The Knowledge Bank

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December 28, 2004

In *Reinventing Foreign Aid*, William Easterly, ed., MIT Press, 2008.

Abstract

The World Bank and other leading international agencies are transforming themselves more fully into creators and disseminators of global knowledge about development. Transformation into "knowledge banks" opens great possibilities, but the process is not immune to constraints and incentive problems that have limited development strategies of the past. The starting point here is that knowledge about development is contested and that learning often arises by synthezing viewpoints and experience from multiple angles. While it is often said that the knowledge collected by development agencies has the property of a public good, dissent and contrarian evidence are often public goods as well. Strategies that build on this recognition cannot rely just on synthesizing existing experience as seen from the vantage of development agencies; optimal strategies will also require active support for systematic experimentation with competing models and activist data collection efforts.

I have benefited from conversations with Stephen Denning, Bill Easterly, Garance Genicot, Debraj Ray, Hari Srinivas, Alex Wilks and participants in a meeting at the Japan International Cooperation Agency in Tokyo in June 2003 and at a meeting on "Reinventing Foreign Aid" held at the Center for Global Development, Washington DC, August 19, 2002. John Gershman provided particularly helpful comments on an early draft. I appreciate financial support under an Abe Fellowship of the Social Science Research Council and Japan Center for Global Partnership. All views and any errors are my own. Email: jonathan.morduch@nyu.edu.

1. Introduction

The late Hollis Chenery, Cabot Professor of Economics at Harvard and Chief Economist at the World Bank under Robert McNamara, was asked to write the entry on "foreign aid" for *The New Palgrave: A Dictionary of Economics* when the original 1894 edition was updated in 1987. After recounting the litany of incentive problems with the existing aid system, Chenery concluded with a thought on knowledge:

> Finally, the most enduring aspect of aid is likely to be the discovery and dissemination of knowledge to fit the development needs of poor countries. A notable success has been the joint sponsorship of agricultural research by multilateral and bilateral aid agencies over the past fifteen years. Knowledge is a classic case of the economist's 'public good', and the expansion of this aspect of the international aid system should command wide support.

Chenery's paragraph is an optimistic note appended to an essay on foreign aid that is mainly resigned and pessimistic. A decade later, James Wolfensohn, the current president of the World Bank, echoed the same optimistic tone in announcing the transformation of his institution into a "Knowledge Bank".[1] The Bank's Chief Economist at the time, Joseph Stiglitz, reiterated that the principle of public goods justifies a leading role for international agencies like the World Bank in spreading global knowledge (Stiglitz, 1999).

Organizations like the World Bank are thus re-imagining themselves as packagers and providers of knowledge, no longer mainly distributors of grants and loans, and the change is pushing their reach far beyond the limits of their purses. The World Bank's Development Gateway, a web-based repository of development data, opinion, and experience, is built on this hope.[2] A computer search can now reveal in seconds how to build household solar energy systems, incorporate gender concerns into sanitation policy,

[1] See Wolfensohn (1996); Gilbert and others (2000), and World Bank (1998). I focus on the World Bank disproportionately below since it has been the leader in knowledge sharing efforts to date, but the general issues pertain to the United Nations and other international organizations. See King and McGrath (2004) for a discussion of knowledge banking by the Swedish, British, and Japanese development agencies, as well as the World Bank.

[2] For critical views see King (2002), Wilks (2002), and Fukuda-Parr and Hill (2002).

fight local corruption, train teachers, and myriad other lessons and suggested development strategies.[3] The Bank's external website reaches 700,000 users per month, and in 2004, The World Bank was named one of the top 20 "Most Admired Knowledge Enterepries" for the fifth year in a row, joining companies like IBM, Toyota, and Siemens.[4]

In principle, the Knowledge Bank should improve the making of development policy by fostering better data collection, independent analyses, and more extensive evaluations. The needs are great. A 2002 report of the General Accounting Office, the investigative arm of the U.S. Congress, for example, put its message in its title: "Foreign assistance: USAID Relies Heavily on Nongovernmental Organizations, but Better Data Needed to Evaluate Approaches" (General Accounting Office, 2002). A July 2004 *New York Times* article expanded on the theme: "Wealthy nations and international organizations, including the World Bank, spend more than $55 billion annually to better the lot of the world's 2.7 poor people," Celia Dugger reported. "Yet they have scant evidence that the myriad projects they finance have made any real difference, many economists say" (Dugger, 2004, p. A4). As these examples suggest, the need is not just for better dissemination of existing information but also for generation of new data.

