Big Push versus Absorptive Capacity: How to Reconcile the Two Approaches

Patrick Guillaumont, Sylviane Guillaumont Jeanneney

▶ **To cite this version:**

CENTRE D'ÉTUDES
ET DE RECHERCHES
SUR LE DÉVELOPPEMENT
INTERNATIONAL

Document de travail de la série

Etudes et Documents

E 2006.14

Big Push versus Absorptive Capacity:
How to Reconcile the Two Approaches

by

Patrick Guillaumont and Sylviane Guillaumont Jeanneney

CERDI, CNRS and Université d'Auvergne

October 2006
32 p.

1

Summary:

We examine whether absorptive capacity represents a compulsory reason to reject the proposal of a large aid increase to support a big push. We argue that poverty trap is a probability for many countries, in particular the Least Developed Countries and that an aid increase is relevant for them. Moreover we show that the decrease in marginal aid returns is slower in vulnerable countries, what enhances the rationale to take vulnerability as one of the aid allocation criteria. We then examine the main limits to absorptive capacity, such as disbursement constraints and short term bottlenecks, macro economic troubles, including loss of competitiveness and macroeconomic volatility, as well as institution weakening. The general conclusion we draw to reconcile the two approaches is that absorptive capacity strongly depends on aid itself or on its very modalities. Big push and absorptive capacity approaches cannot be reconciled without an aid reform coming with an aid increase. First, needed is to balance the utilisation of aid between directly productive and social activities, in order to avoid transitory loss of competitiveness. Second, schemes helping to use aid as insurance against exogeneous shocks are to be enhanced because they lower the risk of Dutch disease and contribute to a faster and more equitable long term growth. Finally a performance-based conditionality should be substituted to the traditional policy-based one in order to cope with several absorptive capacity limitations, most importantly the socio-political one. An aid supported big push will not be effective without a new ownership of policy by the recipient countries.

Résumé :

Cet article examine si la capacité d'absorption représente une raison suffisante pour écarter la proposition d'accroître fortement l'aide de façon à soutenir un "big push" ou "forte impulsion". Nous soutenons que pour de nombreux "pays moins avancés" l'existence d'un piège à pauvreté est une hypothèse probable et qu'il est pertinent d'accroître l'aide à ces pays. De plus nous montrons que la décroissance des rendements de l'aide est moins rapide dans les pays vulnérables, ce qui renforce la logique de prendre en compte la vulnérabilité dans les critères d'allocation de l'aide. Nous examinons aussi les principales limites à la capacité d'absorption de l'aide, telles que les contraintes de versement et les goulots d'étranglement à court terme, les troubles macroéconomiques, en particulier le risque de perte de compétitivité et d'instabilité macroéconomique, ainsi que l'affaiblissement institutionnel. La conclusion générale est que la capacité d'absorption dépend fortement de l'aide elle-même et de ses modalités. Big push et capacité d'absorption correspondent à deux points de vue qui semblent réconciliables si une réforme de l'aide accompagne son accroissement. Pour cela il est nécessaire de garder un équilibre entre les utilisations sociales et directement productrices de l'aide, d'utiliser l'aide comme assurance contre les chocs extérieurs et de substituer une conditionnalité de performance à la conditionnalité traditionnelle fondée sur les instruments. Une aide à une "forte impulsion" ne peut être efficace si les pays qui la reçoivent ne se réapproprient pas leur politique

Introduction

Two opposite views seem to dominate the present aid debate, the "big push" thesis, supported in particular by Jeffrey Sachs (2005) and relying on the poverty trap concept, and the absorptive capacity concern, collecting through a multifold concept several oppositions to the first approach. On one hand the United Nations *mot d'ordre* "doubling aid to reduce poverty by half", on the other one the reviving scepticism, fitting the view that aid will not be absorbed usefully, and finding an utmost expression in the recent book of Bill Easterly (2006a): the *End of Poverty* then faces the *White Man's Burden.* Incidentally the word "big push" does not appear in the index of Sachs book, neither "absorptive capacity" in Easterly index, but "big push" can be found in the index of Easterly, referring to the 'legend of the big push", and "absorptive capacity" in that of Sachs, a reference leading to the statement: "Limited absorptive capacity is not an argument against aid. It is the very reason that aid is needed!"

These two opposite views are not really new and they paradoxically have common roots. One author, Rosenstein-Rodan, may even appear as a major contributor both to the big push theory and to the absorptive capacity concept applied to foreign aid. He first expressed arguments, associated to the idea of increasing returns, for a big push in 1943, joined during the fifties by other development pioneers, in particular Nurkse (1953), who underlined the need of a balanced growth to break the vicious circles of the supply and demand of capital. The same Rosenstein-Rodan presented in 1961 the most comprehensive use of the absorptive capacity concept to measure the capital needs of the developing countries, following a famous proposal by Millikan and Rostow (1957) to allocate aid according to the absorptive capacity (once taken into account domestic saving). Nurkse himself referred to the limitations of absorptive capacity of aid for investment, as did, even shortly, most of the main works on development economics of the fifties, limitations first noted in the Fourth Annual Report of the IBRD in 1949 (historic survey may be found in Guillaumont 1971).

The reason why absorptive capacity and big push did not appear half a century ago as contradictory as they now seem to be is double. First, both concepts rely on the idea that low income countries face structural obstacles to growth, which are reflected in the absorptive capacity and require massive investment in interdependent sectors to be overcome. Second, aid is today likely to significantly increase: absorptive capacity then becomes a kind of

warning on the risk of waste, whereas it was in the past rather a criterion used to mobilize more aid. Fifty years ago the main criticisms of aid were not presented under this umbrella. Coming from rather extreme and opposite political positions, either liberal or radical, they prosecuted a support given through aid either to enlarging states or to non democratic regimes and corrupted bourgeoisies.

The opposition now is somewhat different. The main argument for doubling aid is not simply to fill a financial gap, but to push the countries out of a stagnation trap from which they cannot escape otherwise (nevertheless without any clear statistical link between the size of the needed push and the aid requirements). The first criticism has then been an attack against the idea of a trap and its big push corollary. Other criticisms or reservations, most of them under the notion of absorptive capacity, intend to evidence all the reasons why an increased aid is likely to be useless, wasted or even harmful, and consequently not leading to a big push and a subsequent escape from poverty.

In this context the notion of absorptive capacity of external aid has been used in several different meanings, sometimes contradictory. Going from the shorter to the longer term issues, we can identify four main meanings. A first one refers to the disbursement constraints or the disbursement slowness, evidenced by a low rate of utilisation of credits or a long lag between commitments and disbursements; it is a "pipeline approach". The second meaning refers to possible macroeconomic troubles associated with large aid inflows (disbursements): these troubles include in particular a loss of competitiveness, through real currency appreciation ("Dutch disease approach") and the recently debated effects of aid volatility. The third and more classical meaning of absorptive capacity is a drop (possibly a cancellation) of the marginal return of aid beyond a certain amount, analysed at the macro level, in terms of growth, or at the micro level, in terms of projects or specific expenditures ("decreasing returns approach"). Finally a fourth meaning should be added, which is a weakening of institutions induced by aid or a lack of social assimilation ("socio political approach").

In this paper we examine whether absorptive capacity, according to each of these four meanings, represents a compulsory reason to reject the proposal of a large aid increase to help poor countries to move out of the underdevelopment trap, subject to the existence of such a trap. To do so we successively consider the following points and corresponding questions:

- poverty trap hypothesis: is it a rule or a legend ? We argue it is a probability for many, in particular the Least Developed Countries: for them an aid increase is consequently relevant;

- disbursement constraints and short term bottlenecks: why is there an underutilisation of credits? To overcome the constraint, a reform of aid procedures is needed;

- macro economic troubles, including loss of competitiveness and macroeconomic volatility: to what extent is there a risk of Dutch disease? Needed here is both to focus on productivity and on the stabilizing impact of aid;

- decreasing returns: why are they more or less quickly decreasing? We argue that the decrease is slowed down in vulnerable countries, what makes these countries a priority in aid allocation;

- institution weakening: how can it be avoided? To a large extent by a performance based conditionality.

