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Official Development Assistance (Aid) and Its Effectiveness in Ethiopia

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I. Introduction.

Ethiopia has a long history of receiving foreign aid, dating back to the early 1950s. Yet the amount remained very low until the 1980s when the devastating 1984 famine resulted in sharp increase in official development assistance (ODA), mainly in the form of humanitarian aid. Since the 1980s the importance of foreign flows in Ethiopia grew in importance due to recurrent droughts, fast population growth, huge and growing balance of payments deficits, and a largely stagnant economy, among others. Beginning with the early 1990s, following the change of political regime in the country and adoption of the IMF and World Bank sponsored Structural Adjustment Program (SAP), Ethiopia enjoyed a steady and significant amount of ODA. The publication and adoption by the government of Poverty Reduction Strategy Papers (PRSPs) (Sustainable Development and Poverty Reduction Program (SDPRP) (2002/03-2004/05) and Plan for Accelerated and Sustained Development to End Poverty (PASDEP) (2005/06-2009/10)) has also been instrumental in attracting large and growing ODA (both grants and concessional loans). These attempts to institutionalize inflows of ODA on the part of the government of Ethiopia were met with positive response from donors. The inflow of ODA to Ethiopia also received a major boost following the 2002 Kananaskis (in Canada) summit which promised to scale up ODA. Between 2002 and 2009, ODA to Ethiopia more than tripled and continues to rise.

As would be shown later, the volume of assistance has been increasing steadily over the years. External resources are financing around a third of the national budget using MoFED data and about 60 % of the national budget using OECD data. The ODA to Ethiopia is characterized by the large share of humanitarian aid. This constitutes in the last decade about 20% of total ODA flows and about 37% bilateral flows (multilateral flows are generally not as such humanitarian flows). Despite, this large and growing level of aid, Ethiopia's ODA per capita is still lower than the Sub-Saharan African average and DAG's analysis points to the need to further scaling up of ODA so as to meet the MDGs (DAG, 2011)

We this in view, in this study we would examine three sets of issues. We would start with the question of quantifying the trend and nature of ODA received by the country since the Kananaskis summit (between 2000 and 2010) and examine where this was utilised. We would then move to see the effectiveness of this aid using approaches that are relevant for the data set available and for the period under analysis (i.e. 2000-2010). In particular we will focus on the macroeconomic impact of aid where the issue of what impact aid had on the economy is looked into and explanations sought. The paper concludes by pointing out some implications of the current study.

A measure of external assistance could be derived from the balance of payments table and it can be dated back to 1963. The following formula could be used to obtain the figures (see Alemayehu 2011). Alternatively similar data is available in the OECD database.

$$A = T_0 + B_n$$

Where:

T_0 is official transfer and B_n is net borrowing from official sources and under conditions that satisfies the DAC definition (which says that a loan with 25% or above grant element is taken as Aid).

Given that, the bulk of official loans to Ethiopia are characterized by lower interest rate, long grace and maturity period as well as significant grant element (see Table 1.1), this definition is a realistic characterization of ODA in Ethiopia.

Table 1.1: Terms of External Flows to Ethiopia

PUBLIC SECTOR EXTERNAL DEBT
NEW COMMITMENTS - AMOUNT, AVERAGE TERMS & GRANT ELEMENT
2003/04 - 2007/08

	2003/04	2004/05	2005/06	2006/07	2007/08 ^(P)
OFFICIAL CREDITORS					
Committed Amount (Mn USD)	171.15	912.77	180.80	712.10	643.34
Interest Rate (avg. %)	0.87	0.83	1.77	0.81	0.98
Maturity (avg. yrs)	39.50	34.35	23.44	40.91	35.50
Grace Period (avg.yrs)	9.02	8.64	6.29	9.88	9.03
Grant Element (avg %) *	59.68	56.80	36.92	60.96	56.52

^P : Provisional

*: The discount rate applied to calculate G.E. is 5.0%.

Source: MOFED

II. The Pattern of ODA and Emerging Capital Flows to Ethiopia

2.1 Trends of ODA in Ethiopia

2.1.1 Background

The flow of grants and concessionary loans to Ethiopia from bilateral and multilateral sources has grown remarkably in the last two decade. *ODA net disbursements* have risen from just over 15 million USD in 1960, almost all of which coming from bilateral sources – OECDs Development Assistance Committee¹ (DAC) countries, to 3820 million USD in 2009. Likewise, this *ODA from DAC countries (bilateral flows)* shot up from under 15 million USD in 1960s to over 1816 million USD in 2009, while ODA from multilateral sources reached a staggering 1989 million USD from none in 1960. Conversely, over the same period, bilateral flows from non-DAC countries remained at a very low level.

The growth in ODA flows, though fast, was not smooth. ODA, especially the multilateral component, has gone through periods of ups and downs for various reasons. There appear to have been three distinct periodic patterns in ODA flows, in particular those flows from DAC countries, over the last six decades. It is possible to think of these as being basically two separate series: pre-Kananaskis period, which itself could be seen to constitute two series - the pre-1984 period and the post 1984 period, and the post-Kananaskis period flows.

¹ DAC is a forum for select members of OECD for discussing issues related to aid, development and poverty reduction in developing countries.

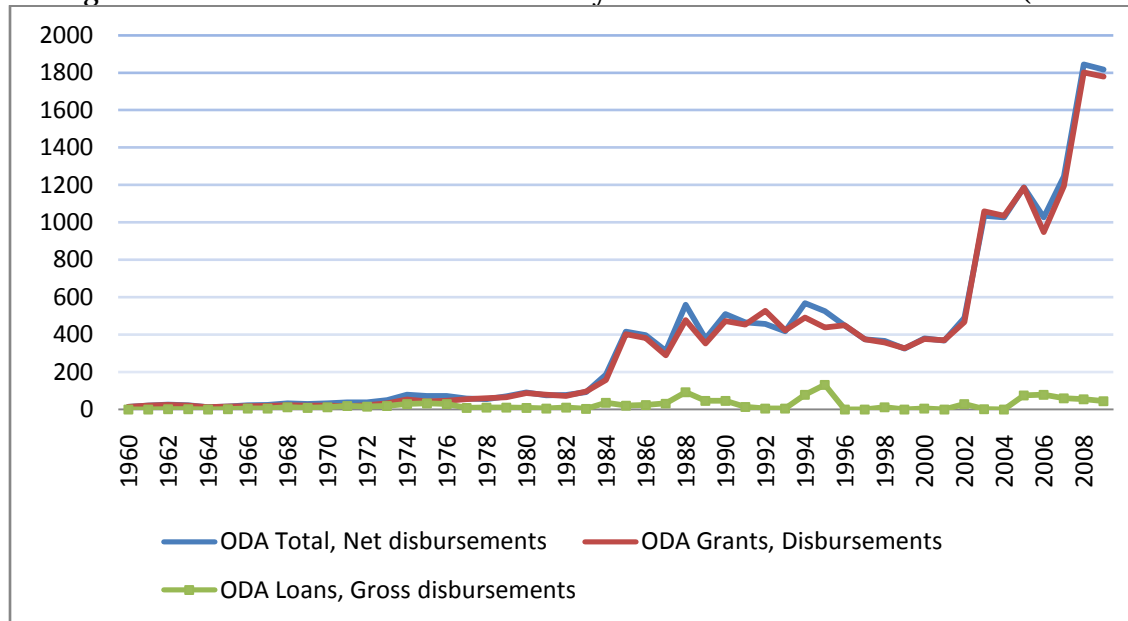
Kananaskis 2002 seems to be an important milestone in the flow of ODA to Africa in general and Ethiopia in particular. Following the Kananaskis summit, there has been massive increase in ODA to Africa. This increase could be reflecting the response on the part of G8 members and the European Union (EU) to the African initiative of 'New Partnership for Africa's Development (NEPAD)'. In NEPAD, among other things, good governance and human rights are also placed at the heart of development strategies as necessary preconditions for Africa's growth. As a response to African countries' quest to eradicate extreme poverty and achieve sustainable development, members of the G8 and the EU committed to multi-faceted engagements in support of NEPAD, among which provision of more effective ODA is prominent

Before the Kananaskis summit, in 1999, the World Bank and IMF had endorsed a new approach for providing development assistance to low-income countries. The new approach required governments seeking concessional lending from the World Bank and IMF to prepare their own Poverty Reduction Strategy Papers (PRSPs) through a participatory process involving both domestic and international stakeholders. Thus, the Ethiopian government was involved in the preparation and implementation such papers. These developments which coincided with the Kananaskis summit's outcomes, helped Ethiopia harness increased ODA since the early 2000s.

2.1.2 Trends in pre-Kananaskis ODA flows

During the pre-1984, pre-Kananaskis period, ODA net disbursements to Ethiopia were at a very low level averaging about 95 million USD per annum. Bilateral ODA were the major source of ODA during this period with about 70% share of total ODA for the period, though there was a significant decline in its shares reaching just over 48% in 1983, from 96% in 1960. DAC countries were the biggest bilateral donors with over 96% share of bilateral ODA. ODA net disbursements from DAC countries averaged 47 million USD per annum (see Figures 1 & 2). However, these flows registered steady, yet slow, growth up until the early 1980s. The great Ethiopian famine of 1984, however, caused massive increase in flows, mainly due to large humanitarian aid. The new high level of ODA flows had been sustained until the Kananaskis summit of 2002, averaging 418 million USD per annum. Despite the sharp increase in ODA, this period represented an era of erratic flows. Events that contributed to decline in grants and concessional loans from DAC countries to Ethiopia were the independence of Eritrea in 1993, which resulted in decline in reported ODA to Ethiopia due to birth of a new nation and the consequent separate reporting of ODA flows to Eritrea, and Ethio-Eritrean war between 1998 and 2000, which caused the contraction of ODA to Ethiopia.

