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China & India as Africa’s New Donors: The Impact of Aid on Development

Dorothy McCormick

Using a two-stage analytical framework and drawing on a wide range of secondary data, this article attempts to assess the likely impact of aid from China and India on the development of Africa. The framework treats aid as one of four main channels through which China and India influence the shape and performance of particular sectors and, through them, development outcomes. The first stage of analysis examines the varying patterns of Chinese and Indian aid and the multiple impacts such aid has on one key sector: manufacturing. The main findings from this level of analysis have to do with the differing patterns of Indian and Chinese aid, differences between Chinese and Indian aid, and aid from western countries, and the interconnections between the impact channels.

India and China have different patterns of aid. India concentrates on non-monetary aid, mainly in the form of technical assistance and scholarships, while China offers a wider range of monetary and non-monetary aid packages, which include grants and loans for infrastructure, plant and equipment, as well as scholarships, training opportunities, and technical assistance. Chinese monetary aid is tied to the use of Chinese goods and services, and requires adherence to the ‘One China’ policy, but does not carry the ‘good governance’ conditionalities that currently characterise western donors. The impact channels of trade, FDI, aid, and migration overlap to some degree, especially in the case of China. The line between FDI and aid is often blurred, as is the line between aid and trade. The second stage of the analysis looks at the implications of Chinese and Indian aid to manufacturing for development outcomes such as growth, distribution, governance, and environment. The analysis shows clearly that the potential impact of Chinese and Indian aid on Africa is significant, but that the actual effects of these emerging donors on particular countries depends to a large extent on the institutional and structural conditions of the recipients.

China and India are Africa’s new donors. Both countries have recently established development cooperation programmes that particularly target Africa. India’s ‘Focus Africa Policy’ has involved high level visits, economic and technical cooperation, and an Indian contribution to peacekeeping operations in several African countries (India, 2004). China also has a high-profile Africa Policy, adopted in early 2006, that serves as the political foundation for significant engagement with Africa.
A growing literature describes these policies and analyses their motivations (e.g. Alden, 2005; Servant, 2005; Tull, 2006), but there has as yet been little attempt to assess the actual impact of Chinese and/or Indian aid on the development of the countries of Africa. Carrying out such an assessment would require detailed empirical work in a number of countries. The purpose of this paper is to lay a foundation for that empirical work by developing an overall conceptual framework and illustrating how it might be applied in a specific case. The case chosen is the manufacturing sector, but the model could equally be applied to agriculture, energy, health, or almost any other sector. Manufacturing is, however, an interesting case not only because of its close links to trade and investment, but also because in the minds of many it holds the key to Africa’s industrialisation and thus to the continent’s development. The paper uses a wide range of secondary data sources, including websites, academic papers, and published and unpublished reports.

The paper is organised into six parts. Following this introduction, Part 2 presents some background on China and India. This is followed in Part 3 by an overall framework for conceptualising the impact of China and India on Africa through several channels. Part 4 discusses the aid channel in some detail and describes the present situation of aid to sub-Saharan Africa. Part 5 examines the links between Chinese and Indian aid and African manufacturing. Part 6 draws some tentative conclusions on the impact of aid on manufacturing in sub-Saharan Africa and raises a number of questions that could guide empirical research.

Background: China & India

China and India are distinguished from earlier high-growth economies by their sheer size. Together they have over 40 per cent of the world’s population and a growing share of world production and trade. China is well integrated into a regional system of production involving other Asian countries. India is also closely linked to its South Asian neighbours and has gained considerable political weight as a spokesperson for the developing world and a key actor for regional stability (Jobelius, 2007). It is because of these close ties that foster industrial development in other countries that observers of these economies have named them the Asian Drivers (see ‘Asian Drivers’, 2006).

China, with a population of 1.3 billion people and a 2005 GDP of US$2,230 billion, is a giant by any definition (World Bank, 2006a). GDP growth has been consistently above 7 per cent, even soaring to 13 per cent in the late 1980s. China’s share of world manufacturing value added (MVA) grew from 1.4 per cent in 1985 to 4.2 per cent in 1995 and 8.0 per cent in 2005 (UNIDO, 2006). China’s strongest growth has been in its coastal cities, while the huge hinterland continues to be relatively poor. Nevertheless, the country claims an overall literacy rate of over 90 per cent, which means that even its rural labour force should be able to handle increasingly complex tasks. This can also be interpreted to cast doubts upon the predictive power of the ‘Flying Geese’ model of industrialisation that seemed to apply well to the smaller Asian countries. In this approach, industries can be grouped according to their predominance in different stages of industrialisation. As countries industrialise, their wage structures change and they are likely to leave early-stage industries and move to middle- and late-stage industries. What this theory fails to take into account is that very large countries can have a strong presence in early-, middle-, and late-stage industries simultaneously. Chen (1989:70) saw this nearly two decades ago, when he claimed, ‘China is not a goose, but some other huge bird flying side by side
with the geese’ (Chen, 1989:70). He went on to argue that China has the potential of complementing and competing with various layers of the flying geese at different stages of industrial production.

India’s 2005 population stood at 1.1 billion and GDP at US$785 billion (World Bank, 2006b). Growth has been less rapid than China’s, with growth rates of 5-7 per cent prevailing through most of the 1980s and 1990s. Growth slowed between 2000 and 2002, but then increased to above 8 per cent from 2003 to 2005. With a growth of 23 per cent in exports, 29 per cent in foreign trade, and 71 per cent in FDI, 2006 was another record year for India (Jobelius, 2007). India’s growth, like China’s, has been unevenly spread throughout the country. Overall literacy is considerably lower than China’s at only 61 per cent, suggesting that the country’s labour force may be less adaptable than China’s. Nevertheless, India’s potential impact on the rest of the world and Africa in particular should not be discounted. India is continuing to industrialise, with manufacturing value added growing at 7 per cent per annum from 1990 to 2000, and 6.5 per cent per annum from 2000 to 2004.

