their share of total employment. It shows the pattern of development that directs resources (e.g. labour) across sectors.
- (ii) The second term is the weighted within-sector productivity growth where the weights are employment shares at the initial period. This component provides the contribution of productivity growth within each sector to overall labour productivity growth.

- (iii) The third term is the interaction effect due to employment and productivity changes, and represents the contribution of changes in the allocation of labour across sectors and changes in productivity in individual sectors to aggregate labour productivity growth (Kruger, 2008). If sectors increase both labour productivity and their share of total employment, the combined impact is a positive contribution to overall productivity growth. It reflects the capacity of the country to shift labour towards rapidly growing sectors in terms of productivity.

6.2 Analysis of results

Simple averages and employment weighted averages are presented for the periods 2005 and 2013 (Table 11). The within-sector productivity represents the largest contribution to aggregate labour productivity growth, accounting for about 66% of total labour productivity growth. Structural effect, which consists of employment and the interaction effects, contributed close to a third of the total labour productivity growth, with the employment effect accounting for about 40% of the total labour productivity growth. The contribution of the interaction effect to the overall labour productivity growth is negative, supporting the structural burden hypothesis (Baumol *et al.*, 1985, 1989; Felipe *et al.*, 2007). This indicates that sectors with fast growing labour productivity cannot maintain their shares in total employment. The negative effect can be larger if sectors with high productivity growth are faced with declining employment shares. While agriculture, manufacturing, and electricity and water sectors exhibited declining employment shares with positive labour productivity growth, transport and communication and other services experienced the opposite.

The sectoral variation in terms of labour transfer is quite noticeable. The bottom line is that the agriculture and services sectors made strong contributions to the aggregate labour productivity growth. In particular, a large part of the within-sector productivity gain is generated from the agricultural sector. On the other hand, real income in agriculture has fallen. Given that the observed increase in labour productivity in agriculture (through a combination of higher prices and use of improved farm inputs such as fertiliser and irrigation) could be captured by farmers themselves since smallholders cultivate their own land with limited or no wage employment. The contribution of manufacturing activity to economy-wide productivity growth has remained very low. A significant part of the employment effect is generated from services activities, indicating that productive sectors are not the major stimulus to the growth of overall labour productivity. In addition, the employment effect is negative for agriculture and manufacturing, while it is positive for services and construction sectors, indicating labour shifts from productive sectors to services.

A negative structural change component suggests that labour moved to sectors with lower productivity levels such as from manufacturing to informal urban activities. This process hinders economic growth and subsequent transformation (Martins, 2014; McMillan and Rodrik, 2011).

Although the interaction effect is negative for both agriculture and manufacturing, it is more negative for the former than the latter, suggesting that the manufacturing sector does not appear to drive employment transfers from other sectors. A negative interaction effect also implies that new jobs have been created in activities with decreasing productivity.

Table 11: Sectoral structure of labour productivity growth, 2005-2013

		Structural change effect	
		Employment effect	Interaction effect
	Within-sector productivity growth		
Agriculture, Hunting, Forestry & Fishing	0.180	-0.048	-0.017
Mining & Quarrying	0.004	0.006	0.003
Electricity, Gas and Water Supply	0.014	-0.005	-0.005
Manufacturing	0.028	-0.003	-0.002
Construction	0.020	0.015	0.008
Wholesale and retail trade	0.077	0.006	0.003
Transport and Communications	-0.009	0.046	-0.010
Other services	-0.006	0.174	-0.005
Total	0.308	0.191	-0.026

Source: Own computation based on National Labour Force Surveys (CSA, 2006, 2014)

6.3 Contribution of labour productivity to output growth

Has the increase in labour productivity contributed to output growth? In answering this question, it is worthwhile to look into the sources of output growth. In doing so, value added growth can be decomposed into three components: employment effect, productivity, and interaction effect (Khan, 2005; Demeke *et al.*, 2003). Let Y and P represent value added and labour productivity, respectively. Then the change in value added can be expressed as:

$$\Delta Y = P\Delta E + E\Delta P + \Delta E\Delta P$$

Where Δ denotes change, and E refers to employment.

The first term on the right hand side (PdE) indicates the contribution of employment to output growth, while the second term indicates the role of labour productivity in output growth. The last term indicates the combined effects of employment and labour productivity (interaction effect. In terms of growth rate, the above equation can be expressed as:

$$g_y = g_e + g_p + g_e * g_p \Leftrightarrow g_y = g_e + (1 + g_e) g_p$$

Where g_x , $x = E, P, Y$ represent growth rates of employment, productivity and value added.

The economy- wide output growth was mainly driven by productivity growth, accounting for about 49% of the aggregate output growth between 2005 and 2013 (Table 12). About 22% of output growth was due to employment expansion, while interaction effects accounted for rather a small proportion of value added growth over the same period. Both employment expansion and productivity growth have been the sources of output growth between 2005 and 2013. As a result, this type of growth path is beneficial for improving both employment and earnings of workers, a key element for reducing poverty and inequality.

Note that, however, that the pattern of growth varied across sectors. Some of the sectors experienced productivity growth, while others faced employment expansion. For instance, productivity growth was the main source of output expansion for agriculture, manufacturing, electricity and water, and wholesale and retail trade, while employment expansion was the key driver of output growth in construction, mining and quarrying, transport and communication, and other services. In the transport and communication sector, employment growth has been accompanied by falling productivity growth, but the opposite holds in the electricity and water sector. The trend in the former is worrisome as employment expansion without rising productivity reduces the competitiveness of the sector. In fact, absence of competition in the transport and communication sector might have contributed to falling labour productivity. But this requires further investigation as the electricity and water sectors are also experience similar features in terms of absence of competition.