Becoming a Knowledge Bank has been a natural turn for the World Bank, but the past decade of experience suggests there are additional steps to take before being able to "command wide support." This paper lays out issues and identifies central tensions with knowledge provision--those apt to arise through conflicts with ideological agendas and with the professional, career objectives of staff at development agencies. Drawing on Matsui and Morduch (2004), I argue that the deployment of the standard theory of public goods is more complicated (and often less appropriate) than the initial applications suggest. As a result, effective knowledge strategies cannot rely just on synthesizing existing experience. Optimal strategies also require mandated data collection and systematic experimentation with competing models and contrarian views. Next steps will require both humility and activism. The ideas are illustrated with a discussion of

[3] See, for example, www.bestpractices.org and www.worldbank.org.
[4] The award was made by Teleos, an independent research firm. The World Bank was the only non-profit or government institution to join the list in 2004.

knowledge dissemination about microcredit, an important anti-poverty strategy of the past decade.

2. The Knowledge Bank experience

Chenery's thoughts provide a sharp contrast to President Harry Truman's inaugural address of 1949 which had famously highlighted four points, the fourth of which focused on foreign aid. "We must embark on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas," Truman had proclaimed from the East Portico of the Capitol.[5] Highways were to be built, rivers to be dammed, and electricity to be wired. The United States Congress met this challenge with the Foreign Economic Assistance Act of 1950, hoping to do for the rest of the world what the Marshall Plan was doing for the war-ravaged countries of Europe. State Department officials set about promoting industry, technology, and infrastructure overseas, aiming to reshape economies that were only then throwing off the yoke of a colonial past.

For Truman the task was to share the fruits of existing knowledge by exporting and building capital goods and infrastructure abroad without necessarily transferring the knowledge itself. We now know how difficult (and perhaps wrong-headed) that task turned out to be (Easterly, 2001). For Chenery, as for Wolfensohn, the aim is instead to create new, relevant bodies of knowledge and to export the knowledge directly.

The increasingly easy traffic in information, made far cheaper and faster through new communications technologies, makes this possible. Sending messages and posting data has become nearly costless as more and more people and organizations gain access to the internet. In 1970, transmitting a trillion bits of information across the United States would have cost $150,000, but by 1999 was just 12 cents. And while there were just 200 websites in mid-1993, there were 20 million websites and 400 million users by late 2000; by the end of 2004, over 800 million users were logging on.[6]

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[5] United States Congress (1989).

[6] Data on transcontinental information transmission are from Fukuda-Parr and Hill, 2002, p. 187. Data on internet use are from Fukuda-Parr and Hill, 2002, Figures 3.1.2 and 3.1.3. The December 2004 figure is from http://www.internetworldstats.com/stats.htm. The number of users can be compared to a projected

The World Bank's Knowledge Bank strategy combines the new technological possibilities with a re-thinking of staff deployment. The knowledge strategy built on a prior re-organization of Bank staff that in part confronted the tendency to confine conversations about regional issues to regional operations units. The re-organization linked staff via cross-cutting "families" and "networks" that created explicit ties between a sanitation expert working in North Africa, say, and her counterpart working in Eastern Europe. Reinforcing these connective tissues is the development of "communities of practice" within units (and sometimes with outside experts as well) to share experiences and distill lessons. Within the Bank these communities are called thematic groups, and there are roughly 80, ranging in size from 25 to 200 people, with voluntary participation and leadership (Gwin, 2003). The vision thus goes beyond simply transferring knowledge via sending individual staff around the world to dispense expertise (Fukuda-Parr and others, 2002). Instead, in principle, it involves fostering ongoing conversations within practitioner and academic communities, creating "open access" facilities for outsiders to retrieve information (notably via the web), and encouraging partners abroad to participate in the knowledge generation process on an equal footing.[7] In the six years since announcing the Knowledge Bank strategy, the World Bank has thus founded 37 distance learning centers, hosted 875 distance learning conferences, created 80 new practitioner networks, and run over 4,700 video conferences.[8]