India and China are growing in political importance, both in their respective regions and in the world. India’s rising political weight in the international decision-making arena has been attributed to its dominant position in a region whose geo-strategic importance has increased significantly, partly as a result of the ‘war on terror’, and its own nuclear aspirations (Jobelius, 2007). India is also seeking a stronger connection to multilateral organisations, and sees itself as an important force in international regimes, as well as a candidate for a permanent seat on the UN Security Council. In taking on these roles, India is increasingly becoming a legitimate spokesperson for other developing countries. China is similarly – and even more strongly – on the rise. China is seeking a greater more active role in the international system (Tull, 2006). Despite its rapid economic ascent, China still views itself as a developing country, but more specifically one that can be an effective spokesperson for other developing countries (Cornelissen and Taylor, 2000; Mawdsley, 2007). This position represents a shift from the 1980s when China leaned towards the capitalist North. Observers now claim that Chinese foreign policy is concerned about US hegemony, and to counter this is actively courting strategic partners with whom Beijing can cooperate around issues that reflect its core interests and at the same time promote the idea of China’s ‘peaceful rise’ (Alden, 2005).

In terms of human development, China ranks no. 85 in the world, placing it well above all of the countries of sub-Saharan Africa, but well below the industrialised countries (UNDP, 2005). One of China’s serious human development challenges is the growing rural-urban gap in development (Baige, 2005). India ranks even lower, falling below South Africa (no. 127 compared to no 120 for South Africa). Inequality plays a significant role in India, even though it is probably not as great as in China.

**Development Aid**

Country-to-country development aid is a fairly recent phenomenon. Most histories begin with what is probably considered to be one of the most successful efforts, the Marshall Plan in which the US Government assisted European countries to reconstruct after the devastation of World War Two. Aid to Africa began later, but by the 1980s was already a significant factor in the budgets of many countries. The nature of this aid appears to have been shaped by two key considerations: first,
prevailing (and changing) understandings of the development processes and second, the strategic concerns of the donors.

Since the end of the cold war in 1989, the rich countries of Europe and North America, together with Japan, Australia, and New Zealand have been the main bilateral donors. Recipients were the countries of Africa, Latin America, the Middle East, and the poorer parts of Asia. The direction of aid was, in other words, rich country to poor country and mainly North to South. The first decade of the 21st century is, however, witnessing a change in the composition of the donor group.

Both China and India have recently been recipients of aid, but are now making the transition from aid recipient to aid donor. China’s aid as a proportion of GDP dropped from 0.6 per cent in 1990 to 0.1 per cent in 2003, while India’s dropped from 0.4 per cent to 0.2 per cent over the same period. China’s multilateral aid has fallen as it has been repaying IDA credits (Manning, 2006). China has, however, continued to receive some bilateral aid. India also continues to receive aid, but is making it increasingly clear to donors that it wants to exercise control over aid flows. In early 2003, the Indian government made the bold announcement that India would suspend the bilateral development aid from 22 donor countries who had been operating in the country (Jobelius, 2007). It allowed only the US, the UK, Japan, Germany, Russia and the EU to continue to give ODA to the Indian state, while others were to limit their activities to assisting Indian NGOs. The largely symbolic gesture was designed to assert India’s independence from western donors and its ability to manage its own affairs. Both China and India have stated policies that favour aid to Africa.

Conceptualising Impact on Development

Chinese or Indian aid and African development are not abstract variables moving in some sort of economic vacuum. They are part of a larger global system made up of institutions and processes that interact and shape one another, producing both immediate and longer term changes. This section first presents a model that attempts to capture the main contours of the overall impact of China and India on African manufacturing, and then treats in more detail aid as a channel for that impact.

Overall Model

Research on the impacts of China and India on Africa is in its early stages, making it nearly impossible to discuss in any comprehensive way. Scholars are only beginning to develop frameworks for analysis that recognise the complexity of assessing the impact of China and India on African countries. These frameworks recognise that it is necessary to talk of impacts, rather than impact and further, that these impacts are channelled in different ways. Four types of impacts have been identified: on growth, on distribution, on governance, and on the environment (Asian Drivers Team, 2005; Radelet, 2006; Kaplinsky et al. 2007). The main channels through which these impacts are likely to occur are trade, foreign direct investment, aid, and migration (see Figure 1). The first level of analysis tracks how these flows, singly and in interaction with one another affect a particular economic sector or activity. This paper puts ‘manufacturing’ at the centre, but a similar analysis could be performed using a different centrepiece, such as agriculture, energy, or education.

The second level of the analysis consists of the developmental outcomes that flow from these changes in the manufacturing sector. What happens, for example, when
the manufacturing sector increases in size both absolutely and relative to the rest of the economy? Four major development outcomes have been identified, though undoubtedly others are possible (Radelet, 2006; Kaplinsky et al. 2007). The first of these is growth. In the model, growth may result from improved performance at firm level, certain types of structural shifts, overall growth of the manufacturing sector, as well as from changes in market orientation. Growth also has feedback effects into manufacturing, since a growing economy usually generates demand for manufactured goods. The second development outcome is changed distribution. As the manufacturing sector grows and/or shifts its structure, income and wealth do not necessarily grow evenly. If large export-oriented firms grow while small ones struggle, there will be shifts in income and wealth away from small producers towards large ones. Urban export-oriented factories may attract workers from rural pursuits, thus shifting the rural-urban population distribution. Distributional changes may also have feedback effects into manufacturing. An obvious example is the change in demand for manufactures caused by increased urbanisation. The third outcome is governance. Changes in the manufacturing sector may place new demands on the institutions of government. A larger flow of FDI that brings with it increased requests for expatriate managers may require a more finely tuned immigration system than was previously thought necessary. Manufacturing sector growth and shifts may also require government to update its labour laws and regulations and the related institutions for managing labour relations and conflicts. Finally, the fourth outcome is the environment. Change and/or expansion of the manufacturing sector often brings with it environmental challenges in the form of increased pollution, the need for better waste management systems, and so forth. Policy implications can be drawn from the four outcomes, taken singly and together.
The model can be further refined by using Chen’s (1989) insight to distinguish between complementary and competing effects. Complementary effects occur when, for example, African countries import textile fabric from China or India to enable them to take advantage of trade preferences in clothing such as that offered by the US through the Africa Growth and Opportunity Act (AGOA). China and India’s strength in textile manufacture is, in this case, complementary to Africa’s ability to make garments. Competing effects are also present. China competes directly with Ethiopia in the production of shoes for the Ethiopian market (Tegegne, 2007).

