UNCTAD/GDS/AFRICA/2006/1

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
Geneva

ECONOMIC DEVELOPMENT IN AFRICA, 2006

C. THE "BIG PUSH" REVISITED

UNITED NATIONS
New York and Geneva, 2006

resources and $25 billion from aid (CFA, 2005). The G8, in their Gleneagles Declaration, call for aid to Africa to be raised to $25 billion a year by 2010. In their conservative estimate of the additional ODA that Africa could use effectively for the improvement of infrastructure and human development, the World Bank and IMF argue for $14–$18 billion per year during 2006–2008, rising to $24–$28 billion by 2015 (Gupta, Powell and Yang, 2006: 1).

It is difficult to say with any degree of certainty how much additional assistance Africa will need by 2015, as this depends *inter alia* on the specific assumptions made regarding infrastructure needs, the efforts to increase domestic resource mobilization, and the current state of absorptive capacity. Nevertheless, on the basis of existing estimates, it would appear that, at minimum, Africa's additional aid requirements are likely to be around $20 billion per annum by 2008–2010, and increasing to about $25 billion per annum by 2015.

C. The "big push" revisited

In 1961, when the United Nations embarked on its first Development Decade, it was understood, by rich and poor countries alike, that there would have to be an intensified effort to mobilize internal and external resources if the designated growth targets were to be met. The underlying analytical framework, as noted in the last section, was centered on potential macroeconomic constraints to raising the level of fixed investment which was seen as crucial for faster economic growth. Given the prevailing estimates of the relation between increased investment and higher output, even a modest target of 5 per cent growth implied a sharp rise in the rate of capital accumulation in many countries if development was to become self-sustaining.[18] The most pressing constraint was generally seen to be the low level of domestic savings, but the large import requirements of an investment surge also raised the likelihood of a foreign exchange constraint emerging as growth accelerated. Exports, by providing a "vent" for surplus production, were seen as one way of breaking these constraints on growth, bringing additional resources, including much-needed foreign exchange. Successful exporting, however, particularly of more dynamic products, was dependent on strong investment, and post-war trends in international trade, as outlined at the first UNCTAD conference in 1964, were anyway not encouraging for many poorer countries. The response was a double-pronged reform agenda consisting of proposals to rebalance the trading system in favour of developing countries and

to increase foreign aid in support of productive investment. The ODA target of 0.7 per cent of the GNI of the developed countries emerged during the debates in the late 1960s on a Second Development Decade.[19]

Because the logic of a "big push" was closely tied to the idea of an industrial take-off, it was generally assumed that economic development could not be left entirely to market forces. Long gestation periods, strong complementarities, scale economies and technological externalities in the industrial sector were seen as key features of a dynamic growth path, at the same time as they pointed to potential coordination failures and implied a minimum level of investment if a process of cumulative growth was to get under way. Success would lead to rising domestic savings, fiscal revenues and increased private capital inflows that would eventually supplant official aid. In essence, this implied a conception of the development process where the social returns to investment diverged from private returns, where the profit maximization principle of individual firms, acting alone, would not generate a sufficient rate of capital accumulation to escape a low-level income trap, where some degree of stimulation and coordination by the state would be needed, and where aid was expected to play a catalytic role.[20]

This approach did not meet with universal agreement; in particular, a number of high profile studies argued that crowding out and waste were the more likely outcomes of increased aid.[21] There was also criticism of the implied bias towards industrial development and the neglect of agriculture, which was seen as weakening export performance. Moreover, the pattern of industrialization raised concerns about capital-intensive techniques, giving rise to high rates of urban unemployment and growing inequality.[22]

