Is China Actually Helping Improve Debt Sustainability in Africa?[1]

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1. Besides the 22 DAC donors, other countries have re-emerged as new donors in the present decade. It is difficult to quantify the volume, allocation, and composition of aid provided by most new donor countries, because their activities are not reported in a comprehensive manner[2]. The six largest non-Paris Club bilateral creditors to LICs are Brazil, China, India, Korea, Kuwait, and Saudi Arabia, according to IMF/World Bank (2006). Available data indicate that China has become, by a large margin, the largest creditor in this group. Although precise data are not yet available, there is evidence that lending by emerging creditors, and particularly China, has increased very sharply in 2005 and 2006. Lack of transparency has encouraged 'China bashing'.

2. 'Old' donors are watching China's action with suspicion. They accuse China to "free-ride" on the development efforts deployed by the international community. Poor African countries are only largely debt-free today because of two multilateral debt relief programmes (HIPC for bilateral, MDRI for multilateral lenders), which relieved Africa of $43bn. of official debt[3]. Further, while the terms of China's loans are not well known, their rapid rise and low degree of concessionality may impair debt sustainability in low-income countries, it is argued. Further , China is accused to engage in countries with 'lousy' human-rights protection, countries the Western donors have chosen not to partner with; corruption is enhanced, democracy impaired, hence debt tolerance weakened by China's finance.

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[2] In an effort to cast more light on the activities of new donors, the World Bank, in collaboration with the OECD DAC, the United Nations Development Programme (UNDP), and the United Nations Department of Economic and Social Affairs (UNDESA), conducted a survey of nine developing countries (Brazil, Chile, China, India, Malaysia, Russia, South Africa, Thailand, and República Bolivariana de Venezuela). Only three countries (Chile, Malaysia, and Thailand) have responded to the survey so far.

[3] Also China has granted debt relief (Qi, 2007). By 2007, China has written off total debts of RMB16.6 billion (US$2.13 billion) for 44 recipient countries (including HIPC), 31 of which are African countries with the total write-off of RMB10.9 billion (US$1.40 billion). Another debt cancellation of RMB 10 billion (US$ 1.28 billion) for African countries is under negotiation and arrangement. The write-offs in total will cumulate to 60% of all debt obligations to China. Unlike DAC donors, China does not include debt cancellation in reported aid figures.

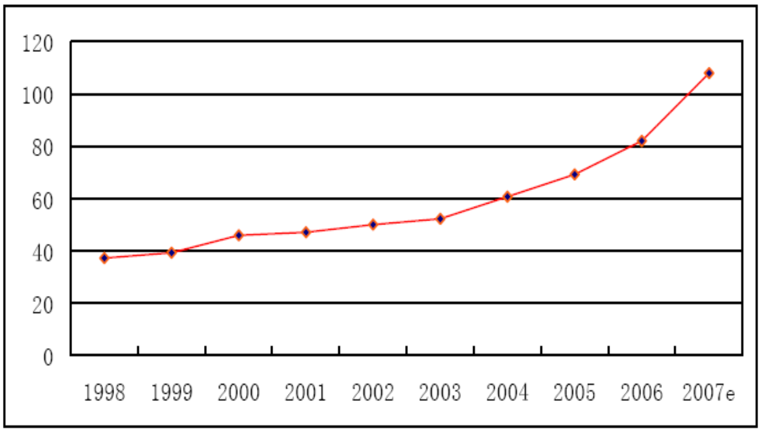
China in Africa: renewed presence, aid, lending and bashing

3. China's income is doubling every seven years at current pace. To sustain this growth China needs, first and foremost, natural resources, oil, industrial metals, increasingly also agricultural resources. Resource-rich Africa can deliver. As a result of intensified trade links with China, Africa has enjoyed higher growth rates, better terms of trades, increased export volumes, higher public revenues (Goldstein et al, 2006; OECD/AfDB, AEO 2007; Zafar, 2007). At the AFDB summit in Beijing attended in May 2007 by nearly 50 African heads of state and ministers, China has pledged to double its aid to Africa and provide $5bn in loans and credits over the next three years. Further, the chinese have put in place a China-Africa Development Fund that will eventually reach $5bn; this is a novel approach to economic cooperation, though not aid. This Chinese fund encourages China's own firms to invest in Africa, in a host of activities ranging from manufacturing to telecoms to agriculture, alone or in joint ventures[4].