Table 12: Decomposing output (value added) growth by major economic sectors, 2005-2013

	Employment effect	Productivity effect	Multiple effect
Agriculture, Hunting, Forestry & Fishing	0.34	0.54	0.12
Mining & Quarrying	0.55	0.21	0.25
Electricity, Gas and Water Supply	-0.23	1.49	-0.26
Manufacturing	0.22	0.63	0.15
Construction	0.47	0.29	0.24
Wholesale and retail trade	0.35	0.46	0.19
Transport and Communications	1.52	-0.18	-0.33
Other services	0.95	0.02	0.03
Total	0.22	0.49	0.17

Source: Own computation from National Labour Force Surveys (CSA, 2006, 2014)

7. The Ethiopian manufacturing sector: Size and structure

7.1 Size of the Manufacturing Sector in the Economy

The manufacturing sector in Ethiopia consists of large and medium scale industries, and small and cottage industries. Manufacturing value added (MVA) significantly grew by about 9.2% on an annual average basis in real terms, and 10.2% in per capita terms between 2000/11 and 2012/13. Nonetheless, the share of manufacturing real value added in total industrial GDP declined from 43% in 2000/01 to 34% in 2012/13 (Table 13).

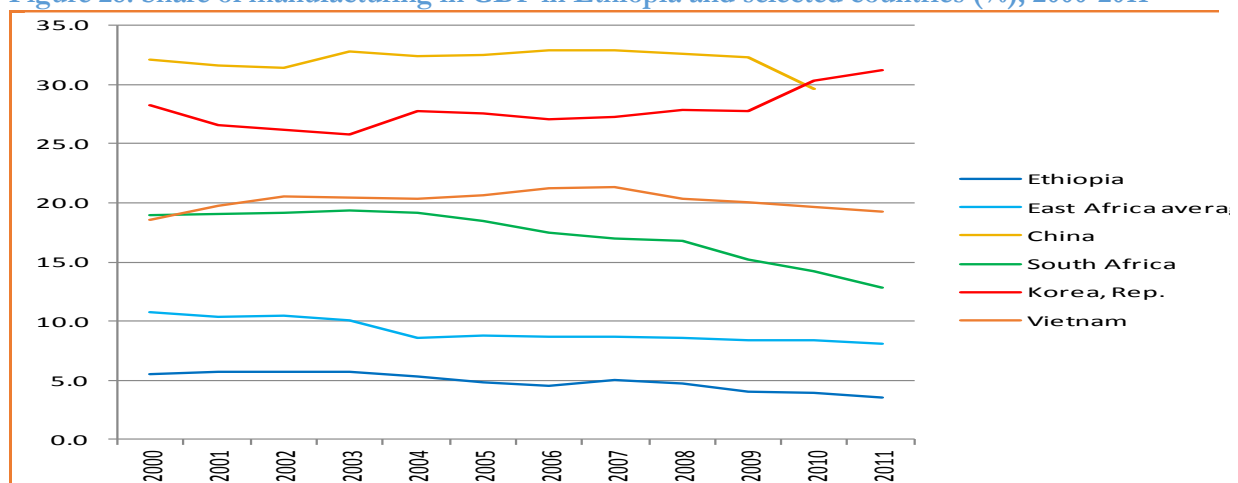
Table 13: Share of manufacturing value added in industrial GDP (%)

	2000/01	2005/06	2012/13
Manufacturing value added (Million ETB)	8,147	11,057	23,490
Manufacturing value added per capita (ETB)	126	151	273
Share of manufacturing value added in industrial GDP (%)	43	38	34

Source: GDP by Economic Activity at Constant Prices ('000 Birr), 2010/11 Base Year; and at Current Prices

The Ethiopian manufacturing sector is lagging in comparison to selected peer economies both in value added share in GDP and value added per capita (Figure 28 and Figure 29).

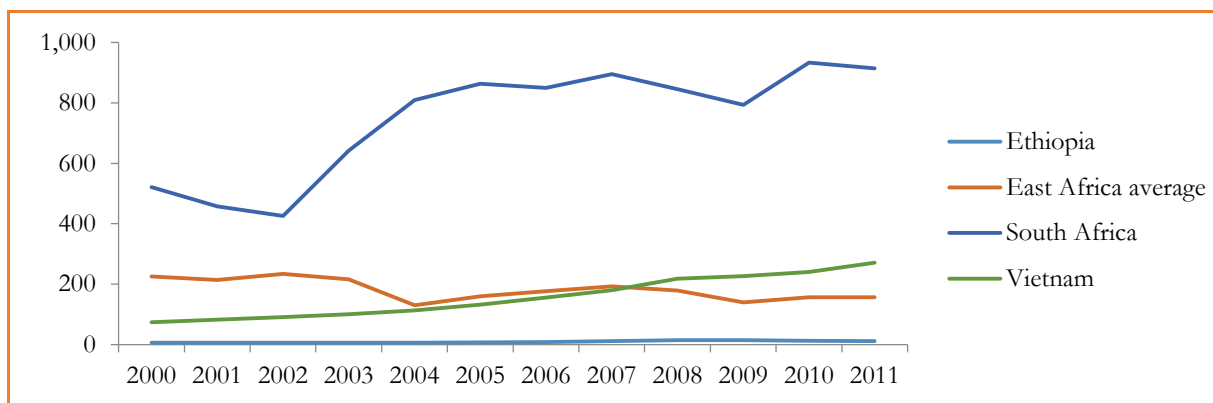
Figure 28: Share of manufacturing in GDP in Ethiopia and selected countries (%), 2000-2011¹⁸



Source: BKP (2014)

¹⁸ The “East Africa average” is calculated here as the average share of the manufacturing sector in the 7 country studies (Burundi, Ethiopia, Kenya, Rwanda, Seychelles, the United Republic of Tanzania, and Uganda).

