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Impact of the Global Economic Crisis on LDCs' Productive Capacities and Trade Prospects: *Threats and Opportunities*

A case study:
The dairy sector in Ethiopia

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The impact of Global Economic & Financial Crises On the Ethiopian Dairy Industry

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Table of Content

Acronyms

AADDP	Addis Ababa Dairy Development Project
AADI	Addis Ababa Dairy Industry
AADPA	Addis Ababa Dairy Producers Association
ADLI	Development Lead Industrialization
ARDU	Arsi Rural Development Unit
BOAM	Business Organisations and their Access to Markets
CADU	Chilalo Agricultural Development Unit
CSA	Central Statistics Authority
DA	Development agents
DDE	Dairy Development Enterprise
DRDP	Dairy Rehabilitation and Development Project
EAFIA	Ethiopian Animal Feed Industries Association
EFY	Ethiopian Fiscal Year
EIARO	Ethiopian Agricultural Research Organization
ELDMP	Ethiopian Livestock Development Mast Plan
EMPPA	Ethiopian Milk Producers and Processors Association
EPCO	Ethiopian Electric Power Corporation
EPRDF	Ethiopian People Revolutionary Democratic Front
ESAP	Ethiopian Society of Animal Production
ESF	Exogenous Shocks Facility
ETB	Ethiopian Birr
F1LDP	First Livestock Development Project
FAO	Food and Agriculture Organization (UN)
FDI	Foreign Direct Investment
FINNIDA	Finland Department for International Development Cooperation
FTC	Farmer Training Centres
GC	Gregorian Calendar
GFC	Global Financial Crises
GDP	Gross Domestic Product
GDP	Gross Domestic Product
IMF	International Monetary Fund
IPMS)	Improving Productivity & Market Success
LDMPS	Livestock Development Master Plan Study
Lema	Lema Dairy Plc
MDG	Millennium Development Goal
MoARD	Ministry of Agriculture and Rural Development
MoFED	Ministry of Finance and Economic Development
NBE	National Bank of Ethiopia
ODA	Official Development Assistance
SDDP	Smallholder Dairy Development Pilot Project
Sebeta	Sebeta Agro Processing Industry
Shola	Shola / Lame Dairy Enterprise
SNV	Dutch Development Organization
SSA	Sub Saharan African Countries
TB	Tuberculosis
UNICEF	United Nation's Children Fund
UNICTAD	UN- International Trade Center
UNRRA	United Nations Relief and Rehabilitation Administration
UNWTO	United Nation World Trade Organization
USAID	USA Development Organization
WEO	World Economic Outlook
WFP	World Food Program UN)

1. Executive Summary (English)

History of Ethiopia's Dairy sector

Ethiopia's Dairy industry has a history of more than half a century. In this period it has passed through major structural changes, which resulted from various political systems that the country has adopted. Its development started in the imperial era followed by a decline at the onset of the socialist era. However, it started to grow again toward the end of the socialist era before a drastic decline with the latest political changes that started in 1991. In the third era, which is the current system, the socialist system is replaced by a market-led economy, and all state owned dairy industries and farms are privatised. Investors are attracted to join the dairy sector, and currently, there are about seven milk processing enterprises. During this period a number of development activities are accomplished by the Ethiopian Government with support from many organizations. The notable activities and events were the agricultural extension program, First Livestock Development Project (F1LDP) and the establishment of Dairy Development Agency, Minimum package projects, the Livestock Sub-Sector Review and the subsequent projects (Fourth Livestock Development Project - F4LDP - and Dairy Rehabilitation and Development Project), the FINNIDA assisted projects, value chain development projects, law of cooperatives, the investment policies and incentives, and the formation of professional and commercial associations, to name a few.

Regardless of the various initiatives, the growth rate of the industry in terms of volume of milk production is slow because of a number of structural problems.

Structure of the sector

The main actors of the dairy industry are the milk/dairy producers and dairy processors. Most of the milk comes from urban and peri-urban dairy farmers channelled through cooperatives, unions and collectors. Some of the processors are directly collecting from farmers. Currently all dairy farms and processors are privately owned. The main distribution channels to end users are supermarkets, shops, kiosks, restaurants and other outlets. The major product in the sector is liquid milk, and majority of the milk is channelled through the informal market (unpasteurised).

Global Financial Crises and Its impact on Ethiopian Economy

In the years 2005 and 2006, the foreign currency reserves of Ethiopia declined sharply because of a rapid rise in imports and higher public spending. The reserves' level started to improve by the end of 2006 and continued to grow until 2007/08. Ethiopia's economy has been adversely affected by a series of shocks, first from surging commodity prices in 2008, and subsequently from the global downturn. The impact of the global crises further depleted the foreign currency reserves of the country, which had been affected earlier with higher costs of imported fuel and crops. Furthermore, export receipts and remittances are weaker and inward direct investment is becoming slow. Lower currency reserves have forced banks to ration currency permits for the import of goods. Currency scarcity in turn causes speculative price inflation because of the short supply of imported items. The recent power cuts were among challenges facing the industry though this had less to do with the global financial crisis.

Banks are not involved in derivative markets and foreign ownership is not allowed. All banks depend on domestic resource mobilization to support operations. Because of their low level of integration into the global financial system, financial institutions were not vulnerable to the severe contagion effects from the global baking system. There is no stiff

competition in the sector. All of the private and public Banks are profitable even in the years 2008 and 2009. This does not mean, however, that they are not vulnerable to the global financial crisis at all. For instance, increasing levels of unemployment among the Ethiopian expatriate communities across the world would affect their ability to invest or hold assets in Ethiopia. For instance, their demand for housing may fall, which may drive housing prices to decline from recent high levels. This may in turn lead to a lower price expectation that can cause lower values for homes that are held as collateral by banks. In addition, borrowing caps imposed to control inflation and the rationing of foreign currencies available for imports will affect banks and their clients in Ethiopia.

Global Financial Crises and Its Impact on Ethiopian Dairy sector

There is an indirect link between GFC and the performance of the dairy sector. Export of dairy products is insignificant and national demand for dairy products did not fall after the GFC. The indirect impact of GFC came when it further deteriorated the already weakened foreign currency reserve of Ethiopia. The reserves reached their lowest level of 600 million USD (one-month requirement level) in October 2008.

The National Bank introduced procedures to ration the foreign currency supply. The rationing elongated the lead time for importing packing materials of milk packing and inputs for animal feed processing. Some processors halted their production temporarily because of a shortage of packing materials. The short supply again contributed to further increases in the price of packing material and animal feed costs. Devaluation of the Ethiopian Birr designed to boost exports (and ultimately to improve the currency reserves) further increased the price of packing materials and inputs for animal feed. Because of the increasing price of animal feed, some producers closed their dairy farms.

Response of the Government to the crises

Major intervention made by the government: The government removes fuel subsidies by adjusting regulated domestic prices to the import parity level. The lifting of subsidy causes an immediate increase ranging from 6% to 50% in various fuel products.

Regarding efforts to control inflation, the Ethiopian Government imported wheat and distributed it to low-income families and flour mills. Valued added tax, turnover tax, and surtaxes on some food items have been removed. The government tightened fiscal policy and significantly lowered domestic borrowing, and Public enterprise borrowing was reduced significantly.

A borrowing cap was set for outstanding loans by banks to limit the growth of money circulation, arresting the growth of credit, and finally, to achieve a lower rate of inflation. One of the largest public enterprises, Ethiopian Electric Power Corporation (EPCO) was allowed to raise foreign currency and funds through the sales of bonds which are non-taxable interest-bearing bonds. These interventions helped to control inflation significantly.

To improve its foreign currency reserves, the Government negotiated with international financiers to alleviate the stress on foreign currency. The Government negotiated a loan of USD 50 Million in January 2009, and obtained the Executive Board Approves of IMF in September 2009 for a loan of USD 240.6 Million under the Exogenous Shocks Facility. Furthermore, currency devaluation with the objective of boosting exports and of increasing the reserves was effected in July 2009. The intervention assists in promoting exports.

Actors' response to the crises

The actors' responses vary depending on their capacity in absorbing the shocks. Some closed their dairy farms because of increasing animal feed costs. Some attempted to replace the imported packing materials with a substitute and failed, and some of them stopped processing. Some, who could not wait for local importers, travelled abroad personally and purchased the packing materials. Some converted the milk to butter and cheese, rather than discontinue their purchases from local milk suppliers.

Power cuts were a serious recent problem in Ethiopia, and affected almost all industries. Though all processors have their own backup generators, retailers at shop and kiosk levels were reluctant to distribute milk as their refrigerators are not functional because of power cuts.

Short term and medium term potential of the industry

Passing through various ups and downs, and amid different structural issues and other factors, the Ethiopian dairy sector has bright prospects. The prospects can be viewed within short and medium term time frames. The industry is growing and the pace continues even with serious challenges from the effect of the global crises and of frequent power blackouts. In the short terms, its prospects are coming from Initiatives by development organizations in different parts of Ethiopia including value chain developments. Such endeavours are demonstrable success stories and such activities are ongoing. Competitiveness of local milk products as compared to imported varieties, the expansion of rural road construction and the growth of the Ethiopian economy are among other factors contributing to the growth potential of the industry.

In the medium term, the potential of the sector is bright because of the growing Ethiopian population, rapid growth of urbanization, and incentives in the investment policy designed to attract investors and strengthen market linkages. In addition, growing general awareness of the benefits of milk, health and safety, and the tendency to opt for pasteurised milk rather than raw milk thorough informal channels will result in opportunities for growth in this industry sector. This is further supported by greater government attention to the sector.

Recommendations

Organised effort is essential by all relevant stakeholders in tackling the impact of the Global Financial Crises on the dairy sector and of the long outstanding structural problems faced by the sector.

In response to the Global financial Crises, the following are recommended:

- Accord priority to issuing foreign currency permits for this sector without excessive delays as the volume of imported inputs of the dairy sector are low as compared to other sectors.
- Special consideration and flexibility in providing bank loan facilities for new entrants in the sector despite the borrowing cap.
- Establishment of a consortium by processors for the local production and printing of packing materials by the industry.
- Funding support to the government for the power projects that are under construction, but suffering from inadequate funding and delays in the release of loans. It is likely

that power crises could recur in the year 2010 unless these hydropower projects are completed.

For the challenges caused by structural problems, the following courses of action are recommended:

- Development of a dairy sector policy and a governing body.
- Revision of the land policy to assist the development of the dairy sector.
- Public awareness campaigns on the nutritional and health values of quality milk and dairy products (Efforts in the past focused on production, and more recently address the marketing side and hence demand has to be developed to accommodate the growth of the industry.)
- Strengthening and developing the value chain activities accomplished by different organizations in a coordinated manner.
- Provision of training to managers and technicians in the sector on farm management, industry management and marketing.
- Development of other dairy products with better shelf life in order to introduce greater variety and diversification since many types and brands of dairy products are already developed.

2. Résumé exécutif (French)

Historique du secteur des produits laitiers éthiopiens

L'industrie laitière éthiopienne, dont la mise en place remonte à plus d'un demi-siècle, a connu plusieurs restructurations majeures avec les différents régimes politiques du pays. Amorcé sous l'empire, le développement de ce secteur a marqué un ralentissement avec l'avènement du régime socialiste et, malgré une progression à la fin de cette période, il recule a nouveau de manière significative avec l'instauration du nouveau régime en 1991. Dans la troisième période, la période actuelle, avec l'entrée dans l'économie de marché, l'infrastructure laitière et les fermes d'Etat sont privatisées. Le secteur laitier attire les investisseurs et l'on dénombre actuellement près de sept entreprises privées de transformation du lait. Un certain nombre d'activités de développement sont alors menées à bien avec le soutien de nombreuses organisations et du gouvernement éthiopien. Parmi les activités et événements marquant figurent notamment le programme d'extension agricole, des projets de développement de la chaîne de valeur, le droit des coopératives, des politiques et incitatifs pour l'investissement, la formation d'associations professionnelles et commerciales.

En dépit de ces différentes initiatives, le rythme de croissance de l'industrie, en termes de volume de la production de lait, demeure très lent en raison d'un certain nombre de problèmes d'ordre structurel.

Structure du secteur

Les principaux acteurs de l'industrie laitière sont les fabricants de produits laitiers et les producteurs laitiers. Essentiellement assurée par des producteurs urbains et périurbains, la production de lait est ensuite gérée par des coopératives, des syndicats et des unités de ramassage. Certains des transformateurs récoltent le lait directement auprès des éleveurs. Actuellement, toutes les exploitations laitières et toutes les unités de transformation sont privées. Les principaux circuits de distribution aux consommateurs sont les supermarchés, magasins, kiosques, restaurants et établissements publics. Produit prédominant du secteur laitier, le lait est en grande partie commercialisé (non pasteurisé) par le biais de circuits informels.

La crise financière mondiale et son impact sur l'économie éthiopienne

L'économie éthiopienne a subi une série de chocs consécutifs, d'abord, à l'effet de la flambée des prix des produits de base en 2008, puis à celui de la récession mondiale. La crise mondiale a encore fait baisser les réserves de change du pays, dont le niveau était déjà faible en raison du coût élevé des importations de carburant et de produits alimentaires. La réserve monétaire s'est encore resserrée avec la baisse des recettes d'exportation, le recul des envois de fonds de l'étranger et le ralentissement de l'investissement direct intérieur. Avec le tassement des réserves, les banques ont été amenées à imposer des limitations sur la monnaie de règlement international pour l'importation de marchandises. La pénurie de devises a, à son tour, provoqué une inflation spéculative des prix due à l'offre limitée de produits importés, et, par ailleurs, l'industrie a dû récemment faire face à d'importantes coupures de courant.

Les banques ne sont pas impliquées dans le marché des produits dérivés et la propriété étrangère n'est pas autorisée. Toutes les banques dépendent de la mobilisation des ressources intérieures pour soutenir les activités. Du fait de ce faible niveau d'intégration dans le système financier mondial, les institutions financières n'ont pas été contaminées par la crise des banques. Il n'y a pas de forte concurrence dans le secteur. Toutes les banques privées et publiques ont enregistré des bénéfices, même dans les années 2008 et 2009. Cela ne signifie pas, cependant, qu'elles ne soient nullement vulnérables aux effets de la crise financière mondiale. En effet, l'augmentation du chômage dans des pays où résident de nombreux Ethiopiens et originaires d'Ethiopie aurait une incidence sur leur capacité à détenir des actifs dans l'économie nationale. Leur demande de biens immobiliers peut fléchir, ce qui peut orienter le prix de l'immobilier la baisse par rapport aux niveaux élevés récemment enregistrés dans ce secteur. Ceci peut, à son tour, faire baisser les prétentions de prix et entraîner un tassement de la valeur de l'immobilier sous garanties bancaires. En outre, le plafonnement du crédit imposé afin de contrôler l'inflation et la limitation des prêts de devises étrangères pour l'importation aura une incidence sur l'activité économique.

Impact de la crise sur le secteur laitier

Il y a un lien indirect entre la crise financière globale (CFG) et la performance du secteur laitier. L'exportation des produits laitiers est insignifiante et la demande nationale de produits laitiers n'a pas pris un coup après la CFG. En Ethiopie, l'impact indirect de la CFG s'est fait ressentir avec la détérioration des réserves de devises étrangères déjà faibles. En octobre 2008, les réserves ont atteint leur niveau le plus bas de 600 millions de dollars (niveau mensuel). La Banque Nationale a initié des procédures de rationnement des bas niveaux d'approvisionnement de devises. Le rationnement a prolongé les délais d'importations des emballages de lait et des produits entrant dans le traitement d'aliments pour bétail. Certaines usines ont arrêté leur production temporairement pour cause de pénurie d'emballages. Les difficultés d'approvisionnement ont aussi contribué à des accroissements des coûts d'aliments de bétail et d'emballages. La dévaluation du birr éthiopien, conçue au départ pour stimuler les exportations (et améliorer aussi les réserves), a plutôt entrain é la hausse des prix des emballages et des aliments pour bétail. Des producteurs ont du fermé leurs exploitations laitières, en raison de la hausse des prix de ces aliments.

Réponse du gouvernement à la crise

Principales mesures adoptées par le gouvernement : suppression des subventions sur les carburants par un ajustement du prix intérieur réglementé au niveau du prix à l'importation. La levée de la subvention provoque une augmentation immédiate de 6 à 50% des carburants.

En ce qui concerne le contrôle de l'inflation, le gouvernement éthiopien a importé du blé pour le distribuer aux familles à faible revenu et aux minoteries. La taxe sur la valeur ajoutée, la taxe sur le chiffre d'affaires, et les surtaxes sur certains produits alimentaires ont été supprimées. Le gouvernement a resserré sa politique budgétaire et réduit considérablement l'emprunt intérieur et l'emprunt des entreprises publiques. Un plafonnement du crédit a été fixé pour l'encours des prêts par les banques afin de limiter la croissance des liquidités en circulation, stopper la croissance du crédit et, enfin, parvenir à ralentir le taux de croissance de l'inflation. L'une des plus grandes entreprises publiques, l'Ethiopian Electric Power Corporation (EPCO) a été autorisée à lever des devises et des fonds étrangers par la vente de titres à intérêt non imposables. Ces interventions contribuent grandement à la baisse du taux de l'inflation

Pour améliorer sa réserve de devises étrangères, et soulager la contrainte sur les devises, le gouvernement a négocié avec les institutions financières et obtenu un prêt de USD 50 millions en janvier 2009 et, en septembre 2009 le Conseil d'administration du FMI a approuvé pour un prêt de USD 240,6 millions au titre de la facilité de protection contre les chocs exogènes. En outre, en Juillet 2009, la monnaie a été dévaluée afin de stimuler les exportations et d'accroître la réserve. Cette intervention contribue à la promotion des exportations.

Réponse des acteurs à la crise

La réponse des acteurs varie en fonction de leur capacité à absorber les chocs. Certains exploitants ont cessé leur activité à cause de l'augmentation des prix de la nourriture pour animaux. Certains fabricants ont essayé de remplacer les conditionnements importés par des emballages de substitution, mais leur tentative a échoué, certains autres ont cessé de conditionner leurs produits. D'autres encore, qui ne toléraient pas d'attendre la livraison de l'importateur local, se sont rendus à l'étranger pour acheter les matériaux d'emballage nécessaires. Certains se sont mis à la production de beurre et de fromage, plutôt que d'interrompre leurs transactions avec leurs fournisseurs de lait.

Les industries éthiopiennes ont récemment dû faire face à d'importantes coupures de courant qui ont touché pratiquement l'ensemble des activités. Si tous les transformateurs de produits laitiers disposent de leurs propres générateurs de secours, les détaillants des magasins et des kiosques on vu leurs systèmes de réfrigération hors service à cause des coupures de courant et ont refusé d'assurer la distribution du lait.

Les perspectives de l'industrie à court terme et à moyen terme

Malgré les hauts et les bas enregistrés dans ce secteur soumis à différents facteurs structurels et autres, les perspectives à court terme et à moyen terme sont bonnes. L'industrie se développe et continue de progresser, en dépit des difficultés dues aux effets de la crise mondiale et aux fréquentes coupures de courant. A court terme, les perspectives concrètes relèvent d'initiatives d'organisations de développement dans différentes régions d'Éthiopie, y compris en ce qui concerne la mise en place de chaînes de valeur. De belles réussites ont été enregistrées et les activités se poursuivent. La compétitivité des produits laitiers locaux par rapport aux produits importés, l'expansion du réseau routier rural et la croissance de l'économie de l'Éthiopie sont, entre autres facteurs, des éléments qui contribuent à la croissance et à la dynamique d'avenir de l'industrie.

À moyen terme, le potentiel du secteur est prometteur du fait de l'augmentation de la population éthiopienne et de la croissance rapide de l'urbanisation. Avec la politique d'investissement incitative qui attire les investisseurs, les mécanismes du marché seront renforcés. En outre, du fait de la sensibilisation aux bienfaits du lait et de la sensibilisation aux questions de santé et de sécurité, la tendance à choisir le lait pasteurisé plutôt que le lait cru dans les canaux de distribution informels va progresser, ce qui ouvrira en définitive plus de débouchés à ce secteur auquel le gouvernement assure un soutien plus marqué.

Recommandations

Dans le secteur des produits laitiers, il est essentiel de mobiliser les efforts de tous les acteurs concernés face à l'impact de la crise financière mondiale et aux difficultés structurelles de longue date.