These changes have happened as the policy environment has shifted in ways that create demand for new perspectives and ways to quickly share and retrieve information. Among the most important changes is that non-governmental organizations are growing in number and clout. Leading international organizations like the World Bank, which used to only work with governments, are now working directly with NGOs and representatives of civil society – sometimes in opposition to elected governments. Between 1996 and April 2003, for example, the involvement of civil society in Bank projects grew from under half to over 70%, and the value of community-driven elements

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population of 6.45 billion in 2005 according to the Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2002 Revision* and *World Urbanization Prospects: The 2001 Revision*, http://esa.un.org/unpp.

[7] For a comprehensive view, see Gilbert and others (2000) and, especially, King (2002).

[8] Data are from April 2003, from "A Changing World Bank", posted on DevNews Media Briefs on the World Bank website.

of projects grew from $700 million to $2 billion.[9] These turns have reinforced the shift in policy agendas toward greater concern with poverty alleviation, human rights, environmental degradation, and civic participation—all of which push toward involving many actors engaged in local, bottom-up interventions rather than a few actors pursuing centralized, top-down measures (Jessica Einhorn, 2001). A second, concurrent change is that decentralization is occurring throughout the world, with central governments yielding greater powers of taxation and policy-making to regional authorities, many of which are learning on the job.[10] Activists may criticize specifics of Bank policies, but they find it increasingly difficult to make the case that the Bank has been simply ignoring key economic and social sectors.

The Knowledge Bank effort to date has been impressive in scope and ambition, but the World Bank's efforts have nevertheless received mixed reviews. Critics accept the energy and ambition of the Bank's knowledge efforts and have fired instead at the nature of the information disseminated. The loudest criticisms come from those who also assert that Bank staff have at times dragged their feet on environmental concerns, corruption, gender roles, human rights, and a host of other concerns.[11] Activists withdrew from a collaborative arrangement for knowledge dissemination, for example, and publicly scolded the Bank in an "open letter" that argues that the Bank's "internet gateway" overly privileges narrow pro-business interests over broader social concerns (Wilks, 2002). Other dissenting views have been collected by the Panos Institute (1998); Gmelin and others (2001); and Jha and others (2004). In 2003, the World Bank's own Operations Evaluation Department (OED) issued a comprehensive review that echoed many of the outside complaints (Gwin, 2003).

While finding much to celebrate in the main text of the OED review, Appendix G contains the results of a survey of Development Gateway users in Bangladesh, Brazil, Poland, Senegal, and Tanzania. As noted above, the website has 700,000 users per

[9] Data are from April 2003, from "A Changing World Bank", posted on DevNews Media Briefs on the World Bank website.
[10] The Knowledge Bank strategy also has appealing political spins. While foreign aid is taken to task (e.g., Easterly, 2001 and 2002), providing information is hard to criticize as a source of weak incentives and inefficiencies. Funneling billions of dollars to Mobuto's Zaire fueled a kleptocracy. Funneling ideas and data to trouble spots is a safer bet.
[11] The UK-based Bretton Woods project is one source for critical perspectives (www.brettonwoodsproject.org). Another is the 50 Years is Enough movement (www.50years.org).

month, but only 10-20% live in developing countries and much of the site remains in English only (Gwin, 2003, p. 16). Among the main findings of the survey were (Gwin, 2003, p. 60):

- While finding the analysis technically sophisticated, "respondents were often critical of the Bank's ability to provide information that is realistic in light of local circumstances and responsive to local needs."
- "Frustration with the Bank's failure to consider alternatives. The majority of respondents complained that the Bank is too narrowly focused in the analyses and 'best practices' that it presents, with little or no attention to alternative perspectives."
- "Poor record in dissemination,"caused by too great a focus on governments and "top-down" approaches.
- "Mixed reviews on collaboration." Some were very happy with the way that the Bank collaborated and used local experties, while an equal number noted "condescension toward their own knowledge and experience."

