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## **The World Bank AIDS scenarios for South Africa: a perspective for business**

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*The South African private sector has become increasingly concerned about the policy implications of HIV/AIDS. With this in mind, CDE organised a briefing on the World Bank's recent report on the long-term economic costs of HIV/AIDS in South Africa. It was addressed by Stephen Kramer, AIDS strategist of the Metropolitan Group responsible for modelling the epidemic – one of the country's foremost experts on this subject – and chaired by Dr Kgosi Letlape, chair of the South African Medical Association.*

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**I**N July 2003 the World Bank released a report modelling the impact of HIV/AIDS on South Africa<sup>1</sup> which added to the controversy surrounding the pandemic in this country. Presenting some of the report's theoretical projections as actual forecasts, media reports warned that South Africa's economy would collapse within three generations if the pandemic was not addressed more effectively.

The minister of finance, Trevor Manuel, called this 'a very unfortunate scare story',<sup>2</sup> and the Standard Bank's chief economist, Dr Iraj Abedian, observed: 'We think the probability of the predictions of this World Bank study coming true is as high as that of the Bank halving global poverty in the next two generations.'<sup>3</sup>

### **Underlying model**

The report is based on a theoretical model which was 'calibrated' to South Africa and then used to produce several scenarios of the impact of AIDS on this country.

The key concept in the Bank's model is human capital, ie, society's stock of knowledge and abilities, transmitted from one generation to another via a system of education and training. The report argues that AIDS erodes this transmission mecha

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1 C Bell, S Devarajan, and H Gersbach, *The long-run economic costs of AIDS: theory and application to South Africa*, World Bank, June 2003.

2 Reuters / SABCnews.com, 28.7.2003

3 *Business Day*, 28.7.2003.

nism by affecting large numbers of people when they are at their most productive, often shortly after they have had children of their own. It further argues that such a reduction in human capital has a seriously detrimental effect on any country's economic growth.

The model takes account of two social responses to AIDS: a 'pooling' response (when people affected by HIV/AIDS share care of their children in extended families); and a 'nuclear family' response (when affected people continue to care for their own children only).

The report then develops a case for a more active state role in dealing with the disease and its consequences on the grounds that the state has a more effective long-term perspective, and a greater capacity for care, than households do, irrespective of which option they adopt.

The instruments of state intervention suggested by the report are increased public expenditure on AIDS education, health (including AIDS-specific treatment), and AIDS orphans. In the case of the 'pooling' response, the state makes health and education available to all by supporting extended family and community structures. In the 'nuclear family' case, surviving parents continue to care for their children, or children are completely orphaned. In either of these cases, increased state support is required.

### South African scenarios

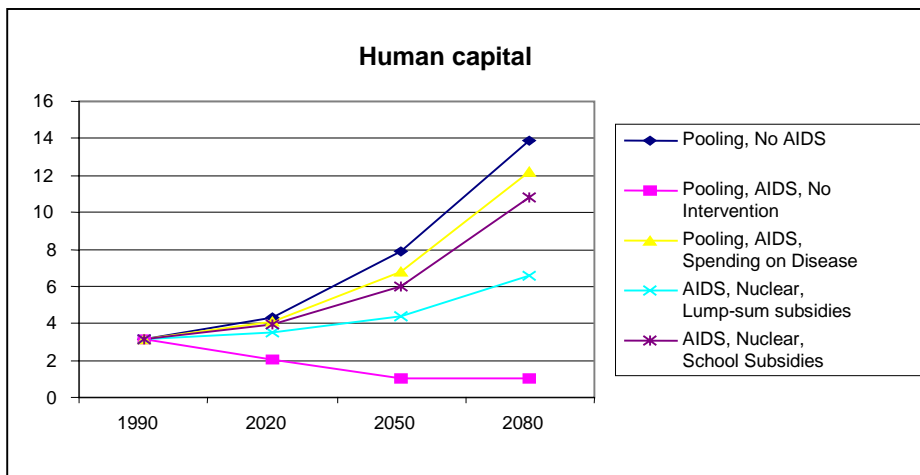
The report chooses South Africa as the most appropriate case for demonstrating the model. After 'calibrating' it to the South African situation, the report develops several scenarios designed 'to throw light on the efficacy of policy'.<sup>4</sup> The variables in the five scenarios are:

- no AIDS;
- AIDS, combined with no government intervention;
- AIDS, combined with a 'pooling' approach, and government spending on health;
- AIDS, combined with a 'nuclear family' approach and lump-sum subsidies to affected families; and
- AIDS, combined with a 'nuclear family' approach and school attendance subsidies.