Figure 1: Trends of ODA disbursements by DAC countries: Bilateral Flows (million USD)

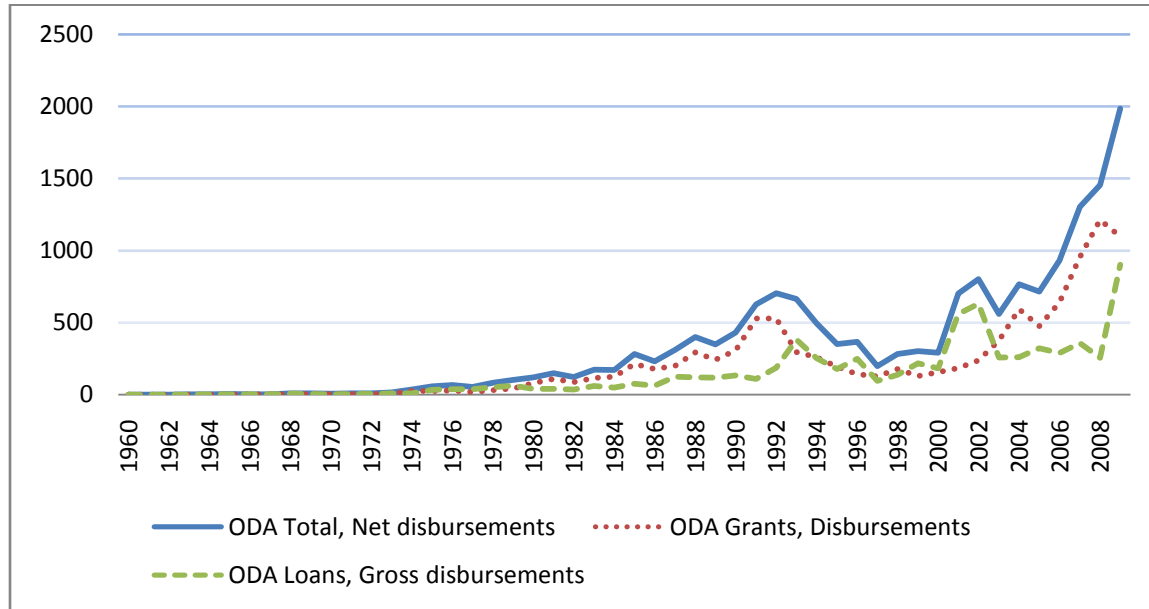


Source: OECD

ODA net disbursements to Ethiopia from DAC countries in the pre-Kananaskis period were mainly comprised of grants. In the 1960s and 1970s, the share of ODA loans remained very low averaging 17% in 1960s and 33% in 1970s. As ODA flows to Ethiopia expanded in the 1980s, grants grew much faster than loans and hence further increase in share of grants. During the 1980s and 1990s, ODA grants averaged 90% and 93% of total ODA net disbursements respectively.

Unlike ODA flows from DAC countries, the most important factor that has contributed to a major shift in net disbursements from multilateral sources during the pre-Kananaskis period appears to be the political regime change in Ethiopia in 1991. Compared to the year before, in 1991 ODA net disbursements grew by 45% and ODA loans by 72%. This growth was, however, short lived. During the following years, flows declined continuously reaching 198 million USD in 1997, which represents an over 250% reduction compared to the 1991 level, before recovering in 2001.

Figure 2: ODA disbursements from Multilateral sources (million USD)



Source: OECD

2.1.3 Trends in Post Kananaskis ODA flows

Following the Kananaskis summit, Ethiopia saw a major jump in its ODA flows. In the first year alone, ODA net disbursements grew by 23% and by the end of 2009 reached three times the 2002 level (see Table 1.2). This is mainly due to substantive increase in DAC countries' ODA flows, in particular the United States and United Kingdom. By 2003, United States had increased its grants to Ethiopia to 589 million USD from 179 million USD a year before. Likewise, United Kingdom had increased its ODA to Ethiopia three fold to 61 million USD. There were also other notable increases in ODA including those by Italy, Japan, Netherlands and Germany (see Table 2).

Grants constituted the biggest component of ODA flows to Ethiopia in this period averaging 80% over the 2002-2009 period. During the same period, bilateral sources, in particular DAC countries, continued to be the major providers of ODA to Ethiopia with average share of 54%. This figure rises even further to just under 63% in the case of ODA grants. Bilateral flows from non-DAC countries, on the contrary, account for a very small share of ODA flows to Ethiopia, averaging just over 1% of ODA and about 2% of ODA grants. On the other hand, ODA loans were highly dominated by multilateral sources. These accounted for, on average, 89% of ODA loans between 2002 and 2009, followed by DAC countries, whose share stood at 10% for the period.

While ODA flows in the post-Kananaskis period had been less volatile compared to the pre-Kananaskis period, there has been a notable drop in ODA flows, mainly the grant component, from both bilateral (DAC countries) and multilateral sources following the 2005 disputed election and the consequent withdrawal of direct budgetary support by traditional donors. In 2005, ODA grants from multilateral sources declined by 20%; in particular, the United States cut its grants to Ethiopia by 50%. Likewise, in 2006, ODA grants from DAC countries and ODA loans from multilateral sources fell by 20% and 10% respectively. There also appears to have been a small reduction in ODA grants, amounting to 5%, in the aftermath of the 2008 global financial crisis, while ODA loans tripled in 2009 more than offsetting the effect of grants.

Table 1.2: ODA disbursements by source and type (current USD millions)

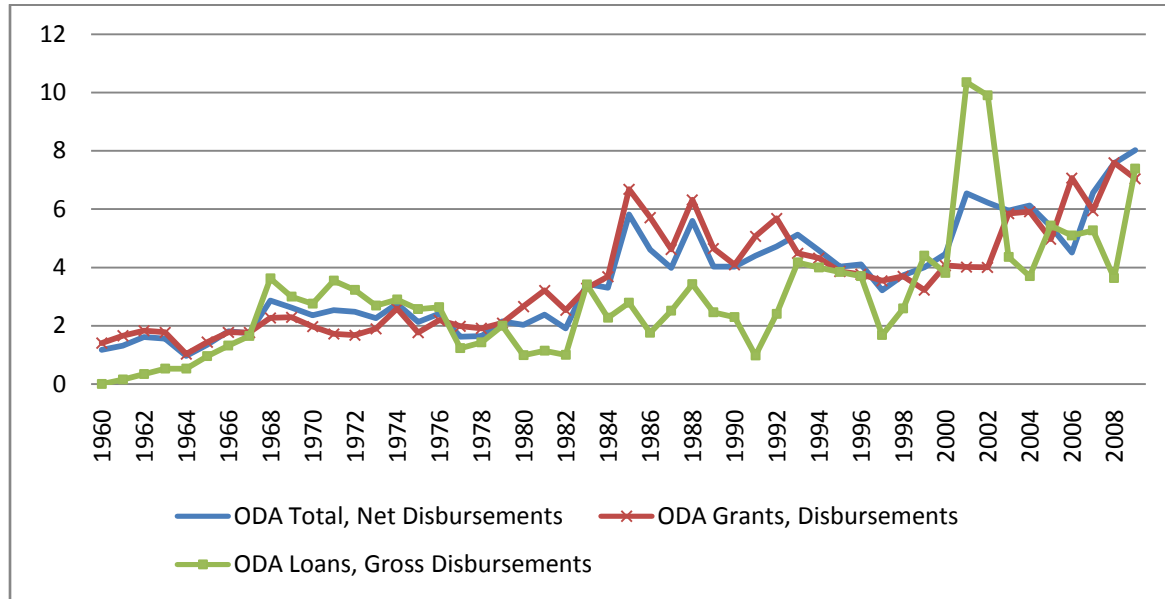
	2002	2003	2004	2005	2006	2007	2008	2009
ODA, Net Disbursements								
All Donors	1324	1626	1828	1927	1980	2578	3328	3820
DAC Countries, total	490	1034	1027	1187	1026	1245	1843	1817
Non-DAC Countries, total	32	31	35	27	23	30	31	20
Multilateral, total	802	561	766	714	931	1302	1453	1984
ODA Grants, Disbursements								
All Donors	732	1466	1662	1689	1612	2175	3037	2890
DAC Countries, total	466	1059	1035	1186	947	1194	1800	1778
Non-DAC Countries, total	28	30	35	27	25	26	25	15
Multilateral, total	238	377	592	476	640	955	1212	1097
ODA Loans, Gross Disbursements								
All Donors	666	263	260	398	368	423	318	951
DAC Countries, total	29	2	-	75	79	60	55	44
Non-DAC Countries, total	6	3	1	1	-	4	7	5
Multilateral, total	631	258	259	322	289	358	256	902

Source: OECD

ODA flows to the developing world have generally grown over the past half century, albeit the major fall between 1990 and 2000. Hence, to see the growth in ODA flows to Ethiopia in perspective, it is instructive to see how it compares with flows to African countries at large. Between 1960 and 2002, Ethiopia's share of ODA in the total ODA to Africa grew markedly. It reached 8% of total ODA flows to African countries in 2009 from just 1.2% in 1960. In general, the trend of Ethiopia's share of ODA flows in African total appears to have mirrored the trend of its ODA flows suggesting, perhaps, the increase in ODA flows to Ethiopia has been higher than that for Africa at large. This is in particular true of the pre-Kananaskis period, during which Ethiopia's share of ODA flows in the African total registered a marked increase as a result of the Ethiopian famine of 1984 and then came down during the Ethio-Eritrean war of 1998-2000. It started rising again after the Kananaskis summit, though at a rate much less than the growth rate of the level of ODA flows.

Despite its rise over time, Ethiopia's share of ODA flows to Africa appears to be highly volatile. While this is true of the entire period, the post-1983 period in particular represents an era of very erratic flows. As noted earlier, ODA flows to Ethiopia, especially the grant component, during the post-Kananaskis period have been relatively less volatile (see Figure 2). Nevertheless, its share in ODA flows to Africa at large, to the contrary, remains very irregular. This seems to suggest that Ethiopia enjoys relatively predictable ODA flows compared to other African countries. Like the level of ODA flows, volatility of Ethiopia's share of the African total is the highest with loans. In 2003, for example, it fell to under 4% from over 10% in 2002 and jumped from under 4% in 2008 to over 7% in 2009 (see Figure 3).

Figure 3: Trends in Ethiopia's share of ODA flows to Africa (%)



Source: OECD

During the post-2002 period, *United States and United Kingdom* are the biggest origins of bilateral ODA to Ethiopia followed by Germany, Netherlands, Canada, Italy and Japan, in that order. United States and United Kingdom alone have, on average, accounted for about 25 % of all ODA gross disbursements to Ethiopia (see Table 1.3). This period has also seen growth in importance of countries such as Canada and Spain. Bilateral ODA from Canada amounted to just over 6 million USD in 2002. But by 2008, it had grown to over 145 million USD, though it fell to 87 million USD following the global financial crisis. The story from Spain is no different. In 2002, bilateral ODA from Spain stood at just under 3 million USD but grew to over 84 million USD in 2009. This growth has been very strong since 2007. Conversely, ODA from Italy has been declining in recent years after peaking in 2006. As of 2009, it stands at 54 million USD, which represents a 49% decline from the peak level of 105 million USD in 2006.

