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A regional perspective on Aid and FDI
in
Southern Africa

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Abstract

During the last decade international aid flows diminished while Africa's relative share of global foreign direct investment (FDI) declined. This went together with lacklustre growth and low human development levels. In 2005, the G8 countries announced that they would increase aid to Africa by some $25 billion per annum. The pledge for increasing aid seems to have triggered an extensive debate about the role of aid and other international capital flows in the development of poorer countries. This study contributes to this debate. Specifically it addresses the role of foreign direct investment and aid to growth and human development. Panel estimations are used to determine the relationships between aid, FDI and growth in the Southern Africa region from 1990 to 2005. Negative relationships are found between FDI and growth while aid and growth turned out to be unrelated.

KEYWORDS: Foreign direct investment (FDI) . Aid . SACU . SADC . South Africa . Growth . Human capital development . Regional integration

JEL F15 . F21 . F35 . O15 . O19

1 Introduction

The debate regarding the contribution of aid to development and growth in Africa is highly emotive with many opposing views and diverging empirical results. Extending the debate to cover foreign direct investment raises more questions as to the effectiveness of the two funding methods to development and economic growth.

Currently, there exist divergent views about aid to developing countries. Certain political groups tend to support substantial increases in aid to developing countries as indicated by the excerpts from the Chair's summary of the G8, Gleneagles Summit (G8 2005). This support is echoed by others (Sachs et al. (2004) who call for substantial increases in aid to pull Africa out of its poverty trap. The poverty trap implies that most African countries are simply too poor to finance or initiate their own development (Teunissen and Akkerman 2006).

In contrast to this view, an alternative hypothesis has been put forth, which calls for investment rather than aid. According to this view, investment will lead to sustainable long-term development in Africa (Kosack and Tobin 2006). Apart from the fact that the new hypothesis emphasizes investment as opposed to aid, which appears to be gaining ground, it would appear that the aid campaign is encountering more criticism such that policy makers are moving away from aid as was originally outlined in 2005.

The relevance of this debate—aid versus investment—is critical for Southern African countries development as the region represents one of the most impoverished and least-developed regions in the world[1]

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[1]The Worldfactbook lists eight of the 20 Southern African countries as among the top 20 poorest of the world and the 12 among the top 40 (CIA 2008).

According to the NEPAD initiative, Africa requires about $64 billion annually in capital to be able to generate a growth rate of 7% per annum which is required to achieve the Millennium Development Goals (Asiedu 2004; UNCTAD 2005). Thus far, Africa has failed to attract and sustain sufficient fund flows. Undoubtedly, this is due to the fact that the continent is a high-risk environment for private capital, owing to various institutional and geographical features (Naudé and Krugell 2007; Asiedu 2006).

In view of declining international aid flows and Africa's failure to attract sufficient amounts of investment, there is also an urgent concern regarding the way in alleviating poverty and creating a climate of long-term sustainable development on the African continent. This paper establishes a framework for assessing the role of FDI and aid in the development of the Southern African region.

The paper is organized as follows: "A Literature Review" gives a brief overview of the recent literature. This is followed in "Regional FDI and Aid Overview" by a regional overview of current aid and FDI flows and poverty indicators in Southern Africa. Empirical analysis is provided in "Empirical Analysis". The last section concludes.

2   A Literature Review

Kosack and Tobin (2006) contend that due to an increasing international focus on FDI and a decline in aid levels, it is important to distinguish the role that aid and FDI plays in growth and in development. It is also important to distinguish the type of aid and FDI in the specific role. In addition, it has also been argued that any study that focuses on aid should also take cognisance of the distinction between growth and development.

