

Whistling in the Dark: Why the World Bank's Latest Poverty Projections are Meaningless

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Last month saw the publication of the World Bank's latest annual *Global Economic Prospects* report¹, setting out the Bank's vision of the global economy until 2030, including its latest projections for poverty. The breathless excitement with which the Bank presents this flight of fancy is quite extraordinary. By 2030, apparently,

Countries as diverse as China, Mexico, and Turkey would have average living standards roughly comparable to Spain today. This is **good news for the world's poor**. The implications of sustained growth for reducing poverty around the world are **nothing short of astounding**. Despite population growth, the number of people living in dire poverty – below the \$1-a-day poverty line – is likely to fall to 550 million from 1.1 billion today.... Developing countries, once considered the periphery of the global economy, will become main drivers....

And, one is tempted to add, pigs around the globe will start sprouting wings and take to the air, thus averting the impending climate change catastrophe by reducing carbon emissions from international trade in agricultural produce....

Personally, I've always tended to be rather sceptical of IMF and World Bank projections which show the world suddenly starting to get better and better from next year, after decades of getting progressively worse and worse. Year after year they do this. And year after year the situation is even worse than it was the year before. So the Fund and Bank patiently explain to us all that last year was really *much* better than we all thought it was, that something or other got in the way of their projections that it would be even better coming true – and that things would suddenly start getting better and better from *next* year. This pattern has gone on, with only occasional exceptions, for as long I've worked on development. And that's coming up to a quarter of a century now.

What's different this year is the sheer extravagance of the rhetorical flourish with which these projections are presented. But the fact that someone shouts louder doesn't make what they're saying any truer. It merely makes one wonder why they feel the need to make quite so much noise.

So what makes the Bank think that, contrary to the experience of recent decades (or indeed centuries or millennia) the meek are finally going to inherit the Earth sometime between now and 2030? How much substance is there underlying the rhetoric? How realistic are the Bank's assertions? And just how wonderful would the world really be if the Bank's dream came true?

The first thing to note is that these are not *predictions*, they are *projections* – a point the *GEP*'s authors were very insistent upon at its London launch on 6 December. "So what?", you might ask. But actually, this subtle distinction is more important than it sounds.

A *prediction* is a best guess of what *will* happen in the future. It won't necessarily be correct of course – no-one can hope to predict accurately what will happen across the whole global economy, right down to how many people will be below a given level of income, for the next quarter of a century. It just depends on far too many events which are either highly uncertain (eg financial crises or the outcome of trade negotiations) or wholly unpredictable (like natural disasters or 9/11). But in principle, it represents a mid-point of all the possible scenarios for the years ahead depending on all of these unknowns (known and

¹ World Bank (2006) *Global Economic Prospects, 2007: Managing the Next Wave of Globalization*. Washington D.C.: World Bank. http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2006/12/06/000112742_2006120615502/Rendered/PDF/381400GEP2007.pdf.

unknown, if you're a follower of Mr Rumsfeld), so that the world is as likely to be better than the prediction as it is to be worse.

A *projection*, on the other hand, is a slightly different animal. It represents a *possible* course of (in this case) the global economy, which is based on a set of assumptions made by the authors about how it works. It is an indication, not of what the authors think *will* happen in the future, but of a scenario they think *could* happen in certain circumstances. As far as the GEP projections are concerned,

The purpose is not to predict the future... but to think about dynamics in the global economy in a coherent analytical framework. (p. viii)

And they are based on

a combination of reasoned quantitative analysis and informed judgement and not predicated on standard statistically based econometric models. (p38)

Any projection is only as good as the assumptions on which it is based. So what assumptions are these projections based on?

Well, like all projections, they are based on an assumption that the global economy functions in the way the authors (in this case, the World Bank) assumes that it does. Given the Bank's track record, this doesn't inspire enormous confidence. After all, these are the same assumptions that told them that structural adjustment would work, and that the Uruguay Round of trade negotiations would bring benefits across the developing world, and which failed to predict the financial crises of the 1990s.

In other words, the projections embody the very assumptions on which the World Bank's policy prescriptions are based. So, as a basis for drawing lessons for "the choices facing the world today", they are virtually useless, because the argument is by definition circular. A model based on assumptions that certain policies work will almost inevitably show benefits from following those policies. One only learns something if it throws up an internal inconsistency, and shows that the policies don't work, or that their benefits are overwhelmed by some side-effect which has been overlooked in their design. But somehow Bank projections (or at least the ones we get to see) don't seem to do this very often.

