EU Aid for
ACP Investment

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HWWA DISCUSSION PAPER

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ABSTRACT

The partnership between the EU and the ACP countries (that include 38 of the world's 49 least developed countries) has a long standing history and was renewed in 2000 with the Cotonou Agreement. Furthermore, the European Commission has become the world's fifth largest donor of development aid - and therefore one of the most important - in the 1990's. When total aid is looked at the ACP countries are disproportionally among those receiving the most foreign aid per capita in the world and hence the effects of European aid are of special relevance for them. The aim of this paper is therefore to investigate the effect European aid has on investment in the ACP countries. It contributes to the ongoing debate on aid effectiveness by arguing that the impact f aid does not only depend on the characteristics of the recipient but also of the donor.

The EU-ACP Partnership Agreement could increase incentives for private investment in the ACP countries either through direct support measures or more indirectly through complementary spending for infrastructure and administration. The special private sector chapter in the Cotonou Agreement makes it visible that private sector support is a primary objective and brings the existing provisions into a more coherent and refined framework. However, given the limited funds that were available under the Lomé Conventions direct investment support cannot be expected to increase total investment considerably.

The empirical findings show that total aid has a positive but declining effect on the share of gross domestic investment in GDP. The effect of aid from the European Commission on gross domestic investment seems to be smaller partly due to its allocation towards ACP countries with a relatively poor investment performance.

ZUSAMMENFASSUNG

Die Partnerschaft zwischen EU und AKP-Staaten (von denen 38 zu den 49 am wenigsten entwickelten Ländern gehören) hat eine langjährige Geschichte und wurde im Jahre 2000 mit dem Cotonou Abkommen erneuert. Zudem hat sich die Europäische Kommission in den 90er Jahren zum fünftgrößten Geber von Entwicklungshilfe in der Welt entwickelt. Die AKP-Staaten liegen bei Betrachtung der Gesamthilfe überproportional unter denen, welche die meiste Entwicklungshilfe pro Kopf in der Welt erhalten. Es werden daher die Auswirkungen der EU-Hilfe insbesondere auf die Investitionen in den AKP Staaten untersucht. Damit wird ein Beitrag zu der gegenwärtigen Debatte über die Wirksamkeit von Entwicklungshilfe geleistet. Es wird argumentiert dass die Wirksamkeit von Hilfe nicht nur von den Gegebenheiten im Empfängerland, sonder auch vom Geber abhängt.

Das Abkommen von Cotonou soll die Anreize für Privatinvestitionen in den AKP-Staaten steigern, entweder durch direkte Förderungsmaßnahmen oder indirekt durch ergänzende Ausgaben für Infrastruktur und Administration. Das Sonderkapitel über den Privatsektor im Cotonou-Abkommen macht deutlich, dass die Unterstützung des privaten Sektors ein primäres Ziel ist und bringt die bestehenden Bestimmungen in einen kohärenten und verbesserten Rahmen. Einer der Schwerpunktsektoren ist daher die Förderung von Investitionen und privatem Sektor. Bei den begrenzten Geldmitteln, die durch die Lomé-Abkommen verfügbar waren, kann allerdings nicht erwartet werden, dass die Förderung direkter Investitionen die Gesamtinvestitionen wesentlich steigert.

Die empirischen Ergebnisse zeigen, dass die Gesamthilfe einen positiven, aber sinkenden Einfluss auf den Anteil der inländischen Investitionen am BSP hat. Die Auswirkungen der EU-Hilfe auf Investitionen in den AKP Staaten sind weniger stark. Dies kann insbesondere auf die stärkere Ausrichtung der EU-Zusammenarbeit auf die AKP Staaten mit schlechteren allgemeinen Investitionsbedingungen zurückgeführt werden.

1 Introduction

In recent years the discussion on the effectiveness of development aid in promoting growth has deepened. The impact of aid on growth is generally assumed to work via investment and therefore aid can only work if complementary investment conditions are favourable. Especially the publication of *Assessing Aid* by the WorldBank in 1998 has kicked of a debate over its basic finding that aid increases growth only in a good policy environment and has negative effects otherwise. However, aid effectiveness cannot only be associated with the performance of recipients but is also likely to vary with donors (Morrissey 2002). Therefore this paper concentrates on the EU-ACP partnership as it has a long standing history and the countries in Africa, the Caribbean and the Pacific (ACP) include 38 of the world's 49 least developed countries (see Table A1). Furthermore, the European Commission has become the world's fifth largest donor of development aid - and therefore one of the most important - in the 1990's. Together with aid from its member states the EU provides more than 50 % of all aid going to ACP countries. The new Cotonou Agreement that succeeded the Lomé Conventions in 2000 has the aim to improve the effectiveness of aid among others through a reallocation of resources among countries. Also when total aid is looked at the ACP countries are disproportionately among those receiving the most foreign aid per capita in the world and therefore the effects of European and other aid can be compared in this context.[1]

When it was established in 1975 the Lomé-Convention was regarded as a model for North-South relations, mainly because of its contractual nature, where the ACP countries were not passive recipients but entered into negotiations about the design of the co-operation (Wolf/Spoden 2000). Now in the Cotonou Agreement the overall aims are still similar: "The partnership shall be centred on the objective of reducing and eventually eradicating poverty consistent with the objectives of sustainable development and the gradual integration of the ACP countries into the world economy" (Article 1). To reach these objectives the EU-ACP partnership does not only cover aid but also trade relations, specifically preferential access for ACP products to the EU market, which was intended to increase ACP exports and hence investment in the export sector. Over time the political dialog has become more important. It aims primarily at increasing democracy and strengthening the rule of law and therefore could also contribute towards improving overall investment conditions. Especially in the new Cotonou Agreement direct support for the private sector and investment promotion is a key element of the cooperation. Therefore it is expected that a positive relationship between EC aid and investment in the ACP countries can be found.

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1 O'Connell and Soludo (2001) however, come to the conclusion that „Africa's high aid intensity becomes unremarkable once we control for low real income, relatively small populations, and other widely accepted determinants of aid".

The main focus of this study is on the impact of aid on investment as this link is much clearer than the aid growth link. Because donors differ according to their aims and their management of aid it is likely that aid from different donors will have different effects on investment in the recipient countries. Aid from the EU to the ACP countries under Lomé and Cotonou was based on the same principles and was going to a relatively homogenous group of countries and therefore provides a good example to study the effects of aid on investment. After an overview of the investment situation of the ACP countries and the factors that influence investment flows the direct investment support measures of the Lomé and Cotonou Agreements will be reviewed. As aid is not only considered to increase private investment directly but also indirectly an overview over the discussion on aid and investment will be given. On this basis an empirical investigation of the effects of EC and non-EC aid on investment in different developing countries will be carried out.

The review of the new private sector support has shown that investment support has been further improved in the Cotonou Agreement. However, given the limited funds that were available under the Lomé Conventions direct investment support cannot be expected to increase total investment considerably. The main results of our empirical findings show that total aid has a positive but declining effect on the share of gross domestic investment in GDP. The effect of aid from the European Commission on gross domestic investment seems to be smaller partly due to its allocation towards ACP countries with a relatively poor investment performance.

2   The importance of investment for development in ACP countries

Whereas in other regions FDI has overcompensated reduced aid flows international investment flows seem to have bypassed the ACP countries to a large extent in the last decades. Only 3 % of world-wide FDI are directed towards Sub-Saharan Africa. Furthermore domestic investment in the majority of the ACP countries is also lower than world average because of low savings rates and in some cases high capital flight. The low level of investment corresponds with the low level of GDP per capita in most ACP countries and the investment/GDP ratios have been lower in comparison to other regions (see Table A1 and Rodrik 1999). These developments create severe obstacles for long-term growth perspectives of the ACP countries.[1] Whereas the level of gross fixed capital formation in the ACP countries has remained roughly constant over the past 25 years the share of FDI has increased up to a level of 5 % in 1996 and is already recovering after the slump in reaction to the Asian crises that affected FDI to developing countries in general (see Figure 1).

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1 Although capital accumulation is not sufficient for growth, new investment that embodies new productivity enhancing technology is needed (Aghion/Howitt 1998).

Figure 1:
FDI and capital formation in the ACP countries
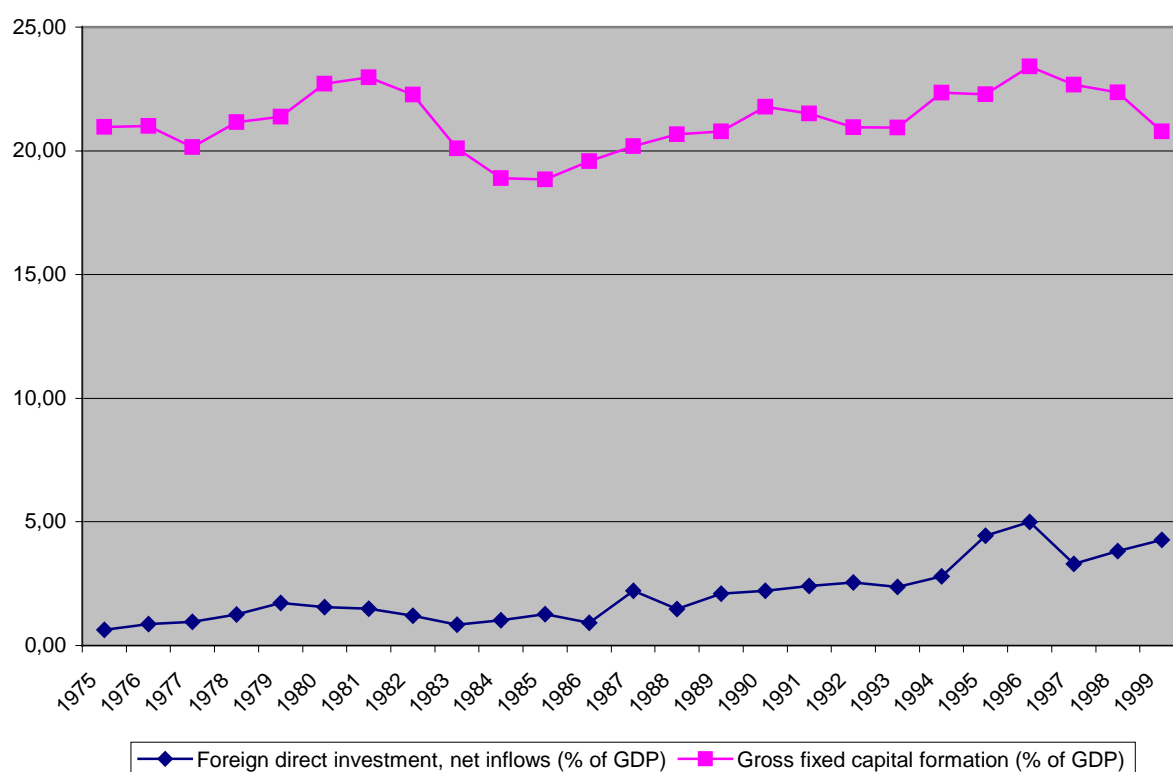
Source: own calculations based on WorldBank (2001).