While these early aid debates were set against a generally stagnant level of aid flows and were hampered by missing or unreliable data, a multitude of studies have since examined the effectiveness of aid, drawing on a large sample of countries and over long time periods. Most of these studies use econometric techniques to analyze both cross-sectional and panel data on economic growth and aid commitments or disbursements in order to explore the relation between them. The aid sceptics have continued to dominate the aide literature. One reading of the evidence contrasts the micro-level effectiveness of aid in terms of meeting welfare goals and achieving acceptable economic returns with its macro-level ineffectiveness in terms of overall economic growth (Mosley et al., 1987). On the latter, the argument has increasingly turned to the contingent

nature of the link between aid and growth, be it focused on getting policies right (openness) or location right (outside the tropics) or competitiveness right (Burnside and Dollar, 2000; Roodman, 2004; Rajan and Subramanian, 2005). For others, who see the divide less in terms of a micro-macro split and more in terms of isolated success stories amid generalized failure, emphasis has been placed on getting institutions right so as to avoid a culture of aid dependency (World Bank, 1998; Azam et al., 1999).

However, such scepticism rests on inconclusive evidence. In a recent survey of some 64 cross-country regressions on the link between aid and growth, 38 had a significant and positive relation, 25 were insignificant and in only one was the relation significantly negative (Hansen and Tarp, 2000). Moreover, aid seems to work in a range of different environments and its positive impact on growth, as will be discussed further below, is difficult to tie down to "good policies", at least as narrowly defined. There is also plenty of evidence suggesting that ODA still has advantages over private capital flows, including FDI, in poorer countries, not least because private investors usually wait for growth to take off before moving into an emerging market economy.[23]

Drawing useful policy conclusions from the empirical literature on aid effectiveness is complicated by the methodological pitfalls of cross-country regression equations, described by one reviewer as "an anarchy of numbers" (Roodman, 2004). One of the principal problems is endogeneity: aid may influence growth but it is also possible that the amount of aid received by a country in any given year is influenced by its present or expected growth rates. There are at least two plausible ways of dealing with this problem. The first is to use instrumental variables to isolate the independent influence of aid and to measure its impact on growth. Geo-political factors, which are usually extraneous to the economic performance of a recipient country, provide one set of measures. An alternative is to examine the effectiveness of aid over a sufficiently long period to rule out any plausible conditioning of aid received on expectations of future growth. Another problem is that extreme observations (outliers) often have a strong bearing on the results, deflecting attention from what is happening in the majority of countries in the sample and distorting policy conclusions. To take one prominent example, the conclusion of Burnside and Dollar that a positive impact of aid on growth is contingent on good policies hinges on just seven outliers whose removal from the cross-country regressions used to substantiate this conclusion actually reverses the finding (Roodman, 2004: 36).

Behind the latest round of debates about the effectiveness of aid is a recognition that aid is a good deal more multifunctional and fungible than was presumed in the early debates, and that consequently its impact on growth is unlikely to be reflected in the simple linear relationships which marked the earlier analysis. With this in mind, Hansen and Tarp (1999) have introduced unobserved country-specific effects, conditional convergence, and the endogeneity of aid and policies into their cross-country analysis: they nevertheless still find a positive and significant impact of aid on growth for a sample of 56 countries over the period 1973–1993. Along with other studies, they also find that this impact weakens beyond a certain level of aid (section D.1(b)). A more recent study by Clemens et al. (2004) draws a more favourable conclusion by disaggregating aid into "short impact aid", associated with budget support and project aid for the real sector, "long-impact aid", associated with technical cooperation and investment in the social sector, and humanitarian aid. They find a strong, positive, causal relationship between short-impact aid and economic growth, a relation that holds independently of the institutions and policies in place. According to their estimates, aid may have raised the growth in GDP per capita in SSA by as much as half a percentage point between 1973 and 2001. There are plenty of country-level experiences, including in Africa, which seem to confirm this conclusion; it is plausible to link the recent sustained high growth rates in Mozambique, Uganda and United Republic of Tanzania, for example, to the infrastructure and balance of payments support provided by high levels of aid per capita (UNDP, 2005: 81).