Table 1.3: ODA gross disbursements by country/Institution of origin (current USD millions)

	2002	2003	2004	2005	2006	2007	2008	2009
All Donors	1152.4	1483.6	1754.1	1856.6	5733.6	2435.7	3201.7	3791.4
DAC Countries, total	409.4	1023.6	985.4	1200.9	1005.5	1228.3	1781.3	1801.8
(Share of total in %: Average 50.4%)	64.5	31.0	43.8	35.3	82.5	49.6	44.4	52.5
Canada	6.3	19.3	34.3	40.5	46.1	82.2	145.6	86.8
France	6.8	14.6	23.8	21.5	17.6	20.5	19.2	38.7
Germany	34.8	48.9	125.7	51.0	56.8	96.5	98.3	79.8
Ireland	21.7	31.6	40.1	42.0	50.6	54.2	70.0	52.2
Italy	4.4	42.5	11.2	85.2	105.4	75.5	65.9	54.0
Japan	37.0	56.6	33.3	34.2	57.8	36.0	47.1	97.8
Netherlands	34.8	57.2	57.7	58.7	49.8	50.8	113.6	85.9
Norway	27.0	37.2	34.0	38.1	42.6	34.1	37.3	37.8
Spain	2.8	3.5	2.5	6.1	9.7	27.5	60.5	84.1

Sweden	17.7	26.3	47.7	49.6	40.2	44.7	46.8	44.6
United Kingdom	19.3	61.4	144.1	75.2	167.7	291.1	191.9	343.2
United States	178.7	589.0	408.3	679.2	315.7	371.7	811.4	726.0
Multilateral, total	743.0	460.0	768.7	655.7	4728.0	1207.3	1420.4	1988.7
(Share of total in %: Average 49.6%)	35.5	69.0	56.2	64.7	17.5	50.4	55.6	47.5
AfDB	21.8	20.4	19.4	17.7	16.7	15.3	14.0	5.8
AfDF	90.8	25.9	81.8	56.0	739.1	139.8	139.2	307.8
EU Institutions	72.9	47.4	82.4	167.4	198.4	369.2	447.1	202.5
GAVI	130.0	35.4	37.8
Global Fund	.	45.7	.	77.9	130.6	161.7	144.3	130.5
IDA	489.7	280.0	515.7	291.0	3429.0	324.1	549.3	1041.4
IMF	49.6	20.2	34.8	6.0	164.9	.	.	164.9
UNDP	.	.	11.2	11.0	18.3	9.6	21.9	17.3
UNICEF	14.2	14.6	18.6	24.1	25.8	51.4	45.8	35.9

Source: OECD

The biggest sources of *multilateral ODA* gross disbursements to Ethiopia, on the other hand, are *International Development Association (IDA)*, *African Development Fund (AfDF)*, and *EU institutions* (see Table 1.3). During the 2002-2009 period, IDA, AfDF and EU institutions accounted for 53.6%, 16.6% and 11.2% of multilateral ODA to Ethiopia, respectively. The huge share of IDA is somewhat assisted by major debt cancellation in 2006 under the Multilateral Debt Relief Initiative (MDRI)². There has been significant increase in these three institutions' ODA to Ethiopia during the post-Kananaskis period. IDA's, AfDF's and EU Institutions' ODA to Ethiopia amounted to 490, 91 and 73 million USD respectively in 2002. These figures rose to 1041, 308 and 203 million USD in 2009. ODA from EU institutions had reached 369 and 447 million USD in 2007 and 2008 respectively. But it appears that such flows to Ethiopia from EU institutions have been affected by the 2008 financial crisis. In general it appears that, over the last decade bilateral flows have accounted for about 49.6 percent of total aid, leaving multilateral sources to accounted for 50.4 percent. (See Table 1.3).

2.2 The use of ODA flows in Ethiopia: Sectoral Disbursement of ODA

The degree to which non-humanitarian ODA succeeds in achieving its objectives of poverty reduction, to a large extent, depends on how ODA gets to be allocated across sectors – whether they are spent on pro-poor and/or poverty-reduction elastic sectors/programs or not. In this regard, the Ethiopian Ministry of Finance and Economic Development (MoFED) identifies 10 classes of ODA disbursements on the basis of sectoral allocation: Agriculture & Rural development, Road, Energy, Health, Education, Water, Transport & Communication, Industry, Multi-sector (cross-cutting), and Other sectors.

² The average share of IDA in multilateral ODA to Ethiopia for the 2002-2009 period, excluding 2006, still stands at a whopping 51%.

It should be noted in passing that there is substantial difference in the amount of ODA flows reported by the government of Ethiopia and OECD. This is a result of, among others, difference in accounting methods:

- MoFED does not consider administration expenses that are not directly related to ODA financed projects, such as routine administration costs of donor agencies, as ODA.
- MoFED reports only ODA channeled through it. ODA channeled through other agencies such as NGOs are not reported as ODA.
- Occasionally donors provide support to sectors without prior commitments. Yet MoFED's report captures only those disbursements that have commitments in place.

In the event of any one of these, ODA figures that are reported by MoFED are likely to be less than those reported by OECD. Apparently, this appears to be the case during 2003/04-2007/08³, for which data on sector level ODA disbursements could be found.

As can be noted from Table 1.4, bilateral ODA for the 2002-2009 period is generally higher than multilateral ODA, except in recent years when multilateral net disbursements surpassed bilateral flows in 2007 and 2009. Yet, all sectors, receive more ODA from multilateral sources than bilateral ones. Perhaps this indicates that more bilateral ODA (as reported by OECD) has been channeled through NGOs and various sectors (non-MoFED channels) than multilateral ones. In terms of composition, (cross-cutting) ODA disbursements are considerably higher than sector specific flows. Such flows averaged over 40% between 2003/04 and 2007/08. Agriculture & rural development, road, and health sectors are the next biggest recipients of ODA accounting for about 17%, 13% and 9%, respectively. Transport & communication and industrial sectors received the lowest support averaging less than 1% total ODA flows to Ethiopia. In recent years (since 2005/06), flows to road, water and health sectors are rising whereas for agriculture & rural development and education is steadily falling.

Despite receiving significant share of total ODA disbursements, multi-sector (cross-cutting sectors) ODA flows and ODA to road, agriculture & rural development and education sectors appear to have been volatile. As ODA flows contracted following the 2005 election, multi-sector supports and flows to the road sector were affected the most, while there was also significant fall in flows to agriculture & rural development and education sectors. The first two saw their flows cut in 2005/06 but recovered fast surpassing their pre-2005 levels by 2006/07. On the other hand, flows to the later two sectors fell following the disputed election year (2006/07) and continued to fall since then. ODA disbursements to energy and health sectors, however, do not seem to have been affected much. The major source of decline in ODA to sectors could be traced to either bilateral or multilateral sources, except flows to cross-cutting sectors, which have seen their magnitude from both sources shrink right after the 2005 elections. The decline in ODA disbursements to agriculture & rural development, and road sectors was mainly a result of decrease in multilateral ODA. On the other hand, contraction of bilateral ODA is responsible for decline in foreign assistance to the education sector after the 2005 election.

During the 2003/04 – 2007/08 period, the multi sectors, agriculture & rural development, energy, education and water were the biggest recipients of bilateral ODA with 35%, 20%, 12%, 11%, and 6% share respectively. The shares of multi-sector (cross-cutting sectors) ODA and ODA to the energy sector in total bilateral ODA were highly volatile. The bilateral ODA shares of agriculture & rural development and education sectors, however, appear to have a relatively less

³ Ethiopian fiscal year starts in July and ends in June. Thus, 2007/08, for example, comprises of the third and fourth quarters of 2007 and the first and second quarters of 2008.

erratic trend. The former had initially grown and then stabilized at about 22%, while the later has fallen steady.

During the same period, multi-sector projects, road, agriculture & rural development, and health sectors were the biggest recipients of multilateral ODA averaging 45%, 17%, 15%, and 11% share respectively. The share of flows to multi-sector/ cross-cutting sectors seems to be very volatile – it fell up to 2005/06, and then recovered in the following year before slightly falling again in 2007/08. On the contrary, ODA disbursements to the energy sector are found to be less volatile, whereas the share of agriculture & rural development sector rose up to 2005/06 and then fell back afterwards. The period also saw steady rise in the shares of ODA to the road and health sectors. The share of the former rose from 15.3% in 2003/04 to 22.2% in 2007/08 and later from 5.8% in 2003/04 to 13.9% in 2007/08.

Table 1.4: ODA Disbursements by sector (million USD)

	2003/04			2004/05			2005/06			2006/07			2007/08		
	Mult	Bilat	Total	Mult	Bilat	Total	Mult	Bilat	Total	Mult	Bilat	Total	Mult	Bilat	Total
Agri. & Rural dev.	59.7	26.8	86.5	109	72.2	181	168	118.9	286.8	132	131.9	263.9	114.8	129.2	243.9
Road	99.7	6.5	106	122	12.7	134.3	93	20.5	113.5	171	31.8	203.2	243.5	39.4	282.9
Energy	36.3	25.4	61.6	27.1	6.6	33.7	50.8	118.3	169	45.3	25.5	70.8	67.6	102.4	170
Health	37.6	20.8	58.4	74.3	22.9	97.2	67.8	28.2	96.1	142	39.1	181.5	152.2	31.5	183.8
Education	19.2	39.7	58.9	21	45.7	66.6	18.9	64.1	83	12.7	53.3	66	25.8	32.6	58.4
Water	7.3	57.4	64.7	16.5	7.5	24	11.8	7.3	19.1	21.4	17.5	38.9	50.3	27.4	77.7
Trans. & Com.	6.9	13	19.9	6.3	6.3	12.5	1.9	0.4	2.3	1.5	0	1.5	2.5	0.7	3.2
Industry	1.3	12.1	13.4	1.2	0.7	1.9	3	0.1	3.1	0.1	0	0.1	5.9	0.6	6.5
Multi-sector	378	76.5	455	357	132.5	489.6	217	99.4	316.6	442	278.5	720.2	432.8	207	639.8
Other sectors	6.4	6.8	13.2	2.2	12.9	15.1	1	20.4	21.3	2.3	1.9	4.2	0.2	1.9	2.1
Total Disb.	653	285	938	736	320	1056	633	477.7	1111	971	579.5	1550	1096	572.5	1668
Share (%)															
Agri. & Rural dev.	9.2	9.4	9.2	14.8	22.6	17.1	26.5	24.9	25.8	13.6	22.8	17.0	10.5	22.6	14.6
Road	15.3	2.3	11.3	16.5	4.0	12.7	14.7	4.3	10.2	17.7	5.5	13.1	22.2	6.9	17.0
Energy	5.6	8.9	6.6	3.7	2.1	3.2	8.0	24.8	15.2	4.7	4.4	4.6	6.2	17.9	10.2
Health	5.8	7.3	6.2	10.1	7.2	9.2	10.7	5.9	8.6	14.7	6.8	11.7	13.9	5.5	11.0
Education	2.9	13.9	6.3	2.8	14.3	6.3	3.0	13.4	7.5	1.3	9.2	4.3	2.4	5.7	3.5
Water	1.1	20.1	6.9	2.2	2.4	2.3	1.9	1.5	1.7	2.2	3.0	2.5	4.6	4.8	4.7
Trans. & Com.	1.1	4.5	2.1	0.9	2.0	1.2	0.3	0.1	0.2	0.2	0.0	0.1	0.2	0.1	0.2
Industry	0.2	4.2	1.4	0.2	0.2	0.2	0.5	0.0	0.3	0.0	0.0	0.0	0.5	0.1	0.4
Multi-sector	58.0	26.8	48.5	48.5	41.4	46.4	34.3	20.8	28.5	45.5	48.0	46.5	39.5	36.2	38.4
Other sectors	1.0	2.4	1.4	0.3	4.0	1.4	0.2	4.3	1.9	0.2	0.3	0.3	0.0	0.3	0.1

Source: MoFED

During the 2003/04-2007/08 period, the biggest sources of multilateral ODA flows to Ethiopia were IFIs followed by EU institutions and the UN accounting for 66%, 19% and 15% of total multilateral ODA to Ethiopia, respectively. The multilateral ODA share of IFIs, though, fell over the five years period. It has declined from a high of 79% in 2003/04 to 55% in 2006/07 and then slightly recovered to 58% in 2007/08. Conversely, the multilateral ODA shares of EU institutions and UN agencies rose from 12% and 9% respectively in 2003/04 to 24% and 17% in 2007/08.