Secondly, like most "central" projections, the figures above are based on a scenario which does not include major shocks such as the oil price crises of the 1970s, the debt crisis of the 1980s, the financial crises of the 1990s or 9/11. Of course, such shocks are difficult to predict. But it is fairly predictable that there will be major shocks *of some kind* over the next quarter century.

To be fair, the *GEP* does address this issue – but the complacency with which it does so is almost as spectacular as the hyperbole with which it presents its results.

The central long-term scenario in this report is robust enough to resist periodic recessions, isolated regional conflicts, and even many of the destabilizing crises the world has experienced in the past 30 years. These threats are likely to affect particular regional or national economies more than the world economy, and if history is a guide, to be of relatively short duration. Between 1980 and 2005 the world economy grew at a steady pace despite several major disruptions – including the Latin American debt crisis, the demise of the Soviet Union, the East Asia crisis, two global downturns, and the tragedy of September 11, 2001.

So that's alright, then: the global economy will keep growing. But, just a minute.... Why start in 1980? That excludes the oil price shocks of the 1970s, which were anything but limited or local in their effects – they halved the global growth rate, which still hasn't returned to its previous rate on a sustained basis, despite all the supposed benefits of globalisation and liberalisation.

And somehow the Bank seems to have forgotten about the African debt crisis. That may not have impacted on global growth, but it has had a devastating effect on an entire region, accounting for a tenth of the world's population for a quarter of a century. Living standards in much of the former Soviet Union

are still far below where they were before 1989, too; and Latin America has still barely recovered from its debt crisis either. What's more, these three regions – precisely those where the Bank's policy influence has been greatest – will remain the three slowest growing developing regions until 2030, according to the Bank's projections. Away from the rapturous headlines, the GEP refers on p78 to "the bleak outlook for Sub-Saharan Africa (and to a lesser extent Latin America)".

As for such shocks being limited to particular regions, if you put together the African and Latin American debt crises, the Asian financial crisis and the demise of the former Soviet Union, that covers practically the whole of the developing world apart from India and China. Surely this can't just be dismissed as a little local difficulty?

Presumably none of this matters because it hasn't impacted too much on global growth. And *of course* it doesn't affect global growth that much, because the developed countries represent three-quarters of global income. So, as long as the sixth of the world's population in the North goes on getting richer, it doesn't make much difference if the South gets poorer, as long as they don't get poorer all at the same time, and three times as fast.

But remember what all the report's gushing enthusiasm was about: it wasn't about global growth, it was about poverty. For poverty, it isn't the three-quarters of global income that goes to the North that matters – it's the quarter which goes to the South, and particularly the tiny fraction of this that goes to the poor. Even if the crises of the last quarter century haven't impacted too much on global growth, there is little question that they have slowed – and in most of Sub-Saharan Africa and the former Soviet Union reversed – progress in poverty reduction. And there's absolutely no reason to assume that the crises of the next 25 years, whatever they might be, will be any different.

In any case, will history (let alone the Bank's rather selective view of history) "be a guide" to future crises? Looking ahead, one of the most obvious threats is the risk of what is euphemistically called a "disorderly adjustment of global imbalances" – that is, a US financial crisis. We haven't had one of those before, so its effects are difficult to predict. But one can be fairly sure that they'll be serious and far-reaching – quite enough, not only to have a *substantial* effect on global growth, but also to have a *lasting* effect. After all, the US accounts for more of global income than the entire developing world, and nearly four times as much as all the regions affected by debt and financial crises over the last quarter century combined – that's Latin America and the Caribbean, Sub-Saharan Africa and East Asia and the Pacific (excluding China).

Another obvious threat is rising oil prices – remember the effect of the oil prices in the 1970s. And this is a very real threat. According to a section headed (rather optimistically in the circumstances, one feels) "The global environment will come under increasing stress":

With world growth in the central scenario running at about 3 percent per year on average, primary energy demand (coal, oil, and natural gas) runs at about 2 percent per year. Under standard assumptions, this would not generate any significant tension on energy markets, with prices rising at about 1.4 percent per year in real terms from base year levels.

Setting aside, for the moment, the implications for climate change, if global oil consumption goes on rising at its current rate, known reserves (or at least, the reserves we think we know about) will run out entirely 5-10 years after the end of the projection. No doubt some more oil will be discovered; but the geographical scope of prospecting since the 1970s limits the potential; and true reserves are almost certainly less than "known" reserves because of over-reporting.