A small number of African countries have been relatively successful in both capital accumulation (increase in investment ratio by more than 2 %) and economic growth (GDP growth by more than 2 %). These include Mozambique, Uganda, Ghana, Mali and Nigeria (UNCTAD, 2001b). A number of small ACP countries with low absolute FDI have accumulated a high stock of FDI as percentage of GDP. The share in world FDI is higher than their share in world GDP for Lesotho (7.4), Angola (7.7), Seychelles (3.1), Trinidad and Tobago (3.0), Jamaica (2.2), Swaziland (2.7), Guyana (2.2), Mozambique (1.9), Dominican Republic (1.8), Zambia (1.7), and Papua New Guinea (1.6) Uganda (UNCTAD 2001a, Annex table A.I.10). These examples are encouraging, because they show that countries with a low income level can also become increasingly attractive to foreign investors.

The inflows of foreign investment in 1997 were more than twice as high as in 1990 for sub-Saharan Africa. For a number of sub-Saharan African countries the share of FDI in gross capital formation was much higher than for the average of developing countries where it was 10 % in 1996-98. Among them are Lesotho (53 %), Angola (44 %), Equatorial Guinea (43%), Zambia (36 %), Seychelles (25 %), Nigeria (22 %), Côte d'Ivoire (22 %) and others. In the Pacific on average 10 % of gross capital formation comes from FDI but for individual countries like Samoa (49 %) and Fiji (14 %) this share is higher. Also most Caribbean

countries have a high share of FDI in gross capital formation as Trinidad and Tobago (52 %), St. Vincent and the Grenadines (47 %), St Lucia (39 %), Grenada (31 %), St Kitts and Nevis (28 %), Dominica (23 %), Guyana (22 %) (UNCTAD 2000).

Most striking is the fact that the return on FDI is assumed to be higher in Africa than in other developing areas in the 90s in contrast to earlier periods where low returns on capital could explain low private investment (Collier and Pattillo 2000). Partly this is due to the economic and regulatory reforms that many African countries have implemented in the 1990s. As a result "foreign investors have identified an increased number of investment opportunities, with returns often significantly higher than in other regions of the world." (MIGA 1999) Although FDI is still primarily directed towards the primary sector the manufacturing and especially services sector have received increasing shares of FDI in recent years.

To increase the share of private investment to GDP ratio is important for ACP countries for several reasons. At the moment the investment rate hardly is high enough to maintain the existing capital stock. In some African countries investment has fallen to less than 10 % of GDP whereas the minimum investment needed to replace depreciated capital in Africa is estimated at 13 % of GDP (Oshikoya 1994). Not only because increased capital through higher investment rates enters the production function but especially because private investment is expected to be more productive than public investment it contributes to economic growth (see Figure 2). Furthermore new investment is needed for structural changes and a diversification of the economies as most installed capital cannot be easily used for other activities. The special role of foreign investment comes from the expected spillover effects. Besides reducing the savings gap that becomes more relevant in times of declining aid inflows FDI is expected to increase the availability of technology and management and marketing skills through positive externalities. Furthermore access to foreign markets is expected to increase as well as domestic competition. For the impact of FDI on employment or government revenue through higher taxes it is important to know whether foreign investment replaces domestic investment or adds to it (Helleiner 1989).

The two issues of domestic and foreign investment cannot be regarded separately (Page 1999). A prosperous domestic private sector and a pool of skilled and trained people is one of the important factors that attract FDI. In turn the existence of foreign firms raises the potential to diffuse skills, knowledge and technology and therefore growth of the domestic economy. Especially backward linkages between FDI and domestic firms can make this work (UNCTAD 2001a). On the other hand there is also competition for scarce resources between foreign and domestic firms. Usually foreign firms pay higher wages and might therefore increase the wage level for skilled labour in the whole economy.

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Figure 2:
Investment - growth relationship in the ACP States, 1975-1999
5 year averages
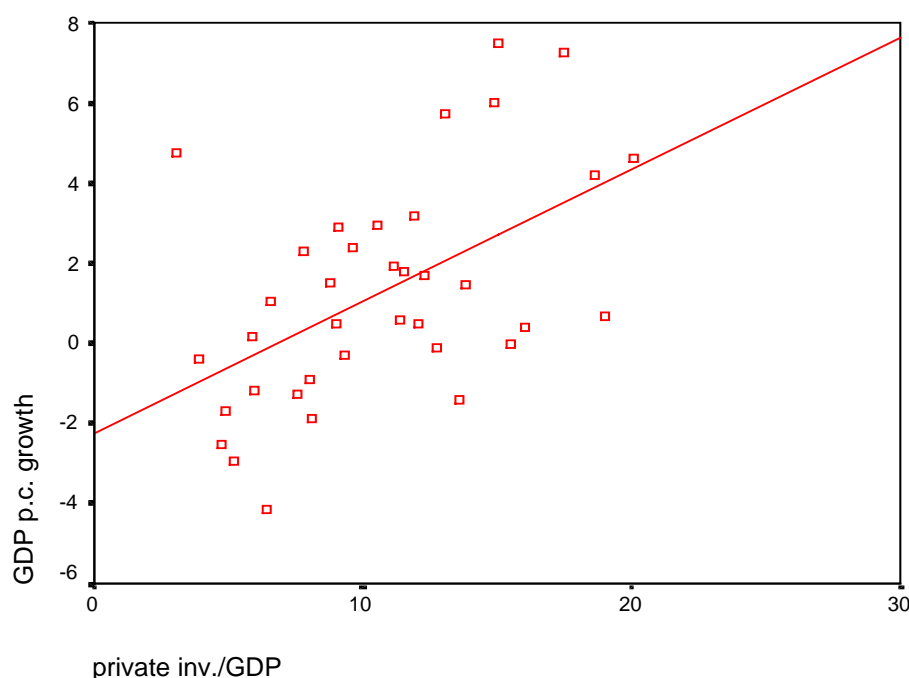
The poor investment record of most ACP countries can be attributed to the existence of a number of deficiencies, as a result of which minimum adequate environment for investments is largely still lacking. The size of the market is only one of the factors influencing investment, others as the macroeconomic structure of the economy, economic policies, levels and magnitudes of domestic savings, trade competitiveness, the legal system and degree of accessibility to domestic and international credit facilities are of equal or greater importance. There is wide agreement that the macroeconomic environment is essential for the increase of both domestic and foreign investment. High and volatile inflation rates do not only affect capital markets but reduce the information given by the price system and therefore could lead to inefficient resource allocation. Volatility of commodity prices and the real exchange rate that is still common for many African export products does not only affect the profitability of primary commodity exporters but also has impacts on income and savings. Therefore it can be concluded that the low investment ratios in Sub-Saharan Africa are not only caused by low savings levels but also by various risk factors (Collier/Pattillo 2000).

3 Are the new provisions in the Cotonou Agreement suitable for improving the aid-investment link?

The EU-ACP Partnership Agreement could increase incentives for private investment in the ACP countries either through direct support measures or more indirectly through

complementary spending for infrastructure and administration and not least by a secured market access to the European market. In this chapter after an overview of the EU-ACP cooperation the likely effects of the direct investment promotion measures will be discussed, whereas the indirect effects will be covered in the empirical analysis of the aid-investment link.

Although aid volumes to the ACP have increased over the past decade, the EC aid[1] towards the ACP countries has lost some of its importance in the overall EU programme (decline from 67 % of total allocable aid disbursements in 1986-90 to 42 % in 1991-95 and 29 % in 1999). The absolute amount of funds available for the ACP countries increased from Lomé I (3462 m ECU) to Lomé IV bis (14625 m ECU) (see Table 1).[2] During these 25 years the number of ACP states also increased. This development is partly the result of changing policies and large commitments made to the central and eastern European countries. EC aid is also distributed very unequally among the different ACP countries. The per capita EU aid ranges from around 10 ECU for the 1990 - 1997 period for Angola, Ethiopia, Kenya, the Dominican Republic and Tanzania to 77 ECU in Mauritania and even more for some islands (Wolf/Spoden 2000). A recent study (IDC, 1999) has also found that aid levels to the least developed countries have continuously decreased, which is somehow contradictionary to the statement that poverty reduction is the overall aim of EU aid as stated in the Maastricht Treaty. The challenge for both the EU and the ACP states to use aid more effectively is even higher as the overall amount of EU and other aid has been declining in real terms.

From the mid 1970s aid to Africa increased rapidly as eastern and southern Africa were strategic partners in the intensifying Cold War and helping the poorest countries was emphasised by most donors. After some fluctuations in the early 1980s the increase continued, peaking in 1990. Until then aid to Africa has declined in real terms as donor priorities have changed and several donors have decreased their overall aid levels (Lancaster 1999). From 1990 to 1998 net official development assistance (ODA) to sub-Saharan Africa fell by 40 % in real terms which was much faster than the decline of total ODA from all donors to all recipients (O'Connell/Soludo 2001). Recently important donors like the British Government the WorldBank and also the European Commission have called for an increase in aid towards the 0.7 % of GDP target and the New Partnership for Africa's Development (NEPAD) is on the agenda of the 2002 G-8 summit so at least the decline might be stopped. But it is nevertheless not very likely that aid towards the ACP countries will increase in the

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1 Aid provided through the European Commission is referred to as EC aid in this paper.

