

**DC Development Forum BBL, Monday October 17, 2005**  
**How should Japan respond to CDI2005?**

**Points from on-line discussion (Aug –Sept 2005)**

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***Disclaimer***

*This memo is a collection of various views of members of DC Development Forum. As such, each comment is not necessarily shared by majority of the members.*

**1. General Comments**

**Purpose of the Index**

- The CDI does not seem to answer what is the effective development assistance, though it successfully draws broad attention to the issue. Indeed, the CDI appears to be constructed as provocative as possible. However, which objective—provocativeness or evaluation—are you interested in?

**David Roodman**

I don't think anyone has the full answer to what is effective development assistance. The CDI does what it can based on current thinking. Most would agree that tying aid reduces its value, that giving aid to a very rich country like Israel or a very corrupt one like Cameroon generally does not help development very much, that there are too many small aid projects in Tanzania and Uganda. That said, one can think of exceptions to these generalizations. It is true that the CDI does sometimes go a bit beyond solid evidence in order to make people aware that certain issues, such as migration or aid project proliferation, are important, even if we do not understand them well. But when we do this, we still think hard about the design choices we make.

- The CDI is based on “inputs” of policies but not on “outcomes.” As a reasonable indicator of commitment to development, shouldn't it incorporate outcome measures such as poverty reduction and growth?

**David Roodman**

I don't think so. The mission of CGD is to focus on rich-country policies, and the CDI helps us do that. The Human Development Index focuses on outcomes, and that is fine too. But it is very hard in general to figure out which donor policies contributed to or prevented a given outcome, so their relevance as indicators for the CDI is low.

**Neutrality of the Index**

- Isn't the selection of assessment criteria and weights biased to favor certain donors and hinder others, perhaps to produce an outcome in line with a pre-conceived view? For example, it is difficult to believe that the adverse impact of Japan's protection of rice on developing countries is 70 times more than that of Europe's protection of sugar. In other

words, is the tariff equivalence of import protection a good measure of impact on growth in developing countries? How about the choice of production share, instead of import share?

### **David Roodman**

Does someone have evidence that the Japanese rice tariff is *not* 70 times more harmful? Huge numbers of poor people grow rice in countries such as Indonesia, Thailand, and Vietnam. They could benefit if it were easy to export to Japan. The number of people in sugar production is far smaller. The problem with weighting tariffs by imports is that where protection is highest, imports are lowest, so that high tariffs are automatically underweighted. This is the well-known endogeneity bias problem, and is why trade economists work so hard to avoid it. I think Vietnam's rice production is a better indicator of its ability to export to Japan than is its actual exports to Japan.

Of course, the CDI involves a lot of judgment, and there are always biases. That said, I had no idea when we started this project that Japan would come out at the bottom. Upon reflection, I realized that the reason for this result is that the CDI is strongly shaped by a belief that international openness in rich countries is good for poorer ones. I think it is clear that Japan is more closed, more inward-oriented, than the U.S. and Europe. One can argue that our belief in the value in openness is wrong. That would be a legitimate and serious debate. But I do wonder: Could Japan have grown as fast as it did without access to U.S. markets?

- Is the Index backed by sufficiently sound academic research? For example, is there a credible research that concludes that net resource transfer is an appropriate measure of the impact of aid on growth and poverty reduction? In this regard, the CDI does not seem to take adequate account of previous research on aid effectiveness, for example, Burnside and Dollar (2000), Easterly, Levine and Roodman (2004), and Alesina and Dollar (2000).

### **David Roodman**

I agree that the evidence on whether total aid correlates with overall economic growth is weak. (I'm not sure why Burnside and Dollar is mentioned, since it argues the opposite, or why Alesina and Dollar is mentioned, since it is not about aid impact.) But I do think that aid has helped and can help in important ways. Aid helped eradicate small pox. Aid contributed to the huge fall in infant mortality over the last 50 years in poor countries, the rise in life expectancy, and perhaps the fall in fertility too, which have all occurred faster than they ever did in the West. Aid fostered the green revolution, which ended famine in India. This is why I am still comfortable putting aid in the CDI. Leaving it tells people that aid matters and that we should think hard about how to make it better.