That said, longer-term growth effects, which should ultimately decide the value of development aid, are a good deal more difficult to detect, particularly on the basis of cross-country regression equations. One possible channel for a positive effect is through the influence of aid in accelerating (or inhibiting) structural change in an economy. In this respect, sceptics have long warned of an "aid curse" associated with the Dutch Disease. The evidence for this (as discussed in section D.1(a)), however, is inconclusive.

A recent study by Reddy and Minoiu (2006) separated aid into its different components in order to assess their individual long-term impact on growth in the recipient countries using a standard cross-country growth model. With average per capita income growth in the 1990s as the dependent variable, the relevant explanatory variables are averaged and the regression equations estimated for four

different time periods: 1960–2000, 1970–2000, 1980–2000 and 1990–2000. The result was that the lagged aid variable was a significant factor explaining growth in the 1990s: an increase in aid during the earlier periods by one per cent of GDP raised the average growth rate of GDP per head by as much as 0.01 percentage points in the 1990s.

The same study also tried to isolate the components of total aid that were truly growth-enhancing. Three proxies for development aid were used: (1) multilateral aid; (2) bilateral aid from the Nordic countries (including Iceland) and (3) bilateral aid from a larger group of developmentally-minded donor countries (the Nordics plus Austria, Canada, Luxembourg, the Netherlands and Switzerland). The basic reasons for making these distinctions are that multilateral aid is more firmly geared to developmental than to geo-political aims and that some donor countries are more developmentally-minded than others. While this approach is not without its limitations, a recent study of Nordic aid found clear differences from other bilateral donors in terms of its generosity, its bias towards democracies, in being less conditional on openness criteria but more conditional on the human rights record, and in not depending on the "friendship" of the recipient (Gates and Hoeffler, 2004). These donors traditionally tie a much smaller percentage of their aid to purchases of services and goods in their own countries (UNDP, 2005: 102).

The results of this disaggregation are quite striking. An increase of 1 per cent of GDP in multilateral aid in the 1960s is associated with an increase of half of a percentage point in the average growth rate of per capita GDP in the receiving countries in the 1990s, and a similar increase in aid in the 1970s added a quarter percentage point to the growth rate two decades later. At the same time geo-political aid has a negative and statistically significant impact on growth (Reddy and Minoiu, 2006, table 5(a)).[24] One qualification to these specifications is that some bilateral aid may be developmental in nature but has been omitted from the proxy for development aid in the regressions. The results of separately identifying aid from the two donor groups are notable: average growth between 1980 and 2000 was raised by over one percentage point in those countries receiving an additional one percent of GDP in aid from the Nordic countries in the 1970s and 1980s, a result that was relatively robust to alternative specifications of the relationship.

Evidence about the positive long-term effects of aid on growth is important given the renewed commitments being made by the donor countries.

Nevertheless, it has generally been a secondary factor in explaining economic growth, and its impact has clearly been insufficient in many cases to counteract other unfavourable influences. In the case of Africa, various studies have shown that since the early 1980s aid has barely compensated for losses resulting from the decline in the terms of trade, let alone meeting the resource needs for rapid and sustained growth.[25]

Recognizing this underscores the importance of identifying the possible channels through which aid can be more effective. A growing body of evidence suggests that the aid-investment nexus remains key to unlocking sustainable growth. Hansen and Tarp (1999) found that 15 of 16 studies examining this nexus report a positive connection, with only one showing evidence of crowding-out. Their own cross-country regressions for 56 countries between the mid-1970s and early 1990s confirm a significant and positive impact of aid on fixed investment (Hansen and Tarp 2001). A more recent study of 25 SSA economies over the period 1970–1997 found strong evidence of an aid-investment-growth nexus (Gomanee et al., 2005).