Face à la crise financière mondiale, les recommandations sont les suivantes:

- Allocation de fonds spécial de devises étrangères à utiliser par le secteur des produits laitiers jusqu'à ce que se dissipe l'effet de la crise.
- Etant donné que le volume des importations d'intrants pour le secteur laitier est faible par rapport à d'autres secteurs, accorder des priorités de manière à ne pas devoir attendre que la liste soit suffisamment longue en raison de la limitation des devises.
- Accorder des considérations spéciales aux nouveaux acteurs du secteur en octroyant des facilités de prêts bancaires quel que soit le plafonnement du crédit.
- Création d'un consortium des fabricants pour la production et l'impression locale des emballages plutôt que de faire appel à un importateur.
- Appuyer le gouvernement pour le financement des projets des centrales hydroélectriques, compte tenu du manque de moyens de financement et du retard dans la libération des fonds. Il est probable que les difficultés de l'approvisionnement en électricité se répèteront en 2010, à moins que les projets hydroélectriques se concrétisent.

Face aux difficultés causées par des problèmes d'ordre structurel, les recommandations sont les suivantes.

- Mise en place d'une politique laitière.
- Révision de la politique foncière afin d'aider au développement du secteur laitier.
- Les efforts déployés dans le passé étaient axés sur la production et, plus récemment, sur la commercialisation et le marketing. La demande doit être développée pour accompagner la croissance de l'industrie.
- Renforcement et conduite d'activité de développement de la chaîne de valeur, sous la coordination d'une organisation différente.
- Formation de cadres et de techniciens du secteur en matière de gestion des exploitations, gestion des installations industrielles et marketing.
- Développement d'autres produits ayant une meilleure durée de vie.

3. The origins of the dairy industry in Ethiopia

3.1. Background

In the late 1980s, agriculture in Ethiopia contributed about 45% of national GDP while the livestock sector contributed about 40% of agricultural GDP (18% national GDP) and 30% of agricultural employment. Dairy output accounted for about half of livestock output (Getachew and Gashaw 2001). More recent figures indicate that the livestock sector contributes about 12.% of national GDP, 26% of agricultural GDP (CSA 2009). Livestock production increased by much less than the production increase for the agriculture sector as a whole, so relative share of livestock to agricultural GDP is declined.

Ethiopia's estimated livestock population is often said to be the largest in Africa. The cattle population is estimated to be about 49.3 million, out of which female cattle constitute about 55.48 percent. 99.28 % of the total cattle are local breeds and the remaining are hybrid and exotic breeds (CSA 2009).

Milk is being produced in all agro-ecological zones of the country. Cattle, camels, and goats are the main livestock species in Ethiopia that supply milk. The estimated milk production in the year 2008/09 is 2.76 billion litre from cattle and 162 million litre from Camels (CSA 2009). Ninety-seven percent of the milk produced from cattle is produced by the indigenous stock and the remaining 3% from improved, exotic-crosses and pure-grade cattle.(LDMPS).

The milk production systems in Ethiopia are categorized as pastoral, agro-pastoral, mixed crop livestock system, urban and peri-urban and commercial. One of the distinctions between the various systems is the type of breeds and purpose of holdings.

Milking cows in the traditional sector have an average lactation length of 190 days and an average milk yield of 1.9 litres per day (excluding what the calf has suckled). Although this sector is largely based on indigenous breeds of low-producing native cattle, some progressive small-scale farmers in the various milk sheds are now maintaining cross-bred cows that are capable of producing 800 to 1200 litres of milk/cow/lactation and sale milk to co-operative societies and commercial milk collectors.

Urban and Peri-urban System is largely found in the highlands where mixed-crop livestock-farming is practiced as well as within urban centres. Economic factors have been dominant in determining the locations of exotic dairy-cattle in these urban and peri-urban areas since the milk-production of exotic cattle far exceeds that of indigenous stock. The animals used in this system are capable of producing 1,120 to 2,005 litres over a 209 day-lactation. Cross-bred and grade animals are used in this production system. The dairy farms in this system rely mainly on purchased feed. They are commercially oriented and will respond to improved technical, input supply and marketing services (LDMPS).

Commercial Systems are known for the adoption of modern technology and production of different types of dairy products including cheese, cream, yoghurt and butter. Most of them are staffed with qualified personnel as compared with urban and peri-urban systems. Some of them are running both dairy farm and processing and some of them are focusing either on farming or on milk processing.

3.2. Dairy Industry

The history of dairy development as industry started in the early 1950s. The development pace and structure of this sector was highly influenced by major political and structural changes occurred in the country. Three phases are identified in the Ethiopian Dairy industry history. A free market economic system and the emergence of modern commercial dairying (1960–74), the socialist (Derg) regime that emphasised a centralised economic system and state farms (1974–91), and the current phase of free market and market liberalisation (1991 to present).

3.2.1. Phase I - The Imperial Regime (1950–74)

The Modern dairying started to developed in the early 1950. Ethiopia received 300 Friesian and Brown Swiss dairy cattle in 1947 from the United Nations Relief and Rehabilitation Administration (UNRRA). This was the first attempt to introduce modern dairy production and the cattle were used to establish dairy farms around Addis Ababa. They are the nucleus herd for Holeta dairy farm established in 1955. In addition, 109 in-calf Holstein heifers were added to the Holeta herd in 1959 imported from Kenya. The establishment of the milk processing with a small milk boiler and a manual packing facility in Addis Ababa is one of the most important mile stone in the development of dairy industry in Ethiopia.

Government intervened through the introduction of high-yielding dairy cattle on the highlands in and around major urban areas. The government also established a modern milk processing and marketing facilities to complement these input oriented production efforts. Most interventions during this phase focused on rural-based production and marketing including the introduction of exotic dairy cattle, feeding with high ratio of dairy concentrated feed, modern dairy infrastructure and high management level.

To facilitate the growth of the sector, UNICEF established a public sector pilot processing plant at Shola on the outskirt of Addis Ababa in 1960. The plant started by processing milk produced by the large farms. The plant significantly expanded in short period and started collecting milk from smallholder producers in addition to that from the large farms. This led to further expansion of large dairy farms. During the second half of the 1960s, dairy production in the Addis Ababa area began to develop rapidly because of the expansion in large private dairy farms and the participation of small-holder producers with indigenous cattle facilitated by the establishment of the milk collection centres.

The establishment of Addis Ababa Dairy Industry (AADI) in 1966 to control and organise the collection, processing and distribution of locally produced milk and the establishment of several government-owned dairy farms served as demonstration centres for the large commercial farms. The establishment of the Chilalo Agricultural Development Unit (CADU), later named Arsi Rural Development Unit (ARDU), between 1970 and 1980 with the help of Swedish government contributed in distribution of crossbred heifers and provided artificial insemination (AI) and animal health services, in addition to forage production and marketing.

To create an autonomous body responsible for dairy development, the Government of Ethiopia established the Dairy Development Agency (DDA) in 1971. The DDA took over the responsibilities of AADI and assumed more tasks as well, including the provision of services for increasing milk production and creating formal milk markets in urban areas outside Addis Ababa. Further, the Addis Ababa Dairy Development Project (AADDP) was launched by the World Bank in 1971 with the objective of developing commercial dairy production and providing support for smallholder producers in the form of credit, imported cattle and

technical services. By 1972, the DDA was receiving about 21000 litres of milk/day for processing, 57% of which came from 65 large farms. In addition to collecting milk, the DDA sold milk and dairy products through its kiosks and shops as well as to institutions. It also facilitated the creation of dairy co-operatives to ease the provision of credit as well as technical and extension services to dairy producers. (Ahmed et al)

Milk production in Ethiopia increased significantly during the 1960s. Between 1961 and 1974, milk production from all species increased by 16.6% from 637,375 to 743,100 tone—an average annual growth rate of 1.63%

3.2.2. Phase II - The Socialist Regime (1974-91)

Following the 1974 revolution, the Ethiopian economic policy shifted towards socialism. Private farms and industries were nationalized. The DDA merged with other nationalized dairy farms to establish the Dairy Development Enterprise (DDE). DDE was established to operate state farms, establish a milk collection network and to provide others services.

The focus of the government was the state farms, farmers' cooperatives, service co-operatives and the peasant associations.

With a number of projects and promotional efforts, total milk production increased significantly during this period with the exception of the mid-1980s drought. Despite the significant increase in aggregate milk production, per capita milk production was declining.

The operational procedures of CADU changed and inputs and services were distributed to producer co-operatives rather than individual peasant households. New donor-funded dairy projects restarted in the mid 1980s and had the primary objective of supporting the dairy farms of producers' co-operatives (Staal 2008).

With additional assistance of the Government of Finland and the United Nations Capital Development Fund, the processing capacity of the Shola plant was increased to 60,000 litres per day, butter-oil recombination capacity was introduced, 30 collection kiosks and 16 chilling centres were established and milk collection routes were extended to 150 km around Addis Ababa. Through government financing Dairy Rehabilitation and Development Project financed by ADF had rehabilitated the state dairy farms and processing plant on capacity building, on equipping the processing and farm with machinery and transport, training of staff at MSc level. Etc. DDE retained the right to fix prices paid to raw milk suppliers. In spite of huge public expenditure and credit facilities provided to state farms, production from these farms declined from a high of some 6 million litres in 1983/84 to less than 5 million litres in 1989/90 (Staal 2008).

During this period dairy imports increased significantly. Import dependency rose steadily during this phase. For instance, dairy imports as a percentage of total consumption increased from 4.1 to 12.8% between 1977 and 1989. Commercial imports grew rapidly at 24.18% per year (Getachew and Gashaw 2001). Further, it is estimated that imported milk powder accounted for 23% of the Addis Ababa market.

Urban producers were playing a significant role than per-urban though the urban backyard producers had not received supports and no associations of cooperatives. Milk production thus shifted away from the rural feed-base to near urban consumers, bypassing the formal milk collection and marketing system which remained geared towards the rural areas around Addis Ababa. The rest of the countryside remained largely ignored (Staal 2008).

3.2.3. Phase III - The current regime – Market led economy (1991-present)

The third phase in the history of the dairy sector in Ethiopia starts from the year 1991, when The Ethiopian People Revolutionary Democratic Party came to power. Several macro-economic reforms were made from the very beginning of this phase. The fixed exchange rate which has been 2.7 Birr for 1 USD, was devaluated to about Birr 5 with subsequent small devaluation and periodic changes based on the interbank foreign currency transactions. This rate in September 2009 was at about 12.5 Birr for 1 USD.

Among the notable enabling environment which contributes for the growth the sector were the investment policy which encourages local and foreign investors to invest with a number of incentive schemes including duty free import of machinery, land, tax holidays, financing.

Privatization is the ongoing process since the early 1990s as many of the enterprises had been under the ownership of the state, including the DDE. DDE and many other state farms, which were about fourteen in number, are privatized.

Special emphasis is given in to agriculture as a top priority which is more demonstrated by the Government's Agricultural Development Lead Industrialization (ADLI).

The new co-operative legislation grants a number of incentive schemes including zero profit tax rates and with the setting up of government cooperative offices which provides technical supports to the co-operatives. As a result of this many cooperatives including dairy cooperatives are formed.
Post 1991 producer groups such as the Addis Ababa Dairy Producers Association (AADPA) emerged encompassing 90% of all urban dairy producers and a large proportion of peri-urban producers within a radius of 100 km of Addis Ababa (Staal 1995).

The competition structure was changed as more private dairy industries are joining the sector. In Addis Ababa, Sebeta Agro-industry is competing with DDE (before it is being privatised) in supplying milk to urban consumers. In 1993, the producer price paid by DDE increased from ETB 0.65 per litre to ETB 1.00 per litre and later to ETB 1.25. In September 2009, this price reached to ETB 6. DDE is privatized and named as Lame Dairy Enterprise. Its current average daily output is about 20,000 litres per day. Currently there are about six milk processors operating mainly in Addis Ababa and nearby cities. In Addition, there are other two dairy processors in different region of Ethiopia.

Among the development projects, Dairy Rehabilitation and Development Project (DRDP), Sellale Peasant Dairy Development Pilot Projects (SDDP) and Small holders' dairy development project (SDDP) funding.

SNV Ethiopia has a project entitled Business Organisations and their Access to Markets (BOAM). Under this project, it has made a number of value chain studies and assisted for the formation of Ethiopian Milk Producers and Processors Association (EMPPA). It provides trainings to private companies, cooperatives and private milk collectors, funding for business plan development for new entrants in the sector. Currently, it is working in value chain studies and developments in different parts of Ethiopia funded by Save the Children UK.

Land O Lakes Inc, funded by USAID, is engaged in a dairy Development project. It is working in milk shed development, stimulating business development, strengthening market linkages, supports industries with technical assistance, procurements, and

artificial insemination services. Land O' Lakes is currently financing the Ethiopian Animal Feed Industry Association (EAFIA). EAFIA is established with the objective of improving the quality and quantity of livestock feed production and services for the members.

Improving Productivity & Market Success (IPMS) of Ethiopian Farmers, a Canadian funded project is engaged in value chain development in the dairy sector for Woredas (districts) as a learning project sites.

FAO's recent activities include encouraging the commercialization of small farmers in area with recognized market potentials. Arsi zone is one of the areas where FAO is currently working in dairy products in addition to crops.

In addition to these focused projects, general improvements in veterinary services, breeding services including artificial insemination and promotion of forage and feed production through the general extension service has also been observed.

Furthermore, the following are some of major notable events in the dairy sector.

a. The first phase of Ethiopian Livestock Development Mast Plan (ELDMP) is developed and endorsed by the Ministry of Agriculture in the year 2007. The primary goal of this study is to enhance the contribution of livestock to the national economy and food security at the national and household levels. Although it will address all components of the sub-sector, the ELDMP will focus on dairy production, meat production, draught power and apiculture. The master plan is intended to contribute to the sustainable and equitable development of the livestock and apiculture industry and poverty reduction in the country while making optimum utilization of the available financial, natural, physical, human and animal resources with the minimum possible adverse environmental consequences; and, to formulate and prepare at least four priority projects for future financing.

   ELDMP phase one is more of a data collection document. The project has three phases. The first phase is mainly data gathering and compilation in all sub sectors of the livestock (this is the one that I mentioned). Phase I of the study has also resulted in the establishment of a comprehensive relational database as the foundation for the Phase II Master Plan preparation work. The second phase is the master plan which addresses policy and strategy by subsector like dairy, poultry, fishery, meat etc. the third phase is . The third phase is development of national business plan with a span of twenty years (Formulating and prepare at least four priority projects for future financing).

   The development of phase II has been aborted because of technical problems and expected to be reactivated shortly.

b. Dairy policy initiatives: Breading Policy has been developed by MoARD in collaboration with ESAP, Ethiopian Biodiversity institution, Ethiopian Agricultural Research Organization (EIARO) in the year 2008.

   In addition, Livestock Development Strategy has been developed by MoARD in the year 2005. This strategy was meant for 5 years. The document addresses all sort of policies including dairy. The document was formally endorsed by MoARD and disseminated to regions during for their comment and adoption. Certain projects which are part of this strategy are accomplished in collaboration with private industries. Later on, serious of restructuring and reshuffling, high employee

turnover within the ministry left this strategy without 'owner'. Based on the assessment, this strategy is not formally referred or used in the MoARD. The ELDMP referred this document as 'draft livestock strategy' in its policy environment review.

c. Professional and industry Associations involvement: Professional associations like Ethiopian Society of Animal Production has contributed a lot in the sector by organizing conferences, policy proposals and proceedings mainly during its annual conference. Ethiopian Milk Processors and Producers Associations (EMPPA), established in 2006 to upgrade the dairy production and sector, to build trust between producers and processors, to promote dairy chains. Ethiopian Animal Feed Industries Association established in 2008, with the support of Land O' Lakes with the objective of improving the quality and quantity of livestock feed production and services for the members.

d. Millennium Development Goal: Ethiopia has designed its Millennium Development Goal (MDG) (Annex X), and the survey of the year 2009 shows that the country is ahead of the targeted milk production by nearly 300 million litres of milk (Millennium Development Goals: MoARD 2005, CSA 2009).

e. Agriculture Extension services are introduced widely in Ethiopia. Three Development agents (DAs) are normally deployed in each kebele (smallest size of administration system).One of the DA is with livestock background.

f. Overall, by the macroeconomic reforms made in the third phase, the dairy sector, which has been seriously affected in the socialist regime, is now reviving and a lot of progresses are noted mainly in urban dairy industries and per-urban

4. Trends, drivers and structural characteristics of the Industry.

4.1. Overall trends

4.1.1. Production and sales

During 19661-2000, milk production in Ethiopia increased by 1.55% annually while per capita production decreased by 0.84% annually. Per capita production turned mildly positive only after the introduction of structural adjustment and market liberalization policies since 1992 (During the third phase of Ethiopian Dairy history). Due to declining per capita production over long term and decreases in net imports in recent years, per capita consumption decreased from about 26 litres in mid 1980s to about 16 litres in 2001 (Staal and et al).

Based on rough estimate made in the early 2000s, 63% of the total milk production is produced by rural small-scale mixed farms in the highlands, 14.3% by small urban/peri-urban farms in the highlands, 22 % by pastoral/agro-pastoral producers in the lowlands and less than 0.03% by large private and state farms (Getachew and Gasahw 2001). Though Ethiopia is the largest in Africa in terms of cattle population, the annual milk production and growth was lower than Sudan and Kenya. Table 1 shows milk production for a period of 35 years from 1965 to 2000.

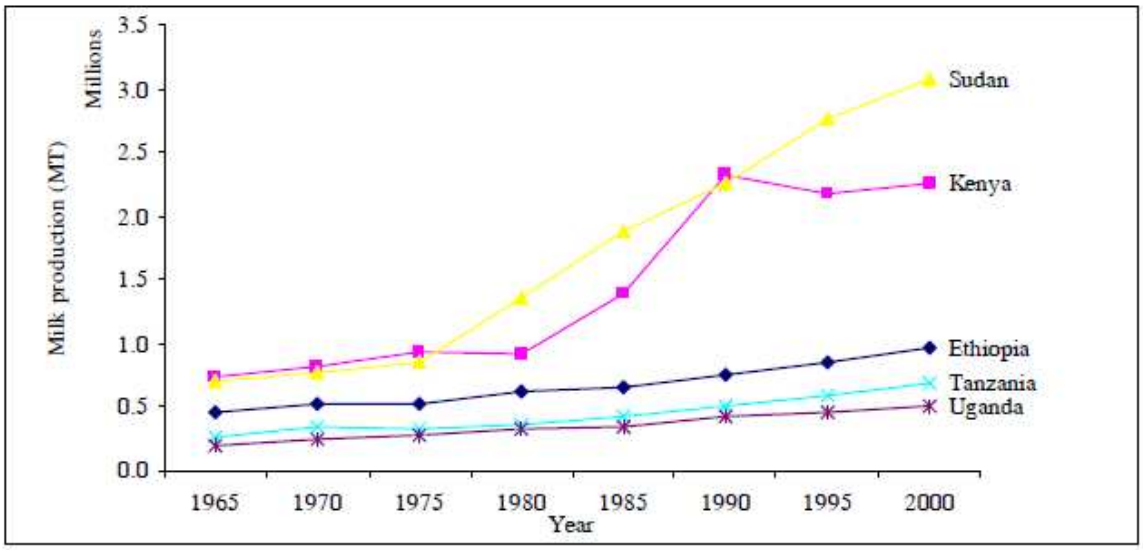
Table 1: Trends in Milk production and per capita production

Period	Total production		Per capita production	
	Annual average, tons	Growth rate, %	Average, kg	Growth rate, %
1961-1974a	698, 555	1.63	24.07	-0.87
1975-1992a	869,181	1.66	20.62	-0.91
1993-2000	1,100,831	3.00	19.09	0.36
1961-2000	862,997	1.55	21.52	-0.84

a. Include figures for Eritrea, as separate figures were not available. Source: Ahmed et al. (2003) based on FAOSTAT database

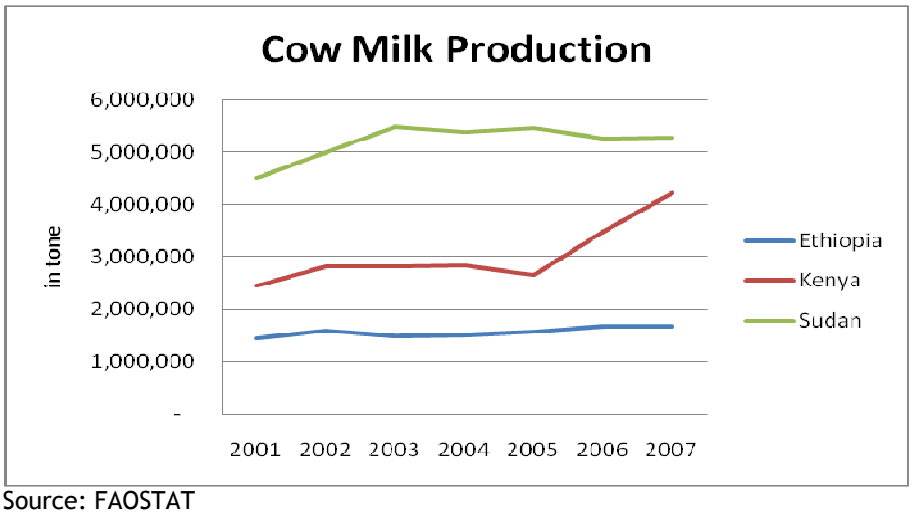
Growth performance has been poor in East Africa. Sudan, with an annual average rate of growth in milk output of 4.7% for the period 1971-2000, is the fastest growing country. Kenya and Uganda follow Sudan with average annual growth rates of 3.4 and 2.4%, respectively. Growth rates for Ethiopia and Malawi are close to population growth rates (Staal and et al 2008). See Figure 1.