Figure 29: Manufacturing value added per capita in Ethiopia and selected countries, 2000-2011



Source: BKP (2014)

Employment in the large and medium manufacturing sector increased from 93,737 in 2000/01 to 173,397 in 2010/11, grew at an annual average rate of 6.3% (Table 14). Similarly, the number of manufacturing establishments also grew on average by 10.5% per year over the same period. Both manufacturing value added per employee and per establishment have shown an increasing trend. However, manufacturing employment per establishment fell over the period as the number of establishments grew, indicating that large and medium manufacturing enterprises have become less labour intensive.

Table 14: Trends in value added, employment and establishments in the manufacturing sector

Year	2000/01	2005/06	2010/11	Growth rate (%), 2000/01-2010/11
Employment (number)	93,737	118,468	173,397	6.3
Manufacturing establishments	798	1,244	2,170	10.5
Manufacturing value added per employee ('000' ETB)	25.3	31.0	71.1	10.9
Manufacturing value added per establishment ('000' ETB)	2,968	2,956	5,679	6.7
Employee per establishment	117	95	80	-3.8

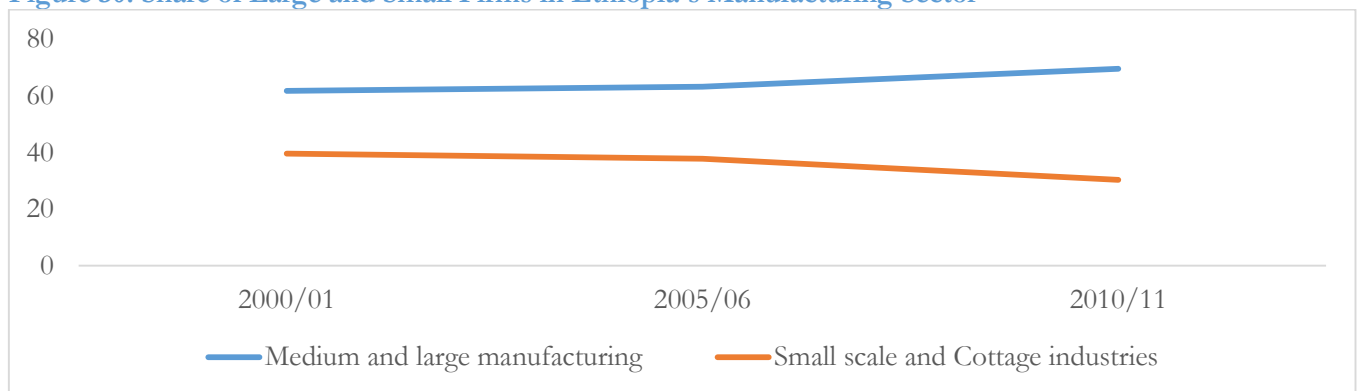
Source: CSA (Large and medium scale manufacturing survey)

7.2 Structure of the manufacturing sector

7.2.1 Distribution of manufacturing firms

Manufacturing value added of large and medium manufacturing industries grew by about 12.5% per annum in real terms between 2000/01 and 2012/13, and the MVA of the small and cottage enterprises on average grew by 8.3% per annum. However, the share of small and cottage firms in manufacturing value added has declined between 2000/01 and 2012/13 (**Error! Reference source not found.**).