Multi-sector, road, agriculture & rural development, and energy sectors were the biggest recipients of multilateral ODA from IFIs between 2003/04 and 2007/08. Most sectors experienced dip in ODA disbursements from IFIs in 2005/06, but recovered afterwards. In particular, flows to road, energy, education and water sectors recovered and surpassed their pre-2005/06 levels. Even if the amount of flows to some sectors (in absolute terms) were very low, IFIs were still the biggest sources of multilateral ODA to all sectors, except the industrial sector in 2003/04. By 2007/08, ODA flows from IFIs to the health sector shrunk and its share of the sector's multilateral ODA flows fell from 58% to under 5%. Support to the industrial sector, the smallest recipient of multilateral ODA, on the other hand, grew from none in 2003/04 to about 5.5 million by 2007/08 pushing the IFI's share in multilateral ODA flows to the industrial sector to over 92%. IFIs were also the sole sources of multilateral ODA flows to the energy sector throughout the 2003/04-2007/08 period.

EU institutions were the main source of multilateral ODA to the industrial sector, and the second biggest multilateral donors to the road sector. Their role in the road sector grew over time reaching over 60% of total multilateral ODA to the sector in 2006/07. UN agencies, on the other hand, provide the biggest multilateral support to health and education sectors averaging 78% and 51% respectively. They also provide a good deal of support to the water sector, averaging 34% over the 2003/04-2007/08 period.

Table 1.5: Multilateral ODA by source (current million USD)

	2003/04			2004/05			2005/06			2006/07			2007/08		
	IFIs	EU	UN	IFIs	EU	UN	IFIs	EU	UN	IFIs	EU	UN	IFIs	EU	UN
Agri. & Rural dev.	33.9	12.3	13.5	85.4	11.7	11.8	100.9	49.3	17.7	84.2	43.8	4.1	88.4	21.6	4.8
Road	81.8	17.9	0.0	77.3	44.3	0.0	45.5	47.5	0.0	68.6	102.8	0.0	130.9	112.6	0.0
Energy	36.3	0.0	0.0	27.1	0.0	0.0	50.6	0.0	0.2	45.2	0.0	0.0	67.6	0.0	0.0
Health	21.8	0.0	15.9	13.4	0.0	61.0	10.6	0.0	57.2	3.7	16.6	122.1	7.4	0.0	144.8
Education	9.2	0.4	9.6	12.4	0.5	8.0	5.7	0.9	12.3	2.7	0.7	9.4	17.4	0.8	7.7
Water	3.0	0.1	4.2	8.6	1.4	6.5	2.7	5.2	3.8	15.3	1.3	4.8	38.7	3.6	8.0
Trans. & Com.	4.4	0.7	1.8	5.9	0.4	0.0	0.5	1.4	0.0	0.0	1.5	0.0	0.7	1.9	0.0
Industry	0.0	1.1	0.1	0.0	1.2	0.0	0.0	2.8	0.2	0.0	0.0	0.0	5.5	0.5	0.0
Multi-sector	327.6	45.6	5.0	323.7	22.5	10.9	181.6	20.7	14.9	311.7	112.3	17.7	281.5	126.6	24.8
Other sectors	0.0	0.0	6.4	0.2	0.0	2.1	0.0	0.0	1.0	1.5	0.0	0.8	0.0	0.0	0.2
Total Disb.	517.9	78.0	56.5	553.7	82.0	100.2	398.2	127.8	107.2	532.9	279.0	159.0	638.0	267.4	190.3
Share Multilateral ODA (%)															
Agri. & Rural dev.	56.8	20.5	22.7	78.4	10.7	10.8	60.1	29.4	10.5	63.8	33.1	3.1	77.0	18.8	4.2
Road	82.1	17.9	0.0	63.6	36.4	0.0	49.0	51.0	0.0	40.0	60.0	0.0	53.8	46.2	0.0
Energy	100.0	0.0	0.0	100.0	0.0	0.0	99.6	0.0	0.4	99.9	0.0	0.1	100.0	0.0	0.0
Health	57.9	0.0	42.1	18.0	0.0	82.0	15.6	0.0	84.4	2.6	11.6	85.8	4.9	0.0	95.1
Education	47.8	2.1	50.1	59.2	2.4	38.4	30.0	5.0	65.1	20.8	5.3	73.9	67.4	3.0	29.7
Water	41.6	1.2	57.1	52.0	8.4	39.6	23.2	44.3	32.5	71.4	6.2	22.4	76.9	7.1	16.0
Trans. & Com.	63.3	10.3	26.4	93.3	6.7	0.0	27.9	72.1	0.0	0.0	100.0	0.0	25.7	74.3	0.0
Industry	0.0	89.0	11.0	0.0	100.0	0.0	0.0	94.0	6.0	0.0	80.0	20.0	92.3	7.6	0.1
Multi-sector	86.6	12.1	1.3	90.7	6.3	3.0	83.6	9.5	6.9	70.6	25.4	4.0	65.0	29.2	5.7
Other sectors	0.0	0.0	100.0	8.1	0.0	91.9	0.0	0.0	100.0	65.4	0.0	34.6	0.0	0.0	100.0

Source: MoFED

2.3 Other New Source of Finance: Finance from China

Recent events show that in addition to the traditional donors, new sources of development finance to Ethiopia have emerged. In this regard, China, India and Turkey are leading the way. In particular, the role of China as an emerging source of finance for Ethiopia is noticeable in the last decade. Unfortunately it is difficult to get complete picture of the story due to lack and/ or inaccessibility of such data for the public and researchers. Little as it may be, available information provides useful insight about the implications of these new sources of finance.

The development finance Ethiopia obtains from China and India is mainly in form of loans, largely at competitive market rates and above (ie. LIBOR-plus rate in some of the most important projects). The amount of grants that comes from these sources is very limited. As Table 1.6 shows aid from China is extremely limited. Compared to ODA flows from OECD countries, Chinese contribution to total aid is almost next to none. This is shown in Table 1.6 below. In the year 2006/7, the Chinese aid to Ethiopia constitutes about 0.14 percent of Ethiopia's total aid. This in fact is related to the grant the Chinese government gave to the construction of ultra modern by pass-over (or flyer) road and other similar city roads that are being built in Addis Ababa. It is also partly the Chinese grant to support the expansion of technical and vocational education in the country. Perhaps it is sensible to characterize such Chinese aid in Ethiopia as strategic (geo-political) given the importance of Ethiopia in population, geographic and militaristic consideration in Eastern Africa and Africa at large. In addition it could also be symbolic and show cases than real and meaningful grant as such. The fact that major continental bodies such as the African Union and the Economic Commission for Africa located in Addis implies that African leaders and officials will visit Addis frequently leaving them with the impression of what China could do in their countries. Symbolic investment such as this carried by Chinese in Ethiopia thus could serve to show case the potential Chinese work in the rest of Africa (The Ethiopian Airline ultra modern cargo terminal, the Addis over flyer road and the upcoming AU headquarter building are cases in point) (See Alemayehu 2008).

Table 1.6 Overview of China's financial assistance to Ethiopia from 2000-Present

Year	Type	Amount
2001	Interest-free loan in support of construction of ring-road and low-cost housing project, Addis Ababa	\$12 million
2001	Interest-free loan to support production expansion, textile factory, Awassa	\$2.4 million
2005	Donation by PRC Embassy to Ethiopian Ministry of Foreign Affairs	\$23 000
2005	Loan for construction of model TVET	\$8.9 million
2005	Interest-free loan in support of construction of ring-road project, Addis Ababa (Phase II)	\$15 million
2007	Building a vocational college in Addis Ababa	\$8.9 million
2007	Donation to assist people affected by HIV-AIDS	\$250 000
2007	Loan to finance new power generation and expand a cement factory	\$208 million
2006/7	Vocational Training College	\$13.5 million
2007	Developmental loans	\$708 million
2007	Support for construction of glass factory	part of CADF*

Source: Davies et al (2008)

*Note: The China Development Bank(CDB) is *not* an aid disbursement body, and operates as a commercial bank. It has assisted in the establishment of the China-Africa Development Fund (CADF); the fund itself is an independent commercial fund, with its own offices and staff that will finance China-Africa projects. The CDB can be viewed as contributing development assistance to the African continent through commercial means including through the CADF finance (Davies, 2008).

Notwithstanding the negligible size of official aid, the importance of China and India as development financiers' is a recent and emerging phenomenon where their finance are mainly used to fund infrastructure projects such as roads, dams, communication installations, factories, among others. Though what China and India are providing doesn't generally count as ODA because their loans have very limited concessional element, if any, the availability of such sources of external finance, however, helps to overcome the conditionality usually associated with traditional sources of finance. As aptly noted by Davies et al (2008), 'the 'Look East Policy' appears to have become more entrenched in Ethiopia since the post-2005 election crisis when other donors began pushing governance reform in the development agenda using ODA as an instrument. Our data analysis above also shows this. Thus, UK and other important donors adopted a new aid instrument that channels money towards regional support instead of direct budgetary support – called the Protection of Basic Services (PBS). The PBS focused on education, health and agriculture and has a built-in governance test', as Davies et al (2008) noted. This move, among other things, must have encouraged the Ethiopian government to consider China and other emerging economies such as India as an attractive development model and source of finance, despite the fact that the government officials are well aware of the Chinese interest. Quoting one senior government official, Davies et al (2008) noted that according to this senior government official "...China's aid commitments supported its own national interests. This individual described the delivery of Chinese aid as very similar to the policies of the UK, Netherlands and Nordic countries only 10-15 years ago and little different to US aid policies today, though considerably more efficient" (Davies et al, 2008).

What might be complementing the limited Chinese Aid to Ethiopia is perhaps , the 'vender financing' scheme of China, in particular through its EXIM bank and its firms, that is providing financing option for the government of Ethiopia – the Ethiopian telecommunication corporation loan being a case in point. Such schemes could also be considered as some sort of aid-cum-investment as it generates investment that would not have been there had it not been for Chinese financing, as the telecom financing case shows. However, except the three year grace period this 1.5 billion US \$ financing scheme for Ethiopian telecom has offered, its terms are significantly above market rate and conditional on Chinese firm (ZTE) taking the job. There are a number of projects of this nature in Ethiopian power and road sectors the details of which are given in Alemayehu and Atenafu (2009). Such financing schemes could be considered as some sort of aid since none of the Western firms were willing to give such vendor financing. Although such politically informed infrastructure related investment-cum-aid could be beneficial to the recipient country, it has also the disadvantage of, being expensive (at the rate of about LIBOR plus 3 to 6% rate!), making the technology path of the country dependent on one provider, rendering poor quality service, limited technological transfer, if any, and making the political elite less accountable by allowing them to have non- transparent deals, as well as allow it to worry less about governance without any external restraint that used to come with Western Aid.