Figure 1: Trends in milk production in Eastern Africa



Based on recent surveys the total milk production is increased significantly (300%) from what it has been the year 2000. The milk per capita, based on the 2008/09 survey is 37.62 litre (CSA 2009). According to the forecast of FAO, the annual production is far below the survey made by CSA. During the period from 2001 to 2007, based on FAO forecast, cow milk production is growing at an average rate of 2.6%, which is equivalent to the Ethiopia's population growth rate (2007 census). The production growth rate in Sudan in the same period is sharply declined to 2.9%, where as Kenya is registering a growth rate of 10.4% (Figure 2).

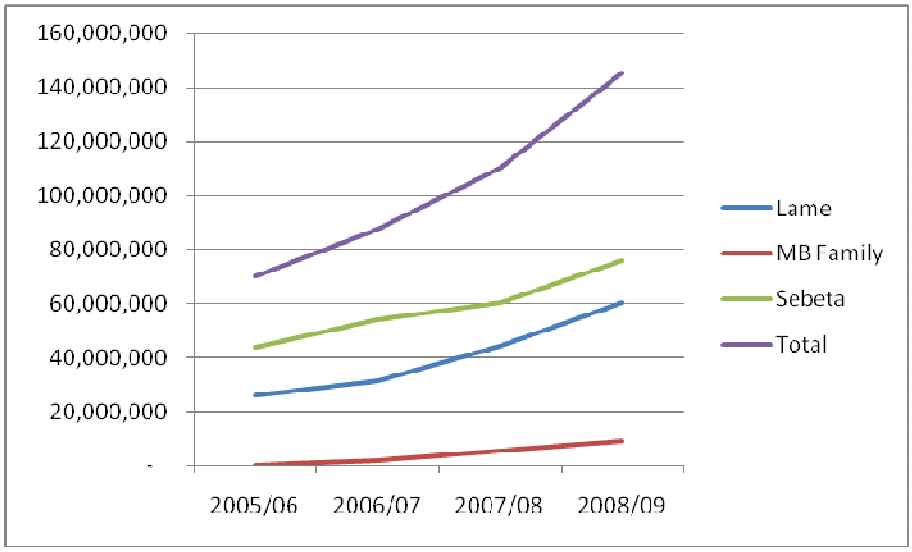
Figure 2: Cow Milk Production in Ethiopia, Sudan and Kenya



Source: FAOSTAT

Volume of prodcution and sales of processors is increasing from year to year. Based on the assessment made on three big processors, the average annual growth in sales and production was about 25%. Figure 3 shows the trends on milk products sales for the last four years.

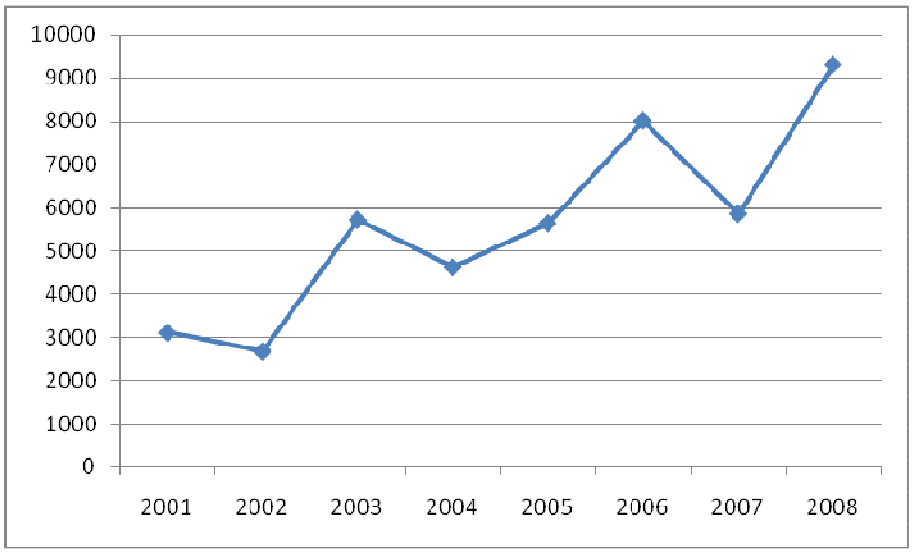
Figure 3: Milk Production by major processors in Ethiopia



4.1.2. Imports

Import is increased from about 3.1 million USD in the year 2001 to the level of 9.3 million in the year 2008, which is about 300% growth from what is has been in 2001.(Figure 4, Annex XI, Annex XIII)

Figure 4 : Trends of Import of Dairy products by Ethiopia



Source: ITC calculations based on COMTRADE statistics. (For dairy products)

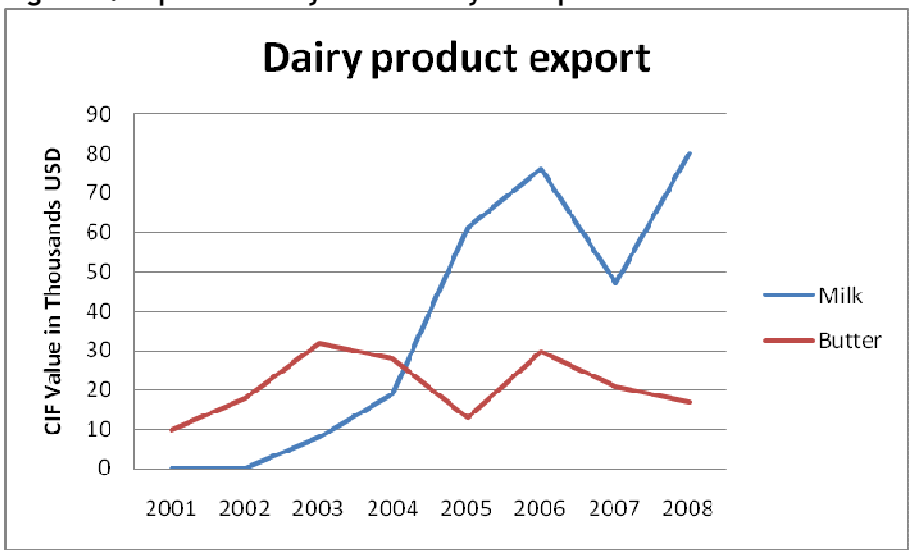
4.1.3. Consumption

Out of the total annual milk production, 82.9% was used for household consumption, 6.61% was sold; only 0.43% used for wages in kind and the rest 10% was used for other purposes (for the production of butter, cheese and the likes). With respect to the utilization of butter, 60.69% of the produced was used for household consumption although considerable portion (36.23%) was sold. Most of the cheese produced was used for household consumption that is about 85.76%, and the rest 2.94% was used for other purposes (CSA 2009).

4.1.4. Export

Ethiopia is not known for export of dairy products. With insignificant quantity, milk and butter were made to few countries. Butter was mainly to Djibouti and South Africa, targeting the Ethiopian Diaspora abroad. Milk is solely exported to Somalia from the south Eastern region of Ethiopia. The volume and value of the export is declining in recent years (Figure 5)

Figure 5: Export of Dairy Products by Ethiopia



Source: ITC

There is a strong preference for traditional products. Ayeb, a traditional cheese is popular and used as a condiment with many foods. Consumers add spices and herbs to this product at home before serving. Dairy is usually consumed at home with family and friends. Butter is consumed in more forms and in more ways than any other market in Africa.

4.1.5. Employment

The urban/peri-urban system creates annually 4.4 million person days of work or 16,400 14,760 full-time jobs. The small-scale mixed farming systems can create 166 million person days of work, equivalent to 553,500 full-time jobs. Employment figures for the pastoral livestock system could not be calculated due to lack of information. (Staal and et al 2008)

Traditional smallholder mixed farming systems generate several times more employment, but less income per unit of milk produced, than urban/peri-urban dairy systems because of low productivity of animals in the former. In both systems over two-thirds of labour is provided by children, who usually do the herding. Women tend not to be involved in production activities but are primarily responsible for traditional processing and marketing.

4.2. Drivers for the development of the dairy sector

- **Population growth:** Population growth has a tremendous impact in the growth of demand for dairy products. Ethiopian population is growing at a rate of 2.6%, which induces additional demand for the dairy products. Based on the Census of 2007, Ethiopian Population is about 73.09 million, increased by 20 million from what it has been thirteen years ago.

- **Economic growth:** For the past five years ending 2007/08, Ethiopian economy registered an average real GDP of 11.8%. The economic growth will contribute in increasing the leaving conditions and purchasing capabilities of the people. Rapid growth of many cities contributes for increasing the demand for dairy products (MoFED 2008). Mainly Because of the impact of the Global economic slowdown IMF projected that 2009's Ethiopian Growth rate will not exceed 7%.

- **Conducive Business Environment:** Many private investors are now engaged in dairy farm development and dairy product processing. Currently there are about seven dairy processors and a number of dairy farms in Ethiopia.

  In the socialist regime, private Supermarkets were small in number and little known had small significance. All public owned supermarkets are now privatised except two merchandise store and duty free store. Currently there are about 70 Supermarkets in Addis Ababa, where few of them are with more than two chains. Big towns other than Addis Ababa have similarly 3 to 6 super markets. These supermarkets are among the main distribution channel of the products of the dairy industry, both the local and the imported one. In addition to the supermarkets, with the expansion of Addis Ababa, many village shops and kiosks are opened and are among the primary active distributers of dairy products.

- **Increased foreign Community** because of the increasing in the size and number of international organization in Ethiopia, foreign investments and continuing public investments. These trigger more demands for dairy products.

- **Foreign Investment:** investment policies and other supports attract foreign investors in the sector. Though few in number, foreign investors are engaged in dairy farm and milk processing business.

- **Its steady character as a quick income and involvement by most poor population:** Involvement on milk production due to its monetary nature and, though in small amount its steady income to cover expenses at household level it is highly regarded farm business in peri-urban areas. It is also the most important business in urban areas and involves more people than any other farm.

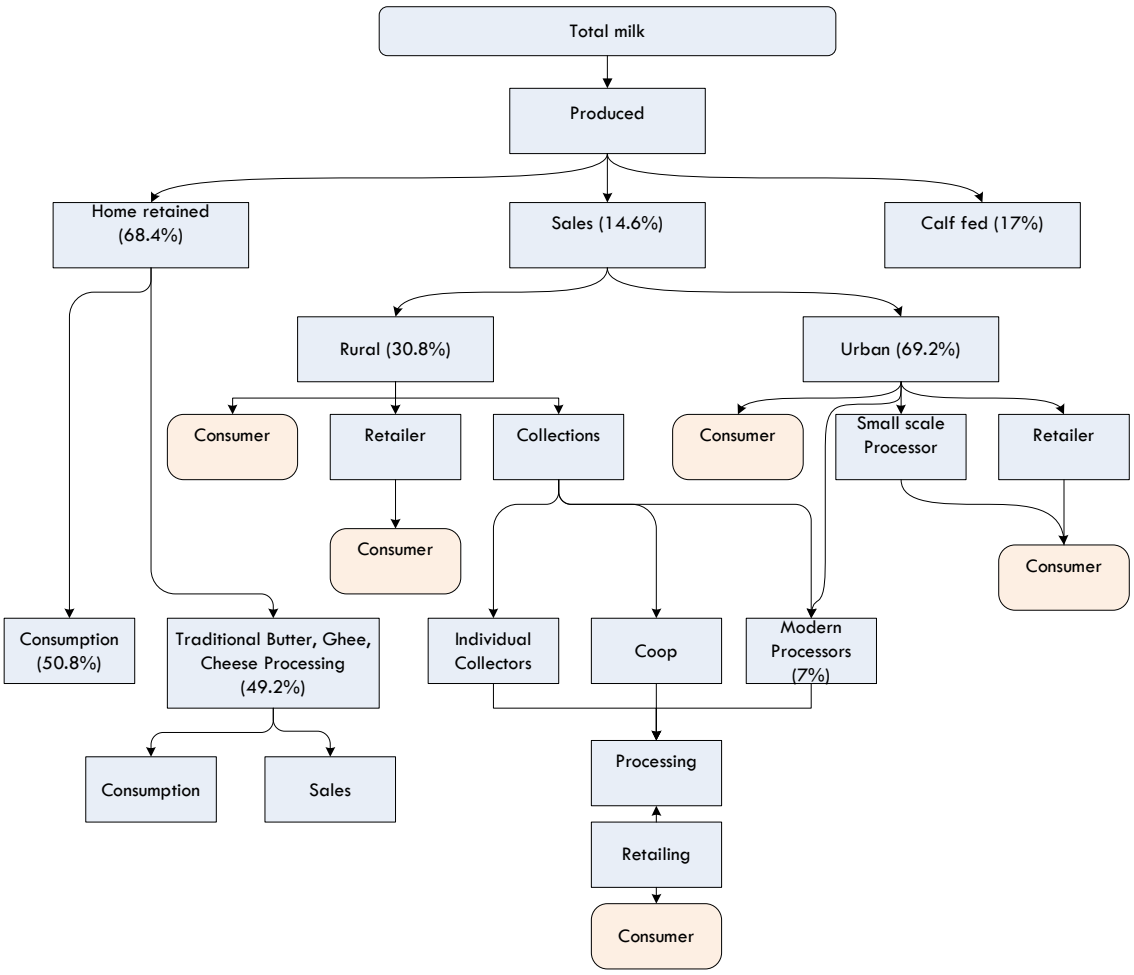
4.3. Structure of the Industry

4.3.1. Milk production and utilization flow

Small portion (Less than 10%) of the national milk production is goes to the dairy industry. 90% of the sales is channelled through the informal market. Figure 6 shows the estimated flow of milk. Major portion of the milk production goes to home consumption and home based traditional milk processing, including butter and soft cheese production.

Significant percentage of (47%) Cross-bred and exotic cows are in Addis Ababa and nearby areas (Staal 2008) and coupled with the huge demand size, the volume of sales in Addis Ababa is much higher than other towns in Ethiopia.

Figure 6: Milk production and utilization flow



Source: Getachew Feleke

4.3.2. Value chain in the dairy industry

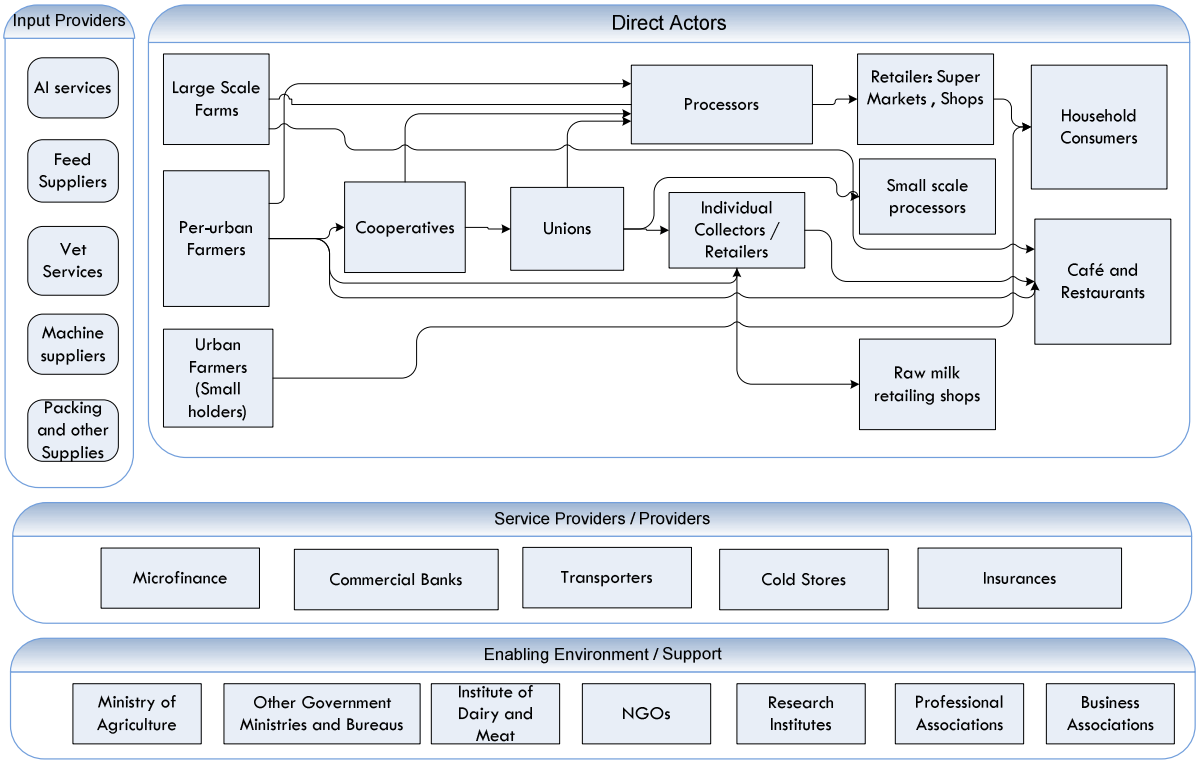
The main actors in the Ethiopian Dairy industry are peri-urban, urban farmers, cooperatives, unions, individual collectors, processors, retailers, institutions and cafe's. The actors are depicted in a value chain map for the industry – Figure 7.

4.3.2.1. Direct Actors

- **Smallholders**
  Majority of smallholder producers may be excluded from the emerging value chain due to capacity limitations. Small producers lack the necessary technological, organizational and institutional capacity for successful participation in the value chain. They are less organized and distant from market, lack economies of scale, face higher transaction costs and lack institutions for risk management (Tesfaye and et al).

- **Urban and per-urban holders**
  Urban and peri-urban smallholders are the main supplier of raw milk in the dairy industry. Most of milk processors do not have their own dairy farms. Even those who have their own farms are souring mainly from small holders. For example, Sebeta Agro industry, the first private dairy processor, is collecting 99% of raw milk from outside source though it has its own farm.

Figure 7: The milk industry Value Chain



- **Cooperatives**
  Politicization of cooperatives mainly in the socialist regime has created the bad impression among many. Recently cooperatives are playing important roles in ensuring sustainable supply of raw milk to the industry by coordinating the flow of the milk from their members and assisting of members by supplying inputs to the dairy farms. Many cooperatives are established since 1991 for marketing of raw milks of small holders in the urban and per-urban areas. The most successful cooperatives are, Ada Dairy cooperative and some cooperatives in Selale area (all in the radius of 100 km from Addis Ababa). Ada Dairy Cooperative has its own processing plant. Another cooperative in Northern part of Ethiopia, has recently

established a processing plant targeting the consumers at Mekele town. A project on livestock/dairy had helped a dairy coop to be organized in Gondar.

- **Unions**
  Unions are the next highest stage of cooperatives. Cooperatives are forming unions for better marketing capabilities and better bargaining power. Selale Union is among the active union which is doing well. Some milk marketing cooperatives in the process of forming unions to challenge mainly unfair market transactions with collectors and processors. Unions are supplying to different private collectors and processors.

- **Individual collectors**
  Individual collectors are competing with processors for the raw milk. Individual collectors mainly supplying cafe's, institutions and restaurants. They are responsible for the highest portion of the milk supply in the market. Cafe's and restaurants are opting for unpasteurised raw milk mainly for bulk delivery and of the perception that they have better fat and nutrients content and test than the pasteurised one. Individual collectors are using their own transportation system in delivering the milk consistently. Some of the individual collectors in the Selale milk shed are from Gurage tribes and there is a slight decline in milk purchase when they are leaving for holiday vacation in the month of September. The price of the milk will slightly lower as competition will be ease among the buyers of the union.

- **Urban small holders**
  Urban smallholders are mainly supplying to households though house to house delivery. Most of them are using plastic jerry can for handling the milk. The main end consumers of house delivery are infants and children. The delivery is often on a monthly contractual basis with minimum delivery size of half litre. Some urban smallholders are also supplying to cafe's and restaurants. Recently these urban smallholders are facing a pressure from the municipality to shut off their small farms because of health and environment issues. Based on the discussion with the chairman of EMPPA, it is estimated that 20% to 30% of these farms are closed in the year 2009. Based on the information of Vet service provider of Akaki district of Addis Ababa, the numbers of cows vaccinated in the year 2008/09 are about 600 as compared with that of the year 2007/08 which was about 1000 cows. The decline in the size of smallholding urban farmers is believed to be one of the contributing factors.