4. There are three forms of aid provided by China: grant aid (Ministry of Commerce *or MOFCOM*): mainly aid in kind; zero interest loans (MOFCOM): Chinese authorities consider that more than 90% of these loans are written off over time; concessional loans (China EXIM BANK): these loans are given an interest subsidy by MOFCOM (the subsidy is the difference between China's Central bank base rate and the preferential loan rate. Other financial flows to Africa seem to take mainly the form of commercial loans (neither size nor terms terms of these loans are currently being revealed), and investment, mostly in natural resources, through joint ventures or acquisition of licenses for production. FDI flows may at times be the counterpart of the provision of loans, a phenomenon observed in Angola, Nigeria or Sudan. The main arm of the Chinese government for bilateral aid to Africa is China ExIm Bank which is involved in the financing of almost all the most important projects (Brautigam,2007).

Figure 1. China's foreign aid expenditure increases, 1998-2007

Unit: RMB 100 million



Source: *Qi Guoqian* (2007), "China's Foreign Aid: Policies, Structure, Practice and Trend", presented at University of Oxford/Cornell University Conference 'New Directions in Development Assistance', 11-12 June 2007.
Note: The figures cover the aid in the forms of grant, interest-free loan, preferential loan, cooperative and joint venture fund for aid projects, science and technology cooperation, and medical assistance, on a bilateral basis. Note that Chinese aid figures do not include debt relief, unlike DAC donors' reported ODA.

5. China engages mostly in infrastructure for resources extraction, telecom and transport. In sectoral percentage terms of confirmed financing commitments, 28% are currently in the energy sector, 19% in telecommmunication, and 13% in transport (mainly rail and road projects), according to unpublished World Bank data. As business is often operated in barter mode, financial transparency is difficult to establish. Take the *Angola Mode* where funds are not directly lent to the recipient country, but the Chinese government will mandate a Chinese Construction company (that usually receives a support credit from China Exim) to undertake the construction works after the approval of the recipient country. Then, in exchange for the infrastructure provision, the borrowing government will give to a Chinese company operating in the field of natural resources (mostly oil or minerals) the right to mine natural resources through the acquisition of equity stakes in a national oil company or through acquiring licenses for production.

Table 1: Grant Element of a Typical China ExIm Bank Export Buyer Credit, July 2007

Concessional Export Buyer Credit • 2% annual interest rate • 0 grace period • 15 year maturity
ODA Grant Equivalent • Cash inflow at start = 1000 • Constant annuities = 77.83 • Net present value at 10% discount rate =778.3 • => Grant element = 1000 – 778.3 = 221.7

Note: Author's hypothetical calculations based on China ExIm Bank information on average terms of export supplier credits to Africa.

6. An interview (June 2007) by the author at the Paris office of China ExIm Bank revealed no precise information about size and terms of export buyer credits to Africa, but at least their average terms: 2% interest rate, 10-15 year maturity, no grace period, and the remnibi as debt currency. Table 1 applies a simplified grant-element formula (with a discount rate of 10% - the donor opportunity cost of giving) by assuming constant annuities, a 15-year export buyer credit with no grace period carries a grant element of 22.17% (see Table 1). As the grant element falls short of the 25% required, DAC would not count such concessional export as aid. As the Chinese just account for the implicit interest subsidy in their aid statistics, the difference of the 3Y central bank bill (currently at 2.49%) and the concessional rate (2%) would translate into just 5$ in Chinese aid statistics.

China and Africa's Debt Tolerance

7. The 'free-riding' concern is misplaced, for a simple reason: The majority of the projects that receive Chinese financing for Africa-based infrastructure projects are undertaken in non HIPC resource-rich countries. During the present decade, Angola received 40% of the confirmed Chinese financing commitments in infrastructure while Nigeria[5], Ethiopia and Sudan received respectively 24%, 15% and 12% of these commitments, according to unpublished World Bank data. Data on China's aid directions assembled by the Agence Francaise de Développement (Chapionnière, 2007) point to a similar group of countries.

8. Apart from free-riding, what does China do to debt tolerance in Africa? Rather than replicating the vast literature on debt sustainability literature (economists tend to ride themes until the marginal returns are sure to be zero, if not below...), let us focus on the parameters of debt distress[6] thresholds identified therein for low-income

[5] Unlike the HIPCs, Nigeria has been able to negotiate its own debt deal in 2005 at its own pace because it had the funds to partially pay off its (Paris Club) creditors, who were happy to accept a smaller overall payment in return for cash upfront.