According to Kosack and Tobin (2006), growth and development are commonly used interchangeably in most economic studies although they do represent completely different concepts. Growth is defined by level, and it increases in GDP and GDP per capita whereas development implies more than that. It reflects changes in wealth distribution, quality of life, living and wage standards, levels of social and human development. This distinction is supported by Sen (1999). He too believes that an understanding of development should go beyond wealth accumulation and income-related variables such as GDP. He is in favor of using the United Nations Development Programme (UNDP) concept of human development[2]

Ranis et al. (2000) explored the linkages between growth and development and discovered that both are intrinsically linked. Growth leads to increases in household and government incomes that can in turn lead to development spending by both. This then leads to an improvement in human development. An increase in human development leads to better workforce capacity that directly impacts organization and adaptibility of production as well as the complexity of economic output. The next phase of this review is to point out the distinction between the two types of funds: aid and FDI.

3   Aid

Official Development Assistance (ODA) is a common denominator for Aid. ODA includes all transactions (as defined in OECD-DAC Statistical Directives) that are administered with the promotion of the economic development and welfare of developing countries as its main objectives, and transactions that are concessional in character and convey a grant element of at least 25%. Grants refer to ODA consisting of transfers made in cash, goods or services for which no repayment is required (OECD 2007).

Aid can be viewed as an external source of government revenue that can contribute to growth if government policies are focussed on human development rather than on government consumption

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[2]The UNDP (2008) established the Human Development Reports in 1990 with the aim to provide an expanded picture of economic growth that, apart from income, also includes measures of human capital and living standards.

(Kosack and Tobin 2006). Aid can also be used to compensate for a fall in exports, or to augment international reserves. There is also the possibility that aid can flow out of the country through capital flight (Aiyar and Ruthbah 2008).

Djankov et al. (2006) have argued that the empirical evidence regarding the effectiveness of aid is discouraging. They conclude that aid can increase either government investment or government consumption with different effects on growth. Government investment will lead to more growth while government consumption will have an adverse effect on growth. This conclusion is based on the proposition that aid leads to increases in consumption through rent-seeking activities with little if any increases in investment.

The link between the effectiveness of aid through investment as opposed to consumption is discussed by Djankov et al. (2006). The authors contend that a very low ratio of grants to loans is conducive to economic growth, whereas a higher ratio retards growth. Thus, loans with strict repayment schedules can act as a mechanism to ensure investment rather than consumption. When aid leads to higher government consumption, it effectively leaves the country with a negative balance of payments performance without affecting growth and development (Djankov et al. 2006).

Large aid flows can undermine incentives for governments' accountability and entrench bureaucracy (Easterly 2007). In many cases, a sudden inflow of aid is seen as a large windfall of resources that triggers corruption, rent-seeking activities and civil wars. Punitive conditions on the dispersion and use of aid seem to be ineffective due to the absence of punitive measures (Djankov et al. 2006; Kosack and Tobin 2006; Maren 1997).

Tornell and Lane (1999) and Svensson (2000) add to the debate of rent seeking and bureaucracy by stating that in many developing nations, aid merely supports powerful individuals or groups of individuals trying to appropriate as much of this windfall for themselves and excluding as many others as possible. The overall effect is that aid very seldom reaches its target. This rent seeking behaviour is said to be unchecked due to the general policy of the United Nations and donor countries not to interfere in domestic policies of recipient countries.

Whether aid promotes growth or merely lines the pockets of rulers is an issue that needs to be explored further. Easterly (2003) and Rajan and Subramanian (2007) have been very critical in their assessment of the relation between aid and growth. They arrived at the conclusion that there is no empirical support for the hypothesis that aid favours economic development. Easterly's (2003) statement that, "Aid buys growth," is a slogan often used in the funding of bureaucracies that disburse aid without any real focus on what happens after disbursement.

In a subsequent paper, Easterly (2007) provided evidence against the effectiveness of aid in achieving economic development. He reports that, for over 20 years, the World Bank has been proclaiming that aid will be effective in Africa when conducted within a good policy framework. A total of $568 billion of aid in real terms flowed into Africa over the last 42 years with almost a zero impact on real per capita GDP growth. This is in contrast to the rapid growth that has occurred in countries receiving relatively little aid as a percent of GDP like China, Vietnam and India.