-

1 - Underdevelopment trap: not a rule, but a probability for many, in particular the LDCs

The possibility that low income countries be locked in a poverty or underdevelopment trap and be moved out of it thanks to large aid inflows may be considered as the basis of the UN Millenium Project and of the Report of the Blair Commission on Africa, as well as of the related proposals to find new and high additional development resources such as the International Financial Facility. However it has been recently challenged in several writings, some ones rather sophisticated and academic, other ones rather polemical. It is actually a major and complicated issue. Without entering into the details of the debate, we have a look at the main lines of the recent attack, which appear twofold: i) there would be neither analytical or empirical ground to the existence of a trap, ii) nor evidence of the aid as a factor likely to support a big push (out of the trap). In spite of these attacks, we conclude on the present relevance of an aid supported big push.

A truncated criticism of the concept of a low level equilibrium

The concept of poverty trap at the macro level, developed in the fifties in particular by Leibenstein (1954) or Nelson (1956), has recently been revitalized by Sachs et al. (2004), who have re-examined three sources of a trap, i.e. of a low level stable equilibrium, namely increasing returns, the saving income function and the fertility income function. The two first grounds have been debated in particular by Kraay and Raddatz (2005), who argue that the functions are not shaped as it would be required to lead to a trap, and their scepticism seems endorsed, by the *Global Monitoring Report 2005,* where we read: "In general…neither macroeconomic nor microeconomic evidence tends to support the existence of such traps". Criticism has been expressed in a more radical way by Easterly in a recent review paper (2006b) and the book previously quoted (2006a).

To the analytical scepticism has been added a purely empirical argument which can be summarized as follows: among the countries which were forty or fifty years ago low income, a not negligible number has been able to grow significantly and to move up from this low level. Then a low level of income is not by itself a stable equilibrium or a trap, what cannot be denied.

The point is that among the initially low income countries many have remained poor and that they share common structural characteristics, suggesting that the meeting of these characteristics creates the conditions of a low level equilibrium. In a forthcoming book we identify these features of the persistently low income per capita countries as the conjunction of a relatively low level of human capital and a high vulnerability to exogeneous shocks (Guillaumont 2006): these two structural handicaps interact to make sustained growth rather unlikely for logical reasons, not rejected by econometric tests. And they are precisely, with the low level of income per capita, the three features used at the UN to identify the Least Developed Countries (LDCs). It then appears that a group of countries, roughly corresponding to the present LDCs, can be considered as the most likely future low income countries. Briefly stated, not all low income countries are in a trap, but some of them are clearly in and these ones are the LDCs.

More precisely we find that:

-while there is no absolute convergence among the whole set of developing countries, there are clearly two regimes of absolute convergence, one for the non LDC developing countries, the other for the LDCs, at a significantly lower level, and leading to a lower steady state;

- on a long (thirty year) period, differences of growth of income per capita among developing countries are rather well explained by the three factors corresponding to the LDC identification criteria: besides initial income per capita, the two variables reflecting structural handicaps, an economic vulnerability index and an index of human capital weakness, both expressed in logs, are significant negative factors, meaning that they reflect an obstacle to growth or the possibility of a trap all the more that they are interacting (quite weaker results are found with the linear specification or even weaker with the logs of the corresponding human capital and low vulnerability indices).

Of course there can be other interpretations of the logic behind the notion of underdevelopment trap (see for instance Berthélemy 2006), but what seems required is to look for the structural specificities or initial conditions of the countries which were poor and long stayed so.

Misuse of aid effectiveness literature to deny the possibility of a big push.

Another argument used to deny the possibility of a big push supported by a high aid inflow in order to move out of the trap would be found in the mitigated results of cross country regressions on aid effectiveness.

First these results are not as uncertain as often argued, although the aggregate concept of aid used has a so heterogeneous content it makes difficult to obtain very strong results. As we shall see later, there are some positive results on aid effectiveness (possibly conditional on specific factors) which have been found robust in external assessments (see Roodman 2004, for instance, on Hansen and Tarp 2001 and on Guillaumont and Chauvet 2001) and in the new results published by Burnside and Dollar (2004). In particular we have argued that aid is efficient to promote growth in countries vulnerable to exogeneous shocks (Guillaumont and Chauvet 2001, Chauvet and Guillaumont 2004, 2006). We note that in a recent sceptical survey of aid-growth regressions (Rajan and Subramanian 2005b), which is referred to by

opponents to the idea of a big push supported by aid, the authors omit to consider the vulnerability factor of aid effectiveness.

Second it is a debatable assessment to consider that, among those low income countries which have been able to emerge, no one was supported by a large, even transitory, inflow of external aid. The most successful aid is precisely that which leads to a self sustained growth, then to a weaker aid-growth relationship. It does not seem that present econometric studies have adequately addressed the time sequence of this relationship. Historical perspective is needed. Let us look at the most typical cases of countries which have been in the past decades or are now emerging, such as Korea, Mauritius, Thailand, Indonesia, Tunisia...They all received at the beginning of their growth period a significant inflow of aid which has subsequently and quite normally decreased as far as growth was going on[1]: for instance in Korea the average aid to GDP ratio has decreased from 6.3% in the sixties to 0.1 in the eighties, and in Tunisia from 8.1 % in the sixties to 1.5 in 1990-2003. Let us look at the few LDCs the graduation of which has been decided by the UN, after they enjoyed a pretty growth: Botswana in 1994, Cape Verde and Maldives in 2004, with postponed implementation of the decision. They all have themselves received a level of aid initially quite high, then declining, suggesting that countries likely to be locked into a trap can escape with the help of international community: for instance in Botswana the aid to GDP ratio has decrease from 18.8% in the eighties to 1.9% in 1990-2003[2] . Saying that, we do not forget that all those countries were not the LDCs suffering from the most severe initial conditions, in particular with regard to human capital, what made easier to move up. But these conditions, and noticeably human capital, may themselves been supported by former aid. If the role of aid inflows is to lead to sustained growth, it is well to facilitate the progressive change of preconditions of a possible take off[3].

---

[1] Even in India, where due to size the aid to GDP ratio has always been low, this one appears, once adjusted for the size factor, to have also been significant, then declining

[2] In Cape Verde it has decrease from 37 % in the eighties to 16 % in 2000-2003 and in the Maldives from 14 % to 3;7 %.

2 - Disbursement constraints: a need to reform procedures.

Disbursement raises the first difficulty to absorb more aid. The lag between commitments and disbursements has been considered for many years (Guillaumont 1967). Curiously it has not led to many studies, although quantitative analysis can be easily applied. Anyway a complaint of receivers (and sometime of donors) about the large gap between cumulative commitments and disbursements, so called "pipeline", is more and more frequent. Actually the rate of underutilisation of credits is in some cases dramatically high, leading to scepticism on the possibility to use significantly higher amount of aid.

The reasons behind this may lie in the features of the receiving countries, such as low administrative capacities or weak transportation infrastructure, as well as in the non-fulfilment of the conditions attached to disbursement. However with that case in view Svensson (2006) has been led to refer to "a strong bias towards "always" disbursing committed funds to the ex ante designated recipient, or project, irrespective of the recipient government's performance, or the conditions of other potential aid recipient countries (projects)": here the risk is that of an excess of spending under the budget pressure, rather than the risk of a disbursement lag…

But the disbursement lags may also result from the inadequacy of the aid modalities to the recipient features. The multiplicity of aid sources in a country (the "aid fragmentation") with different procedures, forms and disbursement conditions is all the more a problem that the country is small and has low administrative capacities. Donors are then inclined to target supports on the reinforcement of administrative capacities of receivers, rather than to modify their own behaviour. It is a valuable but a long term process, as well as the improvement of transport facilities and infrastructure which also make the disbursement of project aid easier. Identifying and attacking such bottlenecks will stay for a long time on the agenda.

A lesson is to look for more appropriate procedures…The Declaration of the Paris Forum on Aid Effectiveness in 2005, besides considerations on "alignment" and "predictability" on which we come back later, underlines the need for an "harmonisation" of procedures and defines related indicators. However, to quote Peter Heller (2005): "Current approaches with respect to the goals for harmonization…are still far short of the professed

---

[3] More generally the issue of evaluation is the counterfactual as usual. It is always difficult to say what would have happened without aid in very poor countries

objectives and aid recipients have reasons to be uncertain about how long it will take for these gaps to be closed. Moreover, it must be daunting for LDCs to catalogue both the number of donors with which they must work, as well as the multiplicity of their objectives, modalities of operation, underlying criteria for aid levels, and conditionalities and terms of aid".

One can wonder whether in view of the difficulties met in the harmonisation process, still very slow, a more radical reform is not needed, consisting, as we shall see in our last point, in adopting an outcome based conditionality. It would meet both the concerns about disbursement lags and about disbursement incentives, avoiding bias from either source.