These findings, while cognizant of the challenges of aid absorption (discussed in more detail in section D.1), nevertheless provide a good deal of encouragement to those calling for a renewed attempt to support a “big push” for development with significant amounts of aid. The UNCTAD secretariat was among the first to revive this approach in the context of African development. While noting that country level factors have a major bearing on financing needs, it estimated that sustaining a 6 per cent growth rate would need an investment rate of between 20 and 30 per cent of GDP. Even in those parts of the continent where savings were relatively strong in the 1970s, this would require a doubling or tripling of aid, depending on the investment target, over a 10-year period (UNCTAD, 2000a: 22–31). In all the scenarios examined, official inflows as a share of GDP would eventually begin to decline as domestic resources and foreign private capital flows responded to strong growth.

This kind of aid dynamic has been clearly present in a number of success stories beginning with the newly-industrializing economies of East Asia, but including Botswana from the late 1960s, Ireland from the early 1970s and Costa Rica in the 1980s (box 2). A prominent feature of all these successes (with the exception of Botswana) is the way in which aid proved to be a catalyst for dynamic, industrial growth. In numerous studies, UNCTAD has linked such a dynamic to the pace and pattern of capital formation, including the exploitation

of natural resources through diversification and increased processing of resource-based products. The key factors are the link between profits and investment, and the possibility that a low profit rate (due to a small capital stock in the industrial sector) prevents capital accumulation from taking off.[26] In the light of East Asian experiences, there has been a revival of interest among academic economists in the logic of the "big push". In a seminal paper, Murphy et al. (1989) linked the efficiency of the industrial sector to the size of the domestic market through various pecuniary economies and profit spillovers whereby industrialization in one sector raises demand for other manufactures, making large-scale production more attractive, or where industrialization in one sector creates a demand for its output, thereby triggering market expansion.[27]

Box 2

"Big pushes"

A principal aim of development assistance is to contribute to a process of rapid and self-sustained growth. Trying to pick out success stories from cross-country econometric studies faces a string of methodological obstacles (Rodriguez, 2006) and a more historical perspective therefore seems better suited to identifying the interactions between large aid flows and the non-linear and discontinuous components of a successful development process. From this perspective, a number of big push stories propelled by aid can be identified and which have succeeded in generating sustained growth by mobilizing domestic resources and foreign, private capital. The East Asian newly-industrialized countries, notably Republic of Korea and Taiwan Province of China, were early examples of a successful big push. In the former, aid rose sharply from the early 1950s peaking in 1957 at close to $400 million before dropping sharply in the early 1960s and descending more gently thereafter. As a share of GDP, aid peaked in the late 1950s at some 20 per cent of GDP, allowing investment to exceed domestic savings by some 7 percentage points and covering close to 90 per cent of the import bill. These figures began to fall sharply in the 1970s thanks to sustained economic growth, before fading out in the 1980s. The full significance of aid can be gauged by the fact that the nearly $6 billion in US economic aid to South Korea between 1946 and 1978 was only marginally lower than its total aid ($6.89 billion) to all of Africa in the same period. A similar pattern can be found in Taiwan Province of China, where aid peaked in the mid-1950s, reaching $190 per capita for the period 1953–1957 (two-thirds of which came through the military assistance programme). Although Taiwan Province of China began its big push on the back of a greater degree of domestic resource mobilization, aid still accounted for nearly 40 per cent of gross domestic capital formation in the 1950s. Again, the role of aid dropped off as growth picked up sharply in the 1960s and the savings-investment gap closed with rising domestic incomes. Still, total aid to Taiwan Province of China

Box 2 (contd.)

between 1949 and 1967 was over $4 billion and per capita was higher than that to Korea and dwarfed that to Africa.[a]