Furthermore, some effects will be direct, while others will be indirect (Kaplinsky et al. 2007). Direct effects are fairly clear. China’s competition with Ethiopia in the latter’s home market is an example of a direct effect. Indirect impacts are less obvious. They occur as a result of China’s relations with third countries. For instance, Kenya’s ability to export clothing both to its neighbours and to the US is being constrained by the volume of relatively cheap garments that China exports to those countries (Kamau, 2007; McCormick et al. 2007).

Impact of Aid

The discussion of the model has so far been general and could be applied to any of the channels. We now turn specifically to the aid channel. Understanding the impact of donor aid on recipient countries depends on the answers to five basic questions: 1) why do donors give? 2) what form does the aid take? 3) what do donors support? 4) on what conditions? 5) what are the characteristics of the recipient country?

The questions point to five key variables to be investigated: motives for aid, forms of aid, areas of support, terms and conditions, and recipient country characteristics. Table 1 lists these variables together with the possible responses to the questions, which in turn can be used as secondary variables.

<table>
<thead>
<tr>
<th>Table 1: Variables for Analysing the Varieties of Development Aid</th>
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<tbody>
<tr>
<td><strong>Key Variable</strong></td>
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<tr>
<td>Motives for aid</td>
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<td>Forms of aid</td>
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<td>Areas of support</td>
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<td>Terms and conditions</td>
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<tr>
<td>Recipient country characteristics</td>
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Source: Own compilation
In theory, the motives for aid can run the gamut from a self-centred aim of promoting the strategic or political interests of the donor to pure altruism (Gibson et al. 2005; Radelet, 2006). The reality tends to be a mix of motives. The goals of aid programmes are often stated in altruistic terms, including the language of poverty eradication, helping poor countries to industrialise, and so forth. Elements of donor self-interest are sometimes couched in phrases such as ‘mutual benefit’ or may be implicit in the terms and conditions or programme design. Political and strategic concerns and history seem to be particularly important. A major study of the giving patterns of western donors suggests that colonial past and political alliances were major aid determinants in the last quarter of the 20th century (Alesina and Dollar, 2000). For example, the three biggest donors – US, Japan, and France – had noticeable biases in their patterns of aid. The US targeted about one-third of its aid budget to Egypt and Israel; France gave overwhelmingly to its former colonies; and Japan’s aid favoured countries that voted with it in the UN.

Aid takes various forms. One distinction is between monetary and non-monetary. Monetary aid includes grants and concessionary loans. Non-monetary aid includes debt relief, ‘free’ or low-cost technical assistance, access to scholarships or training programmes, tariff exemptions, and outright gifts of buildings, equipment, or other capital goods. The line between monetary and non-monetary aid is blurred in categories such as debt relief and tariff exemptions, where money that might have been collected is foregone. A second common distinction is based on the way aid is given. In some cases, donors deal directly with recipient countries through their own aid agencies. This is bilateral aid and it is given through agencies such as the UK’s Department for International Development (DFID) or France’s Agence Française de Développement (AFD). In other cases, donors support programmes and projects as one of many donors. This is multilateral assistance and is administered by agencies such as the United Nations Development Programme and the World Bank. Of all official development assistance, roughly one-third is multilateral (World Bank, 1998). The traditional bilateral-multilateral distinction no longer covers all donors. For instance, the foundations, trusts, and global funds that are currently growing into important players in the aid arena do not fit neatly into these categories.

Aid is also distinguished by what it supports. Project aid covers many different activities, but is dominated by funds directed towards interventions in health, education, rural development, transport and power, housing, and water supply and sanitation (Riddell, 2007). The main purpose of such projects is to achieve specific and concrete outputs, with many projects attempting to fill gaps by providing resources, skills and systems which the recipient country needs but does not have. Programme aid, on the other hand, is broader in coverage and objectives. Two types of programme aid have become popular with both donors and recipients. These are sector-wide approaches (SWAps), in which a donor or group of donors supports a particular sector, such as health or education, and budget support. The question of what is supported can also be looked at in terms of current vs. investment funding. Many projects and programmes combine the two, providing money for salaries, transport, overheads, and so forth along with funds to purchase equipment or invest in human capital. The final variable in the broad category of what is supported may be the most important, as it has to do with the extent to which aid supports the recipient country’s own strategic priorities. Current thinking on aid harmonisation and alignment strongly affirms the notion that aid should support the strategic plans of recipient governments (OECD, 2003, 2005; Balogun, 2005; de Renzio et al. 2005). Unfortunately, however, some donors still attempt to bring their own pet projects or programmes to recipient countries (McCormick et al. 2007).
Aid agreements typically set out terms and conditions to be met by the parties. Most of these refer directly to the project or its administration. They are what Martens (2005) calls ‘input conditionalities’ that restrict the recipient’s discretion in spending the resources availed. For example, most agreements specify the procurement rules to be followed, accounting and reporting requirements, frequency and content of narrative reports, disposition of capital goods at the end of the project, and so forth. Such conditions, although the subject of much negotiation, are in themselves fairly uncontroversial. More onerous is ‘tied aid’, a form of aid that requires the recipient to buy certain goods and/or services from the donor country. Aid tying is an input conditionality that is generally agreed to be costly. The World Bank (1998) estimated that tied aid reduces the value of that assistance by about 25 per cent. In 2001, the OECD’s DAC (Development Assistance Committee) made a formal recommendation that aid to the Least Developed Countries should be untied (OECD, 2006). By 2006, less than 10 per cent of total aid from OECD countries was tied (OECD, 2007). This figure, however, must be treated with caution for several reasons. First, there is wide variation between countries in the incidence of aid tying. Countries such as the UK, Norway, Sweden, Ireland and Luxembourg tie less than one per cent of their aid, while others such as Canada, Portugal, and Greece tie between 25 and 40 per cent. Second, the largest single OECD donor, the United States, was not included in the data, yet it is known to tie nearly three-quarters of its aid (Centre for Global Development, 2006). Some new donors also tie aid. For example, much of China’s aid is in the form of concessional loans to African governments for infrastructure projects, many of which are implemented by Chinese companies (Gill and Reilly, 2007).