Figure 30: Share of Large and Small Firms in Ethiopia's Manufacturing Sector

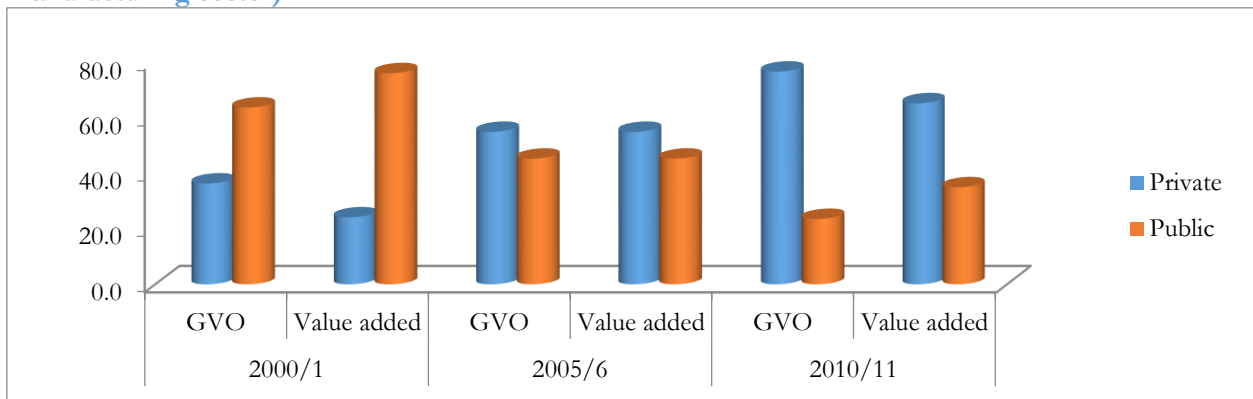


Source: Ministry of Finance and Economic Development: GDP by Economic Activity

7.2.2 Distribution of manufacturing firms by ownership

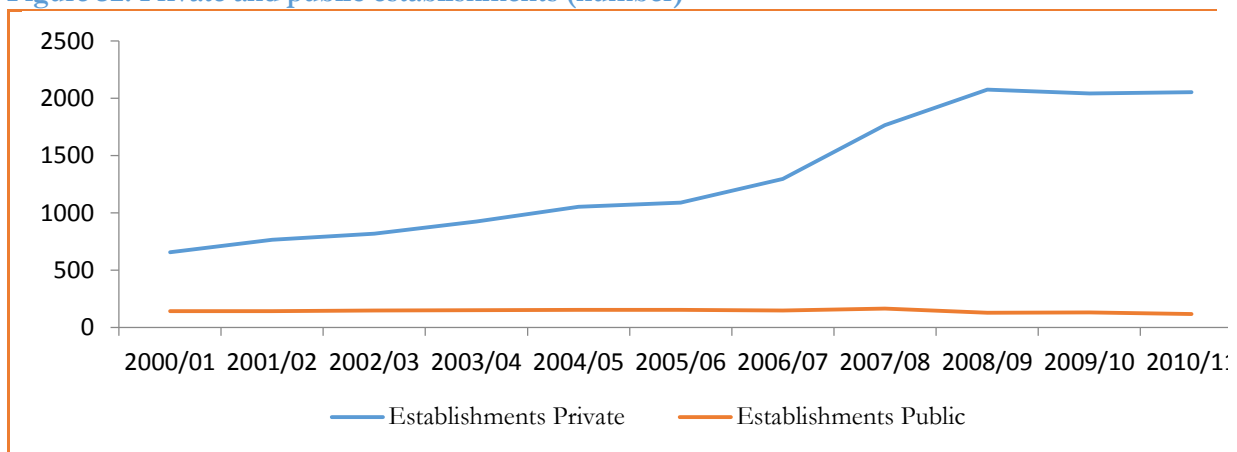
In Ethiopia, large and medium manufacturing firms are owned by public and private, while the small and cottage firms are privately owned. Private manufacturing firms in the large and medium-sized group expanded their share of gross value of output (GVO) and value added between 2000/01 and 2010/11 (**Error! Reference source not found.**). The share of public firms in GVO and MVA declined and this might be due to increased participation of private sector and privatization of some of public manufacturing enterprises (BKP, 2014). The number of public establishments declined from 143 in 2000/01 to 129 in 2010/11, while the number of private establishments grew by 12% over the same period (Figure 32).

Figure 31: Manufacturing GVO and value added by ownership (% share from large and medium manufacturing sector)



Source: CSA

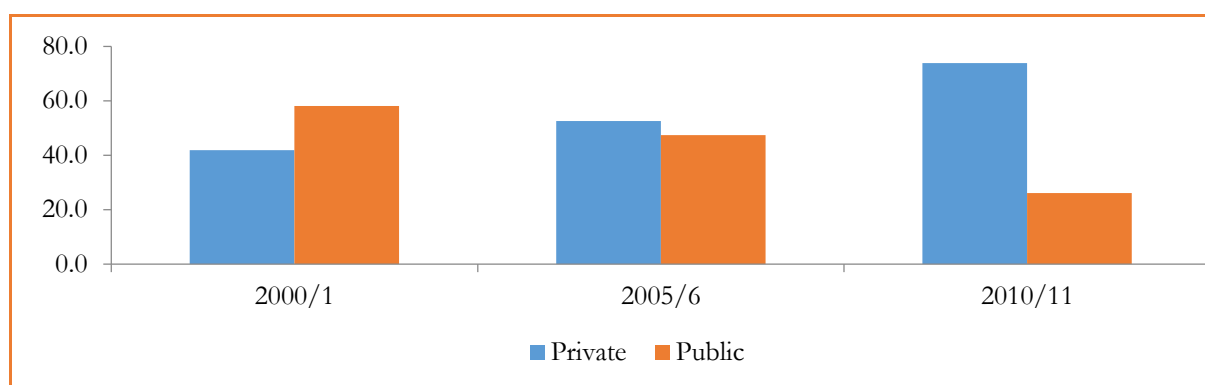
Figure 32: Private and public establishments (number)



Source: CSA

The employment share of private manufacturing industries in total manufacturing employment within the large and medium-sized group increased from 41.9% in 2000/01 to 73.9% in 2010/1. On the other hand, the share of public manufacturing industries shrunk from 58.1% to 26.1% (Figure 33).

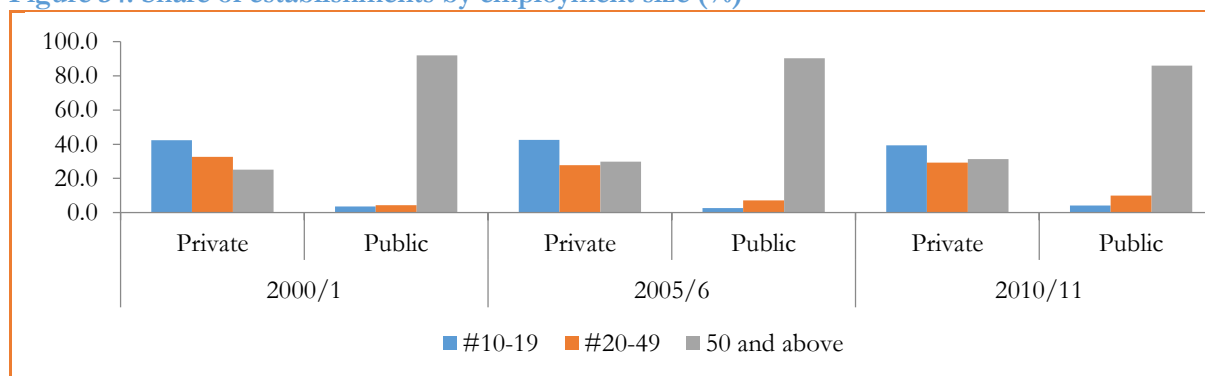
Figure 33: Employment shares of private and public manufacturing industries (%)



Source: CSA

In 2010/11, there were actually more large private firms (over 50 employees) than medium-sized private firms (20-49 employees) (Figure 34). The share of private establishments that employ 50 and more workers increased from 25% of total private establishments in 2000/01 to 31% in 2010/11. On the other hand, the number of smaller private firms (between 10 and 19 employees) declined from 42.3% of total private establishments in 2000/01 to 39.4% in 2010/11. Public firms were all large.

