Notes on "HDI 2.0: A joint UNDP-AFD seminar on HDI Improvement"

Consultation held in AFD, Paris, October 19th 2009

The meeting was organized and hosted by the Research Department at AFD, and chaired by Pierre Jacquet, Chief Economist of AFD. An agenda and list of participants are attached in an annex, as are the PowerPoints that were presented.

The discussion started with a presentation made by Jeni Klugman and Francisco Rodríguez outlining the tentative structure of the HDR2010. The presentation emphasized the goals, scope and history of the HDRs, the broad parameters of the 2010 HDR, and discussed some preliminary results of ongoing research on the conceptual and empirical front.

Participants welcomed the initiative of revisiting the human development approach with a view to reforming the measurement framework of the reports, and noted the significant complementarities between the work of the Stiglitz-Sen-Fitoussi commission and the Human Development Report. The idea of presenting a set of indicators that measure alternative dimensions of human development while maintaining the core HDI was seen as a positive step, although it was pointed out that many of these alternative dimensions could be quite difficult to estimate, given existing data constraints.

This was followed by a presentation made by Xavier Timbeau on the results of the Stiglitz-Sen-Fitoussi commission and its relation to thinking about a new HDI. Timbeau started by noting that while indicators or measures do not change the world, they are critical for changing the world, making well-founded information essential. He highlighted several criticisms of the HDI, such as implicit parameters (e.g., perfect substitutability), arbitrary weights, and mixture of stock and flow variables.

He then centered on the objections to one of the components of the HDI – per capita GDP – that was studied in-depth in the SSF report. Only under very strong hypotheses will market equilibrium be a correct measure of well-being. There are several key hypotheses of the market equilibrium model that are not met in the real world: neutrality of non-market production, complete markets and full information, while imperfect property rights and public goods lead to prices that do not reflect social valuations. The fact that there is no systematic accounting for wealth variation is problematic since, as the recent crisis revealed, these variations are huge in comparison to fluctuations in other incomes. The assumptions regarding pricing of public goods are particularly problematic: pricing public services based on inputs may overestimate price increases and fail to take account of technological progress.

These assumptions are not met in practice so it is best to look at other indicators which are already well developed. For example, conceptually net production subtracts variation in the value of assets. However, the net production measured in national accounts only takes into account depreciation of the physical capital stock and thus omits changes in the value of natural resources. Nevertheless, it is still an improvement on measures of gross production.

In order to go beyond GDP, it is necessary to have systematic wealth accounts which include non-market produced goods, account for resource depletion and net rather than gross measures. The perspective of households (as opposed to residents) should be preferred, with income valued net of depreciation, adjusted for wealth variation, and subtracting defense expenditures such as those devoted to maintaining order and security.

However, it is important to bear in mind that too much imputation leads to lack of clarity and confidence, as pointed out by Angus Deaton. Comparison of national data shows that the share of national income to GDP is not stable - for example, it has been falling in Ireland, suggesting that the recent high Irish GDP (and HDI) growth may overestimate progress from the standpoint of the welfare of individuals. In some countries (Norway, US) household income exceeds GDP while in others the contrary happens (Japan, Italy).

In this light, Timbeau recommended extending the HDI by adding investments in human capital, measuring environmental degradation, adding an ecological footprint measure that complements Genuine Net Savings (which is problematic because environmental degradation is imputed to the producer instead of the consumer, and does not account for substitution or depreciation of educational capital).

The discussion highlighted several important points. Some participants noted that while the suggestions go in the right direction, one aspect that was missing from this exposition was a consideration of the HDI's virtue of simplicity and transparency. Many of the adjustments considered by the SSF commission could not be implemented readily for a large number of countries, so while they may be useful for pushing a long run agenda for data measurement, the possibility of utilizing these to modify/adjust the HDI in 2010 is questionable.

Some participants raised doubts about adjustments for depreciation and environmental degradation in the GDP measure (as opposed to having separate sustainability indicators, which some felt was a good idea). The reason this may be problematic is that GDP goes into the HDI as a rough measure of consumption of goods and services. GDP, in turn, is really a measure of the **production** of goods and services. The SSF recommendations go in the direction of making GDP a better measure of production, and in this sense adjusting for depreciation of natural assets makes sense. This is because high levels of production that are achieved by consuming natural resources are really akin to drawing down inventories –

the economy is not producing more goods but rather is consuming a stock. On the other hand, whether goods and services come from production or drawing down of stocks, they are still available to households for their consumption (and people derive utility from them). Whether that consumption is sustainable is another issue, but very difficult to tackle in the HDI.