III. Aid/ODA Effectiveness in Ethiopia.

The Literature about Aid effectiveness attempt to examine, inter alia, the impact of aggregate aid on growth. In a recent survey of the literatrue on aid-effectiveness using meta analysi, Doucouliagos and Paldam (2007) noted that the aid effectiveness literature generally consists of empirical macro studies which by the end of 2004, had reached 97 econometric studies of three families. Their analysis of this vast literatur shows that 'when the whole of

the literature is examined, a clear pattern emerges in the results: after 40 years of development aid, the evidence indicates that aid has not been effective’.

This literature includes the the ‘Gap Models’ that began in mid 1960s, the ‘marginal effect’ analysis of aid, as well as the two approaches used to analyse the macroeconomic effect of external finance: the ‘Dutch Disease’ effect of Aid and the ‘the fiscal response to external finance’ literature. In what follows we will reflect on this aspects of the flow of ODA to Ethiopia so as to infer about Aid effectiveness in Ethiopia from a macro prespective.

3.1 The Gap Approach: Aid, Saving and Growth

The aid-growth relationship is articulated in what is called the two-gap model. The two-gap model (Chenery and Strout, 1966) basically links a simple Harrod-Domar growth model with flows of external assistance. The essential point of the model is that growth is constrained by supply of skill and organisational ability, supply of domestic saving and the supply of imported commodities and services. In this approach growth is set by the target growth rate and capital inflow is required to fill the saving gap. The tapering off the capital inflow in this phase requires exports to grow faster than imports. But, this is found to be difficult for most developing countreiss. This new set of restriction (the trade gap) which is binding in this event became the second gap. Following the works of Bacha (1990) in the 1990s, the saving gap is divided in to “the fiscal gap” and the “private sector’s investment saving gap” giving us what is called the “the three gap model”. The original authors of the two gap model concluded that foreign economic assistance is generally productive either in supplementing domestic saving or relieving foreign exchange constraints. When this model was combined with the Harrod-Domar growth model it became an important analytical framework to show the potential of aid to finance development.

The recent emperical literature on aid-effectivness has also attempted to examine this growth impact of Aid using different econometric models. As Dalgaard (2010) noted, two of the most influential works in the area are that of Burnside and Dollar (2000) and Hansen and Tarp (2001). Burnside and Dollar (2000) used in their econometric work about aid-effectiveness, what could be said *external instruments*. The latter include (but are not limited to) population size, imports and exports of arms, and population interacted with past realizations of the policy variable as explanatory variable for growth equation which, inter alia, is a function of aid⁴. The key result claimed by the Burnside and Dollar (2000) is that foreign aid seems to have a larger (i.e., positive) impact on growth in countries that pursue sufficiently “good policies”. Burnside and Dollar (2000) define a “policy variable” which nests inflation, budget balance and openness to trade. Subsequent research has found Burnside and Dollar (2000)’s results to be fragile and not to hold in out-of sample tests (see, Dalgaard and Hansen, 2001; Easterly, Levine and Roodman, 2004; Roodman, 2007; all cited in Dalgasard, 2010).

The Hansen and Tarp (2001) type set of contributions essentially followed Burside and Dollar (2000). That is, they examined the impact of total aid on growth, using what are called “*internal*” instruments, however. Internal instruments refer to the practice of employing lagged or previous values of aid to identify the impact of aid on growth. The key result in Hansen and Tarp (2001) is that foreign aid does increase growth, but is subject to “diminishing returns”. That is, the marginal impact of aid on growth declines as the total inflow increases. This result suggests that the impact of foreign aid is non-linear; that is the

⁴ Dalgaard (2010) noted that while population size and arms trade are clearly external instruments (i.e., they in no way show up as growth determinants in the regression), the interaction effect involving lagged policy is really an “internal” instrument. Hence, Dalagaard (2010) argues, the approach is strictly speaking somewhere in between external and internal instruments.

effect of foreign aid will be larger in countries with more modest inflows of aid (see Dalgaard and Hansen, 2009; Dalgaard, 2010). Finally, a set of contributions have tried to move beyond the study of *total* aid, and begun to analyze the impact of particular forms of aid: aid modalities such as program and project aid. (see Dalgaard, 2010) to examine the effectiveness of aid. The empirical result about the impact of aid on growth (aid effectiveness) from these various studies is summarized in Table 3.1 which is based on Dalgard's (2010) survey .

Table 3.1: Empirical Finding about Aid-effectiveness

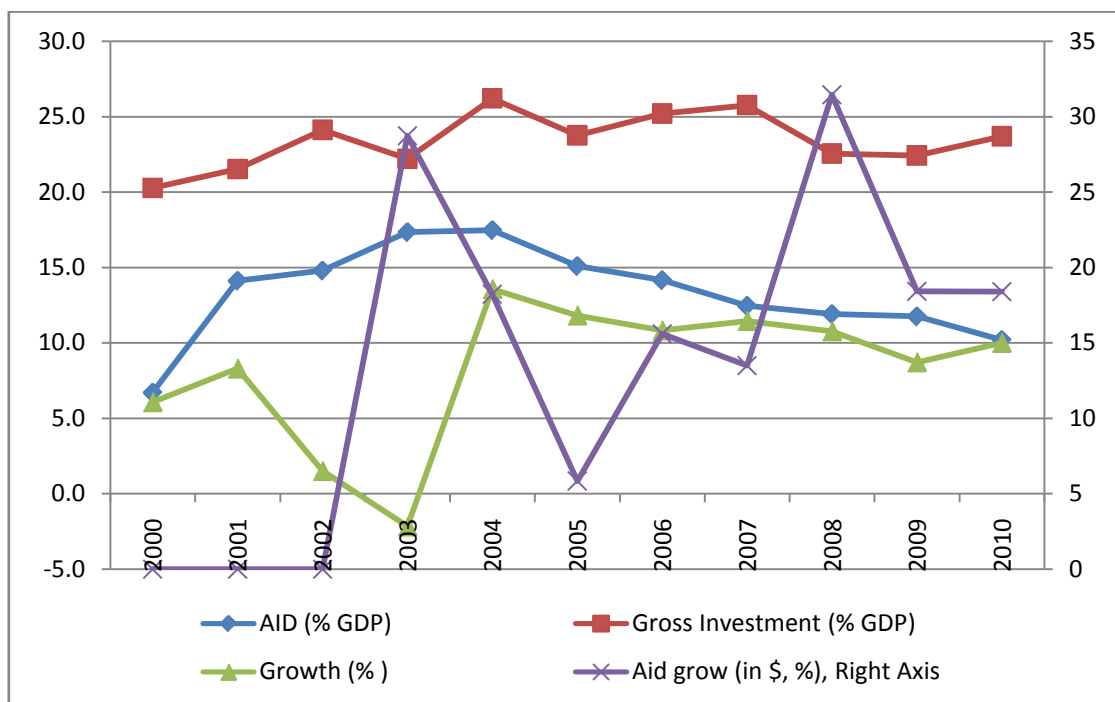
STUDY	AID MEASURE	NON-LINEAR EFFECTS	INSTRUMENT	"BEST CASE" ELASTICITY OF AID WRT GDP PER CAPITA	AID STATISTICALLY SIGNIFICANT
Burnside and Dollar (2000)	Total aid	Yes: Policy	External	0,24% ^a	Yes (with good policies)
Dalgaard et al. (2004)	Total aid	Yes: Area in the tropics	Internal	0,4% ^b	Yes (outside the tropics)
Rajan and Subramanian (2008)	Total aid	No	External	0.3%	No
Angels and Neanidis (2009)	Total aid	Yes: European Settlements in 19 th century	External	0.25% ^c	Yes (with few settlers)
Clemens et al. (2004)	Short term aid (budget support, project aid) vs long term aid (e.g., technical assistance)	Yes: Diminishing returns	Internal	2,4% ^d	Yes (short term aid), No (long term aid)
Annen and Kosempel (2009)	Technical assistance	Yes: Donor fragmentation	External and Internal	0,2 ^e	Yes (with low fragmentation)
Minoiu and Reddy (2009)	"Developmental aid".	No	Internal	0,1 ^f	Yes (developmental), No (other)
Ouattara Strobl (2008)	Project aid, technical assistance, food aid, financial program aid	Yes: various	Internal	...	Yes, positive (project); No (tech assistance, food aid); Yes, negative (financial program)

Source: Dalgaard, Carl-Johan (2010), P. 42

To see the Ethiopian evidence in this record, a model is specified along the gap model and linked with a simple Harrod-Dommar growth model that is estimated for the period 1967-2000. The result shows a negative relationship between investment and aid (and hence growth). However, it is not statistically significant. This negative (or 'no-effect' using the statistical significance result) relationship is in conformity with cross country and time series evidences reported in the literature (see also Table 3.1). In the long run, however, aid has a

statistically significant positive effect on investment. For the last decade, 2000 to 2010, the data shows a systematic relationship between aid, investment and growth until 2005, where ODA has fallen sharply following donors' reaction to the 2005 election. Until 2004 growth and investment seem to rise in tandem with a rise in ODA. From 2005 onward, the ODA to GDP ratio has shown a declining trend and this seems to be also the same for economic growth and the level of investment. However, this link doesn't seem to be strong as the episodes of jump and fall in investment (and also growth) are not systematically related to a similar increase and fall in ODA to GDP ratio – although the trend does (see Figure 1). Thus, we may infer that ODA had been helping to bridge the financing gap in the last decade although its potency was not very strong.