- Most of the background papers are unpublished. Are the results robust? Have the estimates that underpin the CDI gone through external review processes?

### **David Roodman**

The background papers are on the web site ([www.cgdev.org/cdi](http://www.cgdev.org/cdi), click on "Methodology.") Perhaps what is meant is that they are not published in academic journals, which is true. The original trade paper was published as part of William Cline's scholarly book for CGD, *Trade Policy and Global Poverty*. There is a new trade paper this year, which I have submitted to a journal. I may submit the aid paper to a journal as well. But I think it is important to remember that the background papers are not exactly pieces of research. They are documentation for a set of design choices, and so are not necessarily appropriate for the academic literature.

All of the papers do go through an external review process, which I run. I send the papers to experts in the U.S. and other countries for review, then discuss the comments with the authors and ask them to revise.

- There is an endogeneity problem stemmed from the donor-recipient relationship. For example, the Doing Business Indicators, developed by the World Bank, traditionally work unfavorable for countries based on French legal system (including Francophone African countries as well as France itself) just because the way the indicators are set up. However, their improvement in the time-series would be more appealing from the donors' perspective. Hence, I would suggest that you should look at an index along the time-series.

### **David Roodman**

It looks like there are two issues here. The first seems to be about how when donors evaluate recipients, they bring their own biases. But the CDI of course does not evaluate recipients, so I don't see how the "donor-recipient" relationship is so relevant for the CDI. Perhaps what is meant is that when an American evaluates other rich countries, he too is biased. Certainly, I am ready to listen to this criticism, which is one reason I value this kind of discussion. Last fall I was in Tokyo and visited FASID. There, I learned about the arms exports database of the Stockholm International Peace Research Institute, which made it possible for me to add a penalty for arms exports this year, which many Japanese had argued for. I faced a lot of skepticism here, especially from the Michael O'Hanlon, who led most of the work on the CDI security component, but I persisted and finally reached a consensus with him, with the help of another American expert.

Still, I think the bottom line is that the CDI results are robust. Japan clearly is different from the other 20 countries. It is more inward oriented, which shows up in low aid, trade, migration, and security scores. The CDI is based on the belief that openness to developing countries is good. Perhaps that is a function of my American bias. I think if you are going to question the CDI, this belief is what you should challenge.

The second point here is about looking at changes over time. I agree this is important, so as the years go by, we will always back-calculate the latest index methodology to past years, to allow comparisons. (And I think the methodology will not change so

much in the future.) On the CDI web site, you can see three years of data now. But I still think comparing countries in a given year is effective too, so we will do both.

- As ownership (local partnership) is at the forefront of the donors' agenda these days, it would be better to somehow reflect the degree of ownership in the CDI. Relatedly, would there be any way to estimate some sort of best fit in demand-supply of development assistance? Also, how could we measure efforts of a donor country to assist other countries to become new effective donors? (e.g., tri-lateral cooperation of Japan)?

### **David Roodman**

Ownership might be interesting to include, but I think it is extremely difficult to measure, and also you have to be very clear about who is "owning" the policies. Indonesia's growth success was based on policies owned by a technocratic elite. So maybe that is the important kind of ownership. Or is the key PRSP-style broad-based ownership?

I'm sorry I don't understand what it would mean for the CDI to "estimate some sort of best fit in demand-supply of development assistance." Is the idea that aid would be rewarded more if it goes to countries that demand it more? How would you measure demand? It seems like most countries take all the aid they can get, even when their leaders say they cannot handle all the aid.

Trilateral cooperation is a new idea to me. It sounds like a good thing, but it also sounds small. Maybe it is already counted as ODA?

### **Difficulty with cross- donor analysis**

- Cross-donor comparison is not as straight forward as it may seem. Citizens in each country have different preference in helping others domestically (e.g., charity, income distribution policies, etc). The preference is deeply rooted in historically determined charitable culture and religious norms. We can control this fixed effect by measuring aid to poor people abroad relative to transfers to poor people in the donor country.