[6] Debt distress is defined as periods in which countries resort to exceptional finance in any of three forms:

countries. Kraay and Nehru (2006), circulated since 2004, has quickly become the *locus classicus*. They also point to the importance of governance quality in determining debt tolerance. Daniel Cohen (2000) has historical debt distress thresholds and corresponding secondary market prices for low-income country debt. Table 2 summarises critical parameter values identified by these authors. Finally, note that the IMF/World Bank (2006) study on debt sustainability in low-income countries reports that countries in which debt grew by more than 7 percent of GDP subsequently suffered debt distress in 61percent of cases. Countries in which debt grew by more than 5 percent of GDP went on to experience debt distress in 23 percent of cases.

Table 2: Debt Distress Thresholds and their Parameters

		Debt Burden Thresholds		*under the DSF*	
CPIA Score	Net present value of debt, % of			Debt Service, % of	
	Exports	GNP	Public Revenues	Exports	Public Revenues
Weak	100	30	200	15	25
Medium	150	40	250	20	30
Strong	200	50	300	25	35
Debt Distress Thresholds, Secondary Market Prices, and				**Debt Crisis Probabilities**	
Debt/exports,%	Secondary market prices			Debt/exports,%	Crisis
	-No crisis-	-crisis-	-severe crisis-		Probability,%
200	100	36	28	200	60
300	77	28	21	300	93

Sources: Cohen (2000); Kraay and Nehru (2006).

9. To be sure, debt vulnerability is still a concern in African raw material exporters, in view of their low governance scores and their exposure to real external shocks, such as a major drop in oil prices. However, even Angola and Sudan, the two African countries where the presence of China is most strongly felt (and which have not benefitted from debt relief), show big improvements in their debt indicators. Note also that both countries have been building official foreign-exchange reserves at rapid pace recently, so that their net debt exposure is even lower.

(i) significant arrears on external debt, (ii) Paris Club resecheduling, and (iii) nonconcessional IMF lending.

Table 3: Debt Distress Indicators, 2000 vs latest (2005/06)

In percentage terms	Angola 2000	Angola latest	Sudan 2000	Sudan latest
Debt/Exports	114	48	663	308
Debt/GNP	126	41	157	72
Debt Service/Exports	21	9	10	6
Annual external debt, growth p.a 2000-05		3.8		2.0

Source: *World Bank - 2007 Global Development Finance*

10. The next issue to raise is how China is impacting on the parameters D, Y, X of the debt sustainability indicators; this has not been done yet to my knowledge, so some back-of-the-envelope calculation may be useful. Unfortunately, China is still not transparent enough on the size and pace of commercial and preferential lending to Africa to allow tracing the China-caused debt build-up; the lack of transparency is not in China's interest as it invites 'happy bashing'[7]. In any case, even *gross* external debt in both Angola and Sudan has grown in the present decade at a pace slower than a rate that would imply future debt difficulties.

Table 4: China's 'Contribution' to Export and Income Growth, 2000 – 2005

	Exports, % p.a.	GNP, % p.a.	China share in exports,%	% China 'effect' Exports	% China 'effect' GNP
Angola	19.8	9.9	34	29	24.4
Sudan	15.8	7.5	90	74	17.1

Source: 2006 GDF and COMTRADE; author's calculations.
Note: The China 'effect' on exports results from isolating exports to China from total export growth during 2000-05; the income effect results from multiplying the China éffect'on exports times the country's export share. Export and GNP growth rates are compound annual rates.

12. What matters equally for debt sustainability and debt dynamics, is the push that China gives to exports and income growth. To provide an example, Table 4 focuses on Angola and Sudan again. Both countries have seen rapid export and income growth in the present decade. While Angola has an export share of 84%, Sudan is more 'closed'with a share of 23%. But as China is almost the only client for Sudan's exports, China's demand for oil has contributed to income growth fairly similarly, at around a fifth.

13. While China has a positive impact on debt tolerance through stimulating exports and GNP, many argue that it lowers standards, undermines democratic institutions and increases corruption, in particular in oil-rich countries that suffer traditionally from such resouce curse (Collier, 2007). If true, this would clearly undermine debt tolerance, as shown by Kraay and Nehru (2006). Unfortunately, CPIA (Country Policy

[7] On the basis of the *Global Development Finance Yearbook*, we can only trace overall national debt levels; the BIS Quarterly Review allows to trace bank lending, liability and asset positions with BIS-reporting banks.

and Institutional Assessment) scores provided by the World Bank have been made public only for 2006. But the scores provided by *Transparency International* for perceived corruption reveal for countries in which China engages relatively strongly (shaded, Table 5): These countries are perceived as relatively corrupt (and except for Mozambique with low governance standards, according to the CPIA index), but China's presence seems not to have fostered corruption; to the contrary, Angola and Nigeria show significant improvements. Still, China will also have to reconsider governance issues in partner countries. In February, the Chinese government deleted Nigeria and Sudan from its list of resource-rich countries it is encouraging companies to invest in.