3 - Macroeconomic troubles from higher aid inflows: are they real troubles?

We now suppose that not only commitments, but also, disbursements are significantly increased, possibly with delay. Disbursement lags postpone the risk of macro economic troubles we now examine. Two kinds of troubles have been extensively considered in the recent literature. One is the risk resulting from an appreciation of the real exchange rate. The other one, likely to reinforce the first one, is the risk associated to the volatility of aid flows. While not negligeable these two risks are often overestimated. At least they require adequate treatment from an assessment with regard to some basic economic principles.

Real exchange rate concern: will aid increase induce a loss of competitiveness?

There are a lot of works insisting on the risk of a real exchange rate appreciation following a scaling up of aid flows, either from IMF/World Bank authors (see Arelano et al. 2005, Heller 2005, Gupta et al. 2006, Rajan and Subramanian 2005, World Bank and IMF 2005, 2006), or from the academic aid literature (Adam and Bevan 2003, Adam 2005, Bevan 2005, Gunning 2004). It is argued that increased aid inflows would generate Dutch disease effect, through an appreciation of the real exchange rate, with a subsequent loss of competitiveness in the tradable sectors, harmful for exports and also for a competitive import substitution. Aid can have this effect whatever the exchange rate regime: through the increase of the domestic price of non tradable in a fixed exchange rate regime, through the appreciation of the nominal exchange rate in a regime of floating rate.

Whereas the mechanisms under review are clear, the empirical evidence on the occurrence of such a disease seems mitigated (see for instance some studies in Berg et al. 2005). Gupta, Powell and Yang (2005) present a sample of econometric studies which illustrates how contradictory the results are: some authors find a positive link between aid inflows and real exchange rate (eg Kasekende and Atingi-Ego 1999 for Ghana), some others a negative link. Even the influential paper by Rajan and Subramanian (2005a), where it is argued that aid has a negative effect on the share of labour intensive and tradable industries, only suggests it could be due to a real appreciation, without really testing this hypothesis, nor considering possible effects on other tradable, such as agriculture and tradable services, which may be particularly important in small and high aid recipients developing countries.

Why so little evidence? In the short run the increase of the price of non tradable occurs only if there is no underutilised productive capacity in the non tradable sector. If there is such capacity, due for instance to disguised urban unemployment, the supply elasticity may be relatively high. In the long run a real appreciation will occur following a sustained higher aid level only if it is not compensated by an increase of productivity in the non tradable sector, as argued by Heller (2005) to recommend aid uses favouring such an increase, what is not so easy.

Moreover in the longer run an increase in productivity in the sector of tradable is likely to compensate the effect of a possible rise of the non tradable price on competitiveness. If according to the Balassa-Samuelson theorem, a growth of income per capita higher than in the rest of the world involves an appreciation of the real exchange rate, the achievement of a big push should lead to this appreciation. Then there cannot be a big push without real appreciation: if aid succeeds to support a big push, it should make the real value of the currency to appreciate. Appreciation no longer becomes a problem, it reflects the success of the strategy.

These arguments have strong implications for economic policy. In the short run, macro economic management of increased aid inflows may help to prevent a too fast rise of non tradable relative price, although reserves sterilisation can only be a transitory and partial solution (Heller 2005). More important is to consider uses of aid as well as of public domestic resources. Needed is to keep a balance between aid allocated to productive sectors and aid to

social sectors: aid to increase children health and education will indeed increase productivity, but only in the long term. Using aid to improve infrastructure is in that perspective an important factor to increase absorptive capacity (Agénor et al. 2005) Briefly stated, aid aiming at promoting balanced growth should itself be balanced.

Threaten of aid volatility: is aid destabilising or stabilising?

Aid volatility has become a very fashioned topic and one of the favourite arguments to enlighten the danger of a rapid aid increase. Aid, if volatile, might be a source of macro economic instability and all the more that aid level is higher[4]. This can be a way by which absorptive capacity is revealed. Aid indeed may appear volatile, but it does not mean it is destabilising, nor likely to be so, if its level is increased. Let us summarise the conclusions of an on going research partly presented in the two other papers (Guillaumont 2006b, Chauvet and Guillaumont 2006).

A prior issue is to choose the other flow to which it is relevant to compare aid volatility. A usual comparison is with tax revenue, to examine the effect of aid instability on public budget stability or with national income. Because the concern is with macroeconomic vulnerability, it is preferable is to compare the aid fluctuations (or cycle) to those of exports of goods and services, the aggregate the most likely to be affected by exogenous shocks: tax revenues, as well as national income, are influenced by the overall impact of exports, but also by aid. Moreover, all aid flows are not channelled through the public budget, what makes relevant to consider the volatility of the different kinds of aid (Fielding and Mavrotas 2005).

Comparing total aid (net) to (goods and services) export fluctuations (measured by one or another way), our studies quoted above lead to the three following conclusions .

(1)- Over thirty years (1970-99) the average level of aid volatility has been approximately the same than that of exports for a large sample of developing countries and half of this level for a sub sample of African countries: measured on eight year sub periods by a cycle component with regard to a trend drawn from a Hodrick-Prescott filter, both aid and export volatilities are

---

[4] Bulir and Hamann 2003, 2005; Lensink and Morrissey 2000; Pallage and Robe 2001; Rand and Tarp 2002, Eifert. and Gelb 2005).

equal on average to 8.8 percent for the whole sample, while they are respectively of 5.9% (aid) and 11.2% (exports) for the African sub sample.

(2)- Criticism of aid volatility may be misplaced if aid has a compensatory profile, which could be consistent with the finding that aid is more effective in more vulnerable countries (see above). As previously argued for real exchange rate appreciation, aid volatility would be a solution rather than a problem. In that perspective the volatility of aid is not so much to be criticized as its pro-cyclicality. With regard to exports, pro-cyclicality appears not to be the rule, not even in the majority of cases as it is sometimes asserted. The pro-cyclical character of aid is measured by the correlation between the "cycle" of aid (that is, its deviation from its trend) and the "cycle" of exports. Using the Hodrick-Prescott filter and considering more than one hundred developing countries over the period 1970–99 (broken down in eight year subperiods, what result in 465 sub-period observations), the country correlation between the cycle of net aid disbursements and the cycle of exports of goods and services appears to be nearly as often negative as positive (222 cases versus 243); a similar balance is found for an African sub sample: this means that aid is nearly as often countercyclical than procyclical. Furthermore in the majority of cases the correlation coefficients on which the comparison relies are not significant[5].

(3)-Measuring counter- or pro-cyclicality is less relevant than determining whether aid inflow is stabilizing or destabilizing with regard to the total aid plus export flow. Pro-cyclical aid can still be stabilizing if its volatility, expressed in relative terms, is lower than the volatility of exports. There may also be opposite and paradoxical cases where aid is countercyclical and destabilizing, when its volatility is significantly higher than that of exports, in a proportion depending on the relative levels of aid and exports[6]. What is the real picture? To assess the stabilizing character of aid, we consider an index corresponding to the difference between the instability (volatility) of exports and that of the aid plus export flow: if the difference is positive, aid is stabilizing; if it is negative, aid is destabilizing. On average, it has been stabilizing and more clearly during the 1990s than during the previous periods: on average the indicator represents 18 percent of the average value of the instability of exports (28 percent for a sub sample of African countries). In the majority of cases where aid was pro-cyclical, it

[5] At a 15 percent threshold

[6] On one year the arithmetic condition is that the absolute value of the ratio of the relative cycles exceeds one by twice the ratio of exports to aid.

was then stabilizing. When aid was countercyclical, it was, as expected, generally but not always stabilizing. On the whole, aid was destabilizing in less than one tenth of cases. The following graph (Graph 1) evidences that the stabilising impact of aid (measured by the difference between the two instabilities) is all the more important that the aid GDP ratio is higher, and is not significantly influenced by the level of aid volatility.

(4)- In the future, if aid is strongly growing, its potential stabilising or destabilising impact with regard to exports will be higher, but the risk of a destabilising impact will remain low since, in the case of pro-cyclicality, it is conditioned by a level of volatility higher than that of exports.

As far as export are not the only exogeneous source of instability, it is also relevant to examine whether aid contributes to lower or enhance growth volatility, once taken into account the influence of traditional structural factors of this overall volatility. Using GMM estimator with five year average observations, and initial income per capita, export to GDP ratio and export volatility as control variables, it appears that the aid to GDP ratio has a significant negative impact on growth volatility (aid to GDP ratio and income per capita instrumented)[7] (Chauvet and Guillaumont 2006).