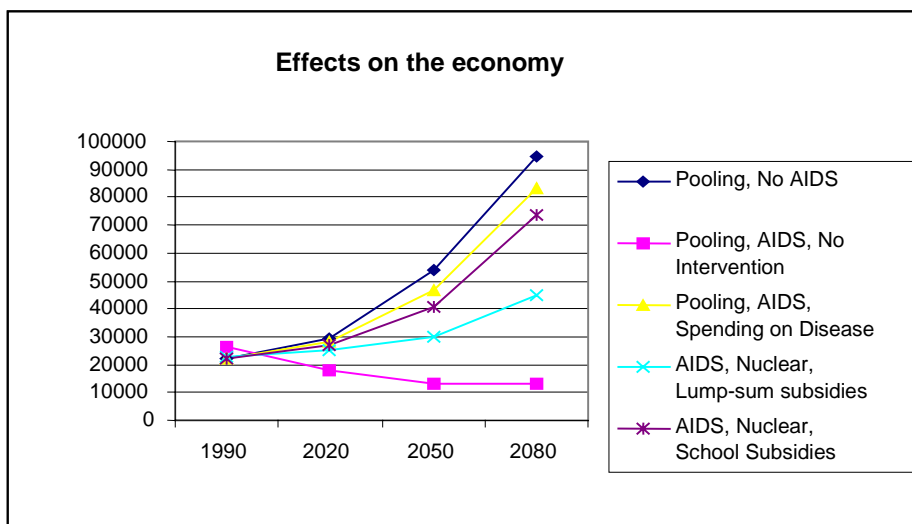
The effects on human capital in South Africa in each of these scenarios are reflected in graph 1.

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<sup>4</sup> Bell et al, *The long-run economic costs of AIDS*, p 65.



As noted earlier, these reductions in human capital are shown to have increasingly adverse effects on the South African economy; these are shown in graph 2.



This graph shows that state expenditure makes a dramatic difference to the impact of the disease on the economy. It was these hypothetical projections that received attention in the media when the report was published.

### A critique

Commenting on the report, Stephen Kramer pointed to several factors and dynamics that it had not taken into account. The central problem was that the report was presented as a *forecast*, and not as a set of scenarios based on a particular model. This had led to the wave of ill-informed publicity, which had impeded a reasoned debate on the report's contents.

Besides this, the report failed to take into account:

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- the heterogeneity of and inequalities in South African society;
- the dynamic nature of individual and household responses to the threat; and
- the prevalence of women-headed households in South Africa.

The failure to build these and other important features of South African society into the model cast 'grave doubts' on the validity of the scenarios.

Other problematic assumptions were that:

- the risk of child mortality was independent of adult mortality risk, whereas in reality there was probably a strong correlation between the two;
- a raised level of future mortality in children reduced parental incentives to invest in their children's education;
- uneducated people would not act in an altruistic way; and
- child-bearing started at 20; in most developing countries, it started at a significantly younger age.

Kramer concluded that the Bank's model could be useful as a rough-and-ready tool for assessing broad policy alternatives. In addition, whatever the report's shortcomings, it offered an important warning that AIDS might continue have serious effects on the South African economy for many years after the pandemic had peaked. However, the failure of the report's authors to point out the model's limitations had resulted in its being misinterpreted.

As a result of the World Bank's failure to explain effectively that a model was *not* a forecast, alarmist views had developed in the media and among opinion-formers. This had threatened to divert or even derail proper discussion of the pandemic's effects, in a context of debate that had already seen its share of irrationalities in the past few years.

### Discussion

Some participants argued that the state-led public policy approach outlined in the report needed to be complemented by far broader social involvement. In making this point from the chair, Dr Letlape expressed concern that South Africa still seemed to be a society in denial, unable to understand that society as a whole needed to assume more responsibility for educating people about AIDS, and dealing with the other challenges offered by the pandemic. Many people assumed that, because this was largely an African community, children would be cared for in the community, but this was not the case. He contrasted this with the example of Swaziland, which in his view illustrated how the resuscitation of traditional leadership and strong community values at the local level could be used to support AIDS orphans, educate people about the pandemic, and reduce stigmatisation.

Other participants stated that the World Bank report could play a valuable role in stimulating debate about the policy choices for coping with the pandemic. One

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salutary effect of the report could be to broaden the policy debate beyond questions of treatment and other aspects of health provision to discussions of the impact of AIDS on the economy and society in general. For example, as one participant pointed out, the pandemic should be encouraging South Africans to re-evaluate national policy on education and skilled immigration as well.

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