### **David Roodman**

I agree it is not straightforward! It is very hard. I think it would be interesting to compare charity abroad to charity at home. But I am also comfortable with the CDI not doing that. It is called the "Commitment to Development Index" but it is really a "development policy index." It is not about intentions, but actions. I think it best to make it good at measuring actions. I don't want to make a country look good just because it is even more stingy at home than abroad.

- Should the countries that earn foreign currency from their abundant natural resources (e.g., Norway) be equally compared with the countries without any natural resources? In Japan, the inheritance tax rate are higher than the income tax rate, because Japanese as a

whole agree that the inherited wealth should be used more to redistribute economic powers among people.

### **David Roodman**

I think the question about Norway is a special case of a broader question: should countries that are richer, for whatever reason, be compared to countries that are not as rich? I think that within certain bounds, the answer is yes, often by dividing by GDP. I am comfortable comparing Japan to Greece, but not Ethiopia. I think a software billionaire and an oil billionaire have an equal obligation to help—which is why both their heirs should pay the same inheritance tax. It is important to remember that Norway is an exception to broad pattern known as the “resource curse.” Countries with natural resource wealth are usually poorer. Natural resources appear to generate huge profits for a small minority which then corrupts politics. From this point of view, Japan and many other Asian countries are the fortunate ones, because they are so resource-poor. This may have made Asian countries more equitable, which led to broader-based investment in education, and thus to economic growth.

- The weights attached to each assessment category should be substantially different among donors and/or recipient countries as they should reflect the importance of each category in terms of its impact.

### **David Roodman**

I think it would be very interesting to do different versions of the index for individual recipient countries, or at least major regions such as Africa, Asia, Latin America, and we might do this some day.

## **2. Specific Comments**

### **Measurement of contribution of aid to development**

- We believe that the quality-adjusted Aid/GDP is a more meaningful indicator of commitment. We realize that you have made quality adjustment on aid data, but such adjustments may be considered rather minor.

### **David Roodman**

I agree the quality adjustments don't have a major impact. This may be because I am unable to measure aid quality very well. But it could also be that aid quantity/GDP really does vary far more from country to country (by a factor of 7) than aid quality does, in which case this result is accurate: aid quantity dominates in comparing donors.

- Can ODA promote economic growth of recipient countries unconditionally? According to Burnside and Dollar, only when the policies of the recipients are appropriate, aid works. Your paper with Easterly even questions the Burnside and Dollar results, finding that there is NO growth effects of aid even if we control for governance. If this is the case,

how can the inclusion of aid variables be justified as one of important indicators of the commitment to development? Isn't there an inconsistency in your arguments?

### David Roodman

Good question. I discussed aid effectiveness a bit already. I would only add that absence of proof in one study is not proof of absence.

- It is unconvincing to treat aid as a pure resource transfer, ignoring the different modalities of assistance, for example, grants (apples) and loans (oranges). Also, contribution to multilateral institutions should be valued higher than bilateral aid, since the former is shown to be apolitical (see Cassen et al's book, Burnside-Dollar, final section, and other numerous academic papers.) Relatedly, shouldn't strategic aspects of the ODA be controlled, given research results such as in r Alesina and Dollar (J. of Economic Growth)?

### David Roodman

I agree that aid is extremely heterogeneous, that different kinds of aid should have different impacts in different contexts. However, I wouldn't pick the grant-loan distinction as the most important one. I would expect that a \$50 million World Bank education loan for a broad program of school building and teacher training would have about the same effect as an equivalent \$50 million grant—except of course that the loan has to be paid back eventually, which is like negative aid. One might argue that loans make governments act more responsibly, but I really doubt it. Just look at my country. Or look at the HIPC's, which are having their debt cancelled because the money is gone. I agree that multilateral aid can be expected to be better than bilateral aid. In the index, we do not directly favor multilateral aid, but it comes out as being higher-quality, so the more that bilateral donors send their aid through multilaterals, the better they do.

- What is the compelling reason to standardize the amount of ODA by GDP of donor countries (not by recipients' aggregated GDP)? An alternative variable to consider may be the ODA per capita of each donor country because this variable can capture contributions (or burden sharing) per person more accurately. Moreover, if there is a minimum required quantity of ODA to be effective, there will be a nonlinear relationship between the amount of ODA and outcomes. If this is the case, the absolute amount of ODA provides important information.