Even if on average aid has been in the past rather stabilising, some policy lessons can be drawn from the past experience to avoid a destabilising effect of higher aid levels in the future. On the donor side, the principle of conditionality is by itself a potential factor of instability, and all the more that donor policies are harmonised (Heller 2005). However the move towards a more gradual conditionality, involved by an output based conditionality, may lower the risk of aid instability, since the assessment of results or outcome is less dichotomic than that of policy measures implementation. Moreover a better transparency in the criteria of aid allocation may render aid more predictable and then facilitate the domestic management of aid flows.

---

[7] Aid volatility added alone to the regression does not change the result and is not significant. When a multiplicative variable (Aid ratio x Aid volatility) is added it appears significantly positive, suggesting a threshold beyond which an increase of the aid to GDP ratio may become a factor of macro economic instability. But this last result is not very robust, as it can be expected, since the impact of aid volatility differs from one country to another, depending on proper counter cyclicality.
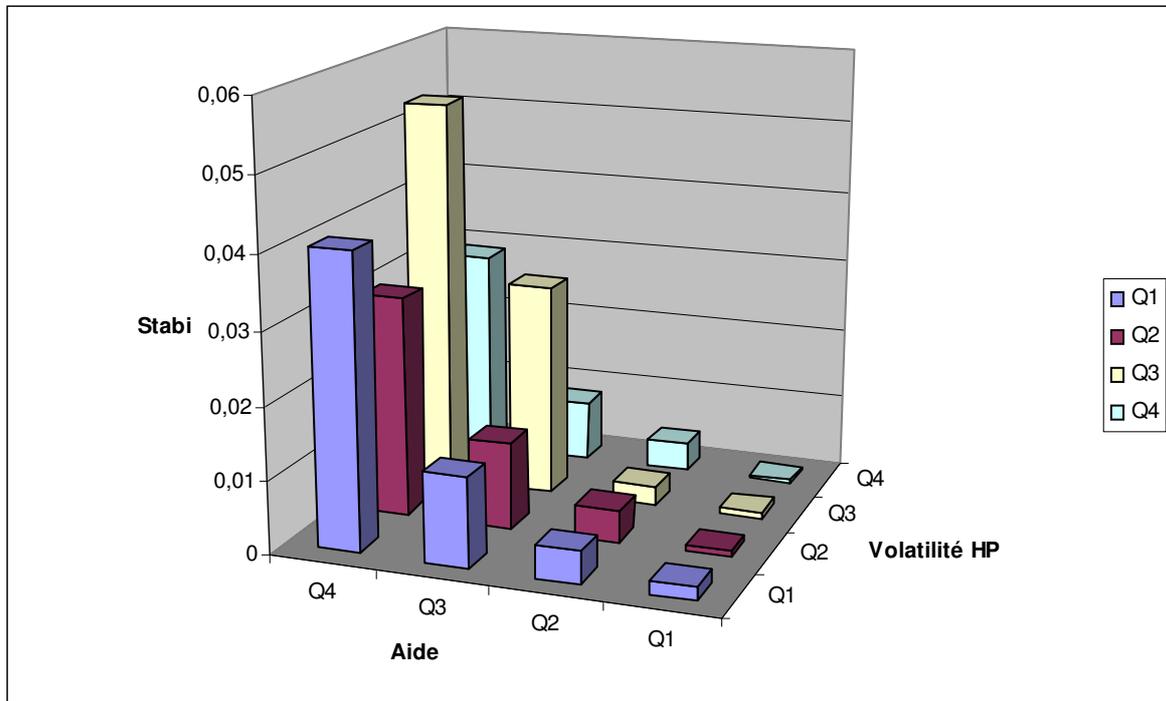
Graph 1. **Stabilising impact of aid with regard to exports according aid to GDP ratio and aid volatility**

Finally it is an argument to use more extensively aid as an insurance to smooth public and private incomes facing export instability or other shocks. As we have explained elsewhere solutions do exist which can be built on a contractual basis involving international community, recipient country governments and producer groups, and respect market trends (Guillaumont and Guillaumont Jeanneney 2003, Guillaumont et al. 2005). They notably include grant disbursement and/or debt service adjustment in response to price shocks, and support to domestic insurance schemes targeted to agricultural producers.

On the recipient side a higher aid dependency needs a cautious management of the domestic fiscal space. The government has to be able to keep some flexibility in public expenditures and to save some potential of domestic borrowing. It may also find appropriate to accumulate a certain level of foreign reserves likely to be used to smooth the impact of aid inflows.

4 - Decreasing returns: more slowly in vulnerable countries

Absorptive capacity, in the most usual meaning of the concept, is associated with decreasing returns. There may be decreasing returns of aid, as for any other factor. However decreasing returns do not exclude increasing returns below some aid level, consistently with the big push hypothesis. An additional analytical difficulty comes from that the turning points are likely to differ among recipient countries, depending on their own characteristics. Here we focus on their structural vulnerability, since this feature has appeared in our previous works to be a significant factor of aid effectiveness. To argue that vulnerability influences the profile of aid marginal returns we rely both on macro and micro evidence.

Lessons from growth regressions: is big push justified by vulnerability?

The test of the decreasing marginal returns of aid has been an important piece of the debate about aid-growth relationships. In the growth regressions both the aid variable and its squared value were included among the explanatory variables, with respectively positive and negative coefficients expected. This specification involved not only a decreasing marginal impact of aid on growth, but also that, beyond a certain level, an aid increase is detrimental to growth (inverse U curb). The turning point could be considered as a measurement of absorptive capacity. Conversely if the coefficients are respectively negative and positive or only significant and positive for the squared term, it is an argument in favour of a big push.

The estimation including the aid term and its squared value has been run initially by Hadjimichael et al. (1995), referring to absorptive capacity constraints, then became a usual practice (Burnside and Dollar 2000, Collier and Dollar 2001, 2002, Hansen and Tarp 2000, 2001, Lensink and White 2001). Results strongly differed, with the squared term either significantly negative or unsignificant. They depend in particular, as clearly documented by

Hansen and Tarp, on whether another non linearity is introduced in the model through a multiplicative term of aid.

In previous works on the influence of vulnerability on aid effectiveness (Guillaumont and Chauvet 2001, Chauvet and Guillaumont 2004), non linearity was introduced through a multiplicative term (aid x vulnerability index), but without the aid squared term: results suggested that aid is more effective in more vulnerable countries or in other words that the negative impact of vulnerability is dampened by aid. A more recent paper focused on Africa (Chauvet and Guillaumont 2006) results in a similar conclusion, with the instability of goods and services export as only measure of vulnerability, what allows us to assess the stabilising impact of aid examined above. Regressions are run on a sample of 38 African countries on 6 five year periods (with GMM and additional instrumentation of aid). Controlling for aid ratio and export instability levels, we obtain a significant positive impact on growth of either the multiplicative variable (aid x export instability) or of the indicator of the stabilisation impact of aid (the difference between the instability of exports and the instability of the aggregate flow (export + aid)). In these specifications, the marginal effectiveness of aid does depend on vulnerability, but not on the aid level. It suggests that if there were a turning point according to the aid level (evidenced by a significant coefficient of squared value of aid), this point would be moved away by a higher vulnerability[9].

To simultaneously test the existence of two successive turning points corresponding the first to a minimum amount of aid below which it is not effective (an approach to the big push), the second to the level beyond which it is no longer effective (a measure of the absorptive capacity), it might be conceivable to estimate the growth regression with not only the aid variable and its squared value, but also its cubic value, expecting the coefficients to be successively negative, positive and negative, and the returns being the two turning points

---

[9] To go further we wonder what would be the results when, into the last model we add the squared value of aid/GDP ratio to the multiplicative variable (aid ratio x export instability)? According to very preliminary results, aid still dampens the negative effects of instability, but its marginal return is increasing, starting from a negative level and reaching a positive level beyond a turning point (an U curb), which corresponds to a very high level of aid ratio, all the more lowered that the export instability is higher: marginal aid effectiveness becomes positive for an aid ratio of 10% if export instability is around 25%; This intriguing result could be used either as a support to the big push thesis or as an argument against aid, whether the attention is brought to the increasing returns or to their negative level on a wide range. One may of course question the validity of the method used to determine thresholds.

successively increasing and decreasing. Then the two approaches could be reconciled. However this specification is not really appropriate: there is no reason to expect negative marginal returns rather than nil returns below the first threshold, and even beyond the second one. This is why a better method seems to look for the thresholds which empirically differentiate the aid growth relationships according to the level of aid. This has been done by Gomanae, Girma and Morrissey (2003). They find that aid becomes effective in contributing to growth beyond 2% of GNP and no evidence of diminishing returns to aid afterwards. But, using annual growth data, they may capture short term rather than long term aid effects. Moreover the threshold is supposed to be the same for all countries. Yet it is most likely that the aid effectiveness thresholds depend on the specific features of recipient countries.