Despite the sharp criticisms, most noted improvements and were impressed by the scope of the vision—especially for such a new initiative.

3. Contested knowledge

Doing better begins first with respect for the contested nature of much knowledge about development. The protests of the World Bank have not always been fair or accurate, but one does not need to be fully sympathetic to each particular claim to recognize that much about development remains contested. Debates rage about whether and how trade barriers should be dropped. Should controls be placed on international capital flows? Is improving education quality likely to generate large returns? Can microcredit make a large dent in poverty rates? Will aggregate income growth quickly reach the poor? As Ravi Kanbur, the former World Bank Chief Economist for Africa, writes, "the central issue is that frameworks for understanding and interpreting information and knowledge in the development process are contested" (Kanbur, 2002, p. 16).

The Knowledge Bank can be helpful here. Several years ago a World Bank mission went to Ethiopia to discuss privatization. They laid out their views to the

Ethiopian counterparts, but were rebuffed. The Ethiopians had gone to the World Bank web site and seen that there were competing views on privatization even within the Bank, and they determined that were more interested in the alternatives. Based on this knowledge, the Ethiopians sent the World Bank team back to Washington empty-handed.[12] The result may have been judged a failure by the Bank team, but it can be seen as a positive example of how a Knowledge Bank broadens discourse when there are competing views.

Outcomes are not always positive, thouhg. In other cases, the knowledge that is shared may be incomplete, not generalizable, or inappropriate. One respondent to the World Bank OED survey, a government worker in Tanzania, noted that "Some Bank experts are biased, based on their experiences of what has worked elsewhere in the world, with little attention to local needs or ideas" (Gwin, 2003, p. 69). A government worker in Bangladesh, similarly, noted, "My general impression is that the Bank presents information and perspectives that support its own policy agenda" (Gwin, 2003, p. 65). And a journalist from Senegal asserted that "The Bank often ignores potentially useful solutions from other parts of the world which were not sponsored or supported by the Bank (for example, rural electrification in Morocco)" (Gwin, 2003, p. 65). Other respondents were more positive, but the overall tone of responses quoted in the OED report is both wariness and an eagerness for more information.

Analyses of knowledge banking cannot be divorced from a reckoning of the broader incentives, constraints and opportunities experienced by the staff of international organizations. William Easterly, for example, suggests in *The Elusive Quest for Growth* that poorly-designed incentives push recipients and donors to put their private gain ahead of improving social welfare (Easterly, 2001), a reading that echoes the public choice analysis of Niskanen (1971) and, as applied to international organizations, Frey (1984), Vaubel and Willet (1991), and others. Part of the problem according to Easterly is that World Bank staff have been rewarded professionally according to the quantity of loans rather than their quality, a problem noted widely since "the Wapenhans Report" (World Bank, 1992) but which, Easterly argues, remains a problem a decade later.

[12] Steve Denning related this story to me. (Interview, Friday, July 19, 2002, Washington, DC).