- **Commercial processors**
  Commercial processors are those adopting modern technology with a majority of their output is pasteurised packed milk with the size of 500ml. Currently there are about seven dairy processing companies operating in Addis Ababa and nearby towns. One of the oldest state owned dairy processing enterprise formerly called DDE or Shola is privatised in the year 2008 and named as Lame Dairy Plc (Table 2).

  Ada Dairy initially has attempted to produced packed milk, but not continued with pack milk production and currently supplying its pasteurised milk mainly to Lame and sometimes to Lema Dairy. Genesis Farm is producing cheese, butter and yogurts. Raw milks are sold to other processors, including Lema.

  There are other two dairy processors very far away from Addis. These are Dire Dawa Dairy Enterprise (500 km away from Addis) and Cooperative based processor in Tigray region. A dairy processing company established some years ago in the town of Dessie (400km north of Addis Ababa) has been recently closed down

because of managerial problems. The properties are sold to a merchandise business. There is no indication that the acquiring company will consider entry in the dairy business.

Table 2: Source of milk and processing capacity of major processors in Ethiopia

	Name of the processing Enterprise	Year of Establishment	Source of raw milk		Daily production capacity in litres		Current attained average capacity
			Own Farm	Out growers	No of Working shifts	Total Production per day	
1	Lame Dairy Processing	2008		Yes	1	30,000	20,000
2	Sebeta Agro Industry	1998	Yes	Yes	1	40,000	29,000
3	MB Plc	2003		Yes	2	10,000	5,000
4	ADA Dairy cooperatives			Members	2	15,000	7,500
5	Genesis Farm	2001	Yes				
6	Lema Dairy	2004		Yes	2	10000	3000
7	Bora	2008		Yes	1	2,500	1000

The estimated annual production of the first three companies in the year 2008 was about 14 million litres of milk,120,000 Kg of butter and 20,000 kg of cheese and 90,000kg of soft cheese.

Majority of the processors are depended on external milk sources. Lema has closed its dairy farm because of the ever increasing feeding costs and now fully depended on out growers (individual farmers, cooperatives, big farms like Genesis farm). Main customers of processers are Supermarkets. Village shops, large in numbers, are important distribution channel of the processors. All of the processors are delivering their products by their own delivery truck with insulated and refrigerated cabins.

- **Small scale processors**
  Small scale processors are those who are limited them to small scale niche market like *formajo* (a certain type of cheese). Small scale processors are directly buying raw milks from unions, cooperatives and individuals.

- **Cafe's , Restaurants and shops**
  There are large number of cafe's, kiosks and restaurants in all towns. Hot milk and macchiato (mix of coffee and milk) are the famous drinks which triggers the demand for milk by cafe's and restaurants. Kiosks, shops and supermarkets are selling packed milks to household buyers. Butter, cheese and yoghurts are solely sold at supermarkets. During eve of holidays soft cheeses are often sold at shops. Some cafe's and restaurants are using powder milk for hot milk and macchiato, which are not often chosen by consumers.

  The competitors of the local dairy products at the level of supermarkets are the main distributers of imported powder milks, butter and cheese. Imported products are recently becoming more expensive and there is a favourable condition for local products.

- **Household**

  Household consumers are the middle and high income household, who can afford to buy raw unpasteurised milk on a daily basis from collectors or urban small holders. It is common to substitute mother breast feed with cow milk when the breast dried up and mothers are back to work. Because of price, sustainable supply and the perception that pasteurised milk is something that certain fats are extracted, most household buyers are inclined to unpasteurised raw milk.

  Institutional buyers: These are big institutions, colleges, hospitals. Cafe's and restaurants of big enterprises are also categorised under institutional buyers. Majority of them are sourcing from collectors.

4.3.2.2. Service Providers

Banks

There was no private bank in the socialist regime. Since 1991, about 12 private banks are opened. There are three state owned banks. Commercial banks have different types of loan products, including overdraft facilities, terms loans and loans for letter of credits. Development Bank of Ethiopia is granting loans for long term investments, especially to sectors privileged by policy. Commercial Bank of Ethiopia (state owned) is the largest bank of all operating in many parts of the country. Major Private Investments are financed by this bank.

In terms of flexibility and speedy decision, some of the dairy sector managers are complaining at all banks, mainly those of state owned. For any loan, all types of banks are demanding marketable collaterals to secure the loan. Based on the interviewed made with some dairy sector managers, some banks do not consider machinery and livestock as collateral for the dairy processors.

Microfinance Institutions

For small holders, microfinance institutions are the most suitable source of finance. Because of size and single borrower limit issues, the amount of loan to be granted to a single borrower is often too small for further investment at small scale level. In Ethiopia there are about 29 microfinance institutions.

Insurance

Most private banks have related insurance companies. There are nine insurance companies and one of them is the biggest of all, which is state owned. Insurance companies have different types of policies for property and in relation to manpower. Most of the insurance companies have not or have unsuitable insurance policies for livestock. In addition no insurance policies are available no potential losses on unexpected natural disaster or to cover potential perils for milk products in transit or storage.

4.3.2.3. Enabling environments

The most notable enabling environment is Ethiopia's development policy, which is Agricultural Development Industrialization. There are relevant directorate and offices including Agriculture Extension, Agricultural marketing, Agricultural Investment and centres like AI, Vet Centre; projects like livestock master plan, productive safety net projects are among the few in structures under the Ministry of Agriculture and Rural Development, which could have a direct contribution for

the development of the dairy sector. Dairy sector development is clearly incorporated in the MDG Goal of MoARD.

Agricultural offices are organised from micro level to macro level in different setup. Degree of decentralization of agricultural offices reaches to the level of Woreda (the next lower level from regional structure).

Extension Services: The establishment of Farmer Training Centres (FTC) and the deployment of three ATVETs graduates as DAs per FTC are widely perceived as having a positive contribution to dairy development. One of the three development agents being assigned to an FTC has specialized in livestock production and s/he is supposed to focus on livestock and dairy extension. There is however a critics that challenges the success of the extension service by refereeing CSA's data that only 1% of the total livestock holders reported that they had participated in livestock extension package; with about a quarter of them in dairy development package (Tesfaye and et al).

The recent development in the road sector in Ethiopia is among the top successful achievement of the government in creating access of the rural community to the urban market.

Different NGOs and international organizations are intensively operating to assist the dairy sector, though the coverage in relation to the size of the country is small.

4.3.3. Challenges in the dairy sector

- **Cost of production:** Due to severe shortages of animal feed supplies, the cost of running a dairy farm is becoming more expensive. Ever increasing cost of feed was the primary reason that one of company assessed for this study has close its dairy farm and continuing processing by outsourcing the milk. Similarly some small holders in regional towns are also closed their farms because of the scarcity of feed supply or excessive cost of feed. Transportation cost is the other additional extra costs paid buy regional farm holders, as they are buying majority of the feeds from Addis Ababa.

- **Cost of Imported items:** Cost of packing, spare parts and machinery because of the devaluation /deflation of Ethiopian Birr.

  Low productivity of cattle because of their Generic makeup increased the running and investment cost per unit.

- **Demand side:** Low Consumption behaviour is blamed by many writers for the low level of demand pressure to the dairy sector as compared with neighbouring countries (Sudan and Kenya). In addition, consumers prefer the traditional products than pasteurised and factory produced products. Extended fasting days of Ethiopian Orthodox Christian greatly affects the demand for milk. During fasting time most of the processors sales volume will decline.

- **Management**: Lack of modern animal husbandry and management, limited skilled manpower in dairy technology and marketing, inadequate distribution systems and limited packaging choices, are affected the sector.

- **Prevalence of animal diseases** One of the processors closed its farms after it lost five of its cow from animal disease and running only the processing plant by out souring the milk

- **Recent Power Cut:** Ethiopia has faced the worst power cut in its recent history. For about six months, there was a power cut for almost 50% of the day time. As a result of this many of the processors were using generators, which cost them higher than the regular electric power source. The power cut also affects the shops and small kiosks that do not have a power backup. When there is no power, they do not collect packed milks as refrigerators are not working. ADA dairy cooperative is one of the enterprises whose sales volume is dropped drastically during the power cut period.

- **Access to Land:** Land is the crucial challenge in the sector, especially for the dairy farm owners and feed processors.

- **Availability of breeds:** Scarcity of hybrids and exotic breeds is a challenge for the exiting dairy farmers and new entrants in the business.

- **Absence of policies:** Essential policies like land livestock breeding and dairy development strategy in the country except for the draft policy incorporated in the general agricultural policy and the draft breeding policy of 1986, neither of which are yet finalized. Past dairy development efforts were based on projects related to purpose- and area-specific dairy strategies, without any national policy aimed at setting out a comprehensive dairy development strategy or programme (staal 2008).

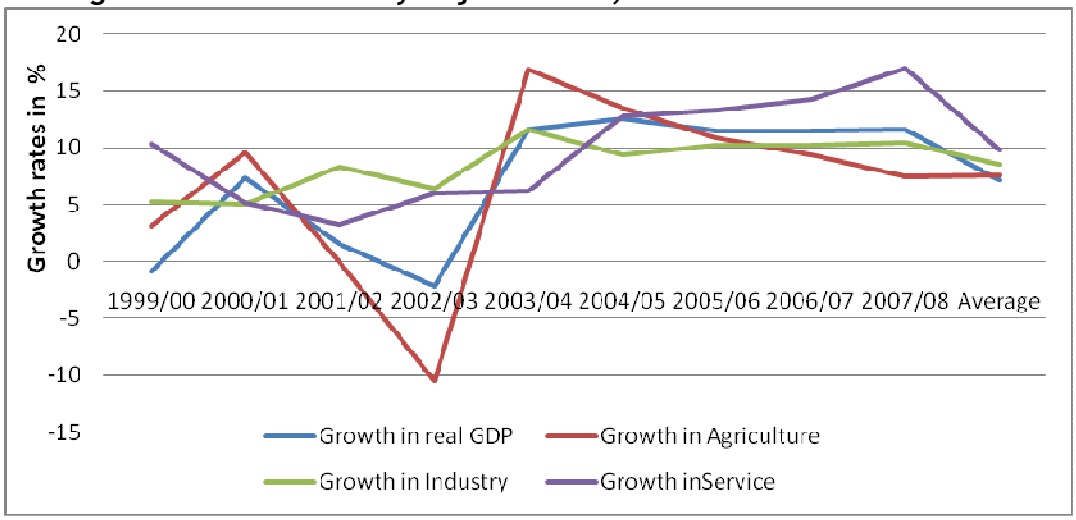
5. The 2008 financial and economic crisis and its effects over the dairy industry.

5.1. Overview of the Ethiopian Macroeconomic Performance during the last ten years

Since the onset of the market oriented economic policy in 1992, Ethiopia has undergone a series reform packages pervading all aspects of the economy (step by step) in line with the IMF-determined stabilization and World Bank-structural adjustment program. The government has redesigned public sector policies to realize poverty reduction strategies since 2000. As the private sector has not been strong to budget the economy to a better state and along with the ardent need to enhance infrastructural development so as to accomplish accelerated economic development on a sustainable basis, the role of the government has to be huge. Accordingly, spending increased remarkably on infrastructure development (roads, power plants) and services (education and health) [1].

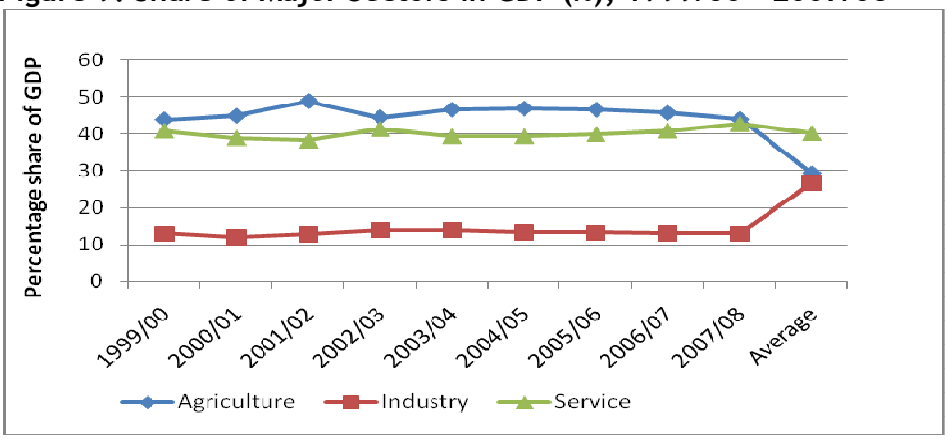
The economy has been performing well during the last six years, as measured by the GDP growth and the prospect for the current fiscal year seems a growth but at lower rate despite the global economic slump. This sustained double digit growth is the highest registered in the country's economic history and among non-oil producing African countries. The country's average cumulative growth performance during the years 1992 through 2007 was 5.6 percent (IMF,World Economic Outlook 2008). What is of a good achievement by the economy is the fact that its growth has been becoming broad-based in the sense that the contribution and/or share of other sectors, notably the industry and the services sectors, to GDP has been on the rising side (Annex 1, Fig. 8 & 8).

Figure 8. GDP Growth by Major Sectors, 1999/00 – 2007/08



Source: NBE, Annual Report, Various issues

Figure 9. Share of Major Sectors in GDP (%), 1999/00 – 2007/08

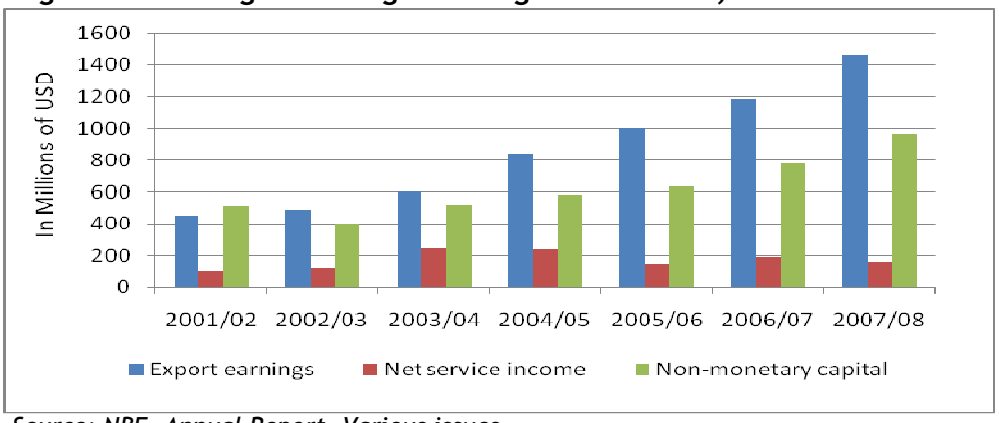


Source: NBE, Annual Report, Various issues

The agricultural sector has been growing both in terms of cultivated land and production; went up in thousands of hectares and quintals from 8,146 and 90,504 in 2001/02 to 10,955 and 161,167 in 2007/08, respectively (Annex II). Key drivers of growth in the services sector include higher growth of government spending and the substantial rise in private sector services mainly retail trade, hotels, transportation, financial services and real estate. The gains in industrial activity, investment, private sector credit, revenue, and exports as percent of GDP has been slightly exceeded or in some cases lagged behind the rise in the aggregate economic activity (Annex I).

Exports have been growing significantly in recent years reaching 6 percent of GDP. The foreign currency earnings from export sector reached to USD 1,466 million as of June 30, 2007/08, significantly up from USD 452.4 million in 2002/03 (Fig. III). Annual average growth rates of export value during the last seven years were 22 percent.

Figure 10. Foreign Exchange Earning Transactions, 2001/02 – 2007/08



Source: NBE, Annual Report, Various issues

There is also diversification of the product mix with the average share of coffee dwindled to 35.5 percent during the last eight years (Annex III). There has been worthy achievement made by the government in diversifying exports during the past decade by including flower in the export items and by promoting high yielding products like oilseeds and pulses. As a result, the share of coffee has declined to around 35.5% over the period 2000/01-2008/09, from its high share of over 57% during the 90s, on average (Annex III). Similarly, the

foreign currency inflow from net service income (mainly from travel, transportation, investment income, and government) has registered a fluctuating performance ranging between USD 104.6 million and USD 190.8 million during the years 2002/03 to 2007/08. The major reason for this fluctuating trend could be variability in the country's performance in conference tourism depending on the frequency of international meeting held. Net-foreign currency earnings from the non-monetary capital account (long-and short-investment) also showed irregular trend depending on the performance records in loan disbursement, amortization, and direct investment (Fig. III).

This growth trend is not without a challenge, however. The two significant challenges attracting attention have been the staggering inflation rate and the low level of foreign currency reserves. Until recently, inflation in Ethiopia has been low relative to other sub-Saharan African countries with historic level of 21% in 1991-1992, owing mainly to sever drought and political instability. Historically, inflation in Ethiopia was structural in the sense that the rate of inflation has been low when the performance of the agricultural sector, the mainstay of the economy, is good. However, the recent (since 2006) inflationary spiral has been unusual, as it has been steadily soaring and creeping up despite good harvest of agriculture. According to the data obtained from Central Statistics Agency, year-on-year general inflation reached 55.2 percent as at June 2008, driven mainly by food prices, comprising more than half of the CPI basket and standing at 78.4 percent. Non-food prices, driven by fuel and construction material prices, were up 23.2 percent during the same period. The inflation rate has subdued in 2009 though still remains one of the highest in the world (Annex IV)[3].

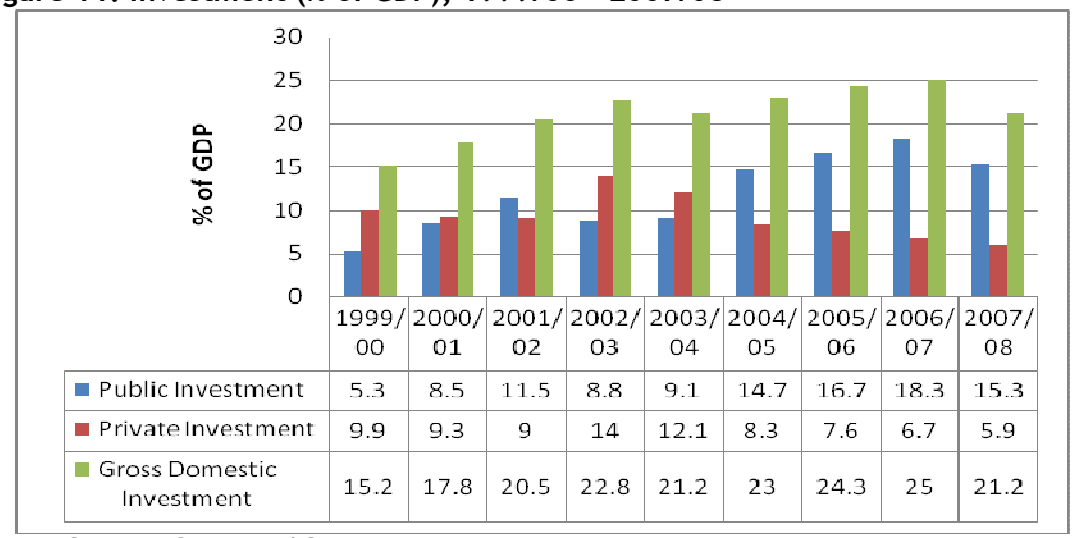
Food security has also remained a challenge; the government has reported that as of January 2009 some 4.6 million people were at risk of food insecurity. This may suggest that "Ethiopia has not yet embarked on a full-scale agricultural revolution of the type seen in countries such as China, India, or Vietnam (involving large changes in yields, farming technologies, and institutions). What progress there has been in the use of fertilizers and irrigation is still limited compared to these agricultural success stories, and farm output has been driven more heavily by rain levels and expanded acreage."[4]

In recent years, the consumption of foreign currency by the government and corporate public sectors, mainly for imports of strategic goods and services, has been incessantly growing year after year. The foreign currency inflow has been rising but lowers than the growth in foreign currency outflow leading a drawdown of the country's foreign reserve position since 2003/04 to pay for the difference. The country's foreign currency reserve that was sufficient to cover 3.7 months of imports in 2002/03 has only been able to cover 1.9 months of imports in 2007/08. The reserve position has dwindled and reached to 5 weeks of import as of December 2008, reflecting the fact that it is one of the challenges that could entangle the country to meet its Millennium Development Goals. Commercial banks operating in the country are thus in foreign currency liquidity stress situation and priority has been given to strategic goods and export-oriented business activities. This may hamper the ongoing private investment that set as a pillar for market oriented economy and an engine for growth.