2 The sources for EU Commission aid are the EU Budget for non-ACP countries, the European Development Fund (EDF) for ACP countries and the European Investment Bank (EIB). An additional but separate amount is provided to the ACP through the EU budget in form of Food and Humanitarian Aid.

near future given the financial constraints of EU members due to the limits of fiscal policy because of the monetary union.

Table 1:
EU Aid - Lomé I - IV and Cotonou

ECU/Euro million

	Lomé I	Lomé II	Lomé III	Lomé IV		Cotonou
	1975-80	1980-85	1985-90	1990-95	1995-2000	2000-2007
EDF [a]	3072	4724	7400	10800	12967	13500
of which						
Grants	*2150*	*2999*	*4860*	*7995*	*9592*	
Special loans	*446*	*525*	*600*	*-*	*-*	
Risk capital	*99*	*284*	*600*	*825*	*1000*	
Stabex	*377*	*634*	*925*	*1500*	*1800*	
Sysmin	*-*	*282*	*415*	*480*	*575*	
EIB loan resources	390	685	1100	1200	1658	1700
Total	**3462**	**5409**	**8500**	**12000**	**14625**	**15200**

[a] The numbering of EDFs causes confusion. EDFs 1-3 related to the Yaoundé Conventions, EDF 4 to Lomé I, EDF 5 to Lomé II, EDF 6 to Lomé III, EDFs 7 and 8 to Lomé IV and EDF 9 to the first period of Cotonou.

Source: EU.

The tools of the EU-ACP development co-operation have been extended over the successive Lomé Conventions and can be broken down into the following groups (Wolf 2001):

- *Customs duty preferences* granted by the EU guarantee free market access for over 99 percent of all ACP export products that are not subject to EU agricultural market regulations. This measure was intended to expand and diversify exports. However, in practice, market access has been severely restricted, not least by the rules relating to product origin. These state that at least 45 percent of the added value of the product concerned must be produced in ACP countries for it to benefit from trade preferences.

- The *compensation payments* for the stabilisation of export earnings from agricultural raw materials (Stabex) and from the products of mining (Sysmin). It intended to reduce the marked dependence of export earnings on fluctuating raw materials prices and to sustain the purchasing power of small producers. In addition, structural adjustment programmes have been supported financially, in particular in order to mitigate adverse social consequences.

- *Financial aid.* This has, for example, been provided for the development of infrastructure, education, health, rural development and agriculture. Support for private sector development and regional integration increased in the recent years as these areas are acknowledged to be of increasing importance.

- *Political dialogue* between the EU and the ACP states has been an important element of the partnership in recent years. The promotion of democracy and human rights are important aims of the Lomé Convention. Support for decentralisation and capacity building might improve participation. It is evident that countries that are able to manage their own resources are more likely able to manage foreign aid.

Since 1975 until the eighth European Development Fund (until 2000) almost 30 billion ECUs have been committed under the Lomé I-IV Conventions to the ACP countries. Despite this investment, 38 of the then 71 ACP countries still belong to the group of least developed countries. At a first glance one could conclude that the EU has failed to reach its aim of poverty reduction that has been stated from Lomé I to Cotonou. Likewise the trade volume between the ACP countries and the EU has not been fostered in the nineties and FDI from EU countries towards ACP states also showed no significant increase whereas trade and investment links of the EU with other developing countries increased significantly. In general internal bottlenecks were to a large extent responsible for this underdevelopment (Menck 2001). To draw meaningful conclusions one has to look at the possibilities and limitations of external assistance more closely and control for other factors that influence aid effectiveness. In principle direct investment support by the EU was already provided under the Lomé Conventions. However, despite a large number of possible measures in 1999 only 107 out of 3.270 MEURO of EDF finance were spent for productive sector support and nothing was explicitly provided for investment promotion. In addition, the risk capital provided by the EIB amounts to 10 % of the total (see Figure 3).

Figure 3:
Use of EC aid in ACP countries
percentage of payments by instrument in 1999
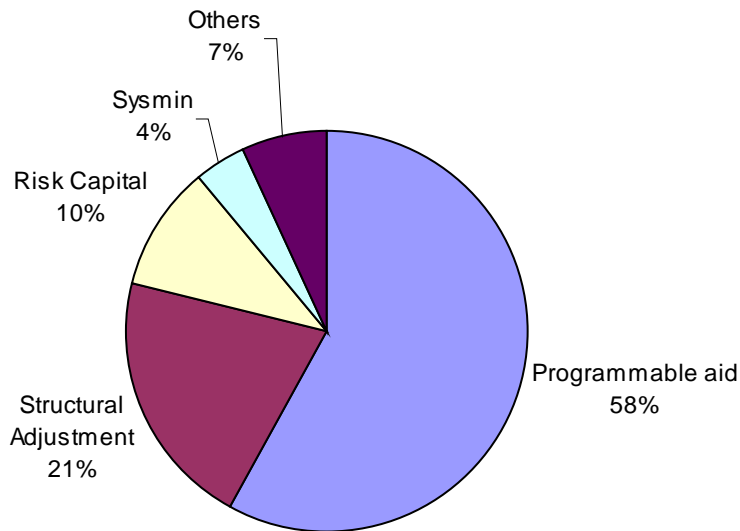
Source: European Commission 2000 b.

Especially in Africa different evaluations come to the result that aid projects failed more often than in other regions. The level of public expenditure to GDP is higher in African countries, largely financed by high aid inflows. However, the quality of public services measured by health and education indicators is worse than in most other countries, so aid could not help to attract investment. Likewise infrastructure is in a bad state in many countries especially in rural areas. Transport costs are higher than in other regions, as are electricity costs. Supply of electricity and water are still unreliable (Bigsten 1999). This means that despite high aid to GDP ratios basic conditions for private investment are not in place in many ACP countries.

The Cotonou Agreement provides a broader-based development co-operation platform that goes beyond inter-governmental co-operation and that facilitates the participation of other key stakeholders: the civil society and economic and social actors in the planning and implementation of the partnership. Furthermore, the Agreement advocates a stronger focus on poverty reduction that encompasses economic development, social and human development. Hence, the Cotonou Agreement builds on the developmental impact of regional co-operation and integration. In this context the liberalisation and improvement of infrastructure plays a key role.

According to the new agreement, the EU's financial aid for the ACP States, which has hitherto been governed by a mass of clauses and programmes, will be significantly simplified. A recent study finds that the performance of a country in terms of civil liberties has played only a marginal role in the EU's aid allocation. Likewise, socio-economic factors like openness and the Human Development Index have played virtually no role. Also, such economic development indicators, as the GDP per capita show no significant correlation with EU aid in the second period under review (1994-97), only in the 1990-93 period countries with lower GDP receive slightly more aid (Wolf/Spoden 2000). However it is likely that for all of these indicators causalities could run in either direction. It is for example not clear whether the EU intends to give relatively more aid to countries that grant civil liberties or whether higher EU aid contributes to more civil liberties in a country.

Under the new agreement aid will be allocated according to needs and performance to increase effectiveness. „Cooperation arrangements and priorities shall vary according to a partner's level of development, its needs, its performance and its long-term development strategy. (...) Special treatment shall be given to the least-developed countries. The vulnerability of landlocked and island countries shall be taken into account" (Article 2). This provision should change the allocation of aid considerably. Furthermore there will no longer be entitlements for the whole period of a European Development Fund (EDF) but a review process that could lead to a change in allocations. In addition unused funds will no longer be added to future EDFs but returned to the EU member states.

Investment support provisions have been further improved in the Cotonou Agreement. The special private sector chapter in the Cotonou Convention makes it visible that private sector support is a primary objective according to Article 1, and brings the existing provisions into a more coherent and refined framework. One of the main areas of support is therefore "Investment and private sector development" (Article 21). Basically economic and institutional reforms should create a favourable environment for private investment. In addition support in the following areas is foreseen: public-private cooperation especially with the EU private sector, entrepreneurial skills, privatisation, financial and non-financial services including access to capital, mobilisation of savings, business institutions, transfer of technologies and know-how, access to advisory, or technical assistance services and capacity building in trade related areas. Special emphasis is given to microenterprise development. A new instrument compared to Lomé IV is the offering of investment guarantees. Through reinsurance schemes foreign investors should be protected "against legal uncertainties and the major risks of expropriation, currency transfer restriction, war and civil disturbance, and breach of contract." (Article 77)

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Interestingly in the New Partnership for Africa's Development (NEPAD) private sector development also has a high priority. The need to diversify the economies on the basis of natural resources is stressed. Support for private enterprises should be directed mainly towards micro-enterprises and small and medium enterprises as these are the main contributors to value added and employment in most African countries (NEPAD, Article 156). As the NEPAD acknowledges the prime responsibility of African governments for the development of the continent it could complement the Cotonou Agreement in the sense that ownership of the development strategies is increased as the creation of "the necessary political, social and economic conditions in Africa that would serve as incentives to curb the brain drain and attract much needed investment" that is foreseen in Article 125 (NEPAD) is primarily the responsibility of the ACP states that have to simplify administrative procedures and improve the legal system.

There are a number of arguments in favour and against direct support for investment. As there is asymmetric information about investment opportunities and investors tend to stick to the countries where they are already operating, an active marketing of the advantages a country has could lead to social benefits. On the other hand direct support for special industries through subsidies, tax holidays etc. seem to have only limited impact. Furthermore governments or aid agencies don't have sufficient knowledge about which investment is most sustainable and might therefore support the wrong sectors or firms. In any case developing countries will not be able to compete with industrial countries in terms of subsidies for foreign investors. Therefore they should rather promote the limitation of the use of these subsidies in the WTO (Moran 1998).