The third presentation was made by François Borguignon, who also discussed the links between the work of the SSF and the HDI. He was motivated by a critical question: to what extent does the HDI address the weaknesses identified by the SSF report? The SSF highlights the weaknesses of available measures and the discrepancy between people's perceptions and reported indicators, but this is also the reason the HDI was introduced in 1990. The key criticisms leveled towards GDP by the SSF report are that it is a measure of economic activity but not a good measure of performance because (i) it excludes non-market expenditures (which could have a huge weight in developing countries) and includes defense expenditures, (ii) distributive aspects are neglected, (iii) non-economic aspects of well-being are ignored (though there is some ambiguity regarding their treatment as means or ends, and (iv) no consideration is made of sustainability.

The HDI addresses one of these issues: the non-economic aspects of well-being. But it does not address the four other weaknesses, so there is room for improvement along these dimensions.

Some central issues which require being addressed in the revision of the HDI are:

(i) Choice of weights and robustness. Note that there is a central issue here which is whether we should prefer a dashboard to summary indicators. Some summary indices are not useful – imagine a light flashing to indicate the joint level of ½ *speed and ½ * gas. It is important to not aggregate for its own sake, but rather only if it adds value.
(ii) Definition of indicators: More important than the distinction between stocks and flows is the distinction between inputs and outcomes. Educational enrollment is clearly an input, but we are presumably interested in some measure of achievement. Life expectancy and literacy are more clearly outcomes/ achievements.
(iii) Use of the HDI: It is interesting that it is not correlated with GDP over time, though it is highly correlated in the snapshot. It is important to be cautious presenting the conclusions on convergence, so that they are not seen as supporting complacency on these issues.
(iv) The HDI still relies on GDP, which is problematic, so that suggestions of SSF regarding substitutes for GDP should be considered.
(v) Exclusion of voice, environment, etc.

(vi) Distribution is neglected. However, given existing data it may not be possible to deal with the joint distribution of inequality across dimensions (multiple deprivations). Constructing an HDI at the household level as HDRO is proposing will be very difficult.

The discussion highlighted that productive directions for improvement would include adding new dimensions to the HDI, complementing with its own "HDI dashboard" (using measure like the GEM), and using improved GDP indicators. It is important to bear in mind that we will come across inconsistencies between macro and micro data (e.g., India in the 1990s) and lags in the publication of the distributional data. It will be important to carefully explain changes in the rankings to improve understanding of what drives them and what their meaning is.

The next presentation dealt with specific indicators of sustainability and institutions. Pierre-Noel Giraud discussed the measurement of sustainability. He compared two types of sustainability indicators: those that try to better measure present welfare (such as the HDI, green GDP, Ecological Footprint), and those that try to understand how much we can use the capital stocks that have been inherited. The latter measures emphasize intergenerational equity and have stronger economic/theoretical foundations. It is possible to use both measures and have public debate and discussion around the approaches and results.

Nicholas Meisel discussed the relationship between institutions and HDI. After surveying reasons why institutions were deemed important and existing work on measuring institutions and their weaknesses, he presented the Institutional Profiles Database compiled by the French Ministry of the Economy and AFD, covering 123 countries and aggregating 380 elementary items into 780 indicators. This is seen as an improvement on the WGI indicators, which exclude social cohesion, violence and openness. Data is freely accessible on the CEPII website. Institutions are classed in nine broad categories: political, pubic order, functioning of administration, free functioning of markets, coordination, secure transactions, regulation, openness and social cohesion. Correlations with the HDI are usually high but this is not the case for some subindicators. Two useful references are Arndat and Oman, *Uses and abuses of governance indicators* (OECD) on criticisms of the WGI measures, and North, Wallis and Weingast, 2002 *Violence and Social Orders: A Conceptual Framework for Interpreting Recorded Human History* on freedom from state interference as a basic concept of institutional quality..

The last presentation was given by Daniel Cohen, who highlighted the need to have a clear conceptual answer to the question of what we are trying to measure. In particular, are we looking for a measure of outcomes, or for a measure of happiness (the latter will be inherently more subjective). If it is a measure of outcomes, it is questionable whether you want to include things like institutions, which may be a cause or consequence but are distinct from progress. This is unless you see institutions as contributing directly to well-being. The case of China shows that the link between institutional quality and well-being is far from direct.

In France, a country that is less unequal than the US, and where income distribution is not worsening (or at least not as fast as in the US), there is considerable frustration. This is despite the fact that between 1990 and 2006 median income doubled. Analysis of the composition of this spending may shed light on the source of frustration -- 40% of spending goes to rent, food insurance, and another 40 % to education and transport. Thus only 20% of income is "discretionary". One important fact is that globalization may reduce the costs of some goods but also leads to relative price increases. In particular, by reducing the price of tradable goods it m ay increase the weight of non-tradable goods in the consumption basket. If these non-tradable goods are also basic necessities (e.g., housing, transport), then consumers may feel as if they have much less discretion over the decision of what to spend their income on.

Other remarks in the discussion highlighted the need to define the objectives of the HDI as providing greater scope, the need to improve the quality of underlying core data, especially where it has already been estimated (e.g., learning attainment by UNESCO) and the importance of caution in interpretation of changes because of upper bounds on the HDI.