If we're lucky, by 2030, we might have enough oil left to last for another 10-20 years on a "business as usual" scenario. Since the lowest-cost oil reserves will be used first, this almost certainly implies a very considerable increase in real oil prices over the course of the period, potentially to several times the current level, and certainly much more than the 35-40% increase the Bank projects for overall energy prices. Such a limited increase seems particularly surprising because the 1.4% annual increase is *from the base year* – that is 2001. The world oil price in 2001 averaged around \$26 per barrel, so a 35-40%

increase from then would imply a price of \$35-36 per barrel in 2030. Since the average price in 2006 has been around \$60 per barrel, this implies a *price fall* of about 40%, or more than 2% per year.

Curiously, while the *GEP* studiously ignores both these issues in its long-term projections, it highlights these very factors as potential risks in its projections for the next two years. The section gloomily headed “Downside Risks Predominate” includes sub-section headings like “A Disorderly Unwinding of Global Imbalances [read: a US Financial Crisis] is Possible”, and “An Oil-Sector Supply Shock Could Disrupt Growth”. Yet they seem to think these risks will somehow evaporate after the end of 2008. With oil stocks declining, and US imbalances growing, this seems – to say the least – rather surprising.

In reality, of course, running out of oil is the least of our worries. It is generally agreed that we need to limit the average global temperature increase from pre-industrial levels to 2°C; and that this will require a reduction in total global carbon emissions by 60% from their 1990 level by 2050. Since emissions have continued to increase, by between a fifth and a quarter since 1990², this means reducing them by more than two-thirds from their *current* levels – that is by about 2½% per year.

Based on the Bank’s projections, however, even allowing for a switch from oil and coal to (“relatively cleaner”) natural gas,

In the absence of intervention, global CO₂ emissions could reach between two and four times their current levels by 2100.

That’s an average increase of between 0.7% and 1.5% per year, which, if spread equally over the period, would imply an increase to between 2.2 and 2.6 times the level consistent with the 2°C target in 2030. This means that the Bank is assuming that the rate of reduction in carbon emissions relative to the size of the global economy will at least continue at the rate achieved since 1990, and may be increased by half.

As the Bank says, besides switching from oil and coal to natural gas,

there is a wide variety of possible methods to reduce [greenhouse gas] emissions, for example improving energy efficiency and relying more on renewable energy sources, ...capturing and storing carbon emissions, sequestering carbon through reforestation, changing lifestyles to reduce demand for energy, reducing growth in output, and geoengineering (to change the reflectivity of the atmosphere, oceans and land).

However,

The future path of growth may well be affected by efforts at mitigation, depending on their severity and the attention paid to ensuring that mitigation is achieved at least cost.

And these efforts would need to be fairly drastic – drastic enough to change a 20-40% *increase* to 2030, based on the Bank’s projections, into a *reduction* of about 45%, based on the 2°C target. That is, enough to reduce emissions in 2030 by between 55% and 62% from their projected level, which already takes account of continuing reduction in carbon emissions at the current rate relative to global output through increasing energy efficiency, changing consumption patterns, technological change, development of renewable energy sources, etc, etc, *and* an assumed acceleration in the switch from oil and coal to gas.

So, just how big a change is this? Let’s assume – optimistically – that governments finally get serious about reducing carbon emissions; that reduction starts in earnest in 2010; and that it accelerates progressively over time. (After all, as another of the *GEP*’s inspired section headings reminds us “Agreeing on Policy is Difficult”....) Then, in order to be on track for the 2°C target in 2030, the carbon emissions per unit of global production need to be reduced by 2½-3% per year between 2010 and 2020, and by 5-6% per year between 2020 and 2030.

² Based on per capita emissions from http://cdiac.ornl.gov/ftp/ndp030/global.1751_2003.ems and World Bank population growth estimates.

That sounds quite a lot – but it doesn't sound anything like as much as it actually is. The nearest thing we have experienced in recent history was the oil price crises of the 1970s, when the major oil exporting countries got together and decided to increase their prices collectively. Over the course of the 1970s, they succeeded in increasing oil prices by about 700% – and in doing so, they halved the growth rate of the global economy (from which it still hasn't recovered 30 years later), as well as starting the process which ultimately led to the debt crisis which began in the 1980s (which still hasn't been resolved either – but that's another story....).