The effectiveness of aid has been analysed by Aiyar and Ruthbah (2008) by distinguishing between aid absorption (defined as a reduction in the current account balance) and actual aid. The difference between aid and aid absorption leads to an increase in capital outflows or reserve accumulation. Their study shows that short-term absorption is very low, and that the increase in government fiscal expenditures is significantly greater than actual absorption. In turn, this implies that aid leads to an injection of liquidity in recipient economies. Similarly, Bourguignon and Sundberg (2007) summarize the effectiveness of aid by linking aid to growth through a long chain of macroeconomic factors that are open to substantial noise and endogeneity.

The effectiveness of aid is also examined by Djankov et al. (2006).The study highlights the large proliferation of donors and donor organizations which they regard as an element in explaining the ineffectiveness of aid flows. Fragmentation of aid flows by donors inhibits the measuring and application of compliance and outcome performance. Effectiveness would improve through more donor coordination of country strategies and recipient country's aid implementation strategy (Bourguignon

and Sundberg 2007).

The debate on whether aid leads to growth and development is far from resolved although most current research indicates a definite pattern confirming its ineffectiveness. Growth is usually the result of a good policy framework and good institutions. Thus, if aid were to contribute to growth it will be within a good policy and good institutional framework (Alvi et al. 2008).

4   Foreign Direct Investment

Foreign direct investment is the other component of international fund flows. Whereas grants are that part of ODA that consists of transfers made in cash, goods or services for which no repayment are required, FDI is "An investment made to acquire lasting interest in enterprises operating outside of the country of the investor. Furthermore, in the case of FDI, the investor's purpose is to gain an effective say in the management of the enterprise" (UNCTAD 2008a).

The contribution of FDI to economic growth is discussed by Naudé and Krugell (2003). According to the authors, the most significant growth factors that are directly associated with FDI are increases in the capital stock, organizational restructuring, technology transfers and an increase in productivity. FDI-induced growth will follow the same link between growth and human development as the growth effect of aid established earlier. FDI can also directly improve household income and government revenue, which in turn could follow the path of increasing human development (Ranis et al. 2000).

There are important economic linkages between FDI and economic growth. Positive growth can only result from efficiency seeking sustainable investments. That is FDI will only lead to growth if FDI inflows are well managed and are used for investments that will encourage growth.

The link between FDI and growth potential is examined by Kosack and Tobin (2006).The authors challenged the validity of the assumption that FDI has a positive effect on human development in developing countries, especially among poorer nations. They argued that the linkage between FDI, growth and human capital stock depends on several factors: the type of policies implemented, the absorptive capacity of the economy to utilize FDI and the commitment of the multinational enterprise, making the investments, to invest in the development of its local employees and the upgrading of technology (Kosack and Tobin 2006; Miyamoto 2003).

This is also the view expressed by Borenstein et al. (1998) who find that in countries where the quality of human capital is low or where substantial differences in technology exist, the local firms encounter great difficulties in applying the technology of the MNE. In these circumstances, they argue, the MNE is the only beneficiary of the FDI.

Miyamoto (2003) put forth the argument that for FDI to be successful in development, investment promotion agencies and MNE's should be explicitly encouraged to participate in extensive formal education programmes, vocational training and human capital development. Djankov et al. (2006) find that private-to private fund flows lead to substantial increases in growth, but private-to-public flows had no direct effect on growth. Private-to-public flows did, however, increase government investment without affecting government consumption. These flows typically include FDI, FPI (Foreign portfolio investment) and remittances.

The relation between FDI and foreign trade is analysed in a study by Bezuidenhout and Naudé (2008). Their study shows that increased levels of trade lead to increased levels of FDI. This in turn emphasizes the role that FDI could play in advancing growth and development through positive growth spillover effects coming from increased trade[3]

The relationship between aid and FDI was investigated by Selaya and Sunesen (2008). Their study points to the fact that governments and international development agencies normally regard FDI and aid as complementary factors.

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[3]On the role of trade in generating growth see for instance Foster (2006); Sala-i-Martin (1997) and Sachs and Warner (1997).