Figure 34: Share of establishments by employment size (%)



Source: CSA

7.2.3 Composition of the manufacturing by subsector

The Ethiopian large and medium size manufacturing sector is dominated by food and beverages: it accounted for the largest proportion of the overall large and medium manufacturing value added between 2000/01 and 2010/11 (**Error! Reference source not found.**). However, the value added share of food and beverages industries declined by about 3.6 percentage points between 2000/01 and 2010/11. Tanning and dressing of leather, chemical and chemical products, and other non-metallic mineral products showed an increasing trend in value added share.

Table 15: Share of value added of the manufacturing subsectors (%)

	2000/01	2005/6	2010/11
--	---------	--------	---------

Food and Beverages	50.9	40.3	47.3
Tobacco	2.8	3.7	1.8
Textiles	5.9	3.4	1.6
Wearing Apparel, Except Fur Apparel	0.6	0.6	1.2
Tanning and Dressing of Leather	4.8	4.4	7.7
Wood and Products of Wood	0.7	0.8	0.9
Paper, Paper Products and Printing	5.9	5.3	5.9
Chemical and Chemical Products	4.6	4.8	10.7
Rubber and Plastic Products	5.7	8.9	6.1
Other Non-Metallic Mineral Products	8.6	15.7	16.9
Basic Iron and Steel	2.0	3.9	4.2
Fabricated Metal Products	1.6	3.0	-8.5
Machinery and Equipment	0.1	0.3	0.5
Vehicles, Trailers and Semi-Trailers	4.3	2.4	1.3
Furniture, Manufacturing N.E.C	1.6	2.4	2.4
Total	100.0	100.0	100.0

Source: CSA

The employment share of food and beverages increased from 29.1% in 2000/01 to 38.7% in 2010/11 (**Error! Reference source not found.**). Similarly, the employment share of rubber and plastic and other non-metallic mineral manufacturing industries increased in 2010/11. The employment share of tanning and dressing of leather slightly increased by 0.6 percentage points in 2010/11. Despite policy focus the textile industries experienced a significant decline in employment share: from 25.3% in 2000/01 to 7.7% in 2010/11.

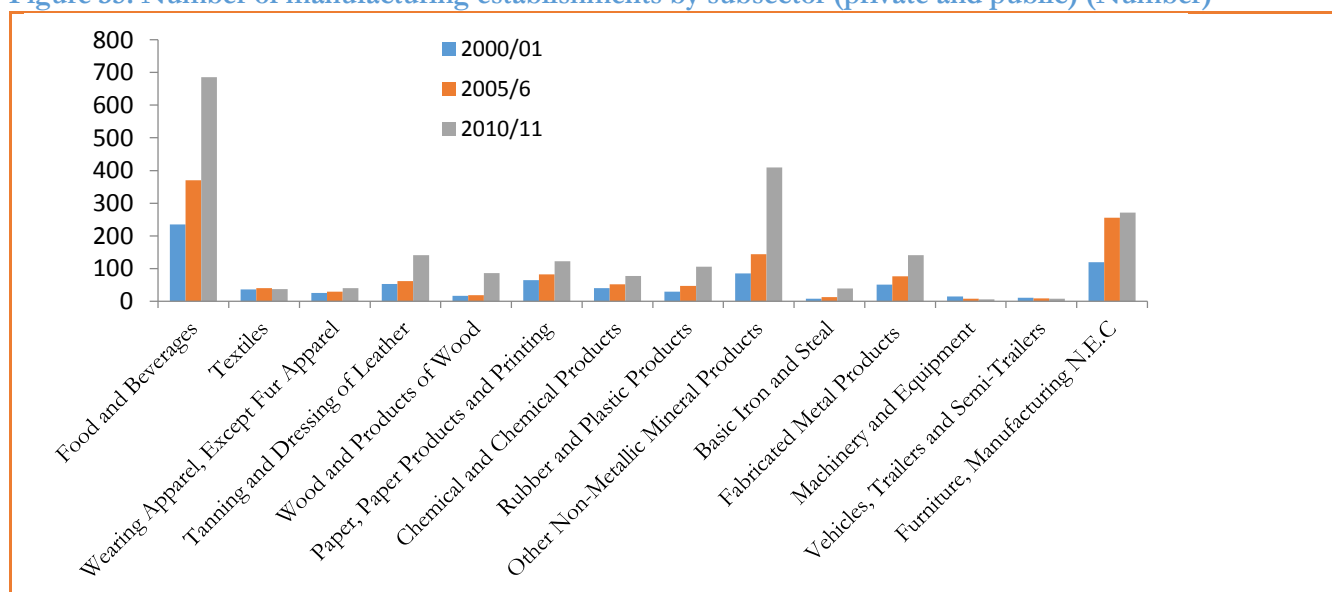
Table 16: Employment by the manufacturing subsector (% of total manufacturing employment)