The other broad type of condition is the ‘output conditionality’ that is linked to changes in the recipient’s behaviour and institutions (Martens, 2005). Examples of output conditionalities are requirements to reform certain institutions, establish new policies, remove what the donor believes are inappropriate rules and regulations, or support the donor’s strategic and/or political interests. These were the types of conditionalities that accompanied structural adjustment credits and became major sources of tension between donors and aid recipients in the 1980s and 1990s. Both multilateral and bilateral aid is subject to output conditionalities. In some cases bilateral aid organisations impose conditions that reflect the particular political concerns or priorities of the donor country; in others they mirror conditionalities imposed by the World Bank or other multilateral organisations. Some argue that conditionality simply does not work. Recipients often bypass conditions, and donors face a ‘Samaritan’s dilemma’ that withdrawing aid would create short-term pain for the very people they target to help (Gibson et al. 2005; Radelet, 2006).

Finally, understanding the impact of aid requires a careful look at conditions in the recipient country. The impact of aid received has been shown to depend on conditions such as the state of civil liberties in the country, the policy environment, institutional quality, peace and stability, and several other variables (Burnside and Dollar, 2004; World Bank, 1998; Radelet, 2006; Isham et al. 1995). As we shall see below, the structure of the economy also matters. For example, tying aid to the purchase of donor consulting services counts more when there is a local consulting industry that could be tapped than it does when there are no local alternatives. Another condition that has received little attention has to do with aid dependence and/or the recipient country’s financial options. Countries that can finance development out of their own resources are in a much stronger position than those that cannot. The poorest, most aid-dependent countries may feel forced to accept aid packages that would be
refused or renegotiated, were they in a stronger bargaining position. Their acceptance may be influenced by their belief that it is the only way to get aid for some badly under funded sector – even if it does not need what is being offered – or because they cannot risk alienating an important donor (Moss, 2005).

Studies of sources of aid are also beginning to look at the twin issues of donor proliferation and coordination, raising questions about their effects on the capacity of states to set and follow their own development objectives (Knack and Rahman, 2004; Morss, 1984; Whittington and Calhoun, 1988; McCormick et al. 2007).

Aid to Sub-Saharan Africa

For nearly a decade after independence, many African countries recorded fairly respectable growth records before beginning to decline after the oil crisis of the mid-1970s (Mkandawire and Soludu, 1999). By the 1980s average growth rates were negative. Moreover severe droughts, persistent conflicts in several countries, and poor governance wrought havoc on the economic and social conditions of the continent. These conditions, combined with the relative improvement of living standards in Asia and Latin America, led donors to focus increasing attention on Africa.

Most sub-Saharan African countries receive some aid, but the size of the aid and its relative importance in countries’ economies varies considerably. Table 2 provides details on official development assistance to 22 countries in sub-Saharan Africa. The countries are listed according to their ranking on the Human Development Index.

### Table 2: Official Development Assistance (ODA) Received (net disbursements to selected countries)

<table>
<thead>
<tr>
<th>HDI Rank</th>
<th>Country</th>
<th>Total (US$m)</th>
<th>Per Capita (US$)</th>
<th>As % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td>South Africa</td>
<td>624.9</td>
<td>13.80</td>
<td>..</td>
</tr>
<tr>
<td>131</td>
<td>Botswana</td>
<td>30.1</td>
<td>17.50</td>
<td>3.9</td>
</tr>
<tr>
<td>138</td>
<td>Ghana</td>
<td>906.7</td>
<td>44.40</td>
<td>9.6</td>
</tr>
<tr>
<td>141</td>
<td>Sudan</td>
<td>621.3</td>
<td>18.50</td>
<td>6.2</td>
</tr>
<tr>
<td>144</td>
<td>Uganda</td>
<td>959.4</td>
<td>38.00</td>
<td>15.5</td>
</tr>
<tr>
<td>146</td>
<td>Madagascar</td>
<td>539.5</td>
<td>31.90</td>
<td>12.9</td>
</tr>
<tr>
<td>149</td>
<td>Lesotho</td>
<td>79.0</td>
<td>44.10</td>
<td>23.0</td>
</tr>
<tr>
<td>154</td>
<td>Kenya</td>
<td>483.5</td>
<td>15.20</td>
<td>13.9</td>
</tr>
<tr>
<td>158</td>
<td>Nigeria</td>
<td>317.6</td>
<td>2.30</td>
<td>0.9</td>
</tr>
<tr>
<td>160</td>
<td>Angola</td>
<td>498.7</td>
<td>36.90</td>
<td>2.6</td>
</tr>
<tr>
<td>164</td>
<td>Tanzania</td>
<td>1,669.3</td>
<td>46.50</td>
<td>27.5</td>
</tr>
<tr>
<td>166</td>
<td>Zambia</td>
<td>560.1</td>
<td>53.80</td>
<td>14.6</td>
</tr>
<tr>
<td>167</td>
<td>Congo, D.R.</td>
<td>5,381.0</td>
<td>101.20</td>
<td>9.6</td>
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<tr>
<td>168</td>
<td>Mozambique</td>
<td>1,032.8</td>
<td>55.00</td>
<td>40.7</td>
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<tr>
<td>170</td>
<td>Ethiopia</td>
<td>1,504.4</td>
<td>21.90</td>
<td>11.8</td>
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<tr>
<td>171</td>
<td>C.A.R.</td>
<td>49.9</td>
<td>12.90</td>
<td>16.8</td>
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<tr>
<td>172</td>
<td>Guinea Bissau</td>
<td>145.2</td>
<td>97.50</td>
<td>52.7</td>
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<tr>
<td>173</td>
<td>Chad</td>
<td>246.9</td>
<td>28.80</td>
<td>18.0</td>
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<tr>
<td>174</td>
<td>Mali</td>
<td>527.6</td>
<td>45.30</td>
<td>19.9</td>
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<td>Burkina Faso</td>
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<td>37.30</td>
<td>10.6</td>
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<td>176</td>
<td>Sierra Leone</td>
<td>297.4</td>
<td>55.70</td>
<td>9.4</td>
</tr>
<tr>
<td>177</td>
<td>Niger</td>
<td>453.3</td>
<td>38.50</td>
<td>16.0</td>
</tr>
<tr>
<td></td>
<td>Sub-Saharan Africa</td>
<td>22,691.8</td>
<td>32.90</td>
<td>12.0</td>
</tr>
</tbody>
</table>