They challenged the validity of this statement by arguing that aid may raise the marginal productivity of capital by financing complementary inputs such as public works, human capital and infrastructure development or by crowding out foreign and domestic private investment. They come to the conclusion that the combined effect of these processes on economic growth is virtually zero. Thus, the focus of aid should be towards complementing inputs that will encourage FDI inflows, thereby achieving a stronger combined growth effect.

In short, the exposition above confirms that aid can enhance human capital and improve living standards, provided that government policies are focused on achieving better living conditions. FDI expands economic capacity by enhancing physical and human capital. The provision is that favourable conditions must prevail for it to affect the absorption of the positive spillover effects coming from international trade.

5 Regional FDI and Aid Overview

This section provides a brief overview of the current aid and FDI in the Southern African region against the background of regional poverty and human development. The focus is primarily on the grants part of ODA to evaluate the significance of this component in view of the explicit call for increased grants to Africa.

Table 1 provides a summary statistics on aid and FDI as well as other indicators including the world ranking of the GDP per capita, human development indicators along with the regional ranking to place South African indices in a global context[4]

In the table, total FDI inflows are used as a measure of new inflows. Total grants are used to evaluate the call for aid as grants rather than loans.

From the table, several interesting findings emerge: for example Seychelles receives very little aid (grants), but has the largest share of FDI per GDP ranking. Malawi and the DRC, on the other hand, receive more aid per capita but less FDI per capita. Zimbabwe has a relatively high FDI per GDP ranking, (this is however attributed to a severe decline in GDP and the fact that FDI is usually difficult to withdraw in a short period of time following the political and economic disruptions in that country during recent years). Swaziland received comparatively little aid and FDI per GDP and so on.

The inverse relation between aid and FDI suggests that aid and FDI are substitutes within the region. Most countries that receive more aid occupy a low FDI ranking and vice versa. Intra-regional, the FDI ranking is more or less even with no clear difference between SADC and SACU, as the SACU countries receive the least aid[5]

To gain a better understanding of the regional and intra-regional aid and FDI flows, the following section provides empirical estimates of the contribution of aid and FDI to growth.

6 Empirical Analysis

To establish a significant relation between FDI, grants, and growth in the region, a standard growth specification (Alfaro 2003; Asiedu 2006) is used.

$$Growth \ = \ log(GDP \ lagged) \ + \ log(control \ variables) \ + \ log(FDI \ inflows) \ + \ log(total \ grants) \tag{1}$$

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[4]Global ranking is taken from the approximate 250 countries of World Bank global development indicators and the 170 countries in the UNDP Human Development Reports.

[5]The Southern African Development Community (SADC) has the following members: Angola, Botswana, Democratic Republic of Congo (DRC), Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe. On the other hand, the Southern African Customs Union (SACU) has the following members Botswana, Lesotho, Namibia, South Africa, and Swaziland.

In Equation (1), gross government consumption expenditure, inflation, and trade are used as control variables. A common unit root process is present in this specification and endogeneity is a concern. Baum et al. (2007) suggest that a lagged growth variable rather than a lagged GDP variable be used. This solves the unit root problem but not that of endogeneity. Using the change in government consumption expenditure alleviates this problem but does not solve it.

Using a panel data for 17 Southern African countries for the period 1990–2005, the growth equation was estimated. In the regression, analysis growth is measured as growth in GDP per capita. The growth in GDP per capita of the previous period is used as the initial GDP figure. The significance of various control variables was tested including infrastructure, trade, and population growth. The changes in gross government consumption expenditure, inflation, and trade are the only control variables that were significant. The estimations were performed using World Bank (2008a, b) and OECD (2007) data for every year between 1990 and 2005. The results of the panel regressions are given in Table 2

For the first panel (panel 1), the estimation is made using GMM (Generalized Method of Moments) method with cross section weights. The coefficients, although significant, together with the overall estimation results, indicate a poor statistical fit. The introduction of political stability and SACU dummy variables in Panel 2 improved the results somewhat.