So how does the acceleration in the reduction in carbon emissions required to reconcile the Bank's projections with the reality of the 2°C target compare with that achieved between the 1960s and the 1980s in response to a crippling 700% increase in oil prices in the 1970s? It isn't just bigger. It isn't just twice as big, or even three times. The rate of adjustment required is *between five and six times* as great.

Achieving this, while also fulfilling the Bank's growth projections, would not just require increasing energy efficiency, a bit more technology here and there, a few more windmills and remembering to turn the lights off. It would represent a fundamental transformation in the way we live, what we do, how we do it, what we consume, where we buy it from, how it's produced, where we go, and how we get there – in short, in the whole way the global economy works. And yet, the Bank seems simply to assume that this circle can somehow be squared without impinging either on how quickly the global economy will grow, or how much of the benefits will reach the poor.

This casts serious doubts on the internal consistency of the projections – which is a minimal requirement for them to be considered valid. Throwing up this sort of inconsistency is precisely what projections (as opposed to predictions) are meant to do. And yet the GEP fails even to mention this critical issue. One can only suppose that the Bank is not yet ready to face up to the equally fundamental rethink this contradiction implies for what the Bank does and how it does it, and what it spends its time persuading developing country governments to do.

So, limiting global warming to 2°C would render the Bank's projections meaningless. But what would happen if we allowed carbon emissions to increase at a rate consistent with their projections, and the 2°C target therefore to be missed by a substantial margin.

This would be seriously bad news. More importantly, in the present context, it would be particularly bad news for the poor. As is highlighted in DFID's recent White Paper³, as well as nef's Up In Smoke series⁴, the poor are worst affected by the effects of climate change. They are most likely to live in the worst affected areas, have least opportunity to move away from them, are least able to adapt to or protect

³ DFID (2006) *Eliminating World Poverty: Making Governance Work for the Poor*. London: Department for International Development. Section 4, "Working Internationally to Tackle Climate Change". <http://www.dfid.gov.uk/pubs/files/whitepaper2006/wp2006section4.pdf>.

⁴ Andrew Simms, John Magrath and Hannah Reid (2004) *Up in Smoke: Threats from, and Responses to, the Impact of Global Warming on Human Development*. nef (the new economics foundation)/Working Group on Climate Change and Development, London. http://www.neweconomics.org/gen/z_sys_PublicationDetail.aspx?PID=196. Andrew Simms and Hannah Reid (2005) *Africa: Up in Smoke? the Second Report from the Working Group on Climate Change and Development*. nef (the new economics foundation)/Working Group on Climate Change and Development, London. http://www.neweconomics.org/gen/z_sys_PublicationDetail.aspx?PID=208. Andrew Simms and Hannah Reid (2006) *Up in Smoke? Latin America and the Caribbean: The Threat from Climate Change to the Environment and Human Development*. nef (the new economics foundation)/Working Group on Climate Change and Development, London. http://www.neweconomics.org/gen/z_sys_PublicationDetail.aspx?PID=226. John Magrath and Andrew Simms (2006) *Africa: Up in Smoke 2: the Second Report on Africa and Global Warming from the Working Group on Climate Change and Development*. nef (the new economics foundation)/Working Group on Climate Change and Development, London. http://www.neweconomics.org/gen/z_sys_PublicationDetail.aspx?PID=232.

themselves from the adverse consequences of climate-related (or indeed other) natural disasters, have least access to insurance, and, given their extreme vulnerability, are most affected by adverse shocks. When a natural disaster strikes a poor family, or a family on the threshold of poverty, be it a drought, a flood or a hurricane, they can be locked into poverty for a generation.

So, if climate change is worse than projected, then poverty is likely to be much higher. But again, the *GEP* displays a quite staggering complacency.

Even in the next decade or two, scientists underscore the (*unlikely*) possibility that global warming could cause natural disruptions severe enough to depress growth rates below the low-growth scenario presented here [ie global growth of 1.4% pa rather than 2.9% pa]. It is **more likely that decades will pass** before the most severe effects of climate change begin to be felt.