Figure 1: Aid, Investment and Growth



Source: Based on OECD (aid) and MOFED for the rest of the data

The Chenery-Strout (1966) dual-gap approach noted above is criticised from various angles. Griffin (1970)⁵, Griffin and Enos (1970) and Weisskopf (1972) argued that aid would displace, and not supplement, domestic savings. Papanek (1972), on the other hand, argued that these critics took association (of low saving and high foreign capital inflow for common exogenous reasons) for causation⁶. This 'aid-saving debate' has been carried on, nearly, for four decades.⁷ Griffin (1971) has provided a testable model of the saving-aid relationship. An estimation of the corrected model for Ethiopia for the period (1967-2000) shows that aid inflows do not have statistically significant impact on the level of saving (see Alemayehu

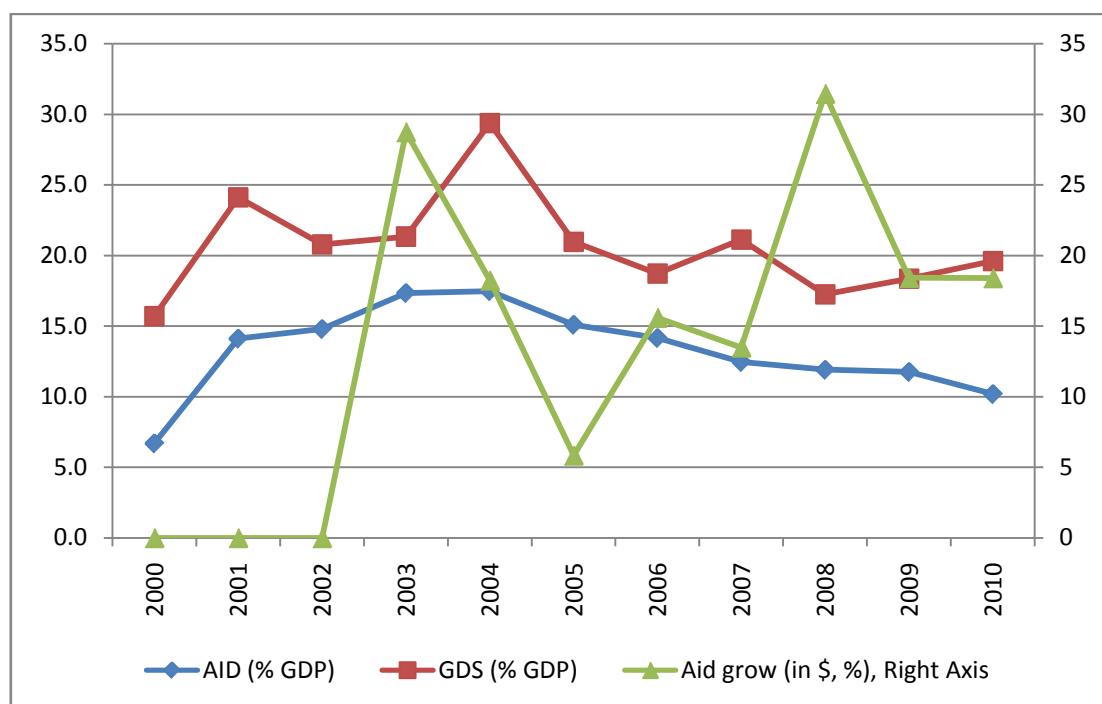
⁵ Griffin's hypothesis of negative relationship between aid and domestic saving is severely criticized from different angles. His approach is found to be weak owing to miss-specification (the definition of saving function i.e. consumption in his model is a function of income plus aid but saving a function of only income), neglects feedback effect of aid on saving via income (through the multiplier effect), lacks complete theoretical/economic mechanism in specifying saving etc. (See White 1992 for survey of the critics).

⁶ Boweles (1987) attempted to investigate the causality question by using the 'Granger Causality' concept. His analysis suggests that casual relationships are not universal and in countries where it holds it is found to depend on the structure of aid (whether from bilateral and multilateral sources or not). Gupta (1975) has used a simultaneous equation model, which allows for both the direct and indirect effects of aid and suggested that the negative effect of capital inflow is grossly overestimated and the total (indirect and direct effect) may also be positive. His estimation of the saving function, however, shows a negative coefficient both with aid and foreign capital inflow in general (Alemayehu, 2011a).

⁷ See White (1992; 1999) and Dalgaard (2010) for a survey.

2011a). For the period under analysis, 2000 to 2010, this relationship is shown in Figure 2. Figure 2 shows that gross domestic saving (GDS) seems to vary positively with aid until the year 2008. From 2008 onward (even including the year 2007), however, the two values seem to move in a different direction (exhibit a negative relationship), thus confirming to the evidence in the cross country studies (see Alemayeh, 2011a). Thus, we may concluded that aid might have led to an increase in saving in the first half of this decade but has led to its decline in the second half of this decade – the net effect over the last decade being negligible. This suggests to the largely ineffectiveness of aid in Ethiopia between 2000 and 2010.

Figure 2: Aid and Saving



Source: Based on OECD (aid) and MOFED for GDS data

3.2 The Dutch Disease Effect

As noted above, the two gap model helps to identify the capital requirement necessary to achieve a target rate of growth designed *a' la* Harrod and Domar. One of the major criticism to the 'two gap' model, which is relevant in our context, is its inability to accommodate the impact of relative prices (Findlay, 1973). It is this criticism which led to the importance of the 'Dutch Disease'⁸ literature. Van Wijnbergen (1986b) has formulated the 'Dutch Disease' effect of aid from reinterpretation of the two-gap model. Popularized by the works of Cordon and van Wijnbergen, among others, the 'Dutch Disease' concept has come to play an increasingly important role in discussions on the macroeconomic impact of temporary resource discovery in general and foreign aid in particular. It is used in aid analysis, as aid is believed to be similar to resource discovery.

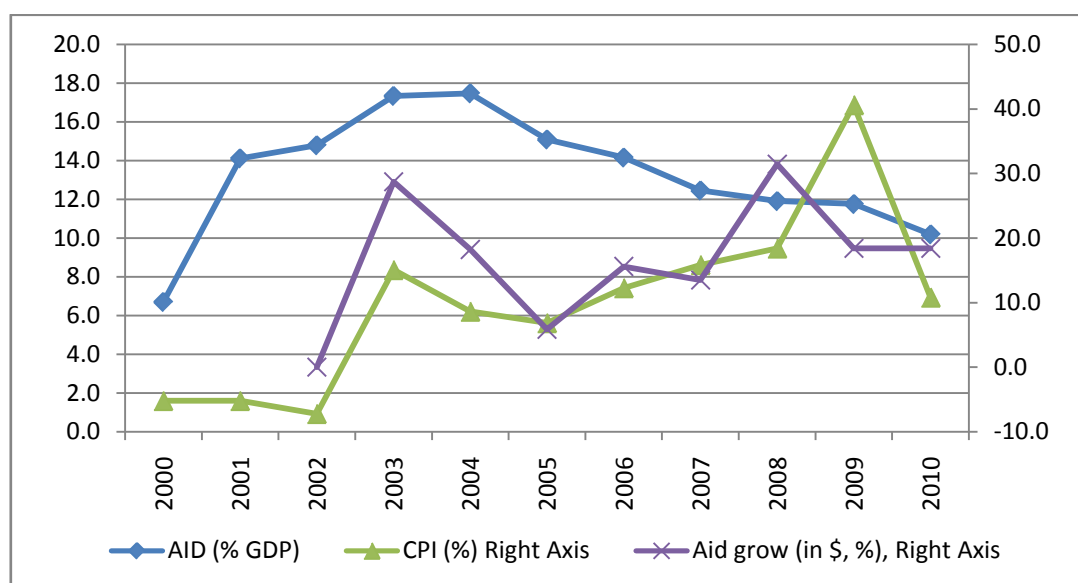
The argument runs as follows: Revenue is obtained from a booming sector. If part of this is spent on non-traded goods (the 'spending effect'), this leads to a real appreciation in the relative price of non-tradables relative to tradables. This, in turn, draws resources (the

⁸ The first printed document on which the term is coined is found on *The Economist*, November 26, 1977 (See Corden, 1984). For the discussion of its effect in The Netherlands see Ellman (1981).

'resource movement effect') out of the booming sector into the non-traded sector (Corden, 1984; van Wijnbergen, 1984). The growth effect of such a resource shift is considered to be negative, since traded sectors are characterized by 'learning by doing' (i.e. dynamic) externalities that will have a higher and positive effect on growth (van Wijnbergen, 1984; 1986a; Edwards and van Wijnbergen, 1989; all cited in Alemayehu, 2002, 2011b).

Edwards and van Wijnbergen (1989) argued for similarities between the discovery of natural resources and aid inflows and, therefore, for similarities in the macroeconomic impacts of both. This similarity takes a number of specific forms. First, both lead to an increase in foreign exchange availability, with little or no additional use of domestic factors of production. Secondly, the impact of both is almost certainly temporary in nature. Finally, both come in the form of additional foreign exchange, but will at least partially be spent on non-traded goods, thus placing upward pressure on the real exchange rate (Edwards and van Wijnbergen, 1989: 1485). The policy conclusion of this observation is that subsidies to the traded sectors are essential, since a 'Dutch Disease' type of problem is likely to occur (van Wijnbergen, 1986b: 130). Although their characterization of aid and the discovery of natural resources as temporary could be questioned (at least in Ethiopian context), the other two observations made are important and justify the use of the 'Dutch Disease' approach for analyzing the impact of aid. This approach has some problems that are rectified and further developed in Alemayehu (2002). In the latter model, by explicitly emphasizing the spending effect, and formulating the model based on some stylized facts relating to Africa, the 'Dutch Disease' effects are examined empirically using data from various African economies. This formulation deliberately emphasizes the spending effect and its inflationary consequences, since this is more relevant within the African context (see Alemayehu 2002 for detail).

Using this modified approach, for the period upto the year 2000, modelling the Ethiopian data (see Alemayehu 2011) shows that the 'Dutch Disease' effect has supporting empirical evidence in Ethiopia. For the period under analysis, 2001-2010, Figure 3 sheds light on the impact of Aid on domestic price. Assuming a policy determined exchange rate, Aid's positive effect on relative price (appreciation of local currency) can be gleaned from Figure 3 which is clearly observed until the year 2004. From 2005 onwards, despite a decline in the ODA to GDP ratio, mainly because of the large growth in the official GDP figure, ODA in dollar terms has grown. This growth is strongly associated with the rising level of inflation. Although inflation has steadily increased for other (non-aid) reasons too (see Alemayehu and Kibrom, 2009), it is also reasonable to infer the possibility of a Dutch disease effect of Aid in Ethiopia during the year 2000 to 2010. From an aid effectiveness perspective this could be taken as a negative macroeconomic effect of ODA flows to Ethiopia which signal to the need for a proper macroeconomic management.

Figure 3: Aid and The Dutch Disease

Source: Based on OECD (aid) and CSA (inflation) data

3.3 The Fiscal Response to External Finance

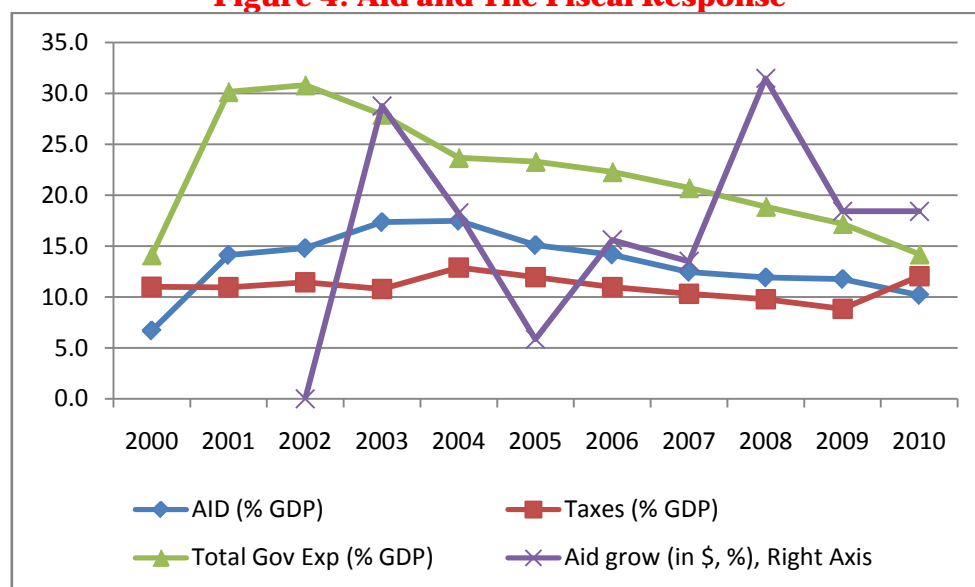
Another important aspect of the macroeconomic impact of capital inflows relates the recipient governments' fiscal behaviour in the context of ODA flows - the recipients' fiscal response. The recipient government's revenue and expenditure response to external inflows is articulated in what could aptly be called, following White (1992), the '*fiscal response*' literature. This literature is based on the works of Heller (1975) and its extension by Mosley, Hudson and Horrell (1987). Heller's (1975) original contribution presents a model, which assumes that public sector decision-makers maximize a utility function. This is done by narrowing the gap between the desired and actual performance, subject to financing constraints of which foreign inflow is one. Mosley *et al* (1987) basically adopted Heller's original model and extended it by including the impact of aid on growth of output and minor changes in how the public sector variable is specified. The fiscal response literature has a number of drawbacks (see Alemayehu 2002).