Source: UNDP, 2005:282-83
(HDI) of the United Nations Development Programme (UNDP). This gives a rough guide to the countries’ relative living standards. The ordering suggests that, although in general countries with a better HDI receive smaller amounts of aid per capita, the negative correlation between aid and human well-being is far from perfect.

The data in Table 1 are based on information from the OECD/DAC. Neither China nor India belongs to the OECD and, although they could choose to report their foreign aid to DAC, neither country does so. This means that we must rely on estimates of Chinese and Indian aid, which tend to vary widely (Lancaster, 2007; Guoqiang, 2007; Manning, 2006). Making estimates and/or comparisons is further complicated by the tendency of both China and India to include items in published statements on aid that do not fit into the strict definition of Official Development Assistance (ODA) followed by DAC countries.

Formal links between China and sub-Saharan Africa go back to the Bandung Conference in 1955. Until the mid-1990s, much of this aid went towards liberation movements and the attempts to isolate Taiwan. Since the 1990s, this appears to have changed, with aid being increasingly directed towards broader strategic goals, especially the development of links with resource-rich sub-Saharan African economies (Muekalia, 2004; Kaplinsky et al. 2007; Brookes and Shin, 2006; Pan, 2006; Tull, 2006). In October 2000, the China-Africa Cooperation Forum, which was held in Beijing, emphasised the need to enhance co-operation between China and financial institutions in Africa. During the Forum, China also expressed willingness to reduce Africa’s debt burden, promote investment, and assist in the development of human resources in Africa (Muekalia, 2004). China’s Africa Policy, adopted in early 2006, states that China-Africa relations are to be based on five principles: sincerity, equality, mutual benefit, solidarity, and common development. The policy also reiterates that the ‘One China’ principle is the political foundation for the establishment and development of China’s relations with African countries and regional organisations (PRC, 2006; Guoqiang, 2007).

Although trade, migration, and other contacts have linked India to Africa, especially East Africa, for several centuries, formal relations were formed only as both emerged from colonialism in the 1950s and 1960s. Gandhi’s message of non-violence and passive resistance inspired many black leaders in Africa and, as the cold war began, Nehru’s principle of non-alignment appealed to Africans (Beri, 2003). India’s ‘Focus Africa Policy’, which has involved high level visits, economic and technical cooperation, and an Indian contribution to peacekeeping operations in several African countries (India, 2004). Nevertheless, it is important to keep this in perspective. Most Indian aid goes to neighbouring countries. In 2003-04, only an estimated eight per cent of the total aid budget was designated for Africa (Government of India, 2004).

The aid practices of China and India differ in some important and inter-related respects both from one another and from the traditional western donors. Both countries appear to be motivated by a combination of altruism, mutual benefit, and strategic interests. As in the case of western donors, India and China emphasise motives like altruism and mutual benefit in public statements, but these can be difficult to disentangle from the more pragmatic strategic and economic interests. China’s quest for natural resources, especially oil, is well documented (Economy, 2004; Pan, 2005; Lyman, 2005). India’s need for oil receives less attention, yet India imports some 75 per cent of its oil needs, compared to 33 per cent for China (Pan, 2006). Both countries are growing rapidly and apparently recognise that, despite
some traditional suspicions, they can benefit from collaboration. One concrete example of such collaboration was the landmark energy co-operation deal reached in January 2006 that attempted to contain energy prices by preventing the two giants from bidding against each other for energy resources (Pan, 2006; Varadarajan, 2006). The two countries are also planning to co-operate in related areas, such as oil recovery technology, IT-enabled exploration and production, and new energy transport mechanisms (Varadarajan, 2006).

Important as it is, oil is not the only motivation for China and India to establish stronger relations with Africa. Both countries appear to have aspirations to become major political and economic forces in the world (Tull, 2006; Alden, 2005; Jobelius, 2007). Stronger economic and political relations with Africa appear to be part of their strategy. Both countries have dramatically increased trade with Africa, especially in textile products since the end of the Multi Fibre Arrangement, and in shoes and other labour intensive manufactures (Lyman, 2005; Kaplinsky et al. 2007; Tegegne, 2007; Alemayehu, 2006). China has raised its political profile in both Asia and Africa by signing numerous co-operative agreements and making an increasing number of high-level visits (Roughneen, 2006; Servant, 2005). In Asia, China has also put forth proposals to develop new security arrangements and has taken initiatives on issues as diverse as the environment and drug trafficking. India is also trying to raise its regional and international standing, but it is not yet as strong a force as China (Pan, 2006). India’s poverty and inequality at home remain a serious problem (Purfield, 2006; Hallinan, 2006). Nevertheless, India has an active Africa policy and appears to be trying to build its technical assistance programmes around its strength in information and communications technology.