Large-scale public sector borrowing[5] has also been rising with the effect of crowding out the private sector. Credit extended to the public sector grew from (0.6) percent in 2000/01 to 35.7 percent in 2007/08 while credit to the private sector has dwindled from 31.5 percent in 2004/05 to 22 percent in 2007/08. Accordingly, public investment as percent of GDP has showed a growing trend during the period 2002/03 through 2007/08, whereas private investment went down (See Fig. 4). The remarkable rise in government investment along with other local and global shocks have pushed the level of fiscal deficit

to remain, on average, above 3% of GDP and then reached to a historic pick level of Birr 7.2 billion as of June 2008.

Figure 11. Investment (% of GDP), 1999/00 – 2007/08



	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Public Investment	5.3	8.5	11.5	8.8	9.1	14.7	16.7	18.3	15.3
Private Investment	9.9	9.3	9	14	12.1	8.3	7.6	6.7	5.9
Gross Domestic Investment	15.2	17.8	20.5	22.8	21.2	23	24.3	25	21.2

Source: NBE, Annual Report, Various issues

Besides, power shortages due to rising demand and a lack of water in the country's dams led the nationwide blackouts of at least twice a week to every other day from March 2009 to mid of September 2009. This has somehow affected the economy and partly to be blamed for the decline of the growth rate from the plan.

5.2. The Impact of the Global Economic Crisis on the Ethiopian Economy

5.2.1. The global economy

According to the World Economic Outlook report (January 2009), world growth is projected to slow from 5.2 percent in 2007 to just 0.5 percent in 2009 measured in terms of purchasing power parity; advanced economies, for the first time since the Second World War would experience a growth level of -2 percent in 2009. Growth will slow down in emerging and developing economies – on average from 8.3 percent in 2007 to only 3.3 percent in 2009. After almost one year, the global recession is not expected to be over, despite some positive signs. According to the WEO (July 2009), the global economy is beginning to pull out of a recession, but stabilization is uneven and the recovery is expected to be sluggish. As a result, IMF updated the global economic growth during 2009-10 to 2.5 percent about ½ percentage points higher than April 2009. The data shows that financial conditions have improved owing to governments' interventions. Despite rate of decline in the economy is moderating, the recovery is still expected to be slow as financial systems remain impaired. The advanced economies as a group are still projected not to show sustained pickup in activity until 2010, consistent with April 2009 WEO forecast. Accordingly, GDP in the advanced economies is projected to decline by 3.8 percent in 2009 before growing by 0.6 percent in 2010. Although the projections are 0.6 percentage points higher than that of April WEO forecast, growth in 2010 would still fall short of potential until late in the year, implying continuous increase in unemployment.

On the other hand, emerging and developing economies are projected to regain growth momentum during the second half of 2009, albeit with notable regional differences. IMF has revised growth projections in emerging Asia upward to 5.5 percent in 2009 and 7.0 percent in 2010, and those of Latin America, Eastern Europe and Common Wealth of Independent States, to have been lowered by 1.1, 1.3 and 0.7 percentage points, respectively. Growth projections for emerging Africa and the Middle East have been revised downward by 0.3 and 0.5 percentage points in 2009, respectively, and will remain unchanged 2010. Growth in Africa is sharply decelerating, mostly driven by collapsing world trade and commodity prices, lowering foreign direct investment, subsiding remittances and falling tourism revenues.

5.2.2. Repercussions on the Ethiopian Economy:

As the global economic slowdown intensifies, its effects are increasingly felt in emerging and developing economies in addition to the advanced economies. African countries were spared from the first wave of the financial crisis, but cannot be immuned from the impact of the global trade slackening. The effect of the global crisis on the Ethiopian economy depends on the changing development of the advanced economies. If the recession takes long, the impact will be intense and vice versa.

5.2.3. Impact on the Financial System:

The Ethiopian economy is least monetized[6] and the financial sector is thin and weakly linked to the international financial system. Banks are not involved in derivative markets and foreign ownership is not allowed. All banks depend on domestic resource mobilization to support operations. Similarly, the inter-bank market is limited and generally operates at the local level. Most of the credits still remain in the banks' books. Because of this low level of integration into the global financial system, financial institutions were not vulnerable to the severe banking contagion effect witnessed in the US, Europe and emerging markets. Competition is not stiff. All of banks are profitable with an average ROE of 25% to 42% (World Bank 2009).

This does not mean, however, that they are not vulnerable to the global financial crisis at all. For instance, increasing unemployment in countries where many Ethiopians and Ethiopian origin reside would affect their ability to hold asset in the domestic economy. For instance, their demand for housing may fall, which may drive housing prices to decline from the recent high levels. This may in turn lead to a lower price expectation that can pass into lower values of houses that are hold in collateral by banks. In addition, borrowing cap and the rationing of the foreign currency for import will affect their business.

5.2.4. Impact on FDI inflow:

According to IMF, FDI inflows to SSA countries in 2007 amounted to about USD 25 billion and have continued to grow during 2008.[7] In the last three years, private capital flows have been rising faster in Africa than in any other part of the world[8], owing mainly to diversification opportunities and relatively high return rates in the region. If the global credit conditions leads to a decline in investments and capital flows and a reduced appetite for risk, this could severely affect African countries that have been relying on these flows for their infrastructure investment[9]. The same may hold true for Ethiopia. Investment has grown significantly in the recent past, suggesting that Ethiopia is emerging destination for investors. However, because of the crisis, FDI inflows to the country could

be affected, with deleterious effect on the economy. The Ethiopian Electric Power Corporation has indicated that its investment plans will be severely affected due to the crisis (Neil McCulloch, 2008).

As data in the balance of payment shows, FDI inflows to Ethiopia increased substantially from USD 62.5 million in 1999/00 to 814.6 million in 2007/08. Similarly, number and capital outlays of approved foreign investments have increased from 54 and USD 199.9 million to 1,651 and USD 9,983.6 million, respectively, in the same reference period (Annex V). A look into the number and capital outlays of approved foreign investments during the three quarters of 2008/09 show that capital outlays during the second quarter grew by 31.6 percent and 23.7 percent against the first quarter and over the same period of 2007/08. Number of approved investment projects declined from 472 in the first quarter (July to September) to 360 in the third quarter (March to May) 2008/09. Compared to third quarter of last year both number and capital of approved foreign investment declined, suggesting that the global economic slump might pose modest pressure on FDI inflows to Ethiopia.

Table 3: Approved investment projects (Capital in Millions of Birr)

Investment Projects	Periods						
	2008/09			2007/08			
	Q1	Q2	Q3	Q1	Q2	Q3	Q4
Number	474	389	360	472	375	396	406
Capital	11,781	15,503	15,736	12,532	14,203	32,907	32,591

Source: Ethiopian Investment Agency

5.2.5. Impact on remittance inflows:

According to the World Bank report (2008), remittance flows to sub-Saharan Africa (SSA) increased from USD 1.17 billion in 1995 to USD 19 billion in 2007, which could serve as a powerful poverty reduction mechanism in the region. As a result of the crisis remittance sent to SSA is expected to reduce, from 42% in 2007 to just 6% in 2008. According to the same report, the prospects for 2009 and 2010 depend on how fast SSA's remittance-source countries will recover from the financial crisis. The World Bank estimates that remittances to SSA will decline between 8% and 12% in 2009(African Financial Outlook 2009). In 2008, 44% of remittances to the region have been sent from Western Europe, 31% from the United States, 8% from the Gulf States and the rest from other developed and developing countries. This implies that if Europe and the United States will go into a deep recession, remittance flows to SSA will be strongly affected[10]. According to UNICTAD[11], preliminary estimates of the World Bank suggest remittance flows to developing countries to fall from their record level of USD 305 billion in 2008 by as much as 10 per cent in 2009. According to these estimates, after sinking to a level as low as USD 280 billion in 2009, developing countries remittance inflows will reach over USD 300 billion in 2010 following recovery of the global economy.

Remittance is one of the potential and easily accessible sources of foreign currency inflow to Ethiopia. The flow of transfers from private individuals via the formal channel has been incessantly growing from USD 93.3 million in 2001/02 to USD 805 million in 2007/08 (Annex VI). According to the information obtained from the Ministry of Foreign Affairs, the number of Ethiopian citizens residing abroad in known 25 countries is conservatively estimated to reach 1.1 million as at December 2008, which in actual fact could reach to 2 million, indicating the potential source of foreign currency inflow via remittance. Remittance inflow to the country reached USD 737 million, USD 1,208 million and USD 1,784 million during the periods 2005/06, 2006/07 and 2007/08, respectively.

Data from National Bank of Ethiopia (NBE) also revealed that USD 394.9 million and USD 431.7 million have been remitted into Ethiopia, during the periods July 2007 to January 2008 and July 2008 to January 2009, respectively, through commercial banks and money transfer agents by private individuals. Therefore, the private transfers during seven months increased by 27.4 percent compared to the same period of the previous seven months (Table 2). This may be due to the rise in the number of money transfer agents and using the formal channels by the Ethiopian Diaspora. International remittances, transfers from Ethiopian and foreign nationals to Ethiopia, has declined by 9.6 per cent from last year, according to a National Bank of Ethiopia report (Capital Magazine, August 24, 2009). During the fourth quarter of 2008/2009 private transfer was USD 646.2 million.

Table 2: Trends in remittance inflow (in millions of USD)

	2007/08	2008/09	
	July 2007 - January 2008	July 2008 - January 2009	Growth Rates
Particulars	A	C	D = C/A
Private Transfers	756.6	963.8	27.4
NGOs	361.7	532.1	47.1
Private Individuals	394.9	431.7	9.3

Source: National Bank of Ethiopia

5.2.6. Impact on Tourism:

Foreign exchange receipt from the tourism industry has been important revenue source for SSA countries and is expected to decline due to the global economic slowdown. According to UNWTO (January 2009), the growth rate of international arrivals to SSA has already went down to 4.2 percent in 2008 compared to 7.5 percent in 2007. The prospects for 2009 are not attractive; the UNWTO forecasted that international tourism will stagnate or even decline slightly by 1 to 2 percent.

The foreign currency that Ethiopia received from the tourism sector has been significantly increasing since recently. Although it is difficult to quantify the possible impact of the crisis on tourism receipts in Ethiopia, there are some indirect indicators that suggest the fall in tourist arrivals and hence foreign currency receipts from tourism. The Ethiopian airlines announced in February 23, 2009 that it reduced the number of flights to USA and China in a week from 6 to 4 and from 14 to 12, respectively due to the financial crisis. Hence the country may meet difficulty to attain its planned one million tourists by 2010.[12] Note, however, that the income earned from the conference tourism do not affected by the global crisis.

5.2.7. Impact on Official Development Assistance (ODA) inflow:

As it stands now, domestic resource mobilization is insufficient for Ethiopia to finance the investment needed for achieving PASDEP/MDGs. Thus, Ethiopia will continue to rely on external capital inflows (mainly ODA, FDI and remittances) to fill the financing gap in the near future. Therefore, a key concern is whether donor pledges to finance development expenditures will be maintained or become less predictable given that such pledges were not fulfilled even during times of global economic boom (Getachew 2009). As the world Bank financial outlook report (October 2009) indicated, some countries, such as Ethiopia, are tilting towards financing their fiscal deficits through greater reliance on aid flows. Any

possible reduction in concessional flows given difficult budgetary conditions in donor countries could exacerbate the fiscal positions.

Ethiopia's main donors are gravely hit by the crisis, making them allocate huge sum of budget to bailout their respective domestic institutions and prioritize expenditure. This would affect the Ethiopian economy as aid flow is one of the major sources of foreign currency and source of financing the budget deficit. Of the federal government budget for the 2008/09 fiscal year, 28.4 percent was assumed to come from donor countries. According to data from NBE, deficit financing (excluding grant) during the first quarter of 2008/09 was from net external borrowing (39%), net domestic borrowing (49%) and others (12%). The decline in foreign aid could stifle the development activities that could be executed using grants and loan assistance and exacerbate the depletion of the foreign reserves.

The inflow of aid to the country was erratic since 2005 due to local and global political and economic situations. There was a sudden went down of aid commitment (53%) in 2005 with the effect of depressing and trapping the economy in fears and compelling the government towards formulating pessimistic expectation about foreign aid inflow (Annex VII). Hence, the government has opted to maintain the readily available foreign currency position from the worst scenario and held up import requests of consumer goods and gave financing priority to strategic goods. And, aid inflow is also subjected to uncoordinated donors' interest and conditionality while the country could not be able to efficiently utilize part of the approved foreign loans and grants, amounting to USD 2.3 Billion from the World Bank and African Development Bank that would have been building up the country's reserve position.

Most of the pledges particularly from multilateral financial institutions (World Bank, AfDB, EU and other UN Systems) have been made on a medium-term time frame (three years). It is unlikely that these pledges would be withdrawn owing to the financial crunch. ODA from bilateral sources is more likely to decline than ODA from multilateral sources. ODA from multi-lateral sources account on average for about 75 percent of total ODA flows (Getachew).

5.2.8. Impact on export trade:

Exports revenues of Africa are expected to fall by more than USD 250 billion in 2009, resulting in the deterioration of current account balances, erosion of foreign exchange reserves, and heavy losses in trade tax revenue. Commodity wise, oil and mineral exports will suffer the largest losses [13]. Export earnings declined as commodity prices and demand goes down. The decline in prices of commodities in the international market would result in the fall in export earning and deterioration in terms of trade for commodity exporters. In fact, the decline in prices of fuel will benefit oil importers and will ease inflation pressures which are affecting many African economies. Erosion in demand for export commodities and squeeze on trade and investment financing would depress the private sector and adversely affect growth trajectory recorded during the past few years.

Aggregate export earnings of Ethiopia reached USD 1,447.9 millions during the 2008/09, a 1.2 percentage decline over the preceding year. The sector's performance during the year was far below the target - which was about 2.7 billion USD. Such low performance is explained by several challenges including the global financial crisis and economic slowdown and a transition to a new commodity marketing system. More than half of the 23 major commodities have recorded a drop in their total value of export. Among the major export earners, pulses and coffee exhibited about 36.8 and 28.3 percents of decrease in

export revenue, respectively. On the other hand, the export earnings of beverages, oil seeds, natural gum, live animals, chat and fruits and vegetables have shown considerable increase compared with the preceding fiscal year (Annex VIII). On quarter basis, total export earnings during the fourth quarter of 2008/09 stood at USD 423.8 million, showing a modest growth over USD 401.6 million of the third quarter of 2008/09. But, compared with the same quarter of 2007/08 it has declined by more than 7.4% (Table 5).

Table 5: Quarterly value of Exports by major commodities (in Millions of USD)

Particular	2007/08 Q4		2008/09 Q3		2008/09 Q4		Growth Rate, in %	
	Value (A)	Share, %	Value (B)	Share, %	Value (C)	Share, %	C vs. B	C vs. A
Exchange Rate: Birr/ 1 USD	9.5526		11.0516		11.2028		1.37	17.27
Coffee	187.65	40.98	*75.91*	18.90	*124.96*	29.49	64.61	-33.41
Oil Seeds	64.50	14.09	*133.65*	33.28	*125.73*	29.67	-5.92	94.94
Leather & Leather products	25.79	5.63	*11.54*	2.87	*9.95*	2.35	-13.77	-61.41
Pulses	40.14	8.77	*26.58*	6.62	*20.23*	4.77	-23.88	-49.59
Meat & Meat production	6.60	1.44	*6.13*	1.53	*4.81*	1.14	-21.51	-27.08
Fruits & Vegetables	2.87	0.63	*2.28*	0.57	*2.16*	0.51	-5.19	-24.73
Sugar & Molasses	0.00	0.00	*16.10*	4.01	*0.00*	0.00	0.00	0.00
Flower	35.17	7.68	*38.35*	9.55	*36.74*	8.67	-4.19	4.48
Gold	34.17	7.46	*24.79*	6.17	*35.21*	8.31	42.03	3.04
Live Animals	8.69	1.90	*12.07*	3.00	*8.04*	1.90	-33.34	-7.45
Chat	27.44	5.99	*37.12*	9.24	*34.27*	8.09	-7.66	24.90
Bees Wax	0.64	0.14	*0.33*	0.08	*0.49*	0.11	45.90	-23.93
Others	24.21	5.29	*16.71*	4.16	*21.18*	5.00	26.71	-12.53
Total Export	**457.87**	**100**	**401.56**	**100**	**423.79**	**100**	**5.53**	**-7.44**

Source: NBE and staff computation

5.2.9. Impact on Import Trade:

Annual import value reached USD 7.7 billion during 2008/09, went up by 12.8 percent over the previous years' value of USD 6.8 billion. The increase was mainly attributed to the increase in both price and volume of importation of consumer goods, industrial goods, capital goods and raw materials, registering a percentage growth of 54.7, 51.9, 39.2 and 37.4, respectively. On the other hand, semi-finished goods and fuel recorded a decrease in their import pay out, though cannot drive back the total growth of import value (Annex IX, Annex XII). Capital goods import (mainly industrial goods) and consumer goods (mainly nondurable) and fuel products have seized about 32.2, 30.5 and 15.8 percentage share in the total import payment of the country, during the 2008/09 fiscal year. On a quarterly basis also, value of total import surged to USD 1,746 million, up from its third quarter amount of USD 1,723.1 million. However, the figure is about 16% lower than the similar quarter amount of USD 2,050.5 million in the previous year (Table 6).

Table 6: Quarterly value of Imports by end use (in millions of USD)

Particular	2007/08 Q4		2008/09 Q3		2008/09 Q4		Growth Rate, in	
	Value (A)	Share, %	Value (B)	Share, %	Value (C)	Share, %	C vs. B	C vs. A
Exchange Rate: Birr /1	9.552		11.051		11.20		1.37	17.27
Raw Materials	74.42	3.63	77.14	4.48	63.52	3.64	-17.66	3.65
Semi Finished goods	325.8	15.89	276.73	16.06	365.7	20.95	32.18	-15.07
Chemicals	38.20	1.86	27.12	1.57	24.80	1.42	-8.57	-28.99
Fertilizer	86.01	4.19	97.75	5.67	167.3	9.58	71.16	13.65
Textile Materials	7.07	0.34	3.27	0.19	3.94	0.23	20.36	-53.74
Others	194.5	9.49	148.59	8.62	169.7	9.72	14.25	-23.64
Fuel	575.3	28.06	220.03	12.77	243.5	13.95	10.70	-61.76
Capital goods	440.3	21.47	594.72	34.51	525.7	30.11	-11.60	35.06
Transport	90.50	4.41	96.07	5.58	92.10	5.28	-4.13	6.16
Agricultural	12.76	0.62	9.11	0.53	10.07	0.58	10.52	-28.59
Industrial	337.0	16.44	489.53	28.41	423.5	24.26	-13.47	45.23
Consumer goods	439.2	21.42	529.70	30.74	523.4	29.98	-1.19	20.61
Durables	112.9	5.51	156.93	9.11	169.3	9.70	7.93	38.96
Non-Durables	326.2	15.91	372.77	21.63	354.0	20.28	-5.03	14.25
Miscellaneous	195.3	9.53	24.80	1.44	23.98	1.37	-3.28	-87.31
Total Imports	**2050**	**100**	**1723.1**	**100**	**1746**	**100**	**1.33**	**-15.97**

Source: NBE and Staff computation

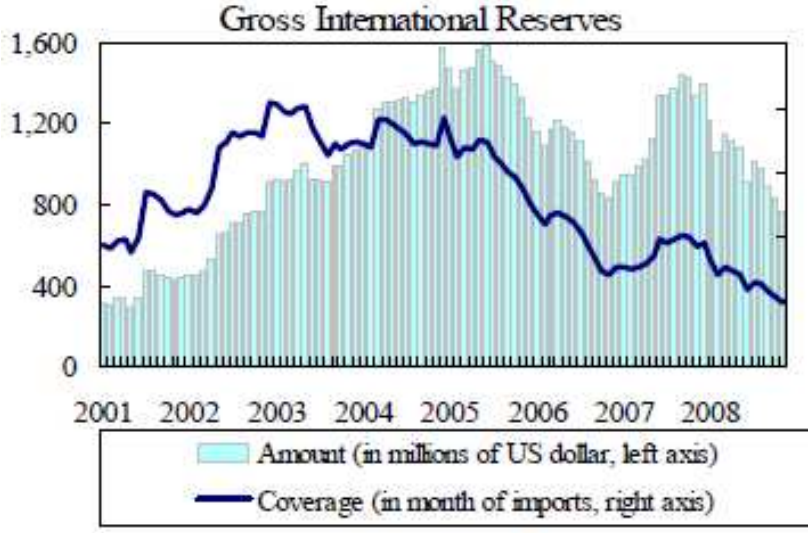
5.2.10. Analysis by Macroeconomic Stability:

The potential impacts of the crisis on trade and financial flows would also have been reflected on macroeconomic indicators, mainly foreign currency reserves, inflation, economic growth and the MDG targets in the long run. Generally, the demand for basic infrastructure services is strong, but the inability to secure adequate credit may lead projects to delay and squeeze at least in the short-term. On the other hand, the fall in fuel prices and construction material prices could help many projects to progress well.