The weak estimation results may be either due to a specification problem or to an underlying data problem. An investigation into the primary statistics of the data reveals large standard deviations, weak correlations, and in some instances strong covariance. The conclusion pertaining to this is that there is simply too much noise in the data, or a complete (unknown) set of heterogeneous effects for the different countries, to estimate an effective panel for SADC. Unfortunately advanced testing and estimation techniques cannot solve the underlying data problems.

The positive results associated with the political stability and SACU dummy variables are investigated further in Panel 3. In this panel the regression is carried out for the five member states of SACU plus Mauritius and the Seychelles. There is a marked improvement in the test statistics of Panel 3. All coefficients except grants are significant although trade is omitted from the equation due the endogeneity caused by the relationship between trade and FDI. A political stability dummy variable is used to capture the decline in growth in South Africa prior to the 1994 elections, the violence in Lesotho in 1998 and exceptional growth in the Seychelles in 1997 and 1998. The proportional amounts of aid received and FDI inflows for some of the SACU countries are rather small. This could be an important reason for the poor performance of FDI and grants in the equation.

It is important to emphasize that grants are not statistically significant in any of the panel's results shown in Table 2. FDI is only significant in Panel 3 where it shows a small negative coefficient. This can be attributed to the type of FDI that flows into the region. According to UNCTAD (2005), most FDI in the region occurs in the primary sector with only South Africa and Mauritius showing significant values in other sectors. Alfaro et al. (2004), for example, find that primary sector FDI disappoints in generating economic growth and had limited technological spillovers.

7   Conclusion

The international political community is committed to a substantial increase in aid to African countries. Along with the calls and promises of more aid, a strong argument has been made for increasing investment flows rather than aid as this would lead to sustainable long-term development in Africa. Declining international aid flows together with Africa's failure to attract sufficient amounts of investment, are raising many urgent concerns regarding the way forward.

The call made by Sachs et al. (2004) as well as others for massive increases in aid to be given in the form of grants rather than loans, although a worthy goal may not have the intended consequences. The empirical results reported in this study do not show positive effects of grants on growth. This finding should be viewed in light of Easterly's contention that constraints should be placed on the

behaviour of governments. Aid should be channelled into activities that complement and enhance current investments, but also provide the environment to attract further investment. Aid can also be channelled towards improving education delivery and the development of skilled domestic labour

From the analysis, it is clear that the contribution of FDI to growth in the region appears to be limited, and that the belief that more FDI will lead to increased growth, is not a forgone conclusion. Current policies aimed at attracting FDI will have to be revisited in terms of selecting the specific type of investment that is required. Economic growth targets could also include mandatory human development constraints. Policies should be focused on attracting manufacturing *Greenfields* FDI with the main focus on training and technological transfer. Governments should also rethink their national skills development policies as the migration of skilled labour inhibits the successful absorption of FDI. The international perception of the region's tolerance of bad governance and political instability also needs to be addressed (Bezuidenhout 2007).

There is some indication of growth divergence in the region. This is important from a global perspective, because stronger regional integration secures more stability and sustained long-term economic growth prospects. From a policy point of view, it is important to note that the economies of the region are becoming more interlinked, but these linkages are dissimilar in the two sub-regions of SACU and the rest of SADC. This is important in the global context as Southern Africa is increasingly becoming a regional economic entity.

The research findings suggest that SACU is likely to receive little or no aid in the future and thus may have to focus on appropriate policies to attract FDI that will generate growth. As for the rest of SADC, the outcome is different in the sense that the focus should be on policy reform and the development of effective institutions. This will secure more effective aid and FDI inflows to generate growth.

A better understanding of human development and its impact on growth is imperative in any future discussion on FDI, aid, and their respective roles in achieving economic growth.