China gives both monetary and non-monetary aid and expects to increase its level of aid to Africa. In its Africa Policy (PRC, 2006) it pledges to ‘provide and gradually increase assistance to African nations’. China typically comes to an African country with a complete package that includes money, technical expertise, and political influence in international fora (Lyman, 2005).

India, on the other hand, does not see itself as able to offer grants-in-aid (Indian Technical and Economic Cooperation Division 2006). Rather India confines itself to non-monetary aid, such as scholarships, technical training, and technical assistance. Overall, the two countries use the same basic types of aid as western donors, but India chooses a more limited range of these (see Table 3).

Neither China nor India acknowledges giving loans or grants for general budget support, though China’s recent offer of a US$2 billion credit to Angola to help to rebuild the country and its infrastructure seems to fit into that category (Edinger and Roberts, 2006:9). China, however, does give debt relief, which for the recipient has a similar effect because it is usually not tied to any project or programme. In 2003 China cancelled a debt of US$66 million owed by Ghana and at the same time

<table>
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<tr>
<th>Table 3: Main Types of Aid Given by China &amp; India</th>
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<tr>
<td>Aid Type</td>
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<tr>
<td>General budget support</td>
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<tr>
<td>Grants/loans for infrastructure, plant &amp; equipment</td>
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<tr>
<td>Scholarships for academic training</td>
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<td>Other types of training opportunities</td>
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<td>Technical assistance</td>
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<td>Tariff exemptions</td>
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Source: China Monitor, various issues; PRC, 2006; Indian Technical and Economic Cooperation, 2006.
time gave an interest free loan of US$28 million for highway construction (Edinger and Roberts, 2006:8).

China gives grants and loans for infrastructure, plant and equipment. These include railway projects in Nigeria, Ghana, and Tanzania, as well as a hydroelectric plant in the DRC and road building projects in several countries (Kaplinsky et al. 2007; Edinger and Roberts, 2006:8, 10-11; Fujita and Mochizuki, 2006). Most Chinese assistance in supplying plant and equipment comes through Chinese companies. Kenya is one of the beneficiaries of such aid, but the sources of information do not indicate whether the companies are state owned corporations or private sector firms (Fujita and Mochizuki, 2006).

Both China and India give Africans scholarships for academic programmes. China offered 15,600 scholarships to 52 African countries in 2005 (Kaplinsky et al. 2007). India is also host to many students from Africa and is a favourite destination for students from English speaking Africa because of the use of English in instruction.

India also offers technical training through the Technical and Economic Cooperation (ITEC) Division of the Ministry of Foreign Affairs. Information about specific courses is disseminated through ITEC to partner countries. Twenty-one African countries are included in the list of ITEC countries. The Government of India funds the full cost of training for the selected candidates. In the 2004-2005 year, approximately 3,400 foreign trainees benefited from these programmes, but it is not clear what proportion of these was from Africa (Indian Technical and Economic Cooperation Division, 2006).

Both China and India also offer technical assistance in the form of consultancies and specific assistance in development activities. More than 600 Chinese teachers and 15,000 Chinese doctors have worked in sub-Saharan Africa in recent years (Kaplinsky et al. 2006). Angola has been a major beneficiary of this type of aid. Specialists in different medical fields were sent to train and assist Angolan staff in a new hospital that was built by a Chinese firm (Edinger and Roberts, 2006:9). India cites its experience in small and medium scale industries, agriculture and financial management as particularly relevant to developing countries (Indian Technical and Economic Cooperation Division, 2006).

One other form of aid, used only by China, is the tariff exemption. This form of aid could play a significant role in the development of manufacturing. In 2005 Beijing scrapped tariffs on 190 import items, including food, textiles, minerals, and machinery (Kaplinsky et al. 2007). Although the China Monitor (2006) credits this move with responsibility for replacing Africa’s trade deficit with China with a surplus of US$900 million, it is likely that the tariff exemptions were only part of the reason, with increased oil exports accounting for the rest. China has introduced a form of trade-related aid that is not commonly used by other countries, the voluntary export restraint. In mid-2006, China cut exports to South Africa by one-third in an effort to protect the South African textile industry (Edinger and Roberts, 2006). Such actions suggest that Chinese aid is intertwined with trade in ways that make it difficult to separate the two.

China and India differ from western donors on the terms and conditions imposed on aid recipients. China’s only output condition is adherence to its ‘One China’ policy. China continues to assert that there is one China that encompasses the mainland and the island of Taiwan and will not, therefore, give aid to any country that
recognises Taiwan as an independent country. The lack of other output conditions, combined with China’s active support for countries like Zimbabwe and Sudan that have poor human rights records, has led to concern that Chinese aid policy could have negative effects on the people in recipient countries (Kaplinsky et al. 2007; Manning, 2006). China also makes extensive use of input conditionalities, especially tied aid. Much of this is tied in the traditional sense of requiring the use of Chinese contractors for Chinese-funded infrastructure projects. Zafar (2007), however, has noted another form of aid tying in what he calls ‘China’s aid for oil strategy’ which involves offering financial assistance and funding of construction projects in exchange for access to oil supplies. India also ties its aid to the purchase of Indian goods and services, a practice that observers have questioned, since India has refused to accept tied aid from others (Price, 2004). India, like China, views development assistance as part of South-South cooperation, and therefore avoids conditionalities that could be interpreted as interference in the recipient’s internal affairs.