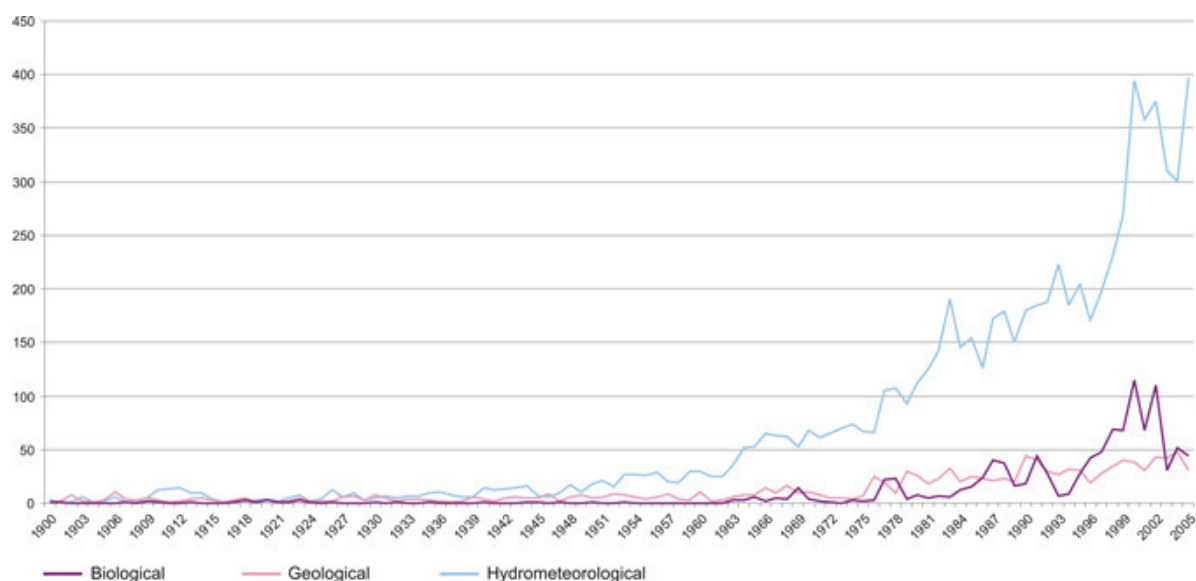
But pause for a moment, and look at those sentences again. *Of course* “decades will pass before the most severe effects of climate change” will be felt. By its very nature, the effect of climate change increases over time. Suppose carbon emissions increase by 1% in one year, then stop growing forever. Emissions every year after that will be 1% higher than they would otherwise have been; so 1% more will be added every year to the amount of carbon dioxide in the atmosphere, which is what drives climate change. In other words, an increase in emissions doesn’t just make things worse, it accelerates the rate at which things get worse – and it goes on accelerating until emissions are reduced again. So if emissions increase at 1% *every year*, what we’re doing is to *accelerate the rate of acceleration* of the speed at which we make things worse, year after year after year. Even if the effect isn’t that great in the first twenty years, what happens after that doesn’t bear thinking about.

What’s more, the “(unlikely) possibility” the Bank mentions is not of a major effect on *poverty*, but of a major effect on *global growth*. It’s also of the growth rate being halved to 1.4%, and thus barely keeping pace with population growth. They don’t tell us what the poverty rate associated with the slow growth scenario, but it’s unlikely that it would imply any significant reduction from current levels, since global growth is assumed to be the driving force behind poverty reduction. What’s more, as noted above, manifestations of climate change such as droughts and floods impact overwhelmingly on the poor; and they account for a minuscule percentage of the global economy. This means that climate change would have a devastating effect on poverty long before it knocked 1½% off the global growth rate. The share of those living below the “\$2-a-day” line – 2.7 billion people – in global income is only about 3%. That means that climate change could exterminate two of every five people on the planet in the course of two years, and the (direct) effects on growth would only be 1½% a year.

What happens to the global climate thus has profound implications for what happens to poverty. Yet the effects of climate change do not appear to be factored into the poverty projections at all. The Bank’s insistence on considering poverty exclusively as a by-product of economic growth apparently blinds it to other factors which may prove equally important. But if these effects aren’t taken into account, then poverty is likely to be substantially higher than projected, even if the 2°C target were somehow miraculously achieved. Even global warming of 2°C represents a marked deterioration in climatic conditions from the current level, which will have adverse consequences for the poor. And even the current atmospheric levels of carbon dioxide have brought a massive increase in climate-related natural disasters in recent decades (the light blue line in the graph), which would continue even if emissions were brought under control.

So, on the one hand, the adjustment required to meet the 2°C target for carbon emissions renders the Bank’s growth projections meaningless; but the consequences for the poor of failing to do so make them equally meaningless if it is not met. The key conclusion from these projections is not “good news for the poor”, it’s “bad news for the Bank” – or at least for the economic model it is so determined to promote.