For the year upto 2000 with a model that attempts to overcome some of these shortcomings and uses an alternative framework is estimated for Ethiopia (See Alemayehu 2011 for detail). The empirical finding is mixed. The impact of aid on government revenue, both in the short and long run, as theoretically expected, is found to be negative. However, the result is not statistically significant. On the other hand, the impact of aid on government expenditure, both in the short and long run, is found to be positive and statistically significant. This positive relationship between aid and government expenditure seem also continued in the period 2000 to 2010 as can be seen from Figure 4. Infact, the the share of ODA in public expenditure which on the average has been 65%⁹ in the last last decade using the OECD data (which is also similar at sectoral levels such as the health sector (see Getenet, 2009; Alemayehu and Dawit, 2009)) suggests the alarming trend of aid-dependency. On the other hand taxes seem also to move in tandem with the movemnt of the aid to GDP ratio untill the year 2005. However, since episodes of growth in ODA are not systematically related to the decline in taxes, the negative fiscal effect of aid in Ethiopia, except the aid dependency may not be strong. Thus, from aid effectiveness perspective, ODA might have causing a rise in

⁹ When the MoFED ODA data is used instead, this will drop nearly by half.

government expenditure and hence leading to deficit. This may indicate aid's ineffectiveness. However, since aid is not leading to a decline in tax revenue as the 'Fiscal Respons' literature suggests, it may not be taken as ineffective from that perspective. Analysis using more disaggregated data and longer series might be an important consideration for future work. Such work may help to come up with conclusive evidence about the effect of ODA on the fiscal posture of Ethiopia.

Figure 4: Aid and The Fiscal Response



In sum, in this section we have examined the macroeconomic effect of external finance in Ethiopia. The general finding is that aid not only fails to have significant positive impact on major macro variables such as saving and growth but also could bring about negative macro economic effects through a 'Dutch Disease' effect and undesirable fiscal response. Looking at the trend of aid, growth and saving, growth, investment and aid showed a similar trend. However, this link doesn't seem to be strong as the episodes of jump and fall in investment (and also growth) are not systematically related to a similar increase and fall in ODA to GDP ratio. Thus, it seems that ODA had been instrumental to bridge the financing gap in the last decade although its potency was not very strong. With regard to the possible 'Dutch Disease' effect the evidence in Ethiopia seems to point out to that direction. This is because the rapid growth in ODA is strongly associated with the rising level of inflation which has led to the appreciation of the real exchange rate with classic Dutch disease effect such as the expansion of the non-trade sector vis-à-vis the traded sector in Ethiopia. The fiscal response effect in Ethiopia is found to be mixed (expenditure increasing while taxes not declining). This points to the importance of carefully managing aid. In general, however, from an aid effectiveness perspective the available information suggests the importance of the negative macroeconomic effect of ODA flows to Ethiopia which signal to the need for a proper macroeconomic management.

3.4 Aid Effectiveness: A Marginal Effect Analysis

As can be gleaned from the existing literature and noted earlier, measuring aid effectiveness is a challenging task, especially for a limited span of time such as the last 10 years. Notwithstanding that, we have examined the issue from macroeconomic perspective thus far. To conclude this analysis we used in this sub-section a modelling approach that allows for counterfactual analysis of aid using an accounting framework that shows the internal

(government finance) and external (balance of payment) balance of Ethiopia – called the *marginal impact analysis*. The approach is adopted from White (1999).

In this approach, noting the importance of aid in relieving the foreign exchange constraint for countries such as Ethiopia, the balance of payment of Ethiopia (given as Table 3.2 below) is used to compute the source and uses of external finance.

Table 3.2: The BOP of Ethiopia (In millions of US \$)

The BOP of Ethiopia (In millions of US \$)				
	2006/07	2007/08	2009/10	2010/11
Trade Balance	-3940	-5348	-7015	-6954
Goods Exports	1188	1462	1616	1795
Service Exports	1301	1597	1982	2498
Goods Imports	5128	6810	8631	8749
Oil	895	1621	144	1665
Non-oil	4233	5189	8487	7084
Service Imports	1140	1472	1608	1845
Factor Income (net)	14	33	-212	-190
Net Current Transfer	2927.6	3699	3754	4217
Official Transfer	1199	1306	1529	1659
Private Transfer	1728.6	2393	2225	2558
Current Account Balance (including Official transfer)	-871	-1491	-3099	-2274
Capital Account				
Official Long Term Loan(borrowing)	239	704	2364	1717
Disbursement	345	759	2441	1899
Public Enterprises (none-concessional)		357	1477	832
Amortization	106	55	77	182
Direct Foreign Investment (FDI)	482	815	705	910
E&O and other flows	219	-23	0	0
Overall Balance	3	263	30	354
Financing				-354
Reserves (- Increase)	-84	263	30	-354
NBE Net foreign Assets	-39	244	30	-354
CBs Net-foreign Assets	-45	19	0	0
Exceptional Finance & Other (such as Debt Relief)	88	0	0	0
Note: Official flows & Disbursement	1544	2065	3970	3558

Source: IMF Country Report, No. 09/296 September 2009 and NBE Annual Report 2008/2009; NBE Quarterly Report, 2009/10

From Table 3.2, the accounting relationship of the balance of payment (BoP) could be given as equation [2] below.

$$EX + OT + PT - IM - IntP = (-LK) + (-OK) + (-\Delta R) + E\&O$$

[2]

Where: EX=Exports; OT=Official transfer; IM=Imports; PT= Private transfer; IntP=Interest payment; LK=long-term capital flows; OK=Other capital flows; R=change in reserve (negative showing an increase); and E&O= Errors and omissions.

Solving equation [2] for imports we will get equation [3]

$$IM = Aid + PCT - DS + EX + OK + \Delta R + E\&O \quad [3]$$

Where: DS=Amortization plus service imports; and Aid is defined as the sum of official transfer and disbursement of long-term capital flows with a grant element of 25% and above which is the case in Ethiopia. PCT= Private capital transfer

Equation [3] is useful to compute the counter-factual level of imports for a change in the level of aid under different scenarios. Re-writing equation [2] in terms of sources and uses of foreign exchange will also give us equation [4], on the basis of which Table 3.3 is constructed.

$$EX + FDI + Aid + InAr + PT = IM + DS + PaAr \quad [4]$$

Where: InAr=increase in arrears; PaAr=Payment of arrears.

Applying the relationship given as equation [4] on the information given in Table 3.2 gives us Table 3.3 which we will be using for counter-factual analysis reported in Table 3.4.

Table 3.3: Sources and Uses of Foreign Exchange in Ethiopia (US\$ millions)

Sources and Uses of Foreign Exchange in Ethiopia (US\$ millions)				
	2006/07	2007/08	2009/10	2010/11
Sources				
Exports, goods, services, income	2503	3092	3386	4103
FDI	482	815	705	910
Aid	1544	2065	3970	3558
Other flows (or Increase in Arrears)	116.4	-28	30	-353
Private Transfer	1728.6	2393	2225	2558
Total (A)	6374	8337	10316	10776
Uses				
Imports	5128	6810	8631	8749
Debt Service	1246	1527	1685	2027
Payment of Arrears	0	1	2	3
Total (B)	6374	8338	10318	10779

Source: Table 3.1

Note: the other flows is computed as an adjustment factor between (B) and (A)

Aid=Official Plus disbursement

Debt Service= Amortization plus service imports

An observation of the movement or periodic change of aid and non-oil imports (assuming oil demand is inelastic) in the balance of payment of Ethiopia (Table 3.2) shows that when aid (official transfer and disbursement) increased between 2006/07 and 2007/08, non-oil imports have also increased. On the other hand, when the level of aid declined between

2009/10 and 2010/11, the level of non-oil imports have also declined. From this, and similar observation in many African countries about positive association of aid and imports, we can build different counterfactual scenarios for aid and imports to examine the marginal effectiveness of aid in Ethiopian context.

In Table 3.4, in view of the import-aid relationship noted above, we have built three scenarios about what would have happened to the level of imports and debt payment if there were no aid. These scenarios will help us to compute the marginal impact of aid on the level of imports. Given that imports are crucial for growth and development, at least by relaxing the foreign exchange constraint of a country, the impact of aid on imports would help to gauge the marginal impact of aid on growth and development indirectly. Following White (1999), we have built three counter-factual scenarios in Table 3.4. In the first scenario (scenario 1) we have assumed that there is no aid and payments of aid are slashed to 10% of their actual level. In the second scenario (scenario 2), we have assumed there is no aid and all resources are primarily devoted for payment of debt. It should be noted that these two scenarios assume extreme conditions since in reality exports may normally grow and there may be some borrowing to tackle the foreign exchange constraint that the country may be facing. Thus, the reality is somewhere between scenarios 1 and scenario 2. This last possibility is given as scenario 3. Results from this exercise are given in Table 3.4.