**Chinese & Indian Aid, African Manufacturing**

Assessing the impact of Chinese and Indian aid on African manufacturing, as distinct from the general development of sub-Saharan Africa, requires an understanding of how aid can facilitate industrial development. Textbook development economics identifies a number of processes that lead to industrial development: general economic growth, improvements in productivity, technological development, structural transformation, development of supporting institutions, and spread of global markets (Kuznets, 1971; Todaro, 1985; Freeman and Soete, 1997; Yang, 2003). While all of these will ultimately create internal resource flows, all require resources to see them through their early stages. Aid is believed to be able to substitute to some extent for insufficient local resources by providing investment capital, human resource development, and market access. Some of the specific types of aid expected to have an impact on manufacturing are the following:

*Investment in Manufacturing Plant & Equipment:* Aid for manufacturing investment is more likely to come from China than from India, and to be interlinked with foreign direct investment. If it is new investment, the most obvious direct effect is on the size of the output. Investment in more modern plant and equipment may also directly result in greater efficiency and higher quality products. We can hypothesise that the countries that would benefit most are those that already have some manufacturing capabilities and markets for their goods, but lack sufficient capital for investment. Lesotho, Kenya, and Madagascar, with their experience in production of clothing for the US market under the Africa Growth and Opportunity Act, are good examples of this situation.

*Investment in Infrastructure:* Infrastructure aid is also more likely to come from China than India. To the extent that such aid uses local materials such as cement, locally made equipment or parts, etc, it may boost the manufacturing sector directly. Direct effects will be greatest in countries that manufacture the components of the infrastructure. Thus Kenya, with its cement industries, will benefit directly from the building of dams and other cement-using infrastructure, while the DRC will not. Indirect effects of aid that improves roads, ports, electricity supply, water supply, communications, and other elements of a country’s physical infrastructure will be increased output, greater production efficiency, and shorter lead times. A further indirect effect might be increased demand for manufactured goods by construction.
workers, transporters, and others with jobs generated by the infrastructure aid. The actual benefit to manufacturing will, of course, depend on the nature and location of the infrastructure. Indirect effects of infrastructure aid are more widely available. As long as there is some existing manufacturing industry, increased demand is likely to benefit the sector. The benefits from improved infrastructure, however, depend on the location of that infrastructure and its relevance to present or potential manufacturing. For example, the construction of a pipeline linking oil fields in Kordofan Province, Sudan, with Port Sudan on the Red Sea has opened up shipping lanes to the Middle East (Blair, 2005; Zafar, 2007). This in turn raises the possibility of locating agro-processing and/or manufacturing activities along the pipeline or near the port itself in order to take advantage of export opportunities.

**Academic & Technical Training:** Aid that improves the human capital of government, especially but not only, in the Ministry of Industry, may facilitate the development policies that promote investment in manufacturing. The impact on manufacturing is indirect, but could be quite substantial. Aid that improves the human capital of industry should directly promote managerial and technological upgrading in existing industries and encourage the development of more complex and technologically sophisticated manufacturing. Although both China and India give scholarships and training, the lack of information about the types of programmes and nature of beneficiaries means that it is difficult to know whether the supposed benefits are realised in practice or are merely hypothetical.

**Tariff Exemptions:** Aid that facilitates exports of manufactured goods should have a direct and positive effect on output. It should also indirectly promote further investment in manufacturing. Preliminary evidence from China’s use of such exemptions suggests that the effects on output and the trade balance are positive, but more detailed investigation is needed. Much of the positive balance appears to be the result of natural resource rather than manufactured exports from Africa to China. Only South Africa exports significant amounts of manufactured goods to China (Kaplinsky et al. 2007); for most other countries these exemptions may have little immediate benefit.

**Untied Aid:** Aid to any sector that encourages the use of aid funds to purchase locally manufactured goods will increase demand for such goods and thus have a direct and positive effect on manufacturing. Aid that is tied to purchases of foreign goods and services is likely to have adverse effects on local manufacturing. The actual impact, of course, depends greatly on the size and composition of the local manufacturing sector. To use again the infrastructure example, tied aid for a construction project using cement will have the expected negative impact in Kenya which manufactures cement, but it will have no impact in DRC as long as the Chinese cement imports are equivalent in quality to those normally imported.

**Debt Relief:** The freeing of resources that would have been spent on debt service may have either direct or indirect effects on manufacturing. The effect would be direct if government uses the released funds to achieve specific objectives to promote the manufacturing sector. The effect would be indirect if government uses the funds to invest in infrastructure, health care, education, and other areas that could have spill-over effects into manufacturing.

**General Budget Support:** The effects of general budget support are similar to those of debt relief. The exact effects will depend on the place of the manufacturing sector in the country’s budget.
As discussed above, changes in the manufacturing sector have the potential to bring about specific development outcomes (see Figure 1). We discuss these in the four broad areas of economic growth, distribution, governance, and environment.

The main effects on economic growth will come from increased manufacturing output, resulting from greater demand, local and foreign investment, and improved infrastructure. Other sectors may contribute to growth since, as manufacturing employment grows – assuming most will be labour-intensive – there should also be growth in agriculture and services. Furthermore, the construction sector, at least in the short run, should boost GDP through the building of infrastructure.

There are many possible distributional effects arising from changes in the manufacturing sector. Increases in labour-intensive manufacturing activities may attract workers from rural areas, changing the rural-urban distribution of both population and incomes. On the other hand, improved technologies may reduce the need for unskilled workers, adversely affecting their incomes. Focus on sectors such as garments and textiles, where women workers predominate, is likely to affect the gender distribution of income, though precise effects depend on the gender composition of the workforce in particular countries. The location of new or improved infrastructure will influence investment decisions, thus affecting the geographic distribution of employment opportunities. Production for export may be accompanied by wage squeezes as producers try to survive in competitive international markets (see Kamau, 2007). Aid that favours large or small firms may influence the overall distribution of income between rich and poor. India’s technical assistance, some of which focuses on small enterprises, could in theory have positive distributional effects. In practice, however, the number of beneficiaries is small so the impact is likely to also be small. In general, the actual effects on distribution are difficult to predict because of the interaction of several variables that change simultaneously.