New micro evidence from project evaluation, confirming the impact of vulnerability

The ambiguous results of growth regressions regarding the aid effectiveness thresholds may be due to some extent to the heterogeneity of aid aggregates, including projects, budget support, debt relief, technical assistance, etc. For this reason it is useful to consider a more homogeneous set of aid inflows, for instance a set of projects, and to analyse whether their results seem to depend on the total amount of aid, and specific features of recipient countries as well. If our assumption that aid marginal returns are influenced by the vulnerability of countries, this should be reflected at the micro level, as we see now.

In a working paper by Guillaumont and Laajaj 2006 we consider the results of the evaluation of World Bank projects conducted by the Independent Evaluation Group of the Bank. In this data base the outcome of the projects is measured on a six scale notation ranging from very unsatisfactory to very satisfactory. It makes easy to examine if the rate of success is influenced by the level of aid in the recipient countries and if this relationship depends on its economic vulnerability: we surmise that the rate of success decreases when the total amount of aid increases, but to less extent in the countries highly vulnerable.

Intuitive support to this view is given by a three dimension graph (Graph 2) representing the average success of projects according to the combined levels of export instability and aid to GDP ratio. The success rate[10] of the projects split up into nine groups: "low aid"

---

[10] A project is considered successful if it has been rated at least moderately satisfactory.

corresponds to the third of projects that have been carried out in countries receiving the lowest level of ODA (less than 1 % of GDP), "high aid" to the upper third (more than 8 % of GDP), and so "medium aid "to the intermediate third, while are identically separated the upper, middle and lower thirds of projects according to the export instability of the countries, weighted by the export to GDP ratio.
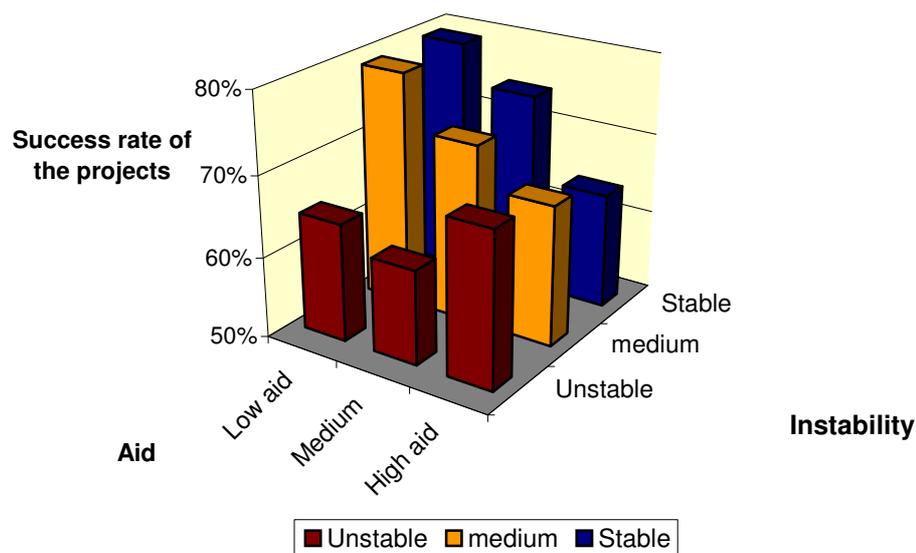
Graph 2. Slower decreasing returns of aid when exports are more unstable

It appears that for a low level of aid, the average success rate is 15 points higher in a stable country. However, in stable countries, this rate decreases sharply when the level of aid increases, suggesting a limited absorptive capacity, while in the most unstable countries, the success rate does not decrease clearly: it is even the highest in the most aided countries; moreover in these last countries the average success of projects is the higher the more unstable the countries are.

Some econometric estimations evidence these relationships. Following Kaufman and Wang (1995), Isham, Kaufman and Pritchett (1997), Isham and Kaufman(1999) and Levin and Dollar (2005) we estimate the factors determining the success of World Bank projects, but we do not aggregate project data at the national level, so that regressions are run at the micro level with an observation for each project. Since the outcome of the projects is measured on a six scale notation, our econometric model is an ordered logit. It combines

factors related to the characteristics of the project (sector, IDA or IBRD conditions...) and to the characteristics of the country (income per capita, level of education, quality of institutions, …) (as well as year dummies). Its specificity for our concern is to test the influence of these other following variables:

- the total aid to GDP ratio, to identify possible aid decreasing (or increasing) returns (variable introduced also by Dollar and Levin);
- the volatility of exports, which is a source of unstable environment likely to be harmful to carry out projects;
- one variable multiplicative of the two previous ones, consistently with our previous finding at the macro level (with Lisa Chauvet) that aid dampens the negative effects of external shocks.

We expect the success of projects to decline when the total amount of aid increases and when the recipient country faces external shocks (export instability), while the impact of the interactive (multiplicative) variable (aid x instability) be positive[11]. The results of the base regression do not reject our hypotheses. The success of projects is less decreasing in more unstable countries, what emphasises the needs of aid in vulnerable countries.

Another finding is about the role of education in the success of projects. The rate of success is positively influenced by the level of education, but a low level of education dampens the negative impact of aid size on the success of projects: when a multiplicative variable of aid and education is introduced in the model, it appears to have a significant negative impact. This should not be surprising: aid has a knowledge content which makes its marginal impact higher the lower the level of education (similar finding in Gomanae et al. 2003).

---

[11] In this model the success of project, which is directly estimated, is found decreasing when the coefficient of the aid value received by the implementing country is negative. Then if the outcome of projects is declining when the total amount of aid increases and if it is lower when the recipient country faces external shocks (export instability), the positive expected impact of the interactive (multiplicative) variable (aid x instability) means, as in the growth model, that aid dampens the effect of instability. By comparison in the aid-growth model the marginal return of aid is given by the first derivative of growth and is found positive and decreasing with the coefficients of aid and of its squared value are respectively positive and negative: in the aid-growth model aid lowers the negative impact of instability even if there are constant returns, in the success-of-project model the decrease of aid project outcome is slowed down by instability. When instability is high, aid outcome may cease to decrease or even be increasing.

Considering that both vulnerability and low human capital are factors of slower decline of aid effectiveness and that these two features are precisely, with a low level of income, the identification criteria of the Least Developed Countries, it suggests that the function of success of projects may differ between these countries and the other developing countries. While vulnerability and lack of human capital are negative factors of the average success of projects, they make this success less declining, or even increasing when the level of aid increases, what do not preclude such a decline beyond a certain level of aid: it means that they would push further the limits of absorptive capacity. We then estimated a success-of-project model where the explanatory variables are the aid to GDP ratio, its squared value, and a dummy variable for LDCs, introduced both additively and multiplicatively of the aid ratio and its squared value[12]. The results are represented in the following graph (Graph 3). In the non LDCs developing countries the outcome of projects is generally higher than in LDCs, but declines when aid increases (the turning point around a 25% aid ratio is not empirically relevant since in only less than 1% of cases countries reach this level of aid). In LDCs the average rate of success increases when aid to GDP ratio increases, at least below a threshold estimated around 17% in the estimation corresponding to the graph 3, and do not decrease quickly beyond it (25% of cases beyond this point). Clearly, even if the LDCs obtain a lower average rate of success, they evidence increasing returns to aid and a higher absorptive capacity.

A last but not less intriguing result of the previous estimations is that institutions do not appear as a significant factor of the success of projects.

---

[12] The variables corresponding to the identification of LDCs, income per capita, vulnerability, lack of human capital are excluded.