Others point to problems created by "cultural divides" – due to professional training, upbringing, or social class – that may open the eyes of staff members to some phenomena but that make it harder to see others. Stern and Ferreira (1997), for example, report on a survey of 465 World Bank staff members completed in 1992. Of these, 55% had graduate degrees in either economics or finance and that, while Bank staff are drawn from many nations, nearly 80% had attended either British (74 respondents) or American (290 respondents) graduate schools. This creates potential biases, as Stern and Ferreira note (pp. 587-8):

> U.S. graduate schools, not surprisingly, tend to focus on U.S. examples, and the United States is in many ways a peculiar country. For example, it has a tax system and a constitution that are very different from those found in other countries, and a strand in political philosophy oriented toward individualism and against the state that is much more dominant than is the case in other countries. U.S. graduate schools, for example, have shown less interest in applied welfare economics, poverty, and income distribution than their counterparts elsewhere.[13]

The World Bank has set about trying to hire more sociologists, anthropologists, and the like, but it remains an institution whose intellectual work is dominated by economists. Since much of the Bank's business is economics, this seems sensible, but it has implications for how development issues are discussed – and how they are not discussed.

James Ferguson (1994) tells a cautionary tale in *The Anti-Politics Machine*. Ferguson describes a World Bank-CIDA agricultural project in Lesotho, analyzing it memo by memo. Ferguson argues that the project failed for lack of attention to the political ambitions of the Lesotho government, as well as due to a mischaracterization of the economy as being based on traditional subsistence agriculture--despite the existence of an active cash crop sector and extensive labor flows to the South African mining sector. The Bank reports and memos cited by Ferguson, however, are full of data on technical aspects of agriculture, hardly breathing a word about politics or the broader

[13] These views are very much "inside" views. At the time of writing the chapter, Ferreira was a member of the World Bank staff and Stern was a professor at the London School of Economics and the Chief Economist of the European Bank for Reconstruction and Development. He became World Bank Chief Economist and Senior Vice President, Development Economics in July 2000.

dynamics of the economy. Ferguson's book is a reminder of the blinders which can descend as experts focus sharply on their field of expertise.[14]

A related example is given by Stephen Denning (2002), quoting a report by the World Bank Operations Evaluation Department on the Zambia Structural Adjustment Credit of 1990:

> Projects and programs of technical cooperation are developed within the governing sets of assumptions or paradigms, and must comply with them, even in situations where the staff and the client know that the prevailing paradigm is highly unreliable, if not downright wrong. The phenomenon is quite striking in the field of economic adjustment where an operation containing a few important measures is expected to return an entire economy to a strong growth path within a miraculously short timeframe, despite a backlog of decades of economic mismanagement. When, as might be expected, the operation by itself fails to achieve the promised economic growth, reports are written assigning reasons for the shortfall. Ironically, the one cause that such evaluation reports are not allowed to discover is frequently the real reason – namely a faulty paradigm.

Ideology will inevitably color knowledge sharing, not necessarily in a self-conscious way but as a matter of course. Expecting experts to get beyond their ideological frames is a tall task, and an unreasonable one. A more practical solution must thus rest with greater transparency and data availability, so that ideas can be put to empirical tests and debated by others in the light of relevant evidence.

4. Where are the numbers?

Issues of ideology play out in basic data collection efforts as well–in particular in whether or not data is collected in the first place. Simple theories of the policy process suggest

[14] Seers (1962) has further speculations on "why visiting economists fail".

that where ideas are most strongly contested, they should also be most subject to empirical scrutiny. Studies will be mandated, data will be collected, and researchers will try to get to the bottom of debates. It is also natural to assume that where data is weak or absent, analysts will be most circumspect.[15]

But the opposite is very often the case – with clear consequences for knowledge creation. Jeffrey Hammer puts forward the following "law" based on two decades of work as a research economist at the World Bank:

> The intensity of people's views on a topic is inversely proportional to the amount of evidence available on the topic.[16]

Hammer's law suggests two different interpretations. First, without being confronted with convincing data, observers can maintain strong positions without challenge. But there's another reading of Hammer's law. Instead, people with strong positions (either for careerist or ideological reasons) may actively work to discourage data collection that could undermine their credibility. If their views have initial currency, data collection yields a large downside risk with little compensating upside benefit. In contrast, if one's position is already on the outs there will be more support for data collection since the downside risk is more limited while the upside potential is greater.