Impact on foreign exchange reserve: The demand for foreign currency has been significantly increasing as import grows faster and higher than exports hence widening trade balance gap. In particular, the foreign currency demand for imports of strategic goods and services like petroleum, education, telecommunication, and defence, as well as imports of metals, fertilizers, and other capital goods was on the high side. Two factors can be cited: the incessant growth in the price of these goods in the international market and the higher import volume of same to the domestic economy for accelerating and sustainable economic development program. In recent years the highest portion of import value has been fetched by capital and investment goods. These all contribute to the drawdown of the foreign currency reserve.

Rising import demand and import prices have steadily eroded a once comfortable foreign exchange position; by end-November 2008, reserve cover had fallen to just 1 month of imports of goods and services (IMF Country Report 2009) (Fig 12). As shown in Figure 12, the currency reserve started to decline since 2005 until 2007 and getting improved in mid 2007 until continues to fell since 2008.

Figure 12: Trends on Gross international Reserve of Ethiopua



Source: IMF: IMF Country Report No. 09/34

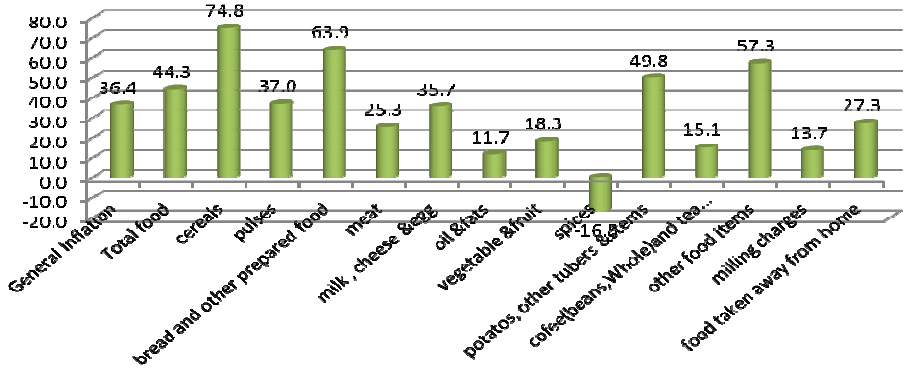
This led to rationing of foreign currency and shortages of imported goods like raw materials and consumer goods during the year. Had the price of fuel in the international market been not declined, the country would have been in jeopardy to import even the required volume of fuel and the economy would have entered into serious crisis. The country faced foreign exchange restraint due to huge government investment hence consumption of huge foreign currency, growing demand for import and falling foreign exchange receipts in consequence of the negative impact of the global economic slowdown. This poses a limit on the country's ability to import, widening the mismatch between demand and supply and thus pushing prices upwards. Some argue that the country is not getting the benefit from the international deflation because it faced foreign exchange constraint. The usual explanation being the existing inability of importers to get letters of credit from banks has limited imports and hence has artificially boosted domestic prices of industrial products such as metal and other consumer goods despite significant international price declines for those items.

Inflation: The foreign currency liquidity stress due to decrease in export earning and decline in remittance may have upward pressure on domestic prices. The commodity price boom has created inflationary pressures on several African countries. On Average, Africa experienced a two digit inflation rate in July 2008[14.] As said earlier, Ethiopia has experienced an all time high rate of inflation since 2006 driven mainly by escalating food prices. With the global financial crisis in play, however, commodity price boom has been converted to price deceleration for several commodities worldwide. And in the country there is some indications that annual food inflation and consequently the annual general inflation rate has subsided during 2008/09. Although cereals import has grown significantly during the same time; import value of cereals increased from USD 207.7 millions in 2007/08 to USD 635 millions in 2008/09.

Based on annual moving average, the 2008/09 general, food and non-food inflation rate stood at 36.4, 44.3 and 23.8 percents, respectively, showing a modest increase from 2007/08. However, as a result of a coordinated stabilization effort of the government, the June 2009 year-on-year general inflation rate has recorded a very low figure of 2.7 percent as compared with the preceding year's rate of 55.2 percent. This low rate of

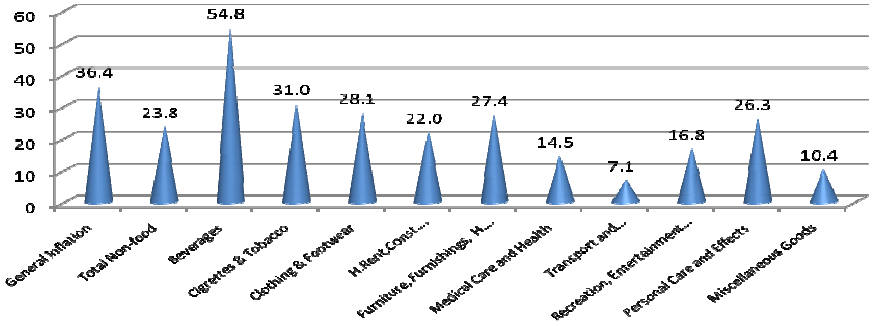
inflation was achieved because of the reduced trend in the food and non-food price index of June 2009 relative to June 2008. Average food price has dropped slightly by recording a deflation figure of about 3.4 percent while non-food inflation stood at 14.9 percent, compared with the preceding year of 23.2 percent. The price deflation in food items occurred following a very high year-on-year inflation rate of about 78.4 percent in June 2008 and is a remarkable achievement. The government's food subsidy policy through importation of wheat, market oriented agricultural extension activity, monetary policy measures of the NBE and the commercial banks strategy in credit prioritization could be cited as contributing factors to the high decline in food price inflation of the country (Annex IV).

Figure 13. Country level annual average inflation of major food items, 2008/09



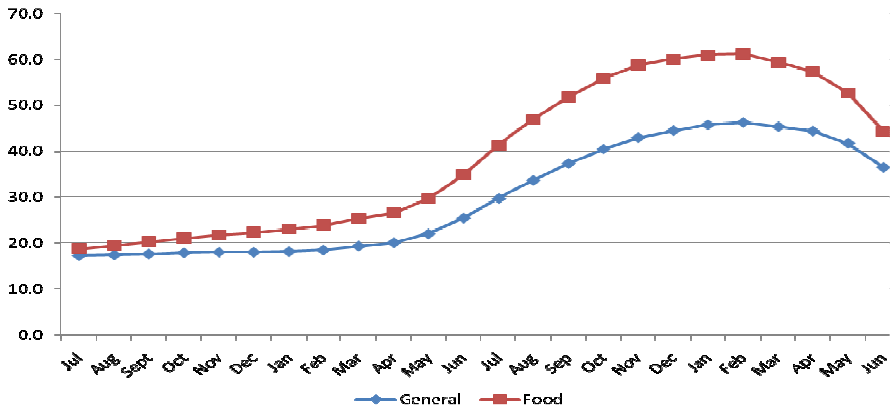
Source: CSA

Figure 14. Country level annual average inflation of non-food items, 2008/09



Source: CSA

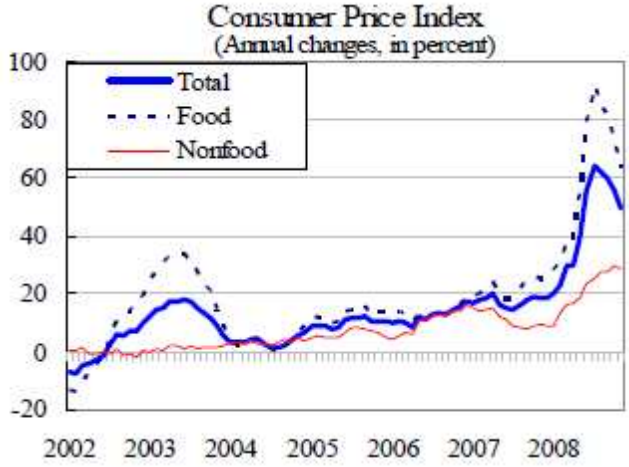
Figure 15. Trends of country level general and food inflation (Annualized moving average, July 2007 – June 2009)



Source: CSA

Consumer price Index has significantly increased in the past six years as shown in figure 16.

Figure 16: Consumer Price Index (annual changes in Percent)



Source: IMF: IMF Country Report No. 09/34

The price surge has come a year before from the GFC. Hence, GFC is not a cause for the price surge. The likely causes of the inflation indicated are (Getachew Adem 2009):

- public investment expansion and credit expansion
- Disposable income which improves purchasing power,
- the on-going improvements in marketing system through cooperatives coupled with the expansion of telephone infrastructure in rural areas
- an improvement in the road network which increased farmers' producers' price margin for crops,
- the suspension of in-kind food aid and the introduction of local purchases for emergency aid

- The agro-processing activities taking place (e.g., farmers' sale of wheat, barely, etc to local processors)
- Inflation expectation where by high inflation breeds the expectation of even higher inflation.
- A boom in the construction industry, which increased employment opportunities and which in turn, increased income and purchasing power.
- The inefficiency in the domestic marketing system is also a contributing factor.

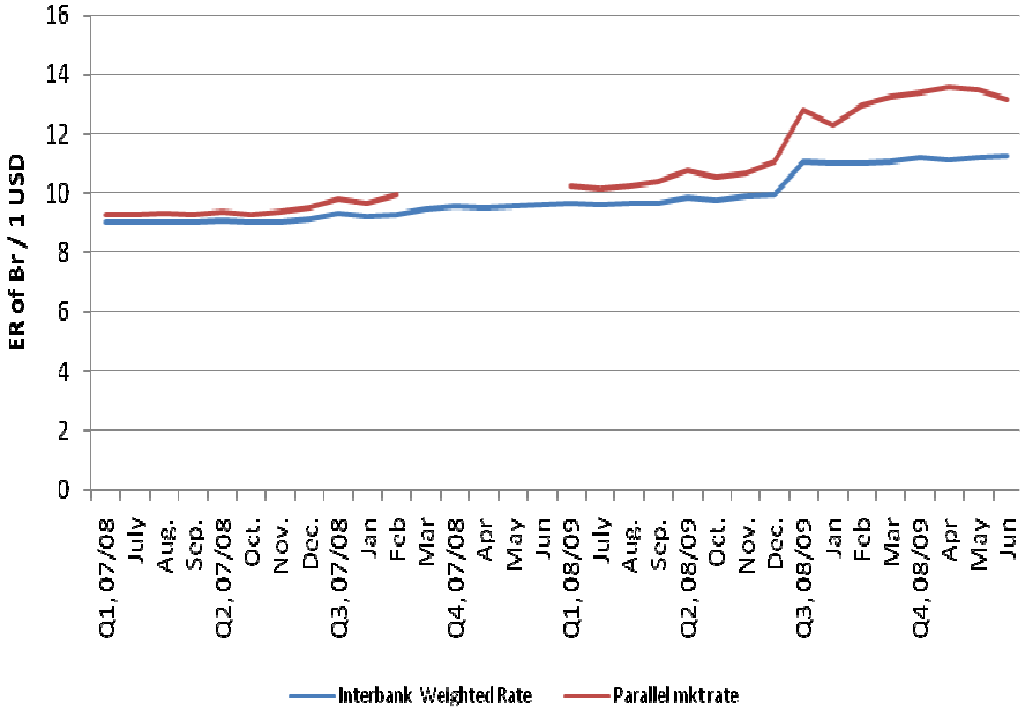
Foreign currency trading: During the year 2008/09, the total amount of foreign currency traded in the inter-bank foreign exchange market was very low, as compared with the previous fiscal year. The total amount traded in 2008/09 period was only USD 18.4 millions, dropped by 84 percent, from USD 114.5 millions traded in 2007/08. The major reason among others was the weakening foreign reserve position of the country caused by the drawdown effects of the external trade balance. This makes the government to initiate effort to restore the foreign currency balance of the country and holds up the supply of foreign currency in the inter-bank market.

The average weighted exchange rate of Birr against USD also depreciated in value and reached 10.4454 per 1 USD from its preceding fiscal year figure of 9.2442 (depreciated by about 13 percent). The average exchange rate in the parallel market also depreciated and was traded at 11.8102 during the ended fiscal year as against 9.4989 of the previous fiscal year; but with greater depreciation of 24.3% than the formal market depreciation.

On a quarterly basis, in the same inter-bank market, the Birr has been traded at 11.2028 per 1 USD, on average, during the 4th quarter of 2008/09. It showed a depreciation of 1.4% and 17.3%, compared with the 3rd quarter's exchange rate of 11.0516 and previous year's same quarter rate of 9.5526. Besides, its usual marginal and continual depreciation, the big depreciation against the previous year's same period is caused by the devaluation measures taken by the NBE. Similarly, the parallel market's exchange rate for the fourth quarter showed depreciation as compared with the preceding quarter, by about 4.6%. That is, the Birr, on average, has been exchanged at 13.4083 in the informal market during the 4th quarter as against that of 12.8163 during the 3rd quarter. The spread or premium between the formal and informal market has widened in the 4th quarter and become 19.7% compared with 16% premium recorded in the 3rd quarter (Fig 8).

The depreciation in the exchange rate would have the effect of raising the domestic prices of imports, thus some of the probable gains from declining international prices might be offset by the rising depreciation of exchange rate.

Figure 17: Trend of Exchange Rate, Birr/1 USD (Period: EFY in G.C)



Source: National Bank of Ethiopia

Note: the discontinuation of the parallel market graph was because of the suspension

Figure 18: Trends in Nominal and Real Exchange Rates

Source: IMF: IMF Country Report No. 09/34

5.2.11. Effect on agriculture:

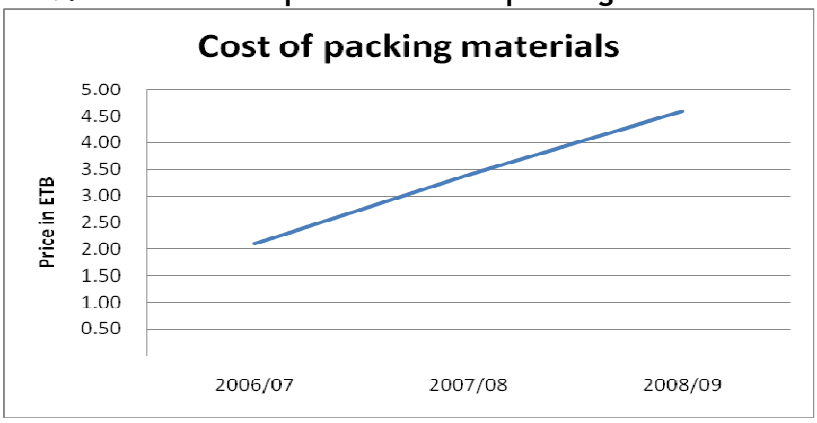
The ADB report (2009) indicates that the impact is also expected to be felt in the agriculture sector. At the producer level, with lower commodity prices and reduced access to credit, farmers will be unable to buy fertilizers and seeds. This leads to reduced productivity and lower food production, potentially leading to a second-round effect of the food crisis. The foreign exchange reserve constraint exacerbated by the crisis would pose a challenge in importing agricultural inputs, implements and raw materials required by the sector. The devaluation in the local currency will also make imports expensive and hence higher price for farmers to purchase agricultural inputs and other commodities.

Though the volume of sales is growing, the floriculture sector is facing a challenge from price decline because of the global crises. The volume of coffee sales decline with a significant amount (28%) in the year 2008.

5.2.12. Impact on the dairy sector

- Because of the frequent devaluation of Ethiopian Birr, the cost of input at local currency has increased. For the exiting dairy businesses, the implication cost of packing materials and spare parts and other machines has increased. Figure 19 shows the trends in the unit price of packing materials for the last three years.

Figure 19: Trends in the price of cost of packing material for milk



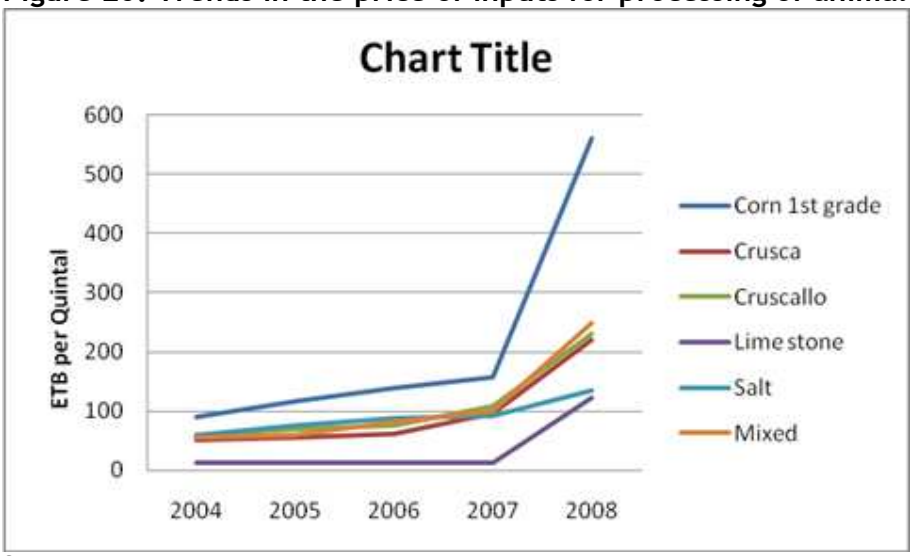
For new entrants, the cost of entry will be very much expensive than their predecessors.

- Rationing and long waiting list for foreign currency permit caused many importers to get run out of stock. Such importers were unable to meet their order enquiries. The majority of milk processors assessed for this study are stopped milk production from one to four weeks. Orders for packing materials from local importers of packing materials delayed from three to four months.

- Inflation severely affects the cost of input for dairy farms and processors who depends on out growers. The cost of feed increased by 168% (on average) in the year 2007/08. Table 20 shows the trends on the prices of some of the inputs for animal feed processors. The sharp increases in feed price was started to increase sharply after the price surge. The increasing rate of inflation was not dropped as the impact of the price surge was eased in the year 2008 (as demonstrated in other

local food items). This is because the inflationary pressure resulted from the GFC (short supply and devaluation) is continuing the price push.

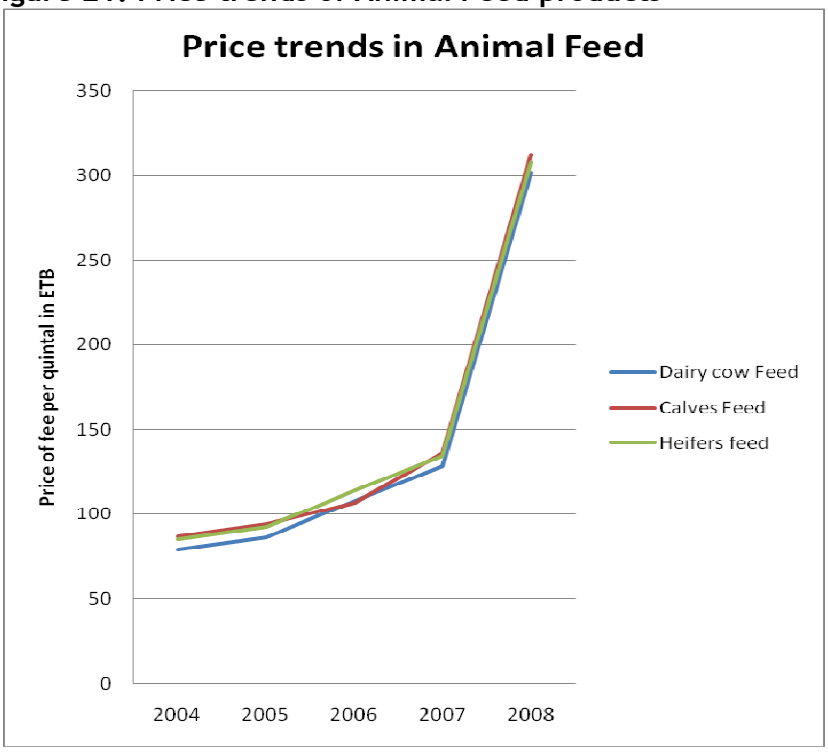
Figure 20: Trends in the price of inputs for processing of animal feed



Source: EAFIA

- As a result of this and the competition for raw milk, the price of raw milk is increased in the past three years on average by 130% in the year 2007/08 (Fig 21).