The ACP Business Forum is more directly involved in the design and implementation of programmes through the greater participation of new actors in the Cotonou Agreement. It demands a comprehensive and integrated strategy for private sector development, including measures to create an environment that attracts investment, measures to enhance competitiveness, to promote dialogue between governments and the private sector, measures to improve institutional capacity, and to strengthen existing private sector support institutions. The transparent use of public aid resources, participation in different activities on a cost-sharing basis and setting up of truly representative and competent private sector institutions should be the contribution of the private sector in a two-way partnership engagement. (ACP Business Forum 1999). First improvements in private sector support were the changes with respect to the Centre for the Development of Industry (CDI) that was renamed into Centre for the Development of Enterprises (CDE) and that has an enlarged mandate now. Also a number of new private sector support institutions were founded:

- ACP national and regional authorities can benefit from DIAGNOS which provides assistance in analysis of the private sector conditions in ACP countries and a direct-access/supporting Analysis Unit working for ACP governments and for the Commission in order to establish the basis for, and the approach to, private sector development policies and operational discipline. The main focus of this diagnosis will be the design of a country or region-level strategy, in close co-ordination with other donors, in particular the Member States, with emphasis on the determination of reform policies, but also including support at intermediary and micro levels.

- ACP private enterprises and service providers can benefit from a demand-driven/cost-sharing/direct access support facility, the EU- ACP Business Assistance Scheme (EBAS), aiming at increasing competitiveness of ACP enterprises and strengthening the capacity of private sector and non-financial intermediaries through better access to more effective business development services.

- ACP and EU private enterprises and intermediary organisations may receive support from PROINVEST, which will be aimed at encouraging continuity and sustainability in investment and partnership promotion as a catalyst for: regional business-to-business co-operation, greater EU investment and other technical and economic co-operation, and business-to-business co-operation with third countries.

In implementing private sector and investment support special emphasis has to be given to exporting enterprises. Not only because export revenues enable the import of capital goods and crucial inputs for production but because of the limited market size of most ACP countries. As capacity utilisation is often low it is not only new investment that is needed but support for existing firms in the areas of marketing and management in general (Matambalya 1999). As access to telecommunication and more advanced ICT infrastructure has proven to foster exporting not only for bigger enterprises but also for SMEs the development of telephone infrastructure should be given high priority (Matambalya/Wolf 2001).

Investment promotion efforts and information dissemination through investment promotion agencies (preferably on a regional basis because of the cost intensity) should promote the image of the host country as a safe, modern, business-like and investor-friendly place, and facilitate investment. Potential investors have to be provided with correct and balanced information as regards the opportunities and risks of investment. Business facilitation measures are becoming more important in the context of greater similarity of investment policies at all levels and therefore increased competition for FDI. They include investment promotion, financial and fiscal incentives, after-investment services, improvements in amenities and measures that reduce the bureaucratic and administrative activity to a minimum

(UNCTAD, 1998). Support of local financial institutions and micro-finance, small and medium sized enterprises (SME) and micro - enterprises could contribute substantially to the objective of poverty reduction through job market effects. All these measures can be covered by provisions of Article 75 and 76.

However, it is questionable whether foreign investment should be supported more than local investment and whether European investment should be preferred over other foreign investment. As domestic investment in general exceeds foreign investment and domestic investors are as much exposed to risks as foreign investors support measures should not discriminate against local firms. In addition local partners are needed to attract foreign firms as they provide local knowledge and complementary services. Likewise encouraging European investment instead of foreign investment in general has some shortcomings. European investment is concentrated in a few regions (French in West Africa, British in the Caribbean and some other African countries) and increasingly FDI is coming from Asian countries (Page 1999). There is no economic reason why the latter should be less beneficial for the ACP states than the former. In the Cotonou Agreement there is nevertheless some discrimination in place. The investment guarantees of Article 77 are only available for foreign investors although domestic investors face the same risks like expropriation. But the majority of the provisions also covers domestic investors. In Article 75 (c) one aim is to "encourage the EU private sector to invest" which is also repeated in other provisions. On the one hand it is understandable that the EU wants to direct subsidies towards its own enterprises but under the heading 'development aid' this approach is questionable.

More indirect measures avoid this bias towards foreign, especially European investors. For example support for human resource development complements investment (Wolf/Spoden 2000). Training of a competitive labour force with the type and level of skills required to complement the capital resources from FDI should be supported. It will be important that ACP countries invest in vocational training schemes and labour market reforms as well as to ensure that labour and wage legislation support the adjustment capacity of the economy. Raising the skill level also includes to take a liberal approach to work permits for foreign nationals (Bheenick 1997).

As most investment is market seeking the increased market size through regional integration could enhance the attraction potential of many ACP countries. The enlargement of markets and the benefits of economic and political co-operation for greater stability are essential for increasing investment (Wolf 2001). EU assistance to infrastructure that help creating the right preconditions for investment (e.g. activities of the EIB in supporting private infrastructure projects, power supply, telecommunications, airports, hotels, financing construction equipment) should be set up at a regional level and might be one of the most efficient ways to

promote both domestic and foreign investment without creating distortions (Page 1999). To promote the removal of trade barriers between ACP countries, financial and technical cooperation to enhance the private sector should provide assistance for the process of structural adjustment and modernisation. Complementary poverty-oriented measures are helpful to mitigate the adjustment costs (Menck 2001).

Overall the investment provisions in the Cotonou Agreement provide a good basis for an increase in foreign and domestic investment. However, given the limited funds that were available under the Lomé Conventions and the general problems of direct investment support it cannot be expected that the direct investment support would increase investment considerably. Therefore the indirect links between aid and investment have to be investigated to answer the question whether EU aid has increased investment in the ACP states.

4   The discussion about the aid investment relationship

Before the empirical investigation of the impact of EC aid on investment in the ACP countries a review of theoretical and empirical findings of the general link between aid and investment is provided. There are various channels through which aid can impact on investment in a developing country. Often only the direct channel of using aid resources for investment is considered. Traditionally this means that aid inflows are spent for infrastructure investment or other public services and therefore increase public investment or private sector support programmes aim at increasing private investment as discussed in the previous chapter. Both private and public investment are assumed to increase employment and therefore through a multiplicator affect savings. Hence, investment might increase more than one to one with aid.

However, it is not realistic to assume that aid is spent for investment completely. At least partly aid will be spent for consumption because of urgent needs like in the situation of a draught or after a violent conflict or because decision makers don't expect future returns of investment to be high. This additional consumption will be partly realised through imports but partly also demand for domestic goods will go up. In a situation with low capacity utilisation rates as in many African countries this will increase employment and income without increasing inflation and therefore could also increase savings and investment. Aid that is spent for technical cooperation and technology transfer e.g. through agricultural extension schemes can help to accelerate technical change and therefore increase productivity. Not least the support for health and education programmes also could increase productivity and therefore contribute to an increase in investment. On average 40 % of aid is spent for investment projects, therefore investment should increase at least by this amount unless it is fungible. Boone (1996) finds some evidence for fungibility but this is less for countries with high aid to GDP ratios to which most ACP countries belong.

Furthermore aid could indirectly increase private investment if it contributes to the improvement of policies. If aid can be used for government consumption or as budget support high taxes could be lowered. The experience of donors has lead to some caution with respect to conditionality.[1] In recent years ownership is stressed as an important part of aid relationships especially by the EU. In Article 2 of the Cotonou Agreement it is stated that "the ACP states shall determine the development strategies for their economies and societies in all souvereignty (...) the partnership shall encourage ownership of the development strategies by the countries and populations concerned". Nevertheless the question if aid could be blamed for encouraging bad governance was highly debated. If aid is given without any condition to dictators who exploit their own population this policy could be maintained through aid inflows. A high share of aid in government revenue could undermine accountability and democratic decision-making as many decisions are in fact made by donors. However, at least in the period after 1990, a positive relationship between aid and democratic development in Africa can be found. The number of ACP countries where a change in leadership was brought about after elections instead of coups is rising and the index of political freedom is also decreasing on average which means an improvement (see Figure 4). Even after controlling for endogeneity a small positive effect of aid per capita on political freedom can be observed. Possible channels for this effect are direct aid for elections and civil service reform, support for NGOs that enhance social capital and to some extent conditionality in the form of rewards and cuts in aid subject to reforms. Through the greater public accountability, responsiveness to citizens demands and transparency in a democratic regime the business and investment climate are improved (Goldsmith 2001). The share of EC aid in GDP of the ACP states only increased until the mid 1990s and decreased in recent years together with total aid. But this didn't affect the improvement in political freedom which indicates that this trend is not mainly driven from outside.

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1 Conditionality in the sense that the donor tries to influence policies through the amount of aid given in a stick and carrot approach has mostly failed as recipient countries often announce reform programs bur gradually change them during implementation and donor credibility is eroded as the efficient allocation of aid is at least not their only aim (for that discussion see Wolf/Spoden 2000).