	2000/1	2005/6	2010/11
Food and Beverages	29.1	30.1	38.7
Tobacco	0.9	0.6	0.8
Textiles	25.8	18.7	7.7
Wearing Apparel, Except Fur Apparel	4.0	3.5	3.3
Tanning and Dressing of Leather	7.5	6.7	8.1
Wood and Products of Wood	1.1	1.5	2.3
Paper, Paper Products and Printing	5.9	6.8	5.8
Chemical and Chemical Products	4.3	4.8	5.6
Rubber and Plastic Products	3.6	5.8	6.3
Other Non-Metallic Mineral Products	8.0	8.5	9.9
Basic Iron and Steel	1.2	1.8	2.8
Fabricated Metal Products	2.8	4.9	3.5
Machinery and Equipment	0.2	0.3	0.4
Vehicles, Trailers and Semi-Trailers	1.1	1.2	0.9
Furniture, Manufacturing N.E.C	4.6	4.8	3.7
Total	100.0	100.0	100.0

Source: CSA

A look at the subsectors indicates that all subsectors except textiles, manufacture of motor vehicles, (semi-) trailers and manufacture of machinery and equipment n.e.c. showed large increase in the number of establishments (**Error! Reference source not found.**). This is encouraging in terms of manufacturing development and of diversification as new manufacturing activity seemed to have emerged in recent years.

Figure 35: Number of manufacturing establishments by subsector (private and public) (Number)

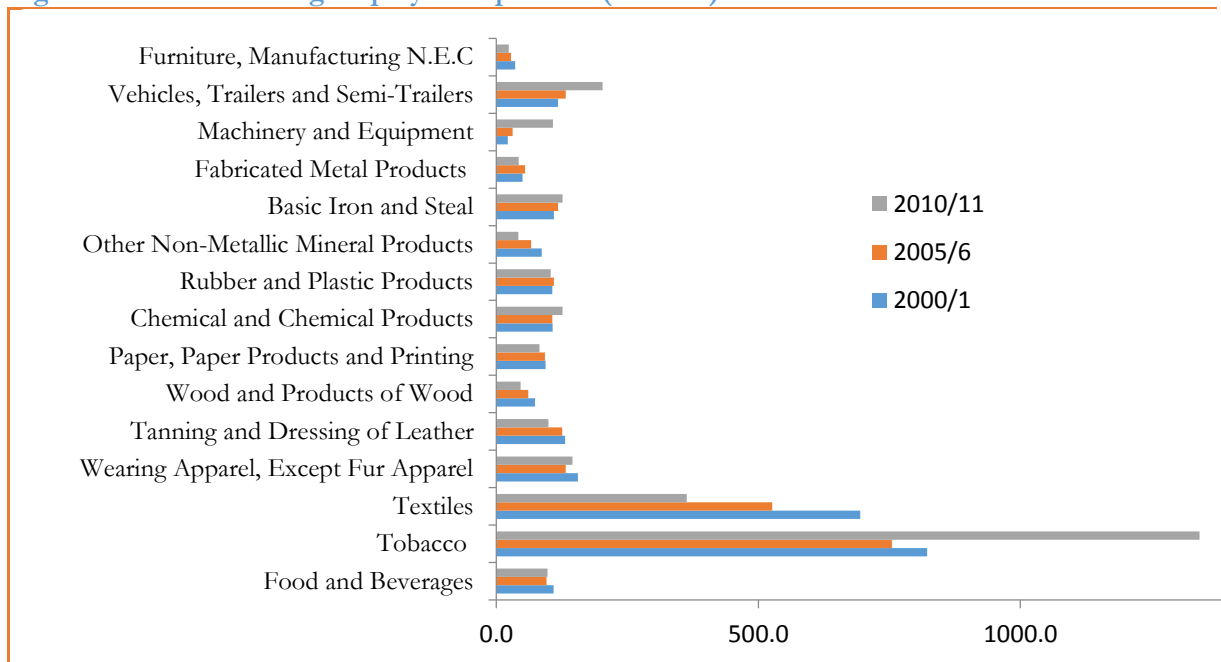


Source: Compiled from CSA data

With the exception of chemicals, basic iron and steel, machinery and equipment and vehicles, trailers and semi-trailers, the majority of manufacturing subsectors show a declining employment

per firm (Figure 36). It seems to indicate that the manufacturing industry is dominated by firms that employ fewer workers.

Figure 36: Manufacturing employment per firm (number)



Source: Compiled from CSA data

7.2.4 Manufacturing sector and exports

The contribution of tanning and dressing of leather to export earnings has remained significant. Exports of tanning and dressing of leather products accounted for more than half of the total sales value between 2000/01 and 2010/11 (

). The share of exports of textiles also increased from 11.5% of sales value in 2000/01 to 14.4% in 2010/11. The increasing number of manufacturing export products indicates emergence of some degree of diversification within the manufacturing industry. Despite this encouraging trend, many of the large and medium manufacturing firms target the local market, with limited integration into global market.

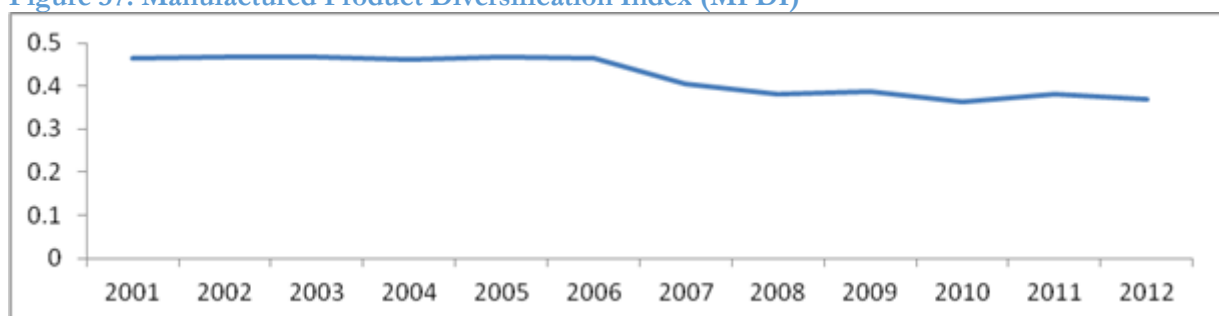
Table 17: Share of exports in total sales value (%)