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Table 1: Summary of regional statistics

Country	Aid		FDI		GDP *per capita (2006)*			UNDP Human development indicator 2007	
	Total Grants average 2000 - 2004[1]	Rank	FDI Inflows average 2000 - 2004[2]	Rank	GDP per capita	World Ranking	Regional Ranking	World Ranking	Regional Ranking
Angola	2.22	15	5.91	2	1069.48	123	5	162	15
Botswana	0.75	18	3.60	7	4423.06	74	2	124	4
Burundi	32.73	1	0.20	19	101.57	217	16	167	18
Comoros	7.61	11	0.25	18	379.21	225	18	134	6
DRC	21.74	3	0.16	20	90.77	230	20	168	19
Kenya	5.45	13	4.06	5	440.09	192	8	148	10
Lesotho	3.45	12	0.25	17	527.67	194	9	138	7
Madagascar	13.63	7	1.82	12	237.56	213	14	143	9
Malawi	23.89	2	1.39	13	144.63	220	17	164	16
Mauritius	0.63	19	1.05	14	4522.31	87	3	65	2
Mozambique	20.47	5	3.83	6	330.21	215	15	172	20
Namibia	2.48	14	5.85	3	2166.11	134	6	125	5
Rwanda	21.03	4	0.40	16	261.58	212	13	161	14
Seychelles	1.64	16	9.64	1	7004.92	65	1	50	1
South Africa	0.31	20	2.10	11	3562.05	93	4	121	3
Swaziland	1.54	17	0.68	15	1400.92	139	7	141	8
Tanzania	10.21	10	3.32	8	334.56	206	12	159	13
Uganda	11.66	8	2.89	9	274.88	205	11	154	12
Zambia	19.03	6	4.46	4	371.25	198	10	165	17
Zimbabwe	10.85	9	2.47	10	NA	229	19	151	11

Source: OECD DAC, 2008; UNCTAD, 2008 and UNDP, 2008

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[1] Average total grants per GDP is calculated using the average 2000 to 2004 plus the 2005 value divided by two. This establishes the historical flow, but gives more weight to the 2005 value.

[2] Average FDI inflows per GDP are calculated using the average 2000 to 2004 plus the 2005 value divided by two. This enables the historical flow, but gives the highest weight to the 2005 value.

Table 2: Panel Estimates

Dependent Variable: GDP *per capita* growth		Panel GMM EGLS (Cross-sections –weights)	
Sample (adjusted): 1990 2005	Cross-sections included: 17	Total panel observations: 142	
	SADC	SADC	SACU + 2
Variables	Panel 1	Panel 2	Panel 3
Intercept	-0.387 (-0.69)	0.867 (2.29)	2.937 (6.40)
GDP *per capita* growth lagged once	0.344 (5.34)	0.425 (7.91)	0.407 (7.16)
Gross government consumption as percentage of GDP change	-0.286 (-3.27)	-0.162 (-2.32)	
Gross government consumption as percentage of GDP			-0.055 (-2.22)
Inflation	-0.001 (-2.19)	-0.001 (-1.36)	
Trade as percentage of GDP	0.006 (1.13)	-0.001 (-0.08)	
FDI inflows as percentage of GDP	0.136 (1.84)	0.025 (0.37)	-0.165 (-2.38)
Total grants as percentage of GDP	0.008 (0.27)	-0.010 (-0.51)	0.015 (0.40)
			(t-values in brackets)
Dummy Variables			
SACU		0.371 (1.16)	
Political instability		-0.887 (-3.74)	-6.95 (-7.35)
Weighted Statistics			
R-squared	0.22	0.36	0.62
Adjusted R-squared	0.20	0.34	0.60
J-statistic	0.05	0.02	0.01
Mean dependent variable	0.55	1.39	2.49
S.D. dependent variable	4.91	5.34	3.51
Sum squared residual	5108.42	4562	409.98
Durbin-Watson stat	2.20	2.11	1.82
Unweighted Statistics			
R-squared	0.21	0.22	0.27
Sum squared residual	5108.42	5078.97	116.17
Mean dependent variable	0.55	0.55	0.840
Durbin-Watson stat	2.20	2.47	1.43
Jarque-Bera	306.95	6.67	4.58

Source: Own Calculations .Data are obtained from the World Bank (2008) and OECD (2007).