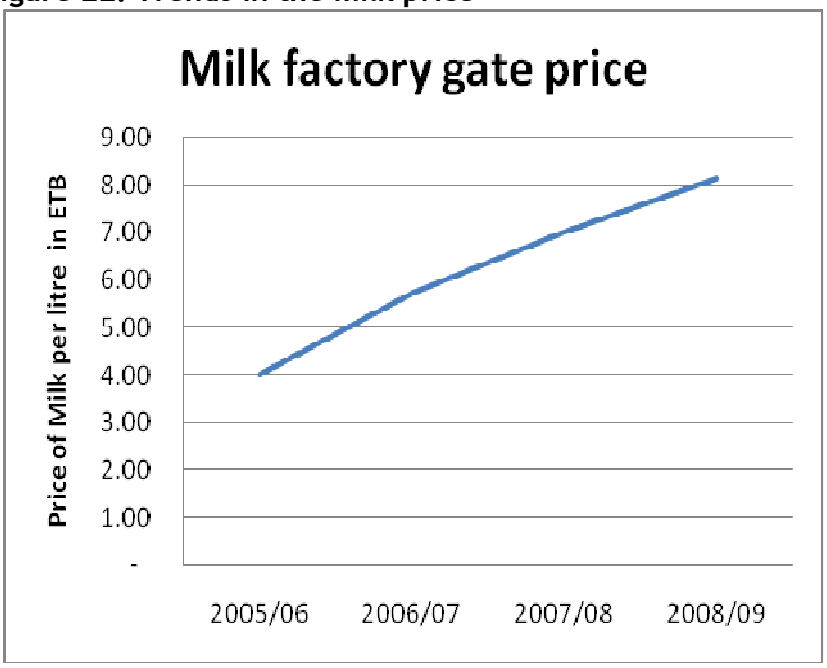
Figure 21: Price trends of Animal Feed products



Over the years, the selling price of milk is increasing at an increasing rate. The factory gate price increased by 200% between the year 2004 and 2009. The trend

on average factory gate price of packed pasturised milk in the past four years is indicated in figure 22 below.

Figure 22: Trends in the milk price



6. Actors' responses to the financial and economic crisis.

- **Closing of dairy farm:** Lema Dairy Enterprise has shut off its dairy farm because of the ever increasing animal feed price. EAFIA is recently submitted its proposal on the lifting of Value Added Tax on the inputs and end products of animal feed processing. Based on the information from EAFIA, MoARD has supported the proposal and the case is delivered to the relevant government office for comment.
- **Substitute Packing and stop processing:** Many of the milk processors are sourcing packing material from local importer. The local importer was unable to avail the packing material on demand because of the long wait for foreign currency permit. Bora Milk for instance has directly purchase from Dubai after waiting the local importer for more than three months. The decision to import directly costs Bora a lot including travel costs. Lema used another packing material which is inferior in term of quality which adversely affects the demand for its milk. The substitute it used affects the quality of the milk and less attractive packing that previous.

  Some of them are shifted to butter and cheese production which is less profitable than the milk, at least not to discontinue the network from raw milk suppliers and not to dispose milk collected. ADA Cooperative has stopped milk processing for about three months mainly because of the lack of packing materials and partly because of the power cut problem faced by its retailers. Not to quit collection from its members, ADA was collecting and reselling the raw milk without processing to other processors.
- **Power Cut responses:** All of the milk processors have their own backpack diesel generators which the use it in case of power interruption from the national grid. Some of the processors are not even depend on the hydropower source line of the state owned power corporation to avoid loss of milk because of sudden power cuts. Coupled with the late foreign currency permit for the import of spare parts and mainly with the frequent power cut, some of the processors are seriously affected.

  Mid and small size companies are more vulnerable for the power and delay in packing materials. Sebeta was not facing a material pressure from the power cut as it has managed to build a strong brand. Retailers are taking risk as Sebata's milk is fast moving. Mama and Lame has sufficient buffer of stock which enables them to sustain the long lead time for replenishment.

- **Using other foreign currency sourcing channel:** Few of the milk processors, who have the opportunity for foreign currency from foreign sources are managed to solve spare part purchases.
- **Usage of inferior quality of substitute packing materials:** One of the processors was using inferior quality packages as a substitute, which finally affected the market of the enterprise as the poor quality packing was not popular as that of the previous packing.
- **Shifting to less profitable products, butter and cheese:** The preferred product at all times by processors is pasteurised liquid milk. Milk constitutes about 99% of the total dairy products for the processors. During the period where some of them are unable to sell their products, they have shifted to other dairy products mainly butter and cheese. Butter and cheese are chose only for their better shelf life than the milk.

7. Short and medium term prospects for the industry.

Passing through various ups and downs, and amid different structural and other factors, Ethiopian dairy sector has a bright prospect. The prospects can be viewed as short term and medium term time frames.

7.1. Short term prospects

- The industry is growing and the pace continues even with serious challenges from the effect of the global crises and of frequent power blackout. Based on the assessment, it is estimated that the total volume of dairy production by the major industries grew by about 16% in the year 2008/09.

- Market related initiatives are undergoing in many parts of the country which will have a tremendous effect on the growth of the volume of milk production and ensuring the sustainable supply of raw milks. Value chain concepts are now a centre of philosophy promoted by development organization like SNV, USAID (through Land O' Lakes), and the Ethiopian Government under its Productive Safety Net programs. Ada Dairy and Sellale dairy are among the success stories of value chain initiatives.

- Though it is offset by the increasing prices of milk products, the local products will have more competitive advantage than the imported as the continuous devaluation of ETB.

- The absence of road infrastructure was blamed as one of the factors which blocked rural dairy farmers to access markets in the nearby towns. So many roads are constructed recently and more major and rural road constructions are under way.

- New entrants in the sector are increasing in recent years, and based on the assessment, there are a number of investors who wish to join the sector. Challenges which continue to affect the sector are:

- The Ethiopian economy is growing at an average rate of about 11 percent in the past five years, except a lower growth in the year 2008/09 because of the global slowdown and other internal problems, which is estimated by IMF not to be higher than 8% though the government estimation is about 10%. This growth rate is much higher than the average rate of Sub-Saharan African countries (1.5%) projected for 2009 (WEO update July 2009). The economic growth will bring in increasing the disposable income of the potential end consumer of the dairy products.

- Continuing challenged in the short and medium term: The following issues may remain a challenge in the short and medium term.

    - Land policy which is mainly focus on crop production and gives negligible emphasis for livestock development affect the urban livestock development in depriving lands for affordable feed development. In

addition, the attitude to downsize the landholding for dairy farms which is incompatible to the size of stock (low level of carrying capacity) they have is among the challenge for commercial farms.

- The absence of integrated Dairy policies. Though there are a number of imitative and prospects on policy matters, the absence of policy in remain a challenge in the short term. Though there are certain standard being developed to certain dairy products, no significant regulatory activities are accomplished in the past. Dairy sector managers are complaining on unfair competition which will jeopardize the quality of milk and of the whole sector, which they blame, is the absence of policies and regulator activities.

- Animal health is a serious issue which affects the quantity and quality of milk production. In most of the dairy farms, it is estimated that the prevalence of TB is more than 50%.

7.2. Medium term prospects

Much progress in the supply and demand of milk because of the following factors

- Ethiopian population is growing at a rate of 2.6% per annum, which will certainly increase the demand for dairy products (2007 Census)

- Rapid growth of urbanization brings more demand. The proportion of urban population increased from 14% in 1984 to 16% in the year 2007 (2007 Census).

- With the incentives in the investment policy and coupled with hope that the global reception will end up soon, the sector attracts investors which will strengthen the market linkages.

- Though not evidenced with empirical study, business people in the sector claiming that awareness in the benefit of milk and changes in food habits are growing. In addition, because of the growing awareness to health and safety, the tendency to opt for pasteurised milk than the raw milk thorough the informal channel will grow, which ultimately gives more opportunity for the industry.

- Greater emphasis is given by the government, which is being demonstrated by the inclusion of dairy development. Dairy addressed in the recently developed livestock development master plan, in Ethiopia's Millennium Development Goal strategy document, and in the ten years Food Security Program. The potential of dairy in bringing sustainable income for the improvements of the livelihoods to millions of households is appreciated. Such consideration will bring more intervention programs which ultimately increase the supply of milk and of the development of the sector.

8. REVIEW OF THE RESPONSES BY GOVERNMENT (POLICY INTERVENTIONS), PRIVATE SECTOR AND INDUSTRY SUPPORT ORGANISATIONS;

As described above, high global oil, food prices and prices of other major products and high inflation have contributed to very low international reserves at a time when the economy faces intensified risks from the global economic slowdown. Though there is no particular intervention made to the dairy sector so far in response to these challenges, the Ethiopian Government has responded in different measures and interventions.

Eliminating domestic fuel subsidies: The Government eliminated the fuel subsidy in October 2008 by adjusting regulated domestic prices to the import parity level. Since then the authorities review domestic fuel prices on a monthly basis, adjusting them as necessary, but keeping a margin above world prices in order to repay the debt of the Oil Stabilization Fund (IMF Country Report 2009). The lifting of subsidy causes an immediate increase of different fuel products from 6 to 50%. Though the decision lifted a huge amount of burden to the government, it has contributed to the increase in inflation.

Measures to control inflations

1. **Mitigating the impact of high food prices.** The government imported wheat for the equivalent of more than 3 percent of domestic crop production and distributed it to low-income families and flour mills at import cost—well below prevailing domestic prices. Valued added tax, turnover tax, and surtaxes on some food items have been removed. The government has also raised the cash transfer in its safety net programs from 6 to 8 birr per day and is considering further adjustments.

2. **Significantly tightening fiscal policy and eliminating domestic borrowing.** The authorities' revised budget targets general government domestic borrowing of zero in 2008/09—it was 2.7 percent of GDP in 2007/08—by containing expenditure and enhancing revenue mobilization through administrative measures (e.g., the integration of the three revenue agencies) The general government deficit is projected to be reduced from 2.9 percent of GDP in 2007/08 to 1.5 percent in 2008/09.

3. **Reducing public enterprises domestic borrowing.** Public enterprise borrowing will be kept to 4–8 billion birr (1.1–2.2 percent of GDP) in 2008/09, compared to 4.4 percent of GDP in 2007/08, through limiting their investment activities and through repaying the debt of the Oil Stabilization Fund.

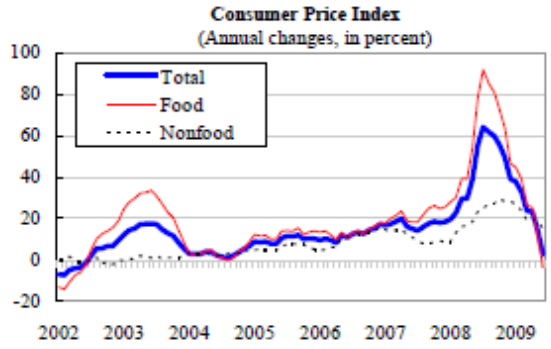
4. **Tightening monetary policy.** The National Bank of Ethiopia (NBE) is targeting to reduce broad money growth to below 20 percent in 2008/09 from about 23 percent at end-2007/08 (IMF country report 2009). In addition, the National Bank of Ethiopia has taken measures like to increase the reserve requirements of Banks from 5% to 15%, to increase the liquidity ratio of banks from 15% to 20%, prohibiting of Banks from purchasing treasury bills. A cap was set by NBE for outstanding loans by banks. This entire actions limit the growth of the money circulation, arrested the growth of credit, and finally, the rate of growth of inflation is declined.

5. **Sales of Bond to raise money from Diaspora.** One of the largest public enterprises, Ethiopian Electric Power Corporation (EPCO) was allowed to raise foreign currency and funds through the sales of funds which are non taxable

interest bearing bonds. EPCO raised to the extent of 0.8%, 1.5% and 1.8% of the GDP in the year 20005/6, 2006/7 and 2007/8 respectively. It is estimated that the sales in the year 2008/9 will be lower level of 0.8%.

The interventions high contribute for the declining of the inflation rate. Based on the assessment of IMF, bringing inflation down sharply and partially rebuilding reserves—have been achieved, with inflation in the 12 months to June declining to 3 percent, aided by falling food price levels (IMF: country Report September 2009). See Fig 23

Figure 23: consumer price index in annual percentage change



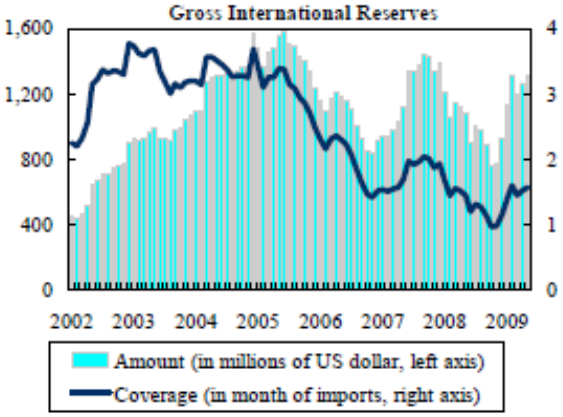
IMF Country Report No. 09/296

The intervention for lowering private sector borrowing affects many businesses in slowing down their projects. Though it is not significant in the dairy sector, some new entrants are faced a sever delay in getting loan from commercial banks because of the intervention.

Foreign currency

Foreign currency utilization rules: the government negotiated with international financier to alleviate the stress on foreign currency. Ethiopian Government has got a loan of USD 50 Million in January 2009, and get the approval of the Executive Board Approves of IMF in September 2009 for a loan of USD 240.6 Million under the Exogenous Shocks Facility (ESF), a facility designed to provide policy support and financial assistance on concessional terms to eligible low-income countries facing temporary exogenous shocks.

Figure 24: Trends in Gross International Reserve



IMF Country Report No. 09/296

Currency Devaluation with the objective of boosting exports and of increasing the reserve has been made in July 2009, which depreciates ETB by about 10%. The intervention assists in promoting exports.

As shown in the figure 24, there a slight improvement in the foreign currency reserves in the second half of 2009.

However, price of imported goods are increased significantly in subsequent month. The implication of the devaluation is explained in the above section that it has increased the cost of imported inputs including packing materials, machinery and spare parts, and input cost of feed processors.

9. Conclusions and policy recommendations.

9.1. Summary and Conclusion

Though known for largest population of livestock, Ethiopia did not achieved in producing satisfactory volume of milk. The milk per capita is much lower than its neighbours.

Ethiopian Dairy industry has a history of more than half a century. In its history it has passed through major structural changes which are resulted from the political systems that the country had adopted. During the imperial era, the industry was in a good momentum and production of milk from the industries was growing. Many private farms were established who are supplying to the Addis Ababa Dairy Enterprise. With the overthrow of the Imperial era, the momentum halted and shifted to a different approach. Private ownership was discouraged and many of the private farms were confiscated and transformed into state farms. The focus of attention was on more at cooperatives level. During this period urban producers were playing a significant role in supplying of milk through the informal market and to the only state owned industry. To fill the demand and supply gap, there was a significant growth of import.

In the third era, with the coming of the EPRDF into power, the socialist system is replaced by market led economy, and all state owned dairy industries and farms are privatised. Investors are attracted to join dairy sector and currently, there are about seven milk processing enterprises.

During this period a number of development activities are accomplished by the support of many organizations and the Ethiopian Government. The notable activities and events were the agricultural extension program, value chain development projects, law of cooperatives, the investment policies and incentives, formation of professional and commercial associations.

The significant actors in the dairy sector are the urban and peri-urban small holders, collectors, commercial dairy farmers, processors and retailers. The service providers of finance and insurance, AI, Vet and other inputs are also play important role in the industry. The Ministry of Agriculture and other government institutions at all level are among the support organization in addition to the development organizations.

Regardless of the various initiatives, the growth pace of the industry in terms of volume of milk production is so slow because of a number of structural problems including high cost of production, weak and seasonality of demand, lack of farm and industry management skills, prevalence of animal diseases, recent power cut, lack of sufficient land, low level of availability of breeds and top of all the absence of comprehensive dairy policies.

Ethiopia's economy has been adversely affected by a series of shocks, first from surging commodity prices in 2008, and subsequently from the global downturn. The surge in prices reflected in the cost of animal feed which also contribute to hike the price of milk. The impact of the global crises further depleted the foreign currency reserve of the country which had been affected earlier with high cost of imported fuel and crops. The decline of the reserve forces banks to ration for currency permit for the importation of goods. The rationing and long waiting list caused short supply of imported items mainly packing

materials and spare parts. Some processors closed their plant for more than three months. The scarcity of the currency in turn causes for the speculative price inflation because of the short supply of imported items. The recent power cut was among the challenges in the industry.

The government has made a number of policy decisions and negotiated with IMF to get loans to sustain the pressure. Among the interventions are eliminating domestic fuel subsidies, importing of crops to stabilize inflation, significantly tightening fiscal policy and eliminating domestic borrowing, reducing public enterprises domestic borrowing, tightening monetary policy and currency devaluations.

To conclude, there is no a direct link between GFC and the performance of the dairy sector. This is mainly due to the fact that the demand for Ethiopian dairy product is almost from local except from insignificant amount of camel milk export to Somalia (Hargesa). The impact of the GFC is reflected on Ethiopian export. The indirect relationship of GFC and its impact on the Ethiopian Dairy industry is explained as follow:

a. GFC caused the decline in the demand of export commodities
b. The decline in the export of commodities caused the decline in the foreign currency reserve of Ethiopia
c. The decline in the reserve of foreign currency intervened by rationing of foreign currency – long waiting list, and of devaluation to boost export
d. Because of the rationing (long lead time), some dairy processors unable to replenish their packing material stock when it run out. The short supply of imported items contributes for inflation,
e. The devaluation of the currency contributed for the rising of local price of packing materials, other inputs, and machinery costs.

Unlike many counties, there is no demand fall because of the crises as the volume of export is negligible. Export receipts and remittances weaken and inward direct investment is becoming slow. The affected group of the industries are mainly the new entrant small processors. The big size industries were managed to sustain the shock for their large buffer stock of packing materials and spare parts. New entrants are affected because of the restriction of borrowing The devaluation of Birr affected all size of the milk processors, animal feed processors, new entrants who wish to procure machineries from outside, as the cost of input increases in local currency.

There is small quantity of export of dairy products in Ethiopia. Camel milk export is increased in the year 2008. As the size of the formal export is insignificant, the Global crisis will have no significant impact.

9.2. Recommendations

For the Global Financial Crises

1. Allocating special foreign currency fund to be utilised by the dairy sector until the effect of the crisis diminish.

2. As the volume of imported inputs of the dairy sector are low as compared to other sectors, giving priority without waiting for long list for the rationing of foreign currency permit.

3. Special consideration for new entrants in the sector in providing bank loan facilities regardless of the borrowing cap.

4. Establishment of a consortium of development and printing of packing materials by the industry than to relay an importer for the supply of packing material.

5. Supporting the government in the power projects funding which are under construction, but suffering from funding and delay in release of loans. It is likely that power crises could recur in the year 2010 unless these hydropower projects are through.

For the challenges caused by structural problems, the following courses of actions are recommended.

1. The absence of dairy policy is the one of the challenge and bottleneck for the development of the sector. Hence, it is recommended that dairy policy has to be issued by the government. A number of initiatives are made in the past and currently by different organization in relation to dairy policy proposals. Such initiatives have to be materialised with the support of the government.

2. The exiting Land policy is deemed to be a determinant factor by many writers in the sector. It is strongly recommend revising the policy so that it will take into account the issue of dairy development which is the stake of millions of rural and urban holders.

3. Effort has to be made in developing the demand for milk. It seems that substantial portion of the demand for dairy products comes from a growing population and economic growth. Most of the efforts in the development of the sector that has been made so far are mainly focusing on the supply side of the milk. As awareness for the nutritional value of the milk and the low level of food habit for dairy products by urban dwellers, it is essential to develop the demand side which will intern push the sector for further development by absorbing supplies. The high demand will fill the gap from seasonal demand fall (from religious fasting).

   All actors in the sector will be benefited from generic (non-brand specific) Radio and Television promotion of dairy products.

4. Strengthening and conducting the value chain development activities accomplished by different organization in a coordinated manner.

5. Provision of training to managers and technicians in the sector on farm management, industry management and marketing.