The example of microcredit below illustrates the incentives that work against data collection, and Lant Pritchett (2002) raises similar issues when wondering why so few randomized evaluations of education and health get done. Prichett asks whether "it pays to be ignorant" for advocates of social programs. The essential problem is one identified by Aaron Wildavsky (1972) with regard to the paucity of "self-evaluating organizations". As Van Evera (2002, p. 2) writes in his parallel analysis of why governments fail to self-evaluate:

> Aaron Wildavsky contends that organizations poorly evaluate their own policies and beliefs because they often turn against their own evaluative units, attacking or destroying them. Evaluation promotes innovation and change. This threatens the jobs and status of incumbent members of the organization. Hence incumbents often seek to hamper or prevent

[15] See, for example, MacRae and Whittington (1997).

[16] Conversation with Jeffrey Hammer, Friday, July 19, 2002, World Bank. Counter-examples exist, but the broad observation remains striking.

> evaluation and to punish evaluators. These incumbents tend to dominate the organization's decision making, so evaluation finds itself with stronger enemies than friends within the organization. Hence self-evaluation is often timid and ineffective.

The spirit of the analysis also helps to explain why organizations are generally difficult to reform from within. Less cynically, the anti-evaluation bent may emerge when staff members have strong and true beliefs in the worth of the project—and fear that formal statistical evaluations may fail to adequately measure the project's direct and indirect benefits.

Bertin Martens (2002) frames the issues in terms of the expected precision of evaluations of foreign aid projects. In Martens's analysis, "woolly" reporting will arise when it is in the interest of politicians, NGOs, or other interested parties to ensure that measured performance appears to fall close to expected targets. In statistical terms, it becomes difficult to reject that targets have been met when standard deviations around the estimated coefficients are larger, and the political outcome will often be one that guarantees large standard errors.

But this is only one part of the story. It is clear why program managers typically eschew evaluations – they are time-consuming and carry the risk of bad news--but why don't advocates of health programs, say, push for better studies of competing education programs? Or why can't other groups provide the required pressure? Martens argues that one important pressure group, taxpayers, are in no position to evaluate performance for themselves: "contrary to domestic aid programs, where taxpayers can experience the performance of programs themselves and obtain first-hand information, in foreign aid programmes taxpayers pay for the programme but do not get the benefits" (Martens, 2002, p. 170). Pritchett argues that log-rolling (we won't evaluate you if you don't evaluate us) explains an equilibrium where practitioners in different sectors agree not to evaluate anyone seriously. These lines of argument suggest that the lack of data is not a temporary deficit; it is a systemic feature of development work. The analysis of Matsui and Morduch (2003), described below, suggests that the problem is inherent in the nature of knowledge as a public good.

5. Knowledge as a public good

As asserted by Chenery and Stiglitz, international agencies like the World Bank can claim responsibility for providing information because information is a public good; it will thus be under-provided unless the public sector steps in (Stiglitz, 1999). The logic reflects a core principle of economics, drawing on Adam Smith and formalized as a basis of public economics by Paul Samuelson (1954).

Like a lighthouse, the classic example of a public good, information is (1) non-rivalrous (use by one individual does not diminish use by another) and (2) non-excludable (no one can be easily excluded from using the product or service). The result is that incentives to *voluntarily* pay a firm for the services of lighthouses are severely reduced, providing the government with a rationale to step in to improve matters. The same holds for much information: it crosses boundaries freely, and it too will be insufficiently supplied unless *international* agencies step in to improve matters (Stiglitz, 1999). Yes, there may be important independent information-providers, but, the logic goes, their contributions will typically be insufficient. Thus, it is asserted, there is an important role for international agencies to collect data, conduct research, and disseminate understandings – or at least to support those activities.[17]

The tension is not with the theory, which is sound. It is with the assumption that there will be agreement on which information to collect and disseminate. When ideas are contested, the role of knowledge banks becomes far less clear. One general set of incentive problems is raised by Anupam Khanna (2000, p. 9), writing from within the World Bank. He notes that:

> Much of the knowledge and information generated at the World Bank also has the character of a public good, especially