**Graph 3. Least Developed Countries : initial handicap
but higher absorptive capacity**
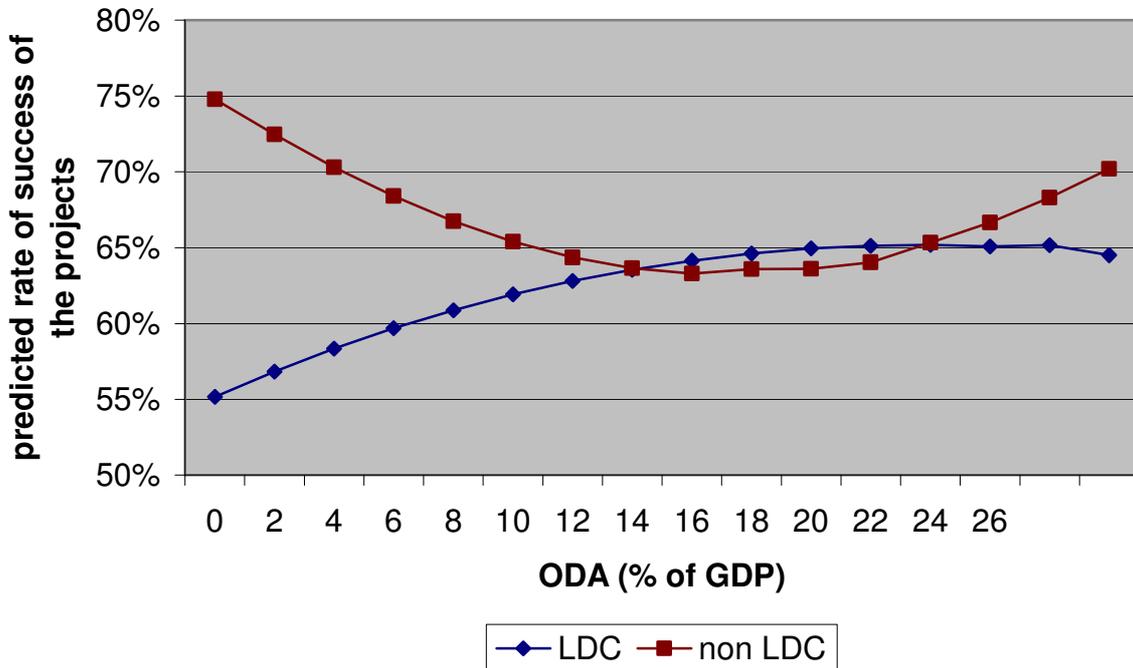
5 - Institutions weakening : towards performance based conditionality

The relationships between aid and the institutions of recipient countries have been examined in the literature from three different angles. First in the aid effectiveness literature institutions (and policy) have been presented as a crucial factor of effectiveness (in the "ABCD paradigm" of Assessing Aid, Burnside, Collier, Dollar), a factor, as well known, strongly debated. Second the impact of institutions on inter country aid allocation has been analysed and debated, both as a positive issue and as a normative issue, in particular with the aim to assess the selectivity of donors (Amprou, Guillaumont and Guillaumont Jeanneney, 2006). Third the effect of aid on the quality of policies and institutions has been for a long time a matter of concern and now meets a topical interest as it could significantly limit absorptive capacity. Relying on some past and recent views on this third matter, we try to see what can be the appropriate answer to prevent aid from weakening the institutions of recipient countries.

The institutional dimension of absorptive capacity

Is aid dependency lessening domestic institutions, which are now considered as an important factor of economic growth? Several potential negative effects of large aid inflows on institutions have been identified, mainly the effect passing through a detrimental impact of aid on private saving, the impact on state revenue and the consequences on the accountability of public management (or the link between the state and the civil society).

The crowding out effect of aid on savings has been the first analytical attack against foreign aid and was largely debated, in particular on empirical grounds (Griffin 1970, Papanek 1973). A common conclusion at the aggregate level was that even if aid has a short term negative impact on savings, it however increases investment and doing so contributes through a higher income to a long term increase of the saving ratio (Guillaumont 1985). The crowding out effect relied on two basic assumptions, linked to policy and institutions. Aid was first supposed to grasp the better investment opportunities and then discourage private savings and investment: it would thus exert an institutional effect on the financial system, the deepening of which be reduced. It was not sure that this effect resulted more from aid than from other sources of external finance and it has not been deeply investigated.

The second crowding out effect, related to fiscal revenue, has been more extensively examined, both through cross section and country case studies. However results are mitigated, as it appears in the survey by Moss, Pettersson and van de Walle (2006). Even if the literature finds more often than not a negative relationship, it raises several problems. A first one is due to the heterogeneity of aid flows and of tax receipts, with possible specific responses of each kind of tax to each kind of aid: Gupta et al.(2004) suggest that grants, but not loans have a negative effect on total tax revenue, while Mavrotas, 2005, (who also consider the effects on the different kinds of public expenditure) argues that "in Uganda the government did not reduce its tax effort following additional disbursements of the different types of foreign aid". A second problem is related to aid endogeneity: aid and fiscal receipts are linked by reciprocal relations and may be influenced by common factors, while the instrumentation of the aid variable is often unsatisfactory. Finally and most importantly studies focused on the short term impact of aid inflows do not allow one to capture the long term and institutional effects.

As for long run effects we face two opposite views. On one side an aid dependency concern leads to underline the risk to see the state depending too much on foreign aid and thus to be accountable to foreign donors rather than to the national population or civil society. In that perspective crowding out of fiscal revenue is considered as a factor of weak accountability, since governments do not need to maintain their legitimacy to collect revenue (Moss et al. 2006). It is not sure however that collecting taxes is always a factor of democracy and institution building, as the heavy taxation of African agriculture in the seventies and afterwards has shown. On the other side aid increase can be considered as a transitory impulse generating pump priming effects which will make aid itself less and less needed. A good example is also given by tax policy: if aid allows a country to reduce high and distortionary taxation, it will help to break an obstacle to growth and possibly lead in the future to a larger amount of public revenue (Gunning 2004).

The more detrimental effects of aid on institutions are other ones and mainly due to the ways by which aid is delivered. There is indeed a socio political dimension of absorptive capacity, but to some extent it comes from aid modalities. This may seem paradoxical since a larger and larger part of aid is devoted to budget support which is conditioned by policy reform. Traditional conditionality has been strongly criticised. In particular it has been argued that it was inefficient due to the common interest of the partners to do as if it was efficient (Collier et al.1997). This criticism has found an utmost expression in the hypothesis, made by Burnside and Dollar (2000), that aid has no effect on policy. This hypothesis, has been challenged not only in cross section studies (see for instance Chauvet and Guillaumont 2004[13]), but also and more significantly by the African case studies achieved at the request of the World Bank (Devarajan, Dollar and Holmgren 2001 and the comments by Berg 2004 and Tarp 2003): it is difficult not to recognise that the intense policy dialogue between donors and recipient governments has not led to some significant policy decisions or institution reforms.

However the crucial issue of ownership, already raised in the initial criticism of conditionality, seems to remain unsolved: the pressure of donors to "obtain" policy measures and reforms and the commitment of recipient countries to account for to external agents lead the governments and civil servants in these countries not to feel fully responsible for their

---

[13] Tests do not reject our hypothesis that policy is all the more improved by aid that its previous quality is weaker, what leads to an aid effectiveness depending negatively from the previous policy (and positively from the current one).

action. Moreover they are less inclined to justify their action otherwise than by their external commitments. "The hypothesis here is that large aid flows fundamentally alter the relationship between government, elites and local citizens" (Moss, Pettersson and van de Walle 2006). This lack of ownership and accountability to citizens is enhanced by the weight of donors advice, presence, missions and own agenda, as stressed by Elliot Berg in his last and posthumous paper (2003).

Why a performance-based conditionality is an answer to the drawback of aid dependency

Face to the socio political limits to absorptive capacity, a usual answer of donors is to consider that the weak administrative capacity is the main source of the difficulties and has to be enhanced. The reinforcement of capacities has thus been a goal of aid, well reflected in the share of technical assistance. A future increase of aid should then justify a further move in this direction. It is a reasonable principle. However it has sometimes been implemented in a poorly efficient manner. A common practice is to set up autonomous agencies in order to attract the best civil servants, with higher wages, possibly after appropriate training, and avoid administrative inertia. It is a short term search for efficiency, but often a factor of discouragement within traditional administration. Policy aiming at diminishing the number of civil servants and pay them more, possibly after appropriate training, is longer term focused, although it may be politically difficult.

The diagnostic about the drawbacks of aid dependency calls for deeper reform in aid practice. In previous papers we have argued in favour of an outcome-based or performance-based conditionality for budget support, instead of a conditionality based on the adoption of policy changes (Collier et al. 1997, Adam et al. 2004). Performance would be measured, as much as possible, in terms of ultimate objectives, such as reduced child mortality or knowledge acquisition by children. To quote us, "A performance based approach allows for better ownership of reforms, since the choice of instruments would reside with the country; it avoids arbitrary judgement on multiple heterogeneous economic policy measures; and it facilitates gradual and progressive support according to the degree of progress of performance relative to outturns; and by eliminating the scope of discordant conditionality, it supports better coordination between donors" (Adam et al. 2004).