Alternatively, you can employ the following variables as an indicator of quality-, modality-, and scale-adjusted aid from donor d:

$$\alpha \sum_{r=1}^n w_r \frac{BI\_AID_{rd}}{GDP_r} + \beta \sum_{r=1}^n w_r \frac{MULTI\_AID_{rd}}{GDP_r},$$

where  $\alpha$  and  $\beta$  are weights attached to bilateral aid and multilateral aid, respectively. BI\_AID<sub>rd</sub> is the amount of aid from a donor d to a recipient t. GDP<sub>r</sub> is a recipient's GDP.

MULTI\_AID<sub>rd</sub> is the amount of multilateral aid financed by donor  $d$  then disbursed to country  $r$ , e.g., the amount of Japan's contribution to the World Bank which lead to aid to Indonesia. Of course, this variable should be estimated but we can easily accomplish it under reasonable assumptions.

### **David Roodman**

There are several proposals here. If we took aid/(total recipient GDP) instead of aid/(each donor's GDP), then since total recipient GDP is the same for every donor, this would be equivalent to just using absolute aid (dividing each donor's total aid by the same number does not change the comparison). The CDI does not use absolute aid because its purpose is to measure the extent to which donors are living up to their potential to help.

ODA per capita is worth considering. But it has two disadvantages. First, if Japan is roughly twice as rich as Greece (in GDP/capita terms), it is reasonable to argue that it should give twice as much aid. Put another way, if Greece gives the same amount per person as Japan, then it is doing twice as good a job of realizing its potential to help. Second, there are currency issues. Japan's ODA/capita is in yen and America's is in dollars. Exchange rate movements can make countries suddenly appear more or less generous. The DAC has developed deflators to address this problem, but there is no perfect solution for it.

If there is some kind of nonlinear relationship between aid and impact (and I am extremely doubtful of the ability of econometrics to detect this effect reliably), then one has to think about which donor is the marginal donor in each country. The first donor's aid may have no impact, but still help the country reach the minimum aid threshold needed for impact. Which donors then should get the credit? Large donors can be small in given recipient countries and vice versa. I think this approach would become very complicated and conjectural.

I actually don't think it would be so easy to estimate  $\alpha$  and  $\beta$  in a sound way. Results from regressions with aid split into multilateral and bilateral components are fragile because the samples are small and the two variables are collinear. Moreover, this formula would penalize giving aid to large countries. One dollar of aid to India would show up as much smaller in the aid/(recipient GDP) fraction in the formula than would one dollar of aid to Nauru. So a country could raise its aid score by moving its aid to small countries. Mark McGillivray proposed an aid index with this problem in 1989 in the journal *World Development*. Then Howard White pointed out the problem in a commentary, and McGillivray fixed the problem in a subsequent article. I think it doesn't make sense.

### **Legitimacy of the seven categories**

- How is the specification and weight of each assessment category justified? For example, how important would *Migration* be, in terms of contributing to other countries' development?

### David Roodman

Modeling by Walmsley and Winters (2003) suggests that if rich countries increased their temporary migrant worker stocks by an amount equal to just 3% of their labor forces, global income would increase \$150 billion, with most of that going to the temporary workers themselves. That is a huge number. So it is not obvious that the impact of migration is small. One could also argue that investment, environment, technology, security, etc., are hugely important. But we don't really know which matters most. This is one reason I give all the components the same weight in the final average. Moreover, "equal weighting" does not mean "equal importance in the index," as I discuss below.

- For *Security*, in the Index, the positive contribution of the *financial and personnel contributions to peacekeeping operations and humanitarian interventions* has a heavier weight than the negative one for penalizing *some arms exports to undemocratic nations that spend heavily on weapons*. What are the reasons behind this?