Figure 4:
EC aid and political freedom in the ACP countries
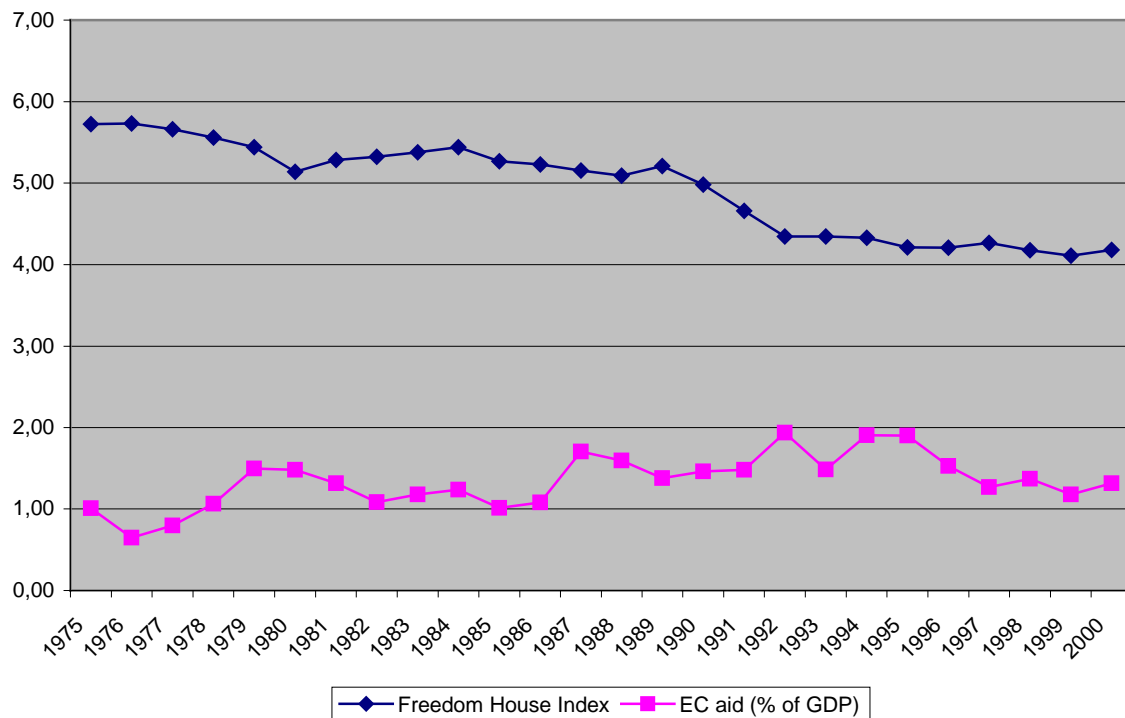
Source: Freedom House (2001) and OECD (2001), own calculations.

Tsikata (1999) presents Ghana as an example of how aid helped to sustain reforms in a good policy environment. First financial support was used to improve balance of payments and rehabilitation. Later it was used on sector level to offset declining terms of trade. Moreover aid successfully reduced the political costs of the reform programs, e.g. it helped to contain domestic opposition to market-based reforms by allowing imports which among other things filled the supermarkets. By stimulating economic growth, rehabilitating roads and revitalising exports, aid allowed the government to maintain its course.

However, there are various reasons why larger amounts of aid don't necessarily mean better results with respect to investment and growth which means that aid has decreasing marginal returns or even an inverted u-shape relationship between aid and growth exists. On the political level „soft budget constraint" describes the phenomenon of aid flows allowing governments to put off necessary reforms such as reforming the tax system and continue with unprofitable policies. Aid can help bad governments to keep their legitimacy in the view of other states or their own people. Aid dependence is considered to be a negative consequence of large aid flows over an extended period of time if a country's need for aid grows while the actual effect fails to show. Countries depending on aid tend to be quite vulnerable to sudden changes of donor policies (Lancaster 1999).

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Foreign aid could lead to crowding out private investment as it might raise the wages of skilled personnel or the prices of other scarce resources. Especially if the recipient government starts to increase its expenditures by borrowing money from the bank, raising taxes or creating credits to raise counterpart funds that are often required by donors a crowding out of private investment is likely to occur. In this context Botswana and Mozambique are considered as positive examples of the impact of aid, while Tanzania and Zaire represent examples of weak policies, where aid didn't induce investment (Lancaster and Wangwe 2000). The Dutch disease phenomenon because of the negative impact of large aid flows on the exchange rate might lead to a decrease in the competitiveness of a country's exports and therefore also contribute to declining returns of aid (Lancaster and Wangwe 2000). In addition, high levels of aid in general imply that a large number of donors are involved which can amount to more than 40 for larger countries like Kenya and Zambia. Negotiations with many donors are a burden on the limited capacity of recipient governments and furthermore the lack of aid coordination on the side of donor and/or recipient can affect the success of programmes (Lancaster 1999).

A series of highly debated papers that served as input to the WorldBank's Assessing Aid Report in 1998 was published in recent years. One of these papers by Dollar and Easterly (1999) claims that the traditional formula of aid leading to higher investment and finally resulting in positive economic growth does not stand the test. They also criticise another approach which stresses the importance of aid inducing policy reform. While foreign aid can help reforming governments by easing adjustment costs (e.g. in Ghana), it sometimes supports bad policies without leading to reforms. Conditional aid which is targeted on preventing such negative assistance has not proven to be able to ensure reforms. Aid is considered to be most effective where the domestic policy environment itself acts in favour of reforms, also referred to as „borrower ownership".

Dollar and Easterly (1999) run two different sets of time-series regressions for 34 African countries to test whether aid financed investment will lead to growth. In a first step they regress investment on aid and in a second step they regress growth on investment. With simple OLS regressions they find for 24 % of the sample a significant positive relationship between aid and investment and for 35 % a significant negative relationship which shows that aid is not sufficient to induce higher investment. As a result they claim that growth results from the combination of good policy and high private investment. In their cross-country regressions private investment is determined by several factors as initial income, demographic-political characteristics, economic policies, government consumption and foreign aid. While high private investment is associated with good economic policy, low levels of government consumption and political stability, the study reveals that despite of successful policy reform „low-income countries have trouble generating savings or attracting

foreign investment". This might be due to the investors fear of reversal of reforms or bad infrastructural conditions. According to the authors, this is the point where foreign aid can successfully promote private investment by „creating confidence in the program and by helping ease infrastructure bottlenecks". Aid to countries with poor policies in contrast will lead to crowding out private investment, because it rather supports public investments. Therefore foreign aid will be most effective in countries that decide to carry out reforms on their own initiative.

A different study by Dollar and Burnside (2000) whose results entered the Assessing Aid report (WorldBank 1998) stresses the positive effect of aid in „sound policy" surroundings. In their model GDP per capita growth is assumed to depend on initial GDP, an index of ethnic fractionalisation, the level of assassinations, an index for institutional quality, M2/GDP as an indicator of financial development, budget surplus as a fiscal policy measure, the inflation rate, an indicator of trade openness, government consumption, and the share of ODA from OECD countries in GDP. Ethnic fractualisation and assassinations are also interacted. From this list of variables only institutional quality, inflation and openness turn out to be significant determinants of growth. Only if aid is interacted with a policy variable and outliers are excluded it becomes statistically significant.[1] In addition the dummies for sub-Saharan Africa and East Asia become significant. These studies are however criticised by Lu and Ram (2001). They argue that the econometric results are highly driven by the econometric specification and are therefore too fragile to confirm the argumentation. They use the same data set and equations but introduce country specific fixed effects. This gives the result that aid has a positive effect on growth significant at the 10 % level and the aid – policy interaction variable becomes insignificant which implicates that „aid has the *same* positive effect on growth in every policy regime". Overall the evidence for a direct link between aid and policy is not robust. In addition the relationship between aid and policy could also work in the other direction meaning that governments only stick to good policy if they receive enough aid and this will then lead to higher growth. If aid is used to offset adjustment costs of macroeconomic stabilisation measures it is likely to enable governments to stick to "sound policies" (Lensink/Morrissey 2000).

Most of the recent empirical investigations of the aid-growth relationship use non-linear specifications for their regressions. They all have in common that they are related to economic policy impacts (Hansen/Tarp 2001). Burnside and Dollar (2000) introduce non-linearity by explicitly interacting aid with a policy variable. Other studies use aid squared in addition to the aid variable which is consistent with the assumption of declining returns to aid when the coefficient for aid is positive and for aid squared it is negative. However, when Hansen and

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1 The policy indicator is constructed as a linear combination of budget surplus/GDP, inflation rate and trade openness.

Tarp test both specifications of non-linearity they find the quadratic term has a much higher level of significance than the aid policy interaction. They conclude from these findings that aid has a positive impact on growth rates regardless of the policy environment.

In addition Hansen and Tarp (2001) investigated the impact of aid on investment directly also using aid and aid squared as independent variables. They control for FDI, factors of economic policy (inflation and openness), initial level and growth of GDP and human capital. With different methods and specifications they find a significant positive impact of aid on investment. Furthermore they find strong transitory effects of aid as responses to changes in aid flows are smaller in the first period but large in the long run.

Another approach by Lensink and Morrissey (2000) puts emphasis on the effect of aid uncertainty on growth. Foreign aid is not likely to have a direct impact on growth but rather aid will affect determinants of growth and thereby have an indirect effect. In principle aid can have an impact on different determinants of growth like investment or government behaviour. Especially for investment it is likely that not only the level of a determinant like aid will have an impact but also its uncertainty. The instability of aid revenues may lead to an altering fiscal behaviour, possibly meaning a decrease in public and private investment. Aid instability can arise from instability in the donor-recipient relationship or through external effects that might affect the willingness of the donor to give aid either because of its own fiscal situation or because of exceptional needs of the recipient in cases of emergency. This link between aid, investment and growth is supported by an empirical analysis, proving aid uncertainty to be a factor of crowding out investment.[1] They interpret aid uncertainty therefore "as a proxy for various factors that undermine economic performance and the effectiveness of aid" and reject the conclusions of the WorldBank studies that aid is only effective in a good policy environment. They also test empirically the direct effect of aid on investment and find a positive and significant (at 10 % level) coefficient for aid, while the coefficient for aid uncertainty is negative and significant as expected. If only African countries are included in the regression the coefficient for aid uncertainty is no longer significant but the significance of the coefficient for aid alone is increased. Therefore contrary to the effect of aid on growth where empirical evidence is still mixed the positive impact of aid on investment seems to be fairly robust.

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[1] The measure for aid uncertainty is constructed in two steps. First a forecasting equation is estimated. Then the uncertainty proxy is derived by calculating the standard deviation of the residuals from the forecasting equation.

5   Measuring the effects of EU Aid on ACP investments

To get more insights whether the effect of EU aid on investment is different from the effects of total aid used in previous studies we divide total aid to each ACP country into aid from the European Commission (EC aid) and aid from other sources (other aid). Countries are divided into ACP countries and other countries to investigate the special EU-ACP partnership.