Table 3.4 Counter Factual Analysis of Aid Effectiveness in Ethiopia (Imports & Accumulated arrears)

US\$ Million	2006/07	2007/08	2009/10	2010/11	Arrears Accumulation in the 4 years
Scenario 1	4705.4	6120.3	6179.5	7018.3	5836.5
Scenarios2	3584	4746	4663	5194	0
Scenario 3	4145	5433	5421	6106	2918
As % of Actual Imports					
Scenario 1	91.8	89.9	71.6	80.2	
Scenarios2	69.9	69.7	54.0	59.4	
Scenario 3	80.8	79.8	62.8	69.8	
Marginal Impacts of Aid (how much do imports rise for 1\$ increase in Aid)					
Scenario 1	0.27	0.33	0.62	0.49	
Scenarios2	1.00	1.00	1.00	1.00	
Scenario 3	0.64	0.67	0.81	0.74	

Source: Table 3.2

The first scenario shows that an absence of aid leads to a decline in imports of about 10 to 30 %. In the second scenario, an absence of aid may lead to a decline in imports of about 30 to 45 %. This effect would have been much larger had it not been for a fast growth in export and private transfer in Ethiopia in the last five years. Resorting to the most realistic scenario (scenario 3), an absence of aid might lead to a decline in imports of about 19 to 37%. Given this result, we can also compute the marginal impact of aid in Ethiopia. As can be read from the last three rows of Table 3.4, the marginal impact of aid on imports are in the range of US\$0.64 to US\$ 0.81. This basically says that a 1 US\$ increase/decrease in ODA would increase/decrease the level of import by US\$0.64 to US\$ 0.81. This result shows the strong marginal effectiveness of aid in Ethiopia. Thus, from the point of addressing the foreign exchange constraints of the country perspective, the contribution of ODA is significant. It is

when an implementation of programs and projects using these resources is carried that the problem of aid effectiveness seems to crop up. This is most likely the case at micro level too. In fact, in relation to this effectiveness issue of ODA, anecdotal evidence as it may seem, micro level studies generally seem to support the macro result noted above, as can be read from Box 1..

Box 1
Aid Effectiveness in the Ethiopian Health Sector
(Extracts from Getnet, 2009)

According to Getnet's study about aid-effectiveness in the health sector aid is not effectively coordinated. It is fragmented and unpredictable. There are several donors that have several projects but only form a small share of the aid market. Despite Ethiopia's early initiation of an in country harmonization and alignment process, both at the sector and country levels, achievements have not been comprehensive. The health sector wide Approach (SWAp), for instance, has not been effectively exploited by either the government or donors to improve aid predictability or harmonize funding arrangements. Progress is often made in areas where significant transaction costs cannot be reduced. Most multilateral organizations continue to use their own systems rather than aligning and harmonizing. UN agencies, in particular, harmonize neither among themselves nor with the government, with exception of UNICEF. What really seems to be the main challenge for further alignment and harmonization in the health sector is the willingness and political commitment of donors and their headquarters. The other challenge is related to meeting the ideals and principles that underpin the Paris Declaration. A lot more should be done to strengthen good governance, the rule of law, and fiduciary systems to an acceptable standard. These are real challenges, as they require huge investment in a country with severe financial and capacity constraints.... The coordination structures both at the country and sectors levels exist, but their full functionality remains a challenge.

Similar problems are reported for the agricultural sector that shows the inefficiency of public spending in the sector where donor support to the sector through food security program is significant (see Alemayehu and Dawit, 2009)

Finally, an examination of Aid effectiveness from Donor's perspective supports the result of the macro level analysis noted above. As has been noted above total net official development assistance (ODA) to Ethiopia was USD 1,856.6 million in 2004/2005 and reached US\$ 3,791 in 2008/2009. During this time the World Bank, the European Commission, the United States, the Global Fund and the United Kingdom were the five largest donors. With UK's and US's global aid as share of their income being 0.52 and 0.20, respectively. Ethiopia's major donors' performance is well below the global targeted commitment of 0.7 %. Be that as it may, twenty-one donors (their aid constituting around 94% of total ODA to Ethiopia) responded to the 2008 OECD Survey about Aid effectiveness in Ethiopia. The OECD claims that the survey process has helped to focus attention on aid effectiveness and reported the result for Ethiopia which is shown in Table 3.4. It can be inferred from the table that except for ownership, in which Ethiopia scored 'good', the other dimension of aid effectiveness shows, at best, mixed (good and bad) results. The survey indicates lack of national capacity for implementation and lack of proper monitoring and evaluation mechanisms as important hurdles in aid-effectiveness in Ethiopia.

Table 3.4: Aid Effectiveness in Ethiopia from Donor's Perspective

DIMENSIONS	2007	CHALLENGES	PRIORITY ACTIONS
Ownership	Good	National capacity for implementing the poverty-reduction strategy paper Scaling up of financial resources and improving predictability	Implement agreed capacity-building programmes Continue to increase use of multi-donor aid modalities Honour international commitments
Alignment	Mixed	Capacity constraints, particularly at the local level Further strengthening and increasing use of procurement systems and other government systems Problem of getting timely and reliable information Implicit conditionalities	Improved communication between donors and government Continue to increase use of multi-donor aid modalities Implement agreed capacity-building programmes Agree on clear and mutually acceptable conditionalities
Harmonisation	Mixed	Financial and legal rules restrict use of national systems	Move toward joint funding by donors through modalities that use government systems Implement agreed capacity-building programmes
Managing for results	Mixed	Improving monitoring and feedback mechanism	Implement agreed capacity-building programmes
Mutual accountability	Mixed	Lack of agreement on content of the monitoring mechanism	Agree on selected identified actions to achieve set targets

Source: OECD (2008)

III. Conclusion and Policy Implications.

The flow of ODA to Ethiopia has grown dramatically in the last two decades. *ODA net disbursements* have risen from just over 15 million USD in 1960 to 3.8 billion USD in 2009. This growth, though fast, was not smooth, however. ODA, especially the multilateral component, has gone through periods of ups and downs, invariably following political developments in the country. Following the Kananaskis summit, there has been a massive increase in ODA to Ethiopia. Grants constituted the biggest component of ODA flows to Ethiopia in this period, averaging 80% over the 2002-2009 period. During the same period, bilateral sources continued to be the major providers of ODA to Ethiopia with an average share of 54%. On the other hand, ODA loans were highly dominated by multilateral sources. The latter accounted for, on average, 90% of ODA loans between 2002 and 2009. During the post-Kananaskis period, *United States and United Kingdom* are the biggest origins of bilateral ODA to Ethiopia, followed, in order of importance, by Germany, Netherlands, Canada, Italy and Japan. The biggest sources of *multilateral ODA* gross disbursements to Ethiopia, on the other hand, are *International Development Association (IDA)*, *African Development Fund (AfDF)*, and *EU*.

ODA flows in the post-Kananaskis period had been less volatile, compared to the pre-Kananaskis period. The existing data also seems to suggest that Ethiopia enjoys relatively predictable ODA flows compared to other African countries. However, there has been a notable drop in ODA following the 2005 disputed election. This shows the vulnerability of the country for ODA financing (or the severity of aid-dependency), in particular if there are governance or related political issues over which donors are concerned. This is in sharp contrast to other emerging sources of finance such as those from China where flows are insensitive to such governance issue. Notwithstanding that, these new sources of finance are generally expensive being above global commercial rate, make the technology path of the country dependent on one provider, render poor quality services, limited technological transfer, if any, and making the political elite less accountable by allowing them to have non-transparent deals. It is imperative for the government to address these challenges of new sources of finances to make an economic assessment of their long run welfare implications.

In terms of composition and use of ODA, multi-sector (cross-cutting) ODA disbursements are considerably higher than sector specific flows. Such flows averaged over 40% between 2003/04 and 2007/08. Agriculture & rural development, road, and health sectors are the next biggest recipients of ODA accounting for about 17%, 13% and 9%, respectively. Despite receiving significant share of total ODA disbursements, multi-sector ODA flows and ODA to road, agriculture & rural development and educations sectors appear to have been volatile. Thus, the characteristics observed at macro level about the volatility of ODA is different to that at sectoral level and hence requires a framework that would address these specific challenges at sectoral level.

With this characteristics, the general finding from the analysis on aid effectiveness, in particular the macroeconomic impact of aid, is that aid not only fails to have significant positive impact on major macro variables such as saving and growth but might have brought negative macro economic effects through a 'Dutch Disease' effect and undesirable government 'fiscal response'. The analysis in this study shows that there is no systematic and sustained link between growth, investment and aid. In addition, from macroeconomic perspective, the evidence in Ethiopia seems to indicate the existence of a 'Dutch Disease' effect of ODA as the rapid growth in ODA was strongly associated with the rising level of inflation and appreciation of the local currency with classic Dutch disease effect such as the expansion of the non-trade sector. The fiscal response effect, is however, found to be mixed (public expenditure increasing; while, contrary to the theory, taxes not decreasing). These mixed macroeconomic effects underscore the importance of carefully managing aid. From an aid effectiveness perspective the available evidence at macro level (and anecdotal evidence at micro level shown in this study) suggests to the importance of the negative macroeconomic effect of ODA flows in Ethiopia, although the potency of that negative effect is not that big. This situation, however, underscores to the need to draw the government's attention to the necessity of a proper macroeconomic management of Aid which is currently missing. In the medium to long run, domestic resource mobilization and designing a strategy to exit from aid (aid-dependency) is crucial.

Looking ODA from the supply side, the study noted that the major source countries of ODA to Ethiopia are found to have their global aid as share of their income being well below the global targeted commitment of 0.7 %. In addition, a survey of the donors' opinion shows that their engagement in Ethiopia is constrained by many challenges, lack of national capacity for implementation and lack of proper monitoring and evaluation mechanisms being the most

important one. This again points the need to address these pressing issues to enhance the effectiveness of ODA in Ethiopia.

Notwithstanding this, ODA had been instrumental in bridging the financing gap and in maintaining a minimum level of foreign exchange reserves (ie.; handling the trade gap) in the last decade. This is shown in the final section of the study where we have employed a 'marginal effect' based counter-factual analysis. The analysis shows that, assuming imports are generally strategic and crucial for development, ODA's role in ensuring the financing of imports is significant. Our counter-factual analysis shows that on the average and in the last decade the marginal impact of ODA on imports range from US\$0.64 to US\$0.81 (ie. an increase in ODA by 1\$ would lead to an increase in imports of Ethiopia by an amount between US\$0.64 to US\$0.81).

In sum, the general tendency of ineffectiveness of aid in Ethiopia in the last decade and the concentration of whatever ODA flows available on spending in what could be described as the 'social sectors' (education, health, vulnerability etc) suggests the need to re-examine the priority accorded to such 'social sector spending'. Important as it may be, comparing this spending on the 'social sector' vis-a-vis spending on investment in real (and directly productive) sectors such as agriculture, industry and infrastructure, aid would be effective if we move from this 'social sector spending' as such to investment spending with due attention given to the efficiency of that spending. The latter, however, requires proper planning and monitoring both at national and sectoral level which again is missing in Ethiopia as a recent study on the issue shows (Alemayehu and Dawit, 2009). In addition, success in this endeavour requires ownership of programs by the government. This may suggest the need to emphasize program aid and its predictability in a harmonized fashion. However, program aids need to be conditional, among other things, on proper planning at macro and sectoral level and efficiency and optimality of spending both at national and sectoral level. Planning and implementation capacity is lacking to do that in Ethiopia and this is a priority area that is worth looking if ODA effectiveness is to be achieved.

Finally, further research on effectiveness of ODA spending at both sectoral and micro level is strongly recommended. Such research need to begin by addressing the inconsistency in the ODA data in the country (say as reported by OECD and MOFED). This is a major problem and might have arisen from lack of harmonization in defining concepts as well as missing information by one or other of the reporting entities. This has implications for policy makers since it is difficult to know the actual level of ODA in the country (especially, because some sectoral and micro level data are not currently reported in national data).

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