	2000/01	2005/6	2010/11
Food and Beverages	6.30	11.58	5.47
Tobacco	0.00	0.00	0.47
Textiles	11.50	10.49	14.37
Wearing Apparel, Except Fur Apparel	2.21	1.05	3.58
Tanning and Dressing of Leather	58.68	60.09	52.36
Wood and Products of Wood	0.00	0.00	0.00
Paper, Paper Products and Printing	0.00	0.00	0.00
Chemical and Chemical Products	0.00	0.00	3.12
Rubber and Plastic Products	0.00	0.00	12.17
Other Non-Metallic Mineral Products	0.14	0.83	0.55
Basic Iron and Steel	0.00	0.00	1.29
Fabricated Metal Products	0.00	0.18	0.02
Machinery and Equipment	0.00	0.00	0.00
Vehicles, Trailers and Semi-Trailers	0.00	0.00	0.00
Furniture, Manufacturing N.E.C	0.00	0.89	0.00

Source: CSA (Large and medium-scale manufacturing industries survey)

Ethiopia has also shown progress in manufactured product diversification between 2001 and 2012, as reflected by declining manufacturing product diversification index (MPDI) (Figure 37).¹⁹ But Ethiopia is lagging behind its global competitors in diversifying its manufacturing products (Figure 38). The country performs poorly in MPDI compared with selected East African countries such as Kenya, Uganda, and Tanzania.

Figure 37: Manufactured Product Diversification Index (MPDI)



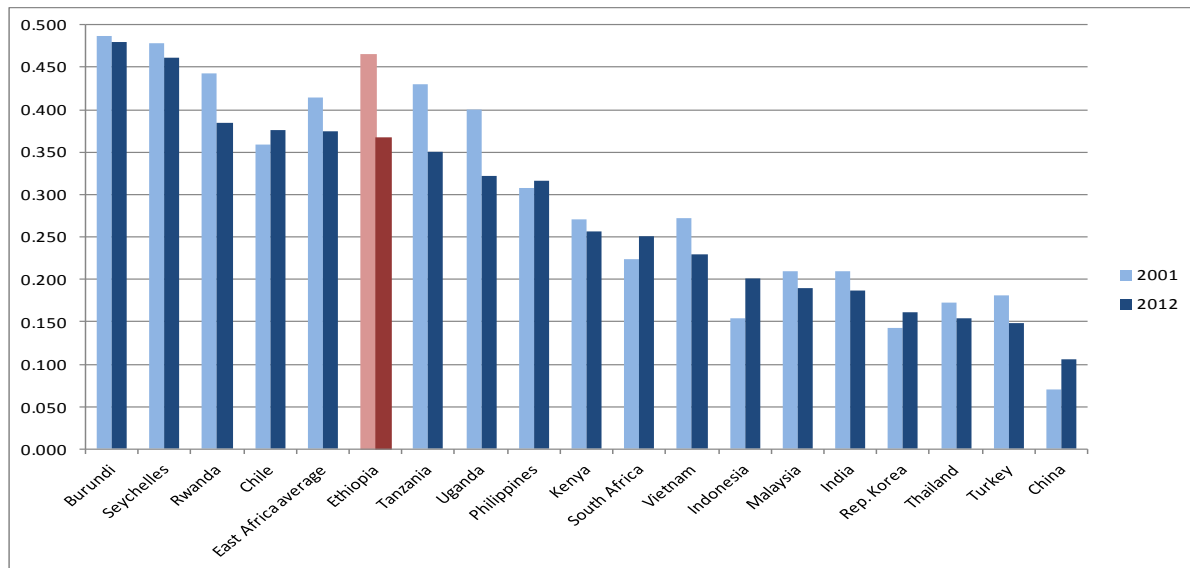
Source: BKP (2013)

¹⁹ The product diversification index measures the extent to which a country depends on a product relative to world exports (UNIDO, 2011):

$$DX_j = 1 - \frac{\sum (h_{ij} - h_i)}{2}$$

where h_{ij} is the share of product i in total exports of country j and h_i is the share of product i in total world exports. The value of the index ranges from zero (more diversified) to one (less diversified).

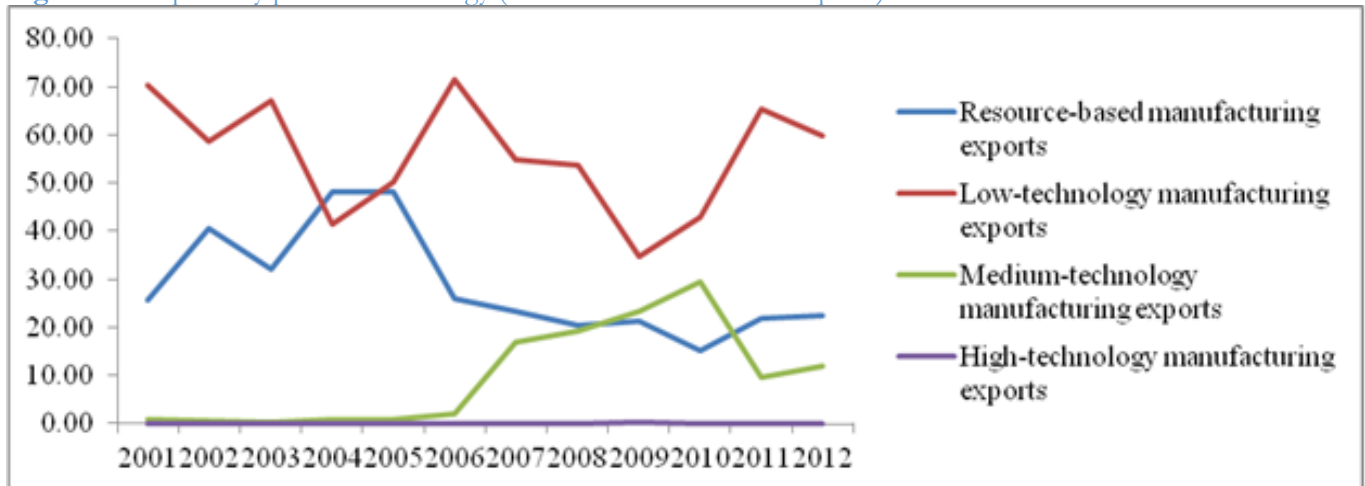
Figure 38: Manufactured product diversification index for Ethiopia and selected countries, 2001-2012