6. Development of other products with better shelf life

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Notes:

1. During the period 1992 through 2000, the government's policy prescription was liberalization per se and reduction in public expenditure hence fiscal deficit, allow the private sector to involve both in the real and services sector of the economy as an engine of growth. Accordingly, the public expenditure and thereby foreign currency consumption of the public sector was relatively low. And the mode of deficit financing has been shifted from domestic to external resources. However, since 2000, the strategy of the government has shifted from the liberalization paradigm to poverty reduction in the context of Millennium Development Goals, where developmental state being the ideology of the regime. In which case, public expenditure has been increasing with the aim of realizing a vibrant Ethiopian economy. Accordingly, foreign currency appetites for infrastructural and social developments like health, electrification, education, and roads have been mounting, that contributes to the depletion of the country's foreign currency reserve that was already limited in size and variety. Besides, following the favorable investment climate created by the market oriented economic policy, private investment in various sectors has been intensified, further aggravating the depletion of the reserve position.
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Annexes

Annex I Major Macroeconomic Indicators, 1999/00 – 2007/08

	1990/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Economic Activity and prices									
Real GDP Growth (%)	-.8	7.4	1.6	-2.1	11.7	12.6	11.5	11.5	11.6
By Sector									
Agriculture (%)	3.1	9.6	-1..9	-10.5	16.9	13.5	10.9	9.4	7.5
Industry (%)	5.3	5.1	8.3	6.5	11.6	9.4	10.2	10.2	10.4
Service (%)	10.4	5.2	3.3	6.0	6.3	12.8	13.3	14.3	17.0
GDP at current market prices(USD millions)	8,188	8,166	7,794	8,559	10,042	12,306	15,164	19,539	26,567
GDP per capita (USD)	131	127	118	126	143	171	205	257	340
Nominal Birr per capital income(Index FY=100)	100	99	94	101	116	139	167	212	295
Real Birr per capital income (Index FY00=100)	100	105	107	100	106	118	127	139	154
Gross domestic investment (%GDP)	15.3	17.8	20.5	22.7	21.3	23.0	24.2	25.0	21.2
Public investment (%GDP)	5.3	8.5	11.5	8.8	9.1	14.7	16.7	18.2	15.3
Private investment (% GDP)	9.9	9.3	9.0	14.0	12.1	8.3	7.6	6.7	5.9
Consumer Prices (moving-average in %)	6.2	-5.2	-7.2	15.1	8.6	6.8	12.3	17.8	25.3
Consumer Prices (Year-on-year in %)	0.3	-11.4	-1.0	23.5	1.7	13.0	11.6	17.7	55.2
Money and Exchange Rates	**(in percent change, unless otherwise noted)**								
Broad money (M3)	14.0	9.5	12.3	10.9	14.7	19.6	17.4	19.7	22.7
Credit to the public sector(Govt & SOEs)	…	-0.6	3.6	8.6	15.7	31.5	16.7	21.1	35.7
Credit to the private sector	...	7.9	-7.4	-4.2	3.7	31.5	28.3	27.3	22.0
Savings deposit rates (average)	6.0	6.0	3.1	3.1	3.1	3.1	3.1	3.1	4.1
Lending rates (average)	12	12.8	12.8	10.5	10.5	10.5	10.5	10.5	11.5
Exchange rate(Birr per USD, year average)	8.14	8.33	8.54	8.58	8.63	8.65	8.68	8.79	9.24
Real effective exchange rate	-1.2	-12.3	-1.2	5.9	-4.6	8.2	6.0	3.8	24.2
Balance of payment	**(US dollar Millions, unless otherwise noted)**								
Exports, f.o.b.	486	463.182	452	483	600	847,335	1,001	1,189	1,466
Coffee	262	128	163	165	223	512	354	424	525
Non coffee	223	281	289	318	377	3633	647	765	941
Imports, C,I.f	1,611	1,557	1,696	1,856	2,587	669	4,593	5,128	6,811
Fuel	250	293	268	289	311	8.0	861	895	1621
Terms of trade(percent change)	-33.9	-3.6	-11.1	-6.5	-14.6	-6.3	4.4	-1.6	2.5
Current account, after grants (% GDP)	-5.3	-3.6	-5.7	-2.2	-4.0	1.2	-9.1	-4.5	-5.3
Foreign direct investment	62.5	53.2	0	123.3	150	150	365.1	482	814.6
External borrowing (% GDP)	1.7	3.8	9.5	5.7	3.9	48.9	0.5	1.2	2.8
External debt (%) GDP	85.7	82.4	97.4	85.4	73.3	5.8	37.3	11.8	13.3
External debt-Service ratio (% exports) (%)	52.2	22.7	17.0	7.8	6.7	1581	5.1	3.7	1.2
Gross official international reserves (in months of imports of goods & Service)	349 2.2	337 2.0	664 3.3	931 3.7	1352 3.7	1581 3.4	1158 2.2	1326 2.0	1323 1.9
Non-monetary capital	139.6	259.9	506.4	400	512.4	585.1	632.5	798.5	968.1
Government finances	**(in percent of GDP)**								
Revenue	14.4	15.1	16.5	15.2	16.1	14.6	14.8	12.7	12.1
Tax revenue	9.7	10.9	11.9	11.2	12.6	11.6	107.2	10.1	10.0
Non-tax revenue	4.5	4.0	7.2	4.0	8.6	3.0	4.1	2.6	3.6
Grants	2.6	3.9	3.6	6.2	4.6	4.3	2.8	4.4	4.3
Expenditure and net lending	26.1	23.4	32.6	27.9	23.7	19.3	22.3	20.8	19.1
Current expenditure	20.6	15.3	15.9	18.4	13.8	12.4	11.6	10.0	10.1
Capital expenditure	5.2	7.4	9.2	8.6	9.5	10.7	10.7	10.7	11.3
Overall fiscal balance, including grants	-8.9	-4.4	-7.2	-6.5	-3.0	-4.4	-4.6	-3.6	-3.5
External financing of the deficit	1.3	3.0	7.4	5.3	2.8	2.2	1.1	1.1	1.4
Domestic financing of the deficit	7.5	0.1	0.5	2.3	2.5	3.3	2.1	3.6	1.8
Others and residuals/statistical discrepancy	-0.8	0.7	-0.7	-1.0	-2.3	-1.2	1.4	-1.1	-1.1
Domestic debt	25.4	21.4	23.2	25.6	26.6	22.2	20.1	17.6	15.6

Source: NBE, CSA

Annex II Estimates of agricultural production and cultivated areas of major crops for private peasant holdings (in thousands of hectares and quintals)

Agricultural production	1990/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Cultivated area	8217	9601	8,146	7,863	8,665	9,816	10,170	10,593	10,955
Total production*	88910	100742	90,504	73,638	103,509	119,125	133,821	149,555	161,167

Source: NBE, Annual Report, Various issues

** Include agricultural production of cereals, pulses, oilseeds and other crops*

Annex III. Earning Share of Coffee over the last 18 years, in % of the total Export

Period	90/91	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00	Average
Share	43.55	52.87	56.58	50.58	63.45	66.12	59.14	69.77	58.09	53.91	**57.41**
Period	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	Average	-
Share	39.31	36.07	34.67	37.26	39.57	35.42	35.79	35.78	25.96	**35.53**	-

Source: NBE and Own Computation

Annex IV: Country Level Annualized inflation rate over the last ten years (%)

Year	Annualized inflation, moving average			Annualized inflation, year-on-year		
	General	Food	Non-Food	General	Food	Non-Food
1998/99	4.8	9.0	-1.9	12.3	20.5	-1.9
1999/00	6.2	8.6	1.8	0.3	-3.7	8.6
2000/01	-5.2	-10.6	4.8	-11.4	-19.3	3.3
2001/02	-7.2	-12.5	1.2	-1.0	-1.7	0.0
2002/03	15.1	24.5	2.0	23.5	37.4	3.7
2003/04	8.6	11.8	3.2	1.7	1.4	2.5
2004/05	6.8	7.7	5.3	13.0	15.7	7.9
2005/06	12.3	14.0	9.0	11.6	10.8	13.1
2006/07	17.8	18.9	15.6	17.7	19.9	13.4
2007/08	25.3	34.8	12.7	55.2	78.4	23.2
2008/09	36.4	44.3	23.8	2.7	-3.4	14.9

Source: CSA and Staff Computation

Annex V: FDI: Balance of Payment Basis and Approved Projects

Years	Balance of payment (in Millions of USD)	Registration	
		No	Capital Outlay (in Millions Of USD)
1999/00	62.5	54	199.9
2000/01	53.2	45	350.9
2001/02	0	35	172.6
2002/03	123.3	84	392.6
2003/04	150	347	834.9
2004/05	150	622	1,780.9
2005/06	365.1	753	2,301.9
2006/07	482	1,150	5,341.2
2007/08	814.6	1,651	9,983.6
Annual Average	244.5	527	2,373.2

Source: NBE, Annual Report, Various issues

Annex VI: Inflow of remittance (in Millions of USD)

Particulars	Years						
	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Private transfers*		**441.4**	**614.9**	**794.8**	**854.9**	**1,168.5**	**1,444**
NGO's		300.8	403.9	444	500	536	639
Private individuals	93.3	140.6	211.0	350.8	354.9	632.5	805
Official transfers*		**472**	**491**	**659.8**	**701**	**1,180**	**1,314**
Total transfer		**913.4**	**1,105.9**	**1,454.6**	**1,555.9**	**2,348.5**	**2,758**

Source: NBE, Annual Report, Various issues

*Only cash transfers are considered

Annex VII: Trends in aid inflow to Ethiopia (in millions of USD)

Particular	Years					
	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
Commitment	1,177.32	841.52	826.76	2,075.40	966.26	3,537.8
Disbursed Amount	868.32	693.59	937.46	1,055.96	1,107.36	1,345.72

Source: MOFED

Annex VIII: Annual Value of Export by Major Commodities, in Millions of USD

Commodities	Annual Value of Export			
	2006/07	2007/08 (B)	2008/09 (A)	A Vs. B (Growth in %)
Exchange Rate: Birr/ 1 USD	8.7943	9.2442	10.4454	12.99
Coffee	424.19	524.49	*375.87*	-28.34
Oil Seeds	187.42	218.76	*356.08*	62.77
Leather & Leather products	89.59	99.21	*75.26*	-24.14
Pulses	70.30	143.62	*90.73*	-36.83
Meat & Meat production	15.47	20.88	*26.58*	27.32
Fruits & Vegetables	16.16	12.83	*12.13*	-5.45
Sugar & Molasses	0.00	0.00	*16.37*	
Flower	63.61	111.75	*130.69*	16.95
Gold	96.97	78.76	*97.84*	24.23
Live Animals	36.77	40.86	*52.68*	28.92
Chat	92.81	108.31	*138.72*	28.08
Bees Wax	1.82	1.84	*1.57*	-14.56
Others	90.01	104.44	*73.39*	-29.73
Beverages	0.61	0.57	*1.21*	112.65
Civet	0.00	0.00	*0.00*	
Textile & Textile product	12.43	15.22	*13.72*	-9.86
Cotton	14.34	19.24	*5.79*	-69.92
Cereals & Flour	1.81	2.05	*0.31*	-85.05
Natural Gum	5.63	6.92	*9.67*	39.81
Hop	0.00	0.00	*0.00*	
Spices	11.07	12.40	*11.22*	-9.48
Tantalum	6.16	6.08	*6.76*	11.18
Animal fodder	2.31	2.85	*0.02*	-99.21
Natural honey	1.17	0.64	*0.53*	-16.88
Marble	0.00	0.00	*0.00*	
Others	34.48	38.46	*24.15*	-37.21
Total Export	1185.12	1465.75	1447.92	-1.22

Source: NBE and Staff computation

Annex IX: Annual Value of Import by End Use, in Millions of USD

Particular	Annual Value of Import			
	2006/07	2007/08 (B)	2008/09 (A)	A Vs. B (Growth in %)
Exchange Rate: Birr/1 USD	**8.7943**	**9.2442**	**10.4454**	12.99
Raw Materials	**148.70**	**257.76**	**354.23**	37.42
Semi Finished goods	**765.60**	**1259.72**	**1,140.09**	-9.50
Chemicals	**98.90**	**114.67**	**117.69**	2.63
Fertilizer	**105.40**	**302.15**	**270.67**	-10.42
Textile Materials	**13.30**	**27.28**	**19.30**	-29.25
Others	**548.10**	**815.63**	**732.43**	-10.20
Fuel	**875.10**	**1621.37**	**1214.46**	-25.10
Crude Petroleum	**0.00**	**0.00**	**0.02**	0.00
Petroleum products	**872.30**	**1614.37**	**1204.77**	-25.37
Others	**2.70**	**7.00**	**9.69**	38.36
Capital goods	**1868.60**	**1777.44**	**2,474.42**	39.21
Transport	**633.90**	**380.95**	**384.23**	0.86
Tiers for heavy vehicles	**54.50**	**61.98**	**81.06**	30.79
Heavy road motor vehicles	**488.00**	**297.19**	**289.61**	-2.55
Aircraft	**37.70**	**12.34**	**3.26**	-73.59
Others	**53.60**	**9.44**	**10.30**	9.08
Agricultural	**33.00**	**40.94**	**31.28**	-23.59
Industrial	**1201.80**	**1355.55**	**2,058.90**	51.89
Consumer goods	**1317.00**	**1515.70**	**2,344.15**	54.66
Durables	**520.70**	**459.43**	**635.47**	38.32
Radio & TV	**56.20**	**35.26**	**12.80**	-63.70
Tyres for cars & other vehicles	**19.20**	**22.60**	**27.29**	20.74
Cars & other vehicles	**174.30**	**138.65**	**158.28**	14.16
Others	**270.90**	**262.90**	**437.10**	66.26
Non-Durables	**796.30**	**1056.29**	**1,708.68**	61.76
Cereals	**160.40**	**207.74**	**635.14**	205.74
Other food	**97.90**	**154.38**	**194.79**	26.18
Medical & pharmaceuticals	**171.30**	**211.83**	**279.40**	31.90
Textile fabrics	**191.10**	**208.21**	**193.10**	-7.26
Others	**175.50**	**274.11**	**406.25**	48.21
Miscellaneous	**151.20**	**378.73**	**157.05**	-58.53
Total Imports	**5126.20**	**6810.72**	**7684.39**	12.83

Source: NBE and Staff computation

Annex X: Projected Milk Production in tons (000)

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Cattle (Local)	1068	1082	1096	1110	1589	1609	1630	2108	2135	2162	2781
Cattle (Improved)	413	418	424	429	435	440	446	452	457	463	469
Goat	50	50	51	51	90	91	91	143	145	146	147
Camel	289	293	296	299	404	408	413	459	465	470	475
Total Milk Prdn	1820	1843	1866	1890	2517	2548	2580	3162	3202	3242	3873

Source: Millennium Development Goals: MoARD 2005

Annex XI: Import of Milk products (Ethiopian Birr)

	Year				
Product	2005	2006	2007	2008	2009
Cheese	1,717,567	2,015,762	2,806,279	3,345,196	2,506,823
Butter	101,677	302,830	503,183	819,724	1,078,941
Yogurt and other butter milk	308,643	4,432,118	1,016,963	1,512,661	562,591
Milk and Cream	46,823,409	63,035,855	48,546,567	77,191,210	83,885,627
Total	48,951,297	69,786,566	52,872,991	82,868,790	88,033,982

Source: Ethiopian custom Authority
Note:2009 data is of eight months.

Annex XII: Annual Value of Import by End Use, in Millions of USD

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GDP by Major industrial Classification ** at Constant Basic Prices (,000 Birr)

Table J.4A ሠንጠረዥ ቢ.፬ሀ

Sector	1991 1998/99	1992 1999/00	1993 2000/01	1994 2001/02	1995 2002/03	1996 2003/04	1997 2004/05	1998 2005/06	1999 2006/07	2000 2007/08	2001 2008/09 Forward	የኢኮኖሚ ዘርፍ
AGRICULTURE	30,152,436	31,072,973	34,063,533	33,424,732	29,920,207	34,990,166	39,728,806	44,062,631	48,225,807	51,843,483	54,954,092	አርሻ
INDUSTRY	7,306,976	7,697,691	8,091,419	8,765,030	9,332,618	10,419,422	11,402,253	12,561,013	13,841,567	15,276,136	16,895,406	ኢንዱስትሪ
SERVICES	21,870,787	24,137,126	25,397,409	26,227,874	27,796,953	29,536,248	33,312,094	37,747,674	43,146,893	50,477,182	59,209,734	ልዩ ልዩ አገልግሎቶች
TOTAL	59,330,199	62,907,790	67,552,360	68,417,636	67,049,778	74,945,836	84,443,154	94,371,317	105,214,267	117,596,800	131,059,232	ድምር
Less : FISM	491,849	608,408	631,615	403,460	462,890	548,739	639,132	896,834	1,018,210	1,301,365	1,691,775	
GVA at Constant Basic Prices	58,838,350	62,299,383	66,920,745	68,014,176	66,586,887	74,397,096	83,804,022	93,474,483	104,196,057	116,295,435	129,367,458	

ጠቅላላ የአገር ውስጥ ምርት የዕድገት መጠን በመነጨበት ዋናዋና የኢኮኖሚ ዘርፍ በተሠራበት ዋጋ (በመቶኛ)

Growth Rates of GDP by Major industrial Classification at Constant Basic Prices(%)

Table J.4B ሠንጠረዥ ቢ.፬ለ

Sector	1991 1998/99	1992 1999/00	1993 2000/01	1994 2001/02	1995 2002/03	1996 2003/04	1997 2004/05	1998 2005/06	1999 2006/07	2000 2007/08	2001 2008/09 Forward	የኢኮኖሚ ዘርፍ
AGRICULTURE	3.4	3.1	9.6	(1.9)	(10.5)	16.9	13.5	10.9	9.4	7.5	6.0	አርሻ
INDUSTRY	5.5	5.3	5.1	8.3	6.5	11.6	9.4	10.2	10.2	10.4	10.6	ኢንዱስትሪ
SERVICES	7.8	10.4	5.2	3.3	6.0	6.3	12.8	13.3	13.3	17.0	17.3	ልዩ ልዩ አገልግሎቶች
TOTAL	5.2	6.0	7.4	1	(2.0)	11.8	12.7	11.8	11.8	11.8	11.2	ድምር
Less : FISM	21.1	23.7	3.8	(36.1)	14.7	18.5	16.5	40.3	40.3	27.8	30.0	
GVA at Constant Basic Prices	5	6	7	2	(2.1)	12	13	12	12	12	11	

ጠቅላላ የአገር ውስጥ ምርት የመቶኛ ድርሻ በዋናዋና የኢኮኖሚ ዘርፍና በተሠራበት ዋጋ (በመቶኛ)

Percentage Distribution of GDP by Major industrial Classification at Constant Basic Prices(%)

Table J. 4C ሠንጠረዥ ቢ.፬ሐ

Sector	1991 1998/99	1992 1999/00	1993 2000/01	1994 2001/02	1995 2002/03	1996 2003/04	1997 2004/05	1998 2005/06	1999 2006/07	2000 2007/08	2001 2008/09 Forward	የኢኮኖሚ ዘርፍ
AGRICULTURE	51.2	49.9	50.9	49.1	44.9	47.0	47.4	47.1	46.3	44.6	42.5	አርሻ
INDUSTRY	12.4	12.4	12.1	12.9	14.0	14.0	13.6	13.4	13.3	13.1	12.1	ኢንዱስትሪ
SERVICES	37.2	38.7	38.0	38.6	41.7	39.7	39.7	40.4	41.4	43.4	45.8	ልዩ ልዩ አገልግሎቶች
TOTAL	100.8	101.0	100.9	100.6	100.7	100.7	100.8	101.0	101.0	101.0	101.3	ድምር
Less : FISM	0.8	1.0	0.9	0.6	0.7	0.7	0.8	1.0	1.0	1.1	1.3	
GVA at Constant Basic Prices	100	100	100	100	100	100	100	100	100	100	100	

** All Economic Activities are Classified under Three Major Classifications as indicated below:

A. Agriculture: Crop production, Animal Farming and Hunting, Forestry, Fishing

B. Industry: Mining and Quarrying, Manufacturing, Electricity, Gas and Water and Construction

C. Services:

1. Distributive: Whole Sale and Retail Trade, Hotels and Restaurants, Transport and Communications, Financial Intermediation, Rural Estate, Renting and Business Activities, Education, Health and Social Work

2. Other Services : Other Community, Social & Personal Services, Private Households with Employed Persons

Annex XIII : List of Dairy Products imported by Ethiopia

Unit : US Dollar thousand

Code	Product label	Imported value in 2001	Imported value in 2002	Imported value in 2003	Imported value in 2004	Imported value in 2005	Imported value in 2006	Imported value in 2007	Imported value in 2008
'0402	Milk and cream, concentrated or sweetened	2975	2512	5412	4409	5393	7232	5378	7745
'0401	Milk and cream, not concentrated nor sweetened	10	32	3	3	14	12	44	1030
'0406	Cheese and curd	107	115	102	167	205	259	316	355
'0405	Butter and other fats and oils derived from milk	8	10	3	27	12	40	57	86
'0404	Whey and natural milk products nes	1	0	0	1	0	441	38	54
'0403	Buttermilk and yogurt	6	5	196	11	12	21	26	35
	Total	**3107**	**2674**	**5716**	**4618**	**5636**	**8005**	**5859**	**9305**

Sources : ITC calculations based on COMTRADE statistics.