Number of Natural Disasters Registered in EMDAT (Emergency Events Database), 1900-2005⁵



But for the sake of argument, let's suppose that the Bank's mid-winter dream did come true. How worthy would this really be of such euphoria? Well, it's a very, very long way from poverty eradication. In 2030, the Bank cheerfully proclaims that 550 million people will still live on less than a dollar a day and 1,863 million on less than \$2-a-day, while the rich, of course, will be (much) richer than ever. The proportion of people living on more than \$50 a day will double from 10% to 20%, and their share of world income will increase to more than two-thirds.

Even if poverty isn't eradicated, the Bank would no doubt reply, at least it's falling. But how quickly? The projections show the poverty rate (the proportion of the world's population below the "\$1-a-day" line) falling from about 17% now to about 7% in 2030, which represents a reduction of about 0.4% each year. To be fair, this is slightly faster than it was between 1996 and 2001 (the latest available data), when it was about 0.3% a year; but it's barely half the 0.7% pa achieved between 1990 and 1996, and little more than a quarter of the 1.4% pa reduction in the 1980s.

We simply don't have any reliable data to assess what happened before then. But remember that the 1980s were seen at the time as being so awful for the South that they were dubbed "the lost decade for development". That was when everything that could go wrong for developing countries did go wrong, from high oil import prices and collapsing commodity export prices, through extortionate interest rates and increasing aid shortfalls, to the debt crisis and the first, most painful and most spectacularly unsuccessful phase of structural adjustment.

There was little doubt in anyone's mind at the time that progress towards poverty reduction was worse than it had been for decades. And what indications we do have certainly support this view: not only did the growth rate of the global economy slow still further from the 1970s to the 1980s (having already halved between the 1960s and the 1970s), but 1980 also marked the turning point from generally declining to generally increasing inequality. Even if we all got it wrong at the time, and poverty reduction was *faster* in the 1980s than in the 1960s and 1970s, it seems unlikely that it was *four times* as fast. And if it wasn't four times as fast, then the great success the Bank is trumpeting is just a whisker away from being the *slowest* rate of poverty reduction since the end of the colonial era.

⁵ UNISDR/CRED (2006) Disaster Statistics, 2005. UN International Strategy for Disaster Reduction/Centre for Research on the Epidemiology of Disasters. <http://www.unisdr.org/disaster-statistics/pdf/isdr-disaster-statistics-occurrence.pdf>.

To look at the results another way, how quickly will the incomes of poor households increase? Of course, this isn't indicated in the report – but with a little light number-crunching we can have a go at estimating it. If we suppose that all poor households' incomes (below the "\$1-a-day" line) rise by the same amount between the base year (2001) and 2030, we can use the Bank's own data to estimate how much this increase would need to be to achieve the poverty figures they project for 2030. For East Asia, this is about 2½% per year; for the Middle East and North Africa it's 2% per year; and for the rest of the developing world – South Asia, Sub-Saharan Africa, Latin America and the Caribbean, and Eastern Europe and Central Asia – it's about 1½% per year. This last group account for four-fifths of all households below the "\$1-a-day" line. It is also interesting to note that this last group, where the incomes of the poor rise most slowly, includes all three regions where the Bank's policy influence has been strongest and most widespread.

So what does all this tell us about the projections? The "good news for the poor", apparently, is that, *if* you ignore the greatest threats both to the global economy and to the global environment, and apply an economic model which *assumes* that the current model of development will give us the best possible outcome, then poverty will fall at barely a quarter of the rate it was falling 20 years ago, which itself is almost certainly a lot slower than it was falling in the 20 years before that, so that in a quarter of a century's time more than half a billion people will still live below the "\$1-a-day" line), and nearly two billion below the "\$2-a-day" line, including six in every ten Africans. Four-fifths of those who do stagger up to the "\$1-a-day" line, will do so by increasing their minuscule incomes from half or two-thirds of this level at the painfully slow rate of just 1½% per year.

Perhaps this is indeed good news for the Bank. After all, if they actually succeeded in eradicating poverty, then they'd all be out of their (rather well-paid) jobs, in which they no doubt look forward to annual pay increases of rather more than 1½%. So one can quite understand why they sounding so cheerful. But if this is "good news *for the poor*" on a scale that is "little short of astounding – then what would *bad* news look like?