To determine the effect of aid on investment of course the major determinants of investment have to be taken into account. It is not assumed that the aid investment relationship is only determined by aid being invested directly. The possibility that aid crowds in or out private investment be it domestic or foreign through the positive and negative effects described in the previous chapter is also taken into account. To analyse the effect of EC aid on gross domestic investment in the ACP states we therefore use a similar approach as Hansen and Tarp (2001). In addition to aid and aid squared FDI (simple and squared), they use inflation, openness, per capita GDP growth rate, ln (initial GDP per capita), and human capital as control variables.

The main variables of interest in the regression analysis are EC_aid (simple and squared) and other_aid (simple and squared). Following Hansen and Tarp (2001) FDI is included in the regression as a control variable because inward FDI is a direct component of gross domestic investment. But as FDI is also assumed to crowd out domestic investment to some extent FDI squared also enters the regression equation. For FDI a positive but declining influence on investment is assumed. As common in growth and investment regressions the initial level of GDP per capita is included in logarithmic form. The sign of that variable is ambigious as on the one hand the convergence hypothesis would imply that poor countries grow faster and also need higher levels of investment. On the other hand savings levels in poor countries are on average low which leads to lower levels of domestic investment. Growth of GDP per capita is assumed to have a clearly positive relationship with investment as a more dynamic country will attract more domestic and foreign investment.

Human capital is measured as primary school enrolment because primary education is a basic precondition for profitable investment and data are widely available. To capture the political environment more directly the Freedom House index is used in this study instead of the parameters used by Dollar and Burnside (2000), Hansen and Tarp (2001) and others.[1] It also has the advantage of being exogenous to growth and investment in comparison to indicators such as inflation and openness that measure policy outcomes.[2] In addition as an indicator for

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[1] They use the budget deficit, inflation and openness to trade either individually or in a linear combination. However the selection of policy variables is not robust so there is no consensus on what policy variables to use and problems of endogeneity occur. For a discussion of this issue see Dalgaard, Hansen and Tarp (2002).

[2] Note that high values of the Freedom House index indicate little freedom.

industrialisation the share of value-added industry in total GDP is included in the regressions as this will capture possible agglomeration effects. New investment is more likely to allocate where already a substantial economic activity especially in industry is existent. The data for FDI, GDP, GDI, primary school enrolment and value-added in industry are from the World Development Indicators (WorldBank 2001). All aid data are from the OECD (2001). Data for 2000 are shown in Table A1.

If aid is given according to needs criteria problems of endogeneity can occur when investment is the dependent variable in the regression and problems of multicollinearity and simultaneity bias are likely. Especially if the financing gap approach is used by donors, aid is meant to supplement domestic savings and should be the higher, the lower investment is in the previous period. For total aid and income per capita a negative empirical relationship is well established (Hansen/Tarp 2001) and also a logical consequence of the focus on poverty reduction by most donors. To reduce these problems the independent variables are lagged one period. However, for EC aid this relationship is very weak and not significant for all periods. Aid is mainly dependent on population size with an u-shaped relationship. To some extent also civil liberties played a role for EC aid allocation (Wolf/Spoden 2000).

As fluctuations in aid are high from year to year due to time lags of programming and disbursements the use of 5 year averages of aid flows is appropriate. Furthermore they coincide with the programming periods of EC aid towards the ACP states in the subsequent EDFs. Also in growth regressions 5 year averages are commonly used. This method helps to eliminate business cycle factors and reduces measurement error.

It cannot be assumed that all aid is going into investment hence for the aid investment relationship non-linearity can be assumed. Therefore aid plus aid squared will be used in the regressions which is found by Hansen and Tarp (2001) to be a more appropriate specification than the aid – policy interaction used by Burnside and Dollar (2000). For investment country specific effects are likely to occur (see Hansen/Tarp, 2001). However, as the number of ACP countries with more than two observations is very small due to the 5 year averages and the use of lagged variables it is not possible to include country specific effects in this analysis.

Therefore the following equation is used for estimating the effect of EC and other aid on investment:

$$GDI = \beta_0 + \beta_1 \, EC\_aid + \beta_2 \, EC\_aid^2 + \beta_3 \, other\_aid + \beta_4 \, other\_aid^2$$
$$+ \beta_5 \, FDI + \beta_6 \, FDI^2 + \beta_7 \, GDP\_growth + \beta_8 \, \ln(GDP)$$
$$+ \beta_9 \, human\_capital + \beta_{10} \, freedom + \beta_{11} \, industrialisation + \varepsilon$$

The results of the OLS regressions are summarised in Table 2. In line with findings of previous studies the relationship between non-EC aid (other_aid) and investment is positive with declining returns because of the negative coefficient for other_aid squared (regression A). If all countries for which data was available are included in the regression without differentiating for regions the effect of EC aid on investment has a significant negative coefficient with a positive coefficient for EC aid squared. By including an ACP dummy into the regression EC aid does no longer have a significant impact on investment but belonging to the ACP group reduces the share of gross fixed capital formation in GDP after controlling for other factors (regression B). These results remain unchanged if the control variables that were not significant in regression B (FDI squared and freedom) are dropped as in regression C. If the degree of industrialisation that was highly significant in all previous regressions is also dropped the coefficient for other_aid ² becomes insignificant, hence only a positive relationship between other_aid and investment is observable, no longer declining returns. However the corrected R-squared is much lower in this specification so specification C seems to be the preferable one and we keep this set of control variables for further investigations of EC aid.

Table 2:
Regression results for EC aid - investment relationship
Dependent variable: gross fixed capital formation

	A)	B)	C)	D)	E)	F)
Constant	-4.891	-4.015	-0.464	6.563*	-0.958	4.895
EC aid	-3.188*	-1.558	-1.466	-1.039		2.500*
other aid	0.656**	0.670**	0.659**	0.327*		
total aid					0.504**	
EC aid ²	0.648*	0.394	0.400	0.302		-0.135
other aid ²	-0.009**	-0.011**	-0.011**	-0.005		
total aid ²					-0.006*	
EC aid/total aid					-0.068[+]	
FDI	0.274	0.446	0.591**	0.751**	0.655**	0.616**
FDI ²	0.025	0.013				
GDP growth	0.569**	0.536**	0.453**	0.526**	0.426**	0.491**
ln (GDP)	1.398**	1.213**	0.863**	0.633*	1.096*	0.434[+]
human capital	0.044**	0.049**	0.044**	0.079**	0.044*	0.042*
Political freedom	0.306[+]	0.289				
industrialisation	0.234**	0.241**	0.269**		0.256**	0.234**
ACP		-2.293**	-2.517**	-2.142*	-2.457**	-2.511**
Degrees of freedom	234	233	241	266	201	243
R-squared (corr.)	0.530	0.543	0.531	0.401	0.532	0.495

Level of significance: [+] - 10 %, * - 5 %, ** - 1 %

The above findings can be interpreted that the EC gives relatively more aid to the ACP countries that have a comparatively low investment performance due to other factors. These factors might be due to their geography as many ACP countries are islands or landlocked or have a tropical climate where tropical diseases reduce productivity. This interpretation is in line with recent results from Dalgaard et al (2002) that show that aid has a much higher impact on growth in non-tropical countries.

As the Pearson correlation coefficient between EC aid and other aid is relatively high and significant (see Table A2) there might also exist a problem of multicollinearity.[1] Therefore in regression E total aid and the share of EC aid in total aid are introduced instead of EC aid and other aid. Total aid has a significant positive but declining impact on capital formation as expected. The coefficient for the share of EC aid is negative but very small and only significant at the 10 % level so EC aid has almost the same effect than aid from other sources. If other_aid is dropped from the regression (regression F) EC aid has a positive significant impact on gross fixed capital formation. Interestingly the coefficient of EC_aid squared is not significant so no declining returns of EC aid can be postulated, which might be due to the lower level of EC aid compared to total aid for most countries.

Other factors that are determining investment are per capita growth rates (GDP_growth) and the level of initial GDP (ln(GDP)) where the coefficients are positive and significant as in the results of Hansen and Tarp (2001). Also the level of human capital measured by primary school enrolment rates has a small but significant coefficient in most of the regressions. It can be interpreted that human capital and physical capital are complements. However, this finding is contrary to Hansen and Tarp (2001) who find a significant negative parameter for human capital. They interpret that as education being a substitute for domestic investment. The share of industry in total GDP (industrialisation) also has a significant positive impact on investment. That might be due to agglomeration effects as new investment is often located close to existing production sites and the level of industrialisation might proxy investment opportunities. Furthermore the degree of industrialisation could be regarded as an indicator for the level of development as it is associated with an advanced level of training and management capabilities in the economy.

In the first two regressions where FDI is also included in its squared form no significant effect on investment can be found. However if FDI squared is dropped the coefficient for FDI alone is positive and significant at the 1 % level in all four different specifications. This means that foreign investment doesn't crowd out domestic investment. In contrast Hansen and Tarp (2001) find crowding-out effects for FDI with respect to domestic investment. Also political

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[1] The assumption that the allocation of EC aid would compensate for the allocation of member state aid that is mainly based on political considerations instead of efficiency could not be verified (see Wolf/Spoden 2000).

freedom seems to have only little impact on capital formation. Only in the first regression the index of political freedom is significant at the 10 % level. The positive sign of the coefficient means that countries with less political freedom have a higher share of capital formation in GDP. However this result is not robust and therefore the variable was dropped later.

From the above findings it can be concluded that aid in general has a positive impact on investment but with declining returns. EC aid also increases total investment although its effect seems to be weaker than that of total aid. This might be partly due to the fact that EC aid is only a small fraction of total aid even for most ACP countries and that EC aid is concentrated towards ACP countries with a relatively bad investment performance.