### David Roodman

I agree this is a point you can legitimately argue. My thinking was that sales of weapons to Saudi Arabia probably had less total impact than NATO going into Kosovo or Australia going into East Timor. But keep in mind, as I argue in the index technical paper (on the web site), equal weighting is not a well-defined concept. If there are two indicators that are constructed so that on one, there is a very wide spread around the average, while on the other every country is essentially average, then if you "equal weight" the two indicators, the one with the wide spread will determine the overall results. So "equal weighting" is very different from "equal importance." For an example, note that there is a wider spread on the CDI aid component than on the CDI investment component, so that the aid component has much more effect on the overall results.

The arms exports indicator is one with a very wide spread. Japan and some other countries get a perfect 10 on it. At the other extreme, the U.K. gets a -17 (*negative seventeen*), which is why the U.K. comes in second-to-last on security. In 2004, before I added the arms exports penalty, the U.K. was #3 on security. So from the point of view of the U.K. (and also France and the U.S.) the arms export penalty has a very big impact.

- For *Security*, contributions to the special trust funds for post-conflict reconstruction under the World Bank and/or the UN should be taken into account.

I would think these are already counted as ODA in the aid component.

- To compute *Trade* protection, the production-based weight is used this year, replacing the import-based weight. As a result, the weights for rice, wheat and sugar (the items which have relatively high tariff in Japan) increased, making Japan's trade appear even more protective. The explanation does not seem objective: production weight is used because otherwise trade protection turns lower for countries such as Japan, Norway and Sweden (those who are known to be protective) than Austria.

### David Roodman

I think I responded to these questions above. I use production weights because import weights are known to be endogenous and bias results. We made the switch this year because a new data set became available that allowed it—the Market Access Map (MAcMap) data set of the Centre d'Etudes Prospectives et d'Informations Internationales (CEPII). I actually considered using value added rather than production, but this would have made Japan look even worse.

- Also for *Trade*, while the weights for agricultural goods rise, the weights for industrial goods tend to shrink. This overlooks the importance of trade in industrial goods, when many developing and emerging countries strive to grow through exporting their industrial goods.

### David Roodman

Actually, the weights on manufacture are much higher than those on agriculture. If you open the index spreadsheet (<http://www.cgdev.org/doc/CDI/Index2005.xls>), go to the "Trade 2005" sheet, and look at cells D59 and E59, you'll see that the weights on agriculture total \$1.7 trillion while those on everything else total \$7.2 trillion. The reason that agricultural tariffs dominate the overall results is that protection in manufactures is fairly low in all rich countries. The major *differences* in protection are in agriculture, so they dominate the overall trade results—another example of the difference between weights and importance.

- Japan's contribution to *Environment* is not sufficiently reflected in the CDI. The Index should reflect not only gas emission, but also the energy usage/GDP ratio (which is a broader indicator) as well as the development and export of energy saving technology. It is my view that inefficient energy consumption is hurting developing countries not only through higher oil prices but also various adverse effects of global warming. This - and aging - is the biggest challenge that the world economy face in the long run.

### David Roodman

The greenhouse gas indicators in the index capture fossil fuel use, which accounts for the majority of commercial energy use. Left out are hydropower, nuclear, wind, solar, and geothermal. I would need to have it explained to me how using these energy sources hurts developing countries. I think the strongest argument would be for penalizing nuclear energy use. Is this what you are suggesting?

As for exporting efficient technologies, we try to capture some of this through the technology component, and also through the investment component since a lot of technology transfer occurs through FDI—but we may not capture it well. One key question is what is the *policy* that is to be rewarded. Exports themselves are not a policy.

### **3. Future Prospects**

- The index offers a good opportunity for Japanese people to undertake discussions of the commitment to development not only by the government but also by the public at large.
- Historically, viable dialogue among researchers, policy makers, and field workers has been weak in Japan. A stronger cooperation among them is needed to better communicate with foreign parties and to strengthen the effectiveness of Japan's ODA. In addition, we hope to see more intellectual interactions between leading think tanks, such as CGD, and Japanese counterparts to share views and knowledge on economic development policies. In particular, there are many lessons to learn from CGD, for example, effective publication of research results.

#### **David Roodman**

Well said! Thank you so much for your interest, your comments, and your constructive spirit. I am grateful for the opportunity to discuss these issues with you, and look forward to the continuing conversation. Domo arigato.