Table 5: **TI CPI Scores in Africa**

Country	Score 2002	2004	2006	CPI Change	Fitch Foreign Currency Ratings	HIPC Status
Angola	1.7	2.0	2.2	+0.5		-
Cameroon	2.2	2.1	2.3	+0.1	B	Completion
Congo, Rep.	-	2.3	2.2			Decision
Gabon	-	3.3	3.0			-
Mozambique	-	2.8	2.8		B	Completion
Nigeria	1.6	1.6	2.2	+0.6	BB-	-
Senegal	3.1	3.0	3.3	+0.2		Completion
South Africa	4.8	4.6	4.6	-0.2	BBB+	-
Sudan	-	2.2	2.0			Eligible
Tanzania	2.7	2.8	2.9	+0.2		Completion
Zambia	2.6	2.6	2.6	0		Completion
Zimbabwe	2.7	2.3	2.4	-0.3		-

Source: http://www.transparency.org/policy_research/surveys_indices/cpi; www.FitchRatings.com

14. One issue to worry about has not been discussed widely, if at all: the currency denomination of China's lending. As a rapidly growing economy, China is bound to experience trend appreciation of her currency in inflation-adjusted terms, due to the *Balassa-Samuelson effect* (the rapid rise in relative nontradables prices as a result of income growth). Nominal appreciation is sure to be enforced through pressure by the US treasury, just as happened two decades earlier in the case of Japan and the Asian NICs.

15.There is no way to hedge against long-term real appreciation of the *remnibi*; there are no future markets for the remnibi, and should they exist, hedge cost for 10-15 year maturities will be exorbitant. Low-income countries have, however, the option to minimise the currency mix of their exchange risk exposure by matching the currency mix of their debt with the currency mix of their cash flows (Reisen, 1994). An optimal debt portfolio can be defined as a portfolio which has maximum correlation with the changes in the terms of trade; this can be operationalised by a debt-currency mix which matches the currency mix of net exports. For oil exporters, this calls for US dollar debt exposure.

Outlook

16. In 2007, around half a decade into strong Chinese presence on the continent, the rating industry perceives African debt as more sustainable than in the past. To quote a recent report released by FitchRatings (2007, p.1) :

> ”With most of the external debt written off and greater entrenchment of macroeconomic stability, attention is turning to developing local debt markets as a cost-effective, sustainable source of long-term financing for governments. In addition, there is increased interest by foreign investors in the region’s local debt capital markets and a trend towards international bond issuance for the first time by some sovereigns and private-sector companies. These developments are ratings positive from the point of view of transparency and market discipline. However, countries need to ensure that the funds raised are used productively so as to raise growth and retain debt sustainability.”

A counterpart to this improved investor assessment may be the ratio of non-performing loans (NPL) held by China’s ExIm Bank. The 2006 Annual Report states that the ‘year-end on-sheet NPL ratio’ fell for the eighth consecutive year, to 3.47% end 2006. I hope to get the Africa-specific numbers from ExIm Bank soon.

17. Let us not forget that an important goal of the debt-relief programmes, was to restore African credit-worthiness, thus encouraging new investments and boosting economic potential. There rarely has been such rapid and intense investment in African infrastructure as is going on today. The continent is no longer a *chasse gardée*, and competition is stimulating. Recent trends may bother Western companies and their public co-financiers, but established donors’ new rivalry with China is doing more to promote African development than any high-flying governance rhetoric – the credibility of which, by the way, has not exactly thrived on recent corruption scandals at Western companies British Aerospace, Siemens, and Halliburton. The competition now faced by Western financial institutions may strengthen the competion across economic-policy paradigms, with recipient countries free to choose. Ultimately, reform ownership and accountability may thus be strengthened, as power slips away from the old donor cartel. China will be well advised to share common loan criteria and to cooperate on recommendations for a potential Debt Transparency Initiative that could imply both DAC and non-DAC official lenders as well as private lenders.

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