Much has been said about the potential negative effects on governance of Chinese aid. Mostly this is general and hypothetical, making it difficult to pinpoint effects channelled through the manufacturing sector. In general, China’s aid could displace some western aid and reduce the impact of the ‘good governance’ agenda. If that is the case, then some governments may be less capable or less inclined to develop, enact, and/or implement the policies that would moderate the potential negative effects of changes in the manufacturing sector. The risk is greater in states such as Sudan and Zimbabwe that lack safeguards for the protection of the rights of all societal groups. Apart from these risks, Kamau (2007) points to a potential benefit of Chinese involvement in the construction industry. He notes that a Chinese construction company asserts that the operation of Chinese companies in Kenya has resulted in more efficient and timely completion of projects because the Chinese act as competitors to local firms, which had previously been colluding to overprice their contracts.

Increased manufacturing activity is likely to have negative effects on the environment, including water pollution from industrial effluent, increased solid waste, increased air pollution resulting from greater use of transport, and so forth. These are not necessarily specific to the Asian Drivers, but are the consequences of increased production in settings where environmental protection is often not high on the government’s agenda. The precise effects will depend on the nature of the activities, their location, and each country’s own environmental policies. Neither China nor India have strong environmental records at home, so may not be inclined
to consider the environment in the application of aid in Africa. The 2005 Environmental Sustainability Index ranks India number 101 and China number 133 out of 146 countries (Esty and Associates, 2005).

Conclusions & Research Implications
This paper’s analysis shows clearly that the potential impact of Chinese and Indian aid on Africa is significant. Both China and India have stated Africa policies, which they are now beginning to actualise. Both countries stand to benefit from increasing involvement with Africa, not only economically, but also politically in terms of their aspirations to be regional and eventually global leaders. Both are able to become donors, though China will probably achieve this more quickly than India. China has the economic strength to provide grants as well as concessional loans, trade preferences, and technical assistance. India is economically weaker, but in certain areas such as ICT is in a position to offer increased technical assistance that Africa sorely needs.

The actual impact of these emerging donors will, however, depend on a variety of internal and external factors that we tried to capture in our model. The example used in this paper – the impact of aid on the manufacturing sector – shows how complex the interactions among these factors can be. Aid can affect manufacturing both directly and indirectly, and through manufacturing it can influence growth, distribution, governance, and the environment. Aid in the form of direct investment in plant and equipment is more likely to come from China than from India, because of the nature of the industrial sector in the two countries. In the case of China, aid and FDI are intertwined, making it difficult to disentangle the two. Possible indirect impacts of aid on manufacturing are many. In fact, the most important is probably the support that China gives for infrastructure development. Of the other indirect forms of assistance to manufacturing, the most common are the academic and technical training offered by both China and India, and the tariff exemptions that China is now experimenting with. Neither the benefits nor the negative impacts are automatic, however, as we have seen from some of the specific examples. They depend on the size, structure, and location of the manufacturing sector in each country, as well as on the policy environment within which the sector operates.

These complexities underscore the need for detailed empirical research. Empirical research on the impact of aid is much less advanced than research on the impacts of Chinese and Indian trade and FDI. There is need for studies in different places using different methodologies that will capture the variables and relationships identified here as well as others that may have been missed. A starting point is a set of broad research questions that can be further refined for specific countries and sectors. At least seven such questions can be identified.

1) To what extent does aid from China or India that flows directly into manufacturing plant and equipment in sub-Saharan Africa allow it to produce more and/or higher quality goods?

2) To what extent does aid from China or India aimed at improving physical infrastructure result in better manufacturing performance?

3) To what extent does aid in the form of access to Chinese or Indian technical or academic training programmes result in better manufacturing performance?
4) To what extent do tariff exemptions by China and India promote investment in manufacturing?

5) To what extent does Chinese or Indian aid to other sectors of the economy result in increased demand for locally manufactured products?

6) To what extent has debt relief by China or India resulted in investments that have had positive spill-over effects on manufacturing?

7) To what extent has Chinese or Indian aid enabled African governments to pursue their own industrial development policies and programmes?

Each of these broad questions gives rise to a number of subsidiary questions aimed at establishing the basic facts around the question, examining direct and indirect relationships and their effects on growth, distribution, governance, and/or the environment, as well as establishing the links to policy outcomes. Ideally studies would involve collection of data in China and India as well as Africa, and would be designed as collaborative efforts between African and Asian researchers or research institutions. Finally, it goes without saying that China and India are changing rapidly. This means that studies must be designed to capture the dynamics of change as well as the situation at any one point in time.

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Endnotes

1. Development aid can be distinguished from disaster relief because it usually has a goal of creating conditions for longer-term development, rather than simply helping victims (governments and individuals) to survive the immediate difficulties caused by a natural or human-made catastrophe. A third category of aid is military aid, which is assistance toward the procurement of weapons or the training of military personnel.

2. There is a huge literature attempting to make a direct link between aid and growth, and another, almost as large, that attempts to reconcile conflicting results (see for example Hansen and Tarp, 2000; Radelet, 2006).

3. This recommendation applied to balance of payments and structural adjustment support, debt forgiveness, sector and multi-sector programme assistance, investment project aid, import and commodity support, commercial services contracts, and ODA to non-governmental organisations for procurement related activities. It excludes technical co-operation and food aid.
4. Foreign direct investment, which is also believed to play a similar role, is discussed elsewhere (see Alemayehu 2006).

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