6   Conclusions

The impact of aid on growth is generally assumed to work via investment and will therefore be higher if complementary investment conditions are favourable. However, it has been highly debated whether aid can only work in good policy environments and might even have negative effects otherwise. Theoretical and empirical findings suggest that there is a positive but declining relationship between aid and investment. Partly aid is spent directly for investment especially in infrastructure but also indirect effects e.g. via the transfer of knowledge and technology or an increase in productivity through better education are significant. On the other hand a high share of aid in GDP and especially high volatility of aid flows might lead to crowding out of domestic investment and might undermine the credibility of governments. In addition, high levels of aid in general imply that a large number of donors are involved. Negotiations with many donors are a burden on the limited capacity of recipient governments and furthermore the lack of aid coordination can affect the success of programmes This makes it clear that aid effectiveness cannot be associated with the performance of recipients only but is also likely to vary with donors as they have not only their own goals but also different administrative procedures.

Although the overall success of the Lomé Conventions in terms of eradicating poverty in the ACP countries and increasing the export performance is limited it can also not be said that it was a waste of money given the limited availability of funds and the adverse external circumstances. In the econometric analysis it was shown that aid has a significant positive but declining effect on investments in developing countries regardless of their location. This result is robust for different sets of control variables. However, aid from the European Commission was found to have a lower effect on investment than aid from other sources. But if only EC aid was included in the regression a significant positive effect with no declining returns was found. This limited positive impact of EC aid on investment might be due to various reasons. One of them is the limited share of resources that were spent for private

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sector development and risk capital. Only in recent years the spending in this area increased and therefore effects might not be observable yet. Another factor might be the fact that EC aid is disproportionately directed towards ACP countries. They generally have more difficulties in attracting investment which is indicated by a significant negative coefficient for the ACP dummy in the investment regressions. Therefore relatively higher amounts of aid might be necessary to overcome the obstacles to invest.

Under the new Cotonou Agreement a number of improvements of private sector support are made. Not only was the share of resources allocated for this purpose increased but especially the participation of the private sector in formulating priorities and implementing programs will help to better focus aid resources. One of the main areas of support is therefore "Investment and private sector development". Economic and institutional reforms are recognised as a precondition and should create a favourable environment for private investment. In addition direct support is foreseen, e.g. for public-private cooperation, entrepreneurial skills, privatisation, financial and non-financial services, business institutions, transfer of technologies and know-how, access to advisory, or technical assistance services and capacity building in trade related areas. As high risk is seen as a major obstacle by foreign investors the new investment guarantees are a step into the right direction. However, the facilities to reduce risks for entrepreneurs should not only be directed towards foreign firms or firms in the EU member states. Local investors might be hit even harder by unforeseeable risks as they have less possibilities to diversify. For local investors the provisions that are aimed at facilitating access to capital, training personnel to improve productivity and management and upgrading essential infrastructure like electricity, transport and communication are designed to meet the needs of the private sector. Because export promotion is of crucial importance for various reasons special emphasis of the support program should be given to them. As there is asymmetric information about investment opportunities and investors tend to stick to the countries where they are already operating, an active marketing of the advantages a country has could lead to social benefits. Therefore support for marketing the advantages of a country and the provision of information for potential investors is crucial to attract FDI.

More general on the country level aid could be seen as an insurance against external risks and could be used by recipient governments for the continuation of reform programs. In this respect the Cotonou Agreement provides some flexibility with the possibility of balance of payment support and the review of programming that might increase available sources for governments that face external shocks and stick to reforms. EU aid will therefore contribute to improving the overall investment climate. Therefore given the reforms in the Cotonou Agreement are implemented it is likely that EU aid will contribute to increasing investment in the ACP countries.

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Table A1:
Socioeconomic indicators of ACP countries, 2000

Country	GDP p.c. (constant 1995 US$)	GDP growth (annual %)	Population, total	Population growth (annual %)	GDP p.c. growth	School enrolment, primary 1995	Gross domestic savings (% of GDP)	Gross fixed capital formation (% of GDP)	FDI, net inflows (% of GDP)
Angola *	542.02	3.41	12356940	2.88	0.53	..	..	..	39.89
Antigua and Barbuda	8370.65	0.10	67430	0.85	-0.74	..	..	..	..
Bahamas, The	13552.46	5.30	298000	1.35	3.95	97.60	..	..	3.19
Barbados	7934.38	1.24	266680	0.39	0.84	..	..	..	0.70
Belize	2774.14	4.74	246850	3.44	1.30	..	14.50	23.77	0.48
Benin *	402.21	4.96	6114050	2.75	2.21	73.30	6.37	17.65	1.31
Botswana	3853.51	5.94	1588120	1.68	4.26	108.00	14.16	17.93	0.73
Burkina Faso *	267.04	5.79	11000000	2.44	3.35	39.60	9.75	27.85	0.39
Burundi *	142.99	-0.97	6677950	1.96	-2.94	50.60	-0.44	7.95	0.03
Cameroon	656.17	4.40	14700000	2.67	1.73	86.90	18.95	19.45	0.44
Cape Verde *	1460.72	8.00	427790	2.96	5.04	..	8.54	37.55	2.58
Central Africa *	346.85	3.40	3539810	1.70	1.70	..	7.21	14.32	1.24
Chad *	220.64	1.00	7485610	2.75	-1.75	51.40	-3.04	13.37	0.96
Comoros *	407.98	1.92	544280	2.50	-0.58	74.60	0.04	12.48	0.44
Congo, Dem. *	..	..	49800000	3.18	..	..	..	..	..
Congo, Rep.	838.43	-3.20	2858760	2.70	-5.90	114.30	29.73	21.55	0.23
Cote d'Ivoire	787.03	2.79	15500000	2.57	0.22	68.90	23.11	16.30	3.12
Djibouti *	751.37	1.43	647750	1.87	-0.44	38.50	..	..	0.94
Dominica	3324.42	0.89	73000	0.00	0.89	..	..	..	4.91
Dominican Rep.	1916.45	8.30	8404420	1.80	6.50	95.70	16.70	24.81	7.69
Equatorial Guinea	1149.01	15.09	442680	2.58	12.51	..	57.86	41.40	17.25
Eritrea *	173.38	0.80	3991000	2.85	-2.05	55.80	-43.00	39.00	0.00
Ethiopia *	112.21	6.21	62800000	2.44	3.76	37.50	2.72	18.09	1.40
Fiji	2638.39	7.99	801000	1.33	6.66	..	17.95	12.75	-1.93
Gabon	4368.84	-6.20	1208410	2.35	-8.55	162.30	34.81	28.04	4.60
Gambia, The *	365.42	6.40	1251000	2.84	3.56	77.10	1.71	17.80	3.56
Ghana	409.57	4.41	18800000	2.27	2.14	..	19.39	34.83	0.22
Grenada	3409.43	5.32	97000	0.83	4.49	..	..	..	11.94

Country	GDP p.c. (constant 1995 US$)	GDP growth (annual %)	Population, total	Population growth (annual %)	GDP p.c. growth	School enrolment, primary 1995	Gross domestic savings (% of GDP)	Gross fixed capital formation (% of GDP)	FDI, net inflows (% of GDP)
Guinea *	606.15	3.90	7250520	2.29	1.61	48.00	17.52	21.22	1.85
Guinea-Bissau *	183.18	7.80	1184670	1.99	5.81	..	-2.16	16.30	1.37
Guyana	842.62	3.00	855920	0.77	2.23	94.60	12.20	26.80	7.06
Haiti *	370.60	2.20	7803000	2.02	0.18	..	..	..	0.71
Jamaica	1655.11	-0.53	2598000	0.85	-1.38	101.50	17.12	26.93	7.84
Kenya	336.62	1.29	29400000	2.13	-0.84	84.90	6.84	12.58	0.13
Kiribati *	585.84	1.79	88400	2.75	-0.96	..	..	..	..
Lesotho *	514.08	-2.19	2105000	2.27	-4.46	110.90	..	..	17.06
Liberia *	..	..	3044050	2.75	..	..	..	..	..
Madagascar *	241.90	4.66	15100000	3.09	1.57	91.60	5.00	12.90	1.56
Malawi *	158.54	4.04	10800000	2.39	1.65	133.50	-0.62	12.82	3.31
Mali *	281.89	6.15	10600000	2.39	3.76	40.50	10.10	21.20	0.74
Mauritania *	483.13	4.09	2598330	2.70	1.39	75.10	7.17	17.79	0.21
Mauritius	4119.53	3.40	1174400	1.26	2.14	106.60	22.76	27.75	1.16
Mozambique *	190.80	7.30	17300000	1.95	5.35	60.20	6.69	32.58	9.84
Namibia	2393.50	4.29	1701330	2.33	1.97	132.90	16.68	23.58	..
Niger *	209.08	-0.57	10500000	3.39	-3.96	29.00	3.79	9.98	0.74
Nigeria	249.87	1.00	124000000	2.52	-1.52	..	16.89	22.70	2.87
Papua New Guinea	1007.78	3.15	4704620	2.19	0.96	80.40	20.86	..	8.27
Rwanda *	234.34	5.87	8310000	2.50	3.38	..	-1.33	14.41	0.09
Samoa *	1357.95	5.58	168510	0.45	5.13	102.40	..	..	0.84
Sao Tome and Principe *	337.29	2.50	145260	2.27	0.23	..	-9.32	39.98	0.00
Senegal	590.91	5.11	9285310	2.69	2.42	64.30	12.60	18.99	1.26
Seychelles	7021.47	-2.99	80030	1.49	-4.47	..	17.70	33.39	9.78
Sierra Leone *	138.00	-8.10	4949340	1.93	-10.03	..	-6.01	0.74	0.15
Solomon Islands *	778.68	-1.26	429030	3.03	-4.28	..	..	..	3.10
Somalia *	..	..	9388250	3.38	..	..	..	..	..
South Africa	3929.74	1.87	42100000	1.69	0.19	132.80	17.35	15.24	1.06
St. Kitts and Nevis	6675.81	2.85	40880	0.15	2.70	..	12.18	45.50	25.61
St. Lucia	4057.76	3.55	154200	1.47	2.08	..	16.64	20.13	13.05
St. Vincent and the Grenadines	2695.44	2.54	114080	0.76	1.78	..	6.37	25.45	7.61