The principle of this proposal has not met strong criticism. But the likelihood of its implementation by a significant number of donors has appeared rather limited. Even the European Union which has taken the pioneering initiative of a reform in that direction has stayed half way, as the conditions retained refer to intermediate indicators close to policy instruments (Ibid.). The main hindrances to the full implementation of a performance-based conditionality are twofold. One is a lack of trust in the capacity and will of the recipient countries, a lack which creates a vicious circle since without ownership capacities will not really develop. The second and probably more important one is the weight of habits within aid agencies. Full performance based conditionality would involve a dramatic change of their job, which would be devoted to monitor and assess the progress in the results obtained by countries for a few number of final indicators of development, taking into account the impact of exogeneous factors, independent of the policy.

As for countries where there is no minimal state or in the lasting failing states, it may not be possible to undertake such a reform. At least transitorily increased aid inflows should be delivered more directly through technical assistance and projects bypassing the failing states (Chauvet and Collier 2005), in particular implemented through civil societies organisations (EGDI 2006, Cohen, Guillaumont Jeanneney et Jacquet 2006).

6 - Conclusion: how to reconcile the two approaches

In this paper we have neither rejected the relevance of a big push nor denied the existence of serious limits to absorptive capacity, while considering that both require further analysis. The limits to absorptive capacity do not lead to give up the big push, on the contrary a big push seems needed to push away these limits. However it is feasible only if aid policies are designed consistently. The general conclusion we draw to reconcile the two approaches is that absorptive capacity strongly depends on aid itself or on its very modalities. Big push and absorptive capacity approaches cannot be reconciled without an aid reform coming with aid increase. In that perspective following main lessons can be drawn from the previous analysis.

First, needed is to balance the utilisation of aid between directly productive and social activities, in order to avoid transitory loss of competitiveness.

Second, schemes helping to use aid as insurance against exogenous shocks are to be enhanced because they lower the risk of Dutch disease and contribute to a faster and more equitable long term growth.

Third, due to the higher marginal impact of aid in vulnerable countries and in particular the Least Developed Countries, where the need of a big push is the clearest, priority should be given to these countries in aid allocation.

. Finally, as much as possible, a performance-based conditionality should be substituted to the traditional policy-based one in order to cope with several absorptive capacity limitations, most importantly the socio-political one. An aid supported big push will not be effective without a new ownership of their policies by the recipient countries.

References

Adam C. (2005) « Exogenous Inflows and Real Exchange Rates : Theoretical Quirk or Empirical Reality?" IMF, Seminar on Foreign Aid and Macroeconomic Management Maputo 14-15 mars 2005.

Adam C. and D. Bevan (2004) "Aid and the Supply Side: Public Investment, Export Performance and Dutch Disease in Low-Income Countries" University of Oxford, Department of Economics, *Working Paper* n° 201.

Adam C., Chambas G., Guillaumont P., Guillaumont Jeanneney S. and J.Gunning (2004) « Performance-based Conditionality : A European Perspective » *World Development,* vol.32, n° 6, p. 1059-1070.

Agénor P.-R., Bayraktar N., Pinto Moreira E. and El Aynaoui K. (2006) « Achieving the Millenium Development Goals in Sub-Saharan Africa. A Macroeconomic Monitoring Framework" (October)

Amprou J., Guillaumont P. et S. Guillaumont Jeanneney (2005) « La sélectivité de l'aide au développement : pour des critères diversifiés » communication aux Journées de l'AFS, CERDI, Clermont-Ferrand, 19-20 mai, CERDI , *Etudes et documents*

--------------------- (2006), « Aid Selectivity According to Augmented Criteria », 2005, *World Economy,* forthcoming.

Arellano C. Buliř A. Lane T. and L. Lipshitz ((2005) "The Dynamic Implications of Foreign Aid and its Volatility" IMF *Working Paper,* WP/05/119.

Azariadis C. and J. Stachurski (2005) "Poverty Traps" prepared for Aghion P. and S. Durlauf (eds) *Handbook of Economic Growth.*

Berg A., Hussain M., Aiyar S., Roache S.and A Mahone (2005)"The Macroeconomics of Managing Increased Aid Inflows: Experiences of Low-Income Countries and Policy Implications" IMF, *mimeo*

Berg E. (2003) "Augmenter l'efficacité de l'aide : une critique de quelques points de vue actuels » *Revue d'économie du développement,* n° 4, décembre, p.11-42.

Berthélemy J-C. (2006) " Clubs de convergence et équilibres multiples : comment les économies émergentes ont-elles réussi à échapper au piège du sous-développement ? » *Revue d'économie du développement*, n°1, mars.

Bevan D. L. (2005) " An Analytical Overview of Aid Absorption: Recognising an Avoiding Macroeconomic Hazards" IMF Seminar on Foreign Aid and Macroeconomic Management, Maputo, 14-15 March 2005.

Buliř A. and A. J. Hamann (2003) "Aid Volatility : An Empirical Assessment". *IMF Staff Papers,* vol. 50 n°1, p. 64-89.

Buliř A. and A. J. Hamann (2005) *Volatility of Development Aid : From the Frying Pan into the Fire ?* IMF, mimeo.

Burnside C. and D. Dollar (2000) « Aid, Policy and Growth » *American Economic Review, S*ept. vol.90, n°4, p. 847-868.

Burnside C. and D Dollar (2004) « Aid, Policies and Growth : a Reply », *American Economic Review*, vol. 94, n°3*,* p.781-784.

Chauvet L. and P. Collier (2005) " Policy Turnrounds in Falling States" Oxford University and Dial, *mimeo*

Chauvet L. and P. Guillaumont (2004) « Aid and Growth Revisited : Policy, Economic Vulnerability and Political Instability » in Tungodden B., Stern N. and I. .Kolstad eds *Towards Pro-Poor Policies. Aid, Institutions and Globalisation,* ABCDE 2003 Annual World Bank Conference on Development Economics Europe World Bank, Oxford University Press., New-York.

Chauvet L. and P. Guillaumont (2006b) "Aid Volatility and Growth, with Special Reference to Africa" CERDI *Etudes et documents*

Cohen D., S. Guillaumont Jeanneney, P. Jacquet, (2006) « La politique d'aide au développement de la France . Introduction générale » in D.Cohen, S.Guillaumont Jeanneney and P. Jacquet *La France et l'aide publique au développement,* Le Conseil d'Analyse Economique, La documentation française, Paris.

Collier P. et D .Dollar (2001) « Can the World Cut Poverty in Half ?How Policy Reform and Effective Aid Can Meet International Development Goals » *World Development, N*ovember. vol.29, n° 11, p.1787-1802.

Collier P. et D. Dollar (2002) «Aid, Allocation and Poverty Reduction » *European Economic Review,* vol.46, n° 8, 1475-1500

Collier P., Guillaumont P., Guillaumont Jeanneney S. and J.W. Gunning (1997) « Redisigning Conditionality », *World Development,* vol. 25, n°9, p.1399-1407.

Devarajan S., Dollar D.R. and T. Holmgren eds (2001) *Aid and Reform in Africa : Lessons from Ten Case Studies* The World Bank, Washington D.C.

Easterly W. (2006a) *The White Man's Burden. Why the West 's Efforts to Aid. The Rest Have Done So. Much Ill and So Little Good,* The Penguin Press, New York. .

Easterly W. (2006b) "The Big Push Déjà Vu: A Review of Jeffrey Sachs's *The End of Poverty: Economic Possibilities for Our Time" Journal of Economic Literature,* vol. XLIV, p. 96-105.

EGDI, (2006) "The Politics of Service Deliveries in Democracies. Better Access for the Poor", Expert Group on Development Issues, Write-up from workshop in Stockholm, 27-28 April

Eifert B. and A. Gelb (2005) "Improving the Dynamics of Aid. Towards More Predictable Budget Support" World Bank *Policy Research Working Paper n° 3732.*

Fielding D. and G. Mavrotas (2005) "The Volatility of Aid" United Nations University, WIDER, *Discussion Paper* n° 2005/06.

Gomanee K., Girma S. et O. Morrissey (2003) « Searching for Aid Threshold Effects » Centre for Research in Economic Development and International Trade, University of Nottingham, *Credit Research Paper ,* n°03/15

Griffin K. (1970) "Foreign Capital, Domestic Savings and Economic Development" *Bulletin of the Oxford University, Institute of Economics and Statistics*, May, p. 99-112.