Source: BKP (2013)

Resource-based manufactured exports showed a declining trend: from 25.6% of total manufactured exports in 2001 to 22.4% in 2012 (Figure 39). Similarly, the share of low technology manufactured exports declined. On the other hand, the shares of medium and high technology-based manufactured exports increased over the same period, suggesting signs of shifts towards medium-and high-technology manufactures though sluggish.

Figure 39: Exports by process technology (% of total manufactured exports)



Source: UNIDO

8. Conclusion

Poverty reduction and transformation of the economy have remained central to Ethiopia's development strategies which have been clearly articulated in its growth and transformation plan (GTP). Although economic growth is a necessary condition for advancing wellbeing, it is not a sufficient condition for triggering inclusive growth as the pace and sectoral structure of growth matters for achieving broad-based or inclusive growth. The creation of more jobs and more productive jobs is a crucial element of a shared and broad-based development strategy.

This report attempted to assess government development policies, and recent output, employment and productivity trends in Ethiopia. In doing so, it used recent macroeconomic and sectoral data as well as labour force surveys.

The Ethiopian economy has continued to experience a robust growth, and is amongst the fastest growing non-oil economy in the world. Second, agriculture accounts for a large share, but its weight in total output has been steadily declining. Although all sectors contributed to the recent growth in GDP, the non-agricultural sectors registered unprecedented growth rates. In particular, the growth of the economy has been largely attributed to the growth of the services sector as this sector contributed the highest average share to aggregate growth, accounting for close to half of the growth of overall GDP recently. The service sector has expanded considerably (especially wholesale and retail and real estate activities), while the share of the manufacturing sector has remained low. Key drivers of Ethiopia's recent growth include the surge in exports, public investment injection, improved productivity, and increased consumer spending.

Ethiopia's population is considerably young and predominantly rural. The national labour force surveys point to an overwhelmingly rural population. The Ethiopian population is largely young population in both rural and urban areas. The proportion of the population in the 10-64 age group has increased, which led to a falling dependency ratio. The large youth population (between the age of 10 and 29 years) in urban areas and broad-based rural population pyramid indicate a challenge for the country in terms of employment and job creation. The working age population has also increased by 3.9% per year, which led to an increase of the labour force. Urban areas saw a rapid increase in labour force, compared with the rural areas of the country.

The pace of overall employment growth has accelerated in recent years, with noticeable sectoral variations. Although the share of agricultural employment in total employment remains very high, its employment share has shown a declining trend. The employment share of the services sector has increased, while contribution of the manufacturing to total employment has remained low. The

vast majority of jobs are essentially connected to the extraction of natural resources such as agriculture. The informal sector has also become important sources of livelihood, especially in urban areas. It seems that changes in the sectoral composition of employment have lags behind that of output

Economy-wide labour productivity growth has been accompanied by employment growth, but the growth of the latter was not strong as reflected by the low value of the overall employment elasticity. Labour productivity growth has been strong, outpaced the growth of employment. In fact, value added growth has been mainly driven by labour productivity growth, with noticeable sectoral variations. Labour productivity levels have remained low in agriculture and manufacturing sectors. Note that wholesale and retail and construction sectors have been characterized by low productivity and earnings, with a high degree of informality. Labour productivity growth has been accompanied by a fall in employment in the electricity and water sector, indicating technological shifts in the sector. On the other hand, employment expansion has been accompanied by a contraction in labour productivity in the transport and communications in recent years.

While the within-sector productivity growth accounts for much of the aggregate labour productivity performance in Ethiopia, structural change has also played an important role for enhancing labour productivity growth in the country. A negative structural change component suggests that labour moved to sectors with lower productivity levels such as from manufacturing to informal urban activities. This type of labour reallocation is not useful from the point of view of productive employment and of achieving inclusive growth. This process hinders economic growth and subsequent transformation.

It is argued that the shift away from agricultural employment is a basic result of increased productivity in other sectors, especially in manufacturing. However, the manufacturing sector is dominated by small firms with limited capacity in employment generation. With the exception of some non-agro-processing manufacturing industries (e.g. chemicals, basic iron and steel, machinery and equipment and vehicles, trailers and semi-trailers), the majority of manufacturing subsectors show a declining employment per firm. Although Ethiopia has also shown progress in manufactured product diversification, the country lags behind its global competitors in diversifying its manufacturing products.

Overall, the Ethiopian employment problem is about the quantity as well as quality of jobs. The types of jobs that have been generated lack decent quality. The challenge confronting the country

is not only to maintain, but to translate the rapid economic growth into sustained and inclusive development, based on economic diversification that creates decent jobs, and reduction of inequality and poverty rates. The shift away from agricultural employment is a basic result of increased productivity in other sectors, especially in manufacturing. Hence, the primary focus should be to trigger investment in the manufacturing sector that can generate employment opportunities for the rapidly growing skill work force in the country.

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