Country	GDP p.c. (constant 1995 US$)	GDP growth (annual %)	Population, total	Population growth (annual %)	GDP p.c. growth	School enrolment, primary 1995	Gross domestic savings (% of GDP)	Gross fixed capital formation (% of GDP)	FDI, net inflows (% of GDP)
Sudan *	..	5.20	29000000	2.25	2.95	50.10	..	16.70	3.81
Suriname	698.53	-1.00	413300	0.30	-1.30	..	35.10	11.86	..
Swaziland	1459.68	3.45	1019470	2.89	0.56	120.80	21.12	12.25	2.46
Tanzania *	188.22	4.73	32900000	2.44	2.209	66.80	2.23	16.86	2.09
Togo *	326.99	2.10	4566940	2.42	-0.32	118.60	3.63	13.20	2.14
Tonga *	1778.15	4.69	99600	0.91	3.78	..	..	..	1.30
Trinidad and Tobago	4936.23	6.76	1292750	0.59	6.17	98.20	26.63	20.96	9.21
Uganda *	347.56	7.50	21500000	2.75	4.75	74.30	4.66	16.37	3.46
Zambia *	387.19	2.02	9881210	2.21	-0.18	88.50	-0.94	16.35	5.25
Zimbabwe	702.83	0.06	11900000	1.82	-1.76	114.30	11.04	10.24	1.05

Country	Industry, value added (% of GDP)	Inflation, consumer prices (annual %)	Real interest rate (%)	General gov. consumption expenditure (% of GDP)	Telephone mainlines (per 1,000 people)	Freedom House Index	EC aid (mio. USD)	Aid by EU members (mio. USD)	Total aid (% of GDP)
Angola	69.77	286.17	-72.67	..	7.70	6.60	52.95	152.34	6.26
Antigua and Barbuda	..	..	6.58	..	489.00	4.30	0.75	0.59	1.64
Bahamas, The	..	1.25	3.65	..	369.00	1.10	9.89	0.04	0.26
Barbados	..	1.56	5.77	..	427.00	1.10	-0.96	0.86	-0.08
Belize	25.01	-1.21	12.34	17.44	156.00	1.10	7.09	37.47	6.32
Benin	13.77	0.33	..	10.10	..	2.30	25.31	75.66	8.90
Botswana	45.41	7.12	8.33	27.66	77.00	2.20	17.43	20.07	1.21
Burkina Faso	28.30	-1.07	..	13.58	4.00	4.40	53.27	170.06	15.43
Burundi	17.29	3.39	11.43	16.07	2.80	6.60	1.43	24.18	10.40
Cameroon	18.62	5.30	23.46	10.03	6.00	7.60	17.54	206.23	4.73
Cape Verde	18.62	..	7.45	11.12	112.00	1.20	7.47	73.22	23.53
Central Africa	19.58	-1.49	20.54	11.55	2.70	3.40	37.98	39.87	11.15
Chad	14.74	-6.80	26.97	8.03	1.30	6.50	14.15	53.76	12.01
Comoros	13.06	..	..	10.64	9.60	6.40	6.81	11.52	9.52
Congo, Dem.	..	..	..	..	..	7.60	6.09	66.61	..
Congo, Rep.	49.11	5.43	-0.52	10.75	..	6.50	2.20	115.67	6.39
Cote d'Ivoire	26.37	0.79	..	10.92	15.00	6.40	8.07	276.23	4.00
Djibouti	..	..	..	..	14.00	5.60	5.90	43.79	14.13
Dominica	..	1.18	8.02	..	279.00	1.10	0.24	2.07	3.74
Dominican Rep.	34.33	6.51	17.54	8.17	98.10	2.30	28.34	97.06	1.12
Equatorial Guinea	75.33	..	-11.85	11.39	..	7.70	0.80	13.50	2.90
Eritrea	29.18	..	..	64.60	7.30	7.50	5.99	58.37	22.93
Ethiopia	11.12	..	9.15	16.39	3.10	5.50	82.80	164.65	9.97
Fiji	28.97	1.97	8.52	15.65	101.00	2.30	-7.20	1.15	2.01
Gabon	41.18	..	16.38	16.58	31.70	5.40	10.73	31.18	1.09
Gambia, The	12.96	3.81	30.59	14.26	23.00	7.50	2.72	7.83	8.51
Ghana	11.03	12.41	..	10.84	8.00	3.30	25.63	198.38	7.84
Grenada	..	0.24	8.47	..	315.00	1.20	1.45	0.66	2.87
Guinea	37.95	..	16.02	5.97	5.90	6.50	41.69	66.75	6.93
Guinea-Bissau	11.76	-0.70	..	11.08	..	3.50	16.25	25.10	23.98
Guyana	30.07	7.54	7.96	15.57	74.80	2.20	4.99	19.61	11.71
Haiti	..	8.67	13.45	..	8.60	5.50	35.40	29.02	6.19

Country	Industry, value added (% of GDP)	Inflation, consumer prices (annual %)	Real interest rate (%)	General gov. consumption expenditure (% of GDP)	Telephone mainlines (per 1,000 people)	Freedom House Index	EC aid (mio. USD)	Aid by EU members (mio. USD)	Total aid (% of GDP)
Jamaica	33.09	5.95	17.34	18.75	199.00	2.20	5.08	-4.81	-0.33
Kenya	16.24	2.64	14.56	17.50	10.30	6.50	10.97	145.51	2.91
Kiribati	..	..	..	..	42.60	1.10	0.75	0.02	43.04
Lesotho	..	..	4.38	..	..	4.40	1.40	19.68	3.25
Liberia	..	..	..	..	..	4.50	9.76	3.14	..
Madagascar	13.76	9.93	16.57	7.85	3.20	2.40	50.79	104.02	9.64
Malawi	17.78	44.91	8.04	12.38	3.80	3.30	89.03	147.24	24.64
Mali	16.70	-1.20	..	12.60	..	3.30	23.15	144.51	13.79
Mauritania	29.31	4.07	..	15.18	6.40	6.50	87.00	52.35	22.84
Mauritius	32.45	6.91	14.96	11.82	224.00	1.20	29.34	2.22	0.98
Mozambique	25.19	2.03	17.25	11.05	4.00	3.40	89.05	383.37	20.62
Namibia	28.32	8.60	9.76	28.84	63.80	2.30	46.49	92.60	5.11
Niger	17.16	-2.30	..	14.92	..	5.50	19.22	85.72	9.27
Nigeria	..	6.62	6.55	14.86	..	4.30	-7.21	41.58	0.43
Papua New Guinea	46.07	14.93	5.94	13.39	12.70	2.30		4.57	6.02
Rwanda	20.46	-2.41	..	12.80	1.70	7.60	39.11	114.67	19.28
Samoa	26.06	0.27	6.54	..	..	2.20	0.87	0.55	9.65
Sao Tome and Principe	16.96	..	20.98	29.76	31.40	1.20	1.79	18.92	58.60
Senegal	25.53	0.83	..	10.93	17.90	4.40	56.95	311.80	11.27
Seychelles	21.29	6.32	5.41	25.53	..	3.30	4.80	2.41	2.13
Sierra Leone	26.69	34.09	1.47	11.46	..	3.50	7.24	29.83	10.99
Solomon Islands	..	8.26	5.80	..	18.80	1.20	5.96	0.33	12.41
Somalia	..	..	..	..	..	7.70	19.46	44.98	..
South Africa	30.81	5.20	11.07	19.37	125.00	1.20	136.73	246.48	0.42
St. Kitts and Nevis	25.47	3.91	9.51	88.76	518.00	1.20	-0.13	0.43	1.56
St. Lucia	19.23	5.35	7.28	19.21	..	1.20	11.00	-0.57	3.85
St. Vincent and the Grenadines	..	1.03	11.39	..	209.00	2.10	7.25	1	4.97
Sudan	..	15.99	..	..	8.70	7.70	19.63	58.26	2.50
Suriname	..	98.92	-54.55	27.77	171.00	3.30	2.90	28.64	..
Swaziland	38.46	6.09	3.38	19.98	31.20	6.50	8.87	8.84	2.19
Tanzania	15.43	7.89	11.73	11.62	4.50	4.40	70.95	426.17	11.30
Togo	20.97	-0.07	..	10.91	8.40	5.50	3.30	32.97	5.08

Country	Industry, value added (% of GDP)	Inflation, consumer prices (annual %)	Real interest rate (%)	General gov. consumption expenditure (% of GDP)	Telephone mainlines (per 1,000 people)	Freedom House Index	EC aid (mio. USD)	Aid by EU members (mio. USD)	Total aid (% of GDP)
Tonga	..	4.85	5.35	..	92.60	5.30	3.35	-0.48	13.82
Trinidad and Tobago	39.73	3.44	11.31	11.26	216.00	1.20	25.67	-2.7	0.38
Uganda	17.82	6.35	16.36	9.91	2.60	5.50	60.38	251.03	9.19
Zambia	25.32	..	16.61	9.74	09.00	5.40	80.92	216.19	20.09
Zimbabwe	24.62	58.52	4.89	14.91	..	6.50	4.20	100.48	4.36

Notes:

* - least developed country

For the other 8 ACP countries Cook Islands, Marshall Islands, Micronesia, Nauru, Niue, Palau, Tuvalu *, Vanuatu * no data are available.

Sources: WorldBank (2001), OECD (2001), Freedom House (2001).

Table A2
Correlations of main regression variables

	School enrolment, primary gross	GDP p.c. growth	EC aid (% of GDP)	other aid (% of GDP)	FDI (% of GDP)
Industry value added (% of GDP)	0.433 **	0.030	-0.414	-0.434**	0.062
School enrolment, primary gross		0.165**	-0.488**	-0.517**	0.177**
GDP p.c. growth			-0.133**	-0.112**	0.256**
EC aid (% of GDP)				0.709**	0.058
other aid (% of GDP)					-0.14

** significant at 1 %