Guillaumont P. (1967) " L'aide au développement en Afrique de l'Ouest : schéma d'analyse » in OCDE *Progrès social et croissance économique,* Centre de développement, Paris, p. 146-171.

Guillaumont P. (1971) *L'absorption du capital,* éditions Cujas, Paris.

Guillaumont P. (1985) *Economie du Développement* Tome 3 *Dynamique internationale du développement,* PUF, Paris.

Guillaumont P. (2006a) "Macroeconomic Vulnerability in Low –Income Countries and Aid Responses" in Bourguignon F. Pleskovic B. and J. Van der Gaag (eds) *Securing Development in an Unstable World,* Annual Bank Conference in Development Economics, Europe 2005, The World Bank, Washington DC. P.65-108.

Guillaumont P. (2006b) *To Move Out of the Trap: The Least Developed Countries,* Economica, Paris, forthcoming.

Guillaumont P. et L. Chauvet (2001) « Aid and Performance: a Reassesment » *Journal of Development Studies,* vol.37, n° 6 , p.66-92.

Guillaumont P. et S. Guillaumont Jeanneney (2003) «Dampening Price Shocks » in Collier P. and I. Bannon eds *Natural Ressources and Violent Conflicts,* a World Bank Publication , Washington DC, p.353-367.

Guillaumont P. et S. Guillaumont Jeanneney (2004) « Une expérience européenne : la conditionnalité de performance au Burkina Faso » *Afrique contemporaine,* n° 209, printemps 2004, p.197-227.

Guillaumont P., Guillaumont Jeanneney S., Jacquet P., Chauvet L. et B. Savoye (2005) « Attenuating through Aid the Vulnerability to Price Shocks” in Bourguignon F..and P. Jacquet (eds) *Economic Integration and Social Responsibility,* World Bank, Oxford University Press, forthcoming.

Guillaumont P. and R. Lajaaj (2006)” When instability increases the marginal effectiveness of aid projects” *World Bank Policy Research Working Paper, .*

Gunning J.W. (2004) « Why give aid ? », paper for the 2nd AFD-EUDN Conference *Development Aid : Why and How ?*, Paris, November 25th, 2004

Gupta S., Clements B., Pivovarsky A. and E. Tiongson (2004) " Foreign Aid and Revenue Response: Does the Composition of Foreign Aid Matter?" in Gupta S., Clements B. and G. Inchauste (eds) *Helping Countries Develop. The Role of Fiscal Policy,* IMF, Washington DC.

Gupta S., Powell R. and Y. Yang (2005, 2006) " The Macroeconomic Challenge of Scaling Up Aid to Africa. A Checklist for Practitioners" IMF, Washington DC.

Hadjimichael M.T., Ghura D., Muhleisen M., Nord R. and E.M. Ucer (1995) "Sub-Saharan Africa: Growth, Savings and Investment, 1986-93" IMF *Occasional Paper,* n° 118.

Hansen H. and F. Tarp (2000) "Aid Effectiveness Disputed" *Journal of International Development, Vol.* 12 , n° 3, p 375-98.

Hansen H. and F. Tarp (2001) « Aid and Growth Regressions » *Journal of Development Economics*, vol.64, p.547-570.,

Heller P.S.(2005) " Pity the Finance Minister. Issues in Managing a substantial scaling Up of Aid Flows", *World Economics,* Vol.6, n° 4, p.69-110.

Isham J. and D. Kaufmann (1999) "The Forgotten Rationale for Policy Reform: The Productivity of Investment Projects", *Quarterly Journal of Economics,* vol. 114, n° 1, p. 149-184.

Isham J., D. Kaufmann and L. H. Pritchett (1997) "Civil Liberties, Democracy, and the Performance of Government Projects", *World Bank Economic Review,* vol. 11, n°2, p. 219-242.

IMF (2005)"The Macroeconomic of Managing Increased Aid Inflows: Experiences of Low-Income Countries and Policy Implications", prepared by the Policy Development and Review Department, August 8, 2005.

Kasekende L.A. and M. Atingi-Ego(1999) "Uganda Experience with Aid" *Journal of African Economies,* vol.8, n°4, p.619-649.

Kaufmann D.and Y. Wang (1995) "Macroeconomic Policies and Project Performance in the Social Sectors: A Model of Human Capital Production and Evidence from LDCs" *World Development* vol. 23, n°5, p. 751-765.

Kraay A. and C. Raddatz (2005) "Poverty Traps, Aid, and Growth" World Bank *Policy Research Working Paper,* n° 3631, June

Leibenstein H. (1954) *The Theory of Economic-Demographic Development,* Princeton University Press, Princeton.

Lensink, R. and O. Morrissey (2000). "Aid Instability as a Measure of Uncertainty and the positive Impact of Aid on Growth". *Journal of Development Studies,* vol.36, n°3, p.30-48.

Lensik R. and H. White (2001) " Are there Negative Returns to Aid?" *Journal of Development Studies,* vol.37, n° 6, p.42-65.

Levin V and D. Dollar (2005) "Sowing and reaping institutional quality and project outcomes in developing countries" World Bank, *Policy Research Working Paper,* n° 3524. .

Mavrotas G. (2005) " Aid Heterogeneity: Looking at Aid Effectiveness from a Different Angle" *Journal of International Development,* vol.17, p. 1019-1036.

Millikan M.F. and W.W. Rostow *(1957) A Proposal : Key to an Effective Foreign Policy,* Harpers and Brothers.

Moss T., Pettersson G. and N. van der Walle (2006) " An Aid-Institutions Paradox? A Review Essay on Aid Dependency and State Building in Sub-Saharan Africa" Center for Global Development, *Working Paper,* n° 74, January.

Nelson R. (1956) " A Theory of Low Level Equilibrium Trap in Underdeveloped Economies", *American Economic Review,* vol. 46, p.894-908.

Nurkse R. (1953) *Problems of Capital Formation in Underdeveloped Countries,* Basil Blackwell, Oxford.

Pallage, S and Robe M.A. (2001). "Foreign Aid and the Business Cycle". *Review of International Economics vol.* 9, n°4, p.641-672.

Papanek G.F. (1973) "Aid, Foreign Private Investment, Savings and growth in Less Developed Countries" *Journal of Political Economy*, January , p.120-130

Rajan R.G. and A. Subramanian (2005a) "What Undermines Aid's Impact on Growth?" IMF *Working Paper,* n° 05/126, June.

Rajan R.G. and A. Subramanian (2005b) "Aid and Growth: What Does the Cross-Country Evidence Really Show?"IMF *Working Paper* WP/05/127.

Rand J. and F. Tarp (2002). "Business Cycles in Developing Countries : Are They Different ?" *World Development* vol. 30, n°12, p. 2071-2088.

Roodman D. (2004) "The Anarchy of Numbers: Aid, Development and Cross-country Empirics" Center for Global Development, *Working Paper,* N°32, July.

Rosenstein-Rodan P.N. (1943) "Problems of Industrialization of Eastern and South Eastern Europe" *The Economic Journal,* June-September

Rosenstein-Rodan P.N. (1961) "Notes on the theory of the Big Push" in Ellis H.S. and Wallich H.C. eds *Economic Development for Latin America,* Saint-Martin's press, New-York.

Rosenstein-Rodan P.N. (1961) « International Aid for Underdeveloped Countries" *Review of Economics and Statistics, M*ay, p.107-132.et en français "L'aide internationale aux pays sous-développés" *Revue d'action populaire,* novembre 1961, p.1061-1088.

Sachs J., McArthur J.W, Schmidt-traub G., Kruk M., Bahadur C. Faye M. and G. McCord (2004) « Ending Africa's Poverty Trap » *Brookings Papers on Economic Activity,* N°1, p.117-239

Sachs J. (2005) *The End of Poverty. How We Can Make it Happen in our Lifetime,* Penguin Book, London.

Svensson J. (2006) "Absorption Capacity and Disbursement Constraints" Paper prepared for the third AFD-EUDN Conference, "Financer le développement: les défis d'un doublement de l'aide" Paris, Dec. 2005, final versio March 2006..

Tarp F. (2003) "Review of *Aid and Reform in Africa* (696 pp.) by Shantayanan Devarajan, David R. Dollar and Torgny Holmgren (eds)" *mimeo.*

World Bank (2005, 2006) *Global Monitoring Report,* Washington.