In Africa, aid has also played a catalytic role in two of the continent's much heralded success stories, Botswana and Mauritius. The former had a very high aid to GDP ratio at the time of independence, but while aid continued to rise through the 1980s, peaking at $120 per capita in 1987, the ratio dropped sharply thanks to a sustained period of rapid growth. A similar picture can be found in Mauritius where aid peaked at over $80 per capita in 1990. In both cases, relatively strong state structures were able to resist capture by political elites, to design and implement more encompassing development plans, and to mobilize domestic resources. FDI played a more prominent role in sustaining their growth than in East Asia, albeit a number of years after their take-off to sustained growth. However, in both countries, rising volumes of FDI have failed to stimulate the kind of diversification of economic activity seen in East Asia. A number of middle-income, "big push" stories have been more successful in attracting FDI into a dynamic growth process following a period of aid-driven infrastructure development. This was the case in Ireland, which enjoyed huge inflows of aid from the EU for almost two decades before FDI entered on a significant scale into high-tech sectors. Aid per capita to Ireland has been estimated at around 340 euros per year since it joined the EU, reaching a peak of 750 euros in 1997. A similar pattern, albeit not on the same scale, can be seen in Costa Rica which received large amounts of aid in the 1980s, peaking at over $100 per capita in 1985, prior to attracting FDI in the 1990s.b

a For accounts of the role of aid in these countries, see CBO (1997), Jacoby (1967) and Hong (1997).

b As discussed in Hanson 2001 and UNCTAD 2002, there are some questions and doubts about the development impact of FDI in the context of international production networks, as was the case in Costa Rica.

It would be wrong, however, to extend a big-push logic to Africa in terms of a simple repetition of these experiences. There are similarities but also significant differences in the initial conditions (particularly in the rural economy) found in African countries today and those in East Asia in the 1950s and 1960s. Moreover, the fact that African development has suffered a quarter of a century of stagnation and regression, most notably with respect to structural change and the steady informalization of economic activity, also cautions against any simple notion of replication. Perhaps with this in mind, Sachs et al. (2004) have suggested that the MDGs provide a set of appropriate investment targets that can help to break Africa's "poverty trap".[28] Using a more recent vintage of growth model, their argument assumes that the existing capital stock in most African economies

remains below the threshold level necessary for take-off due to the mutually reinforcing effects of weak capital accumulation, low savings and population growth. Their analysis identifies a series of specific constraints that make SSA particularly vulnerable to a persistent poverty trap: these include very high transport costs and small market size, low-productivity agriculture, a very high burden of disease, adverse geo-politics and a very slow diffusion of technology from abroad.

Against such a background, the basic aim of development strategy is again seen as reaching the threshold where the combined impact of scale economies, complementarities in production, and linkage effects can generate a self-sustaining process of pro-poor growth with private investment taking over the lead. According to their estimates, a large, well-targeted infusion of aid, focused particularly on public infrastructure in transportation, irrigation and power to help raise rural productivity, but including support for rural household investment to raise productivity in the small-scale farming sector, could do the trick in many African countries (Sachs et al., 2004: 151–155). This kind of pro-poor, investment strategy finds support in the complementary literature on building inter-sectoral linkages between the rural and urban economies. Indeed, there appears to be plenty of evidence that strong productivity growth in the agricultural sector can spill over to the rest of the economy through cheaper inputs for industry, cheaper food for industrial workers, expanding markets for industrial output and increased foreign exchange earnings from greater exports.[29]

Finally, the CFA Report has argued forcefully for a frontloading of aid to Africa on the grounds that the returns to large-scale investment are likely to be higher now rather than later and higher still if aid is integrated in a coherent package of measures rather than being disbursed in a piecemeal fashion. It concludes that: "a critical mass of sensibly invested interventions financed by frontloaded aid will improve social conditions and accelerate growth. Over time, the latter will in turn generate the domestic resources required to finance development, and this should eventually reduce the need for more aid". In their proposal of where the sectoral priorities might lie, the focus is very much on human capital development, with a particularly strong emphasis on health (including treatment of HIV) and education. The case for such an emphasis rests essentially on potential spillovers from social capital to productive capital, but also on a strengthening of the institutional framework for designing and implementing policy.[30]

While these recent interpretations of a big push strategy point to differences in policy emphasis, all recognize that minimum levels of governance must be in place for it to work.[31] The suggestion, made implicitly or explicitly by those advocating a big push, that most countries in Africa have made significant improvements in economic and political governance in recent years, has not met with universal agreement. Some of the criticism, as noted earlier, does little more than repeat the "government failure" arguments of the 1970s. More serious questions have been raised, however, about whether the "growth-enhancing governance capabilities" needed by developing countries to manage domestically or externally generated productive assets and resources (in such a way that cumulative income and productivity gains are assured) can be found in the potential recipients of aid (Kahn, 2006). The steady erosion of state capacities under SAPs (as discussed in the next section) and the brain drain afflicting many African countries point to low pay and low morale, as much as lack of technical competence, as the main problems with many African civil services.[32] Various commentators have also warned donors against the "fatal conceit" of assuming they already know enough to mount an ambitious drive to eradicate global poverty in the absence of domestic institutions that, through trial and error, are crucial for discovering what really works at the local level.[33]

What is known, and with at least some degree of certainty, is that the recent tendency to add more and more conditionalities (including those aiming to get institutions right) to aid and official lending has in most cases been counterproductive, and is a further warning against a heavy-handed, top-down approach (UNCTAD, 2002). Nevertheless, there are lessons from earlier success stories that suggest a major investment push can take place simultaneously with institutional learning to establish a rapid and sustainable growth trajectory. In particular, the strengthening of state capacities that this undoubtedly implies will in many cases occur as growth picks up and structural transformation proceeds. Aid can be used to help strengthen these capacities, not least in areas such as the management of public finance; indeed, it is clearly recognized in both the Sachs and CFA reports that aid can be usefully directed at strengthening the capacities of policy makers through technical assistance and training to ensure effective design, monitoring and evaluation mechanisms. At the same time, efforts from outside aimed at strengthening such capacities need to ensure the right balance with local ownership of any plans.

What is also important is that African policy makers have room to learn from past mistakes. This will include finding a larger (albeit measured) role for

market forces than was allowed under many post-colonial policy regimes, but it will also take on board the policy mistakes that have accompanied the one-size-fits-all package of liberalization, stabilization and privatization measures that have accompanied adjustment programmes. It will also imply introducing greater transparency into budgetary processes along with improved monitoring and supervision, including a greater role for open discussion with stakeholders and parliamentary bodies. In this respect, after 25 years of tying aid to structural adjustment policies, there is a growing recognition that increased aid is likely to provide a permanent exit from poverty for many countries only if there is a shift towards development oriented pro-growth policies and if countries are given more room to experiment with different measures to overcome the particular constraints they face in mobilizing their own resources.

Contrary to much conventional wisdom, the weight of evidence seems to suggest that aid can work to stimulate growth. It can only do so, however, when provided on an appropriate scale and when focused on the right targets. Failures in both respects over the past two decades have meant that it provided little counterweight to various growth-reducing tendencies. As a rule of thumb, both the quantity and the quality of investment matters to long-term growth, and getting investment right cannot be assumed to follow automatically from getting prices right. In this section it has been suggested that in the case of Africa, this will almost certainly mean a renewed focus on sectoral aid, to both industry and agriculture, on infrastructure development and on strengthening human capital. Moreover, there are likely to be strong complementarities between all of these. It has also been suggested that getting the balance right cannot be determined *a priori*. Indeed, different countries face different constraints on their prospects and the targeting of aid to break those constraints will require detailed knowledge of local conditions. Putting these ideas about the effectiveness of aid into practice, however, also depends on the institutional architecture for raising and organizing it. This will be discussed in the final section of this report but first a number of the key issues need to be discussed.

D. Putting aid to work: some key issues

Although there is now a clear commitment to double aid to Africa, it is recognized, by donors and recipients alike, that much work remains to be done to organize it in such a way as to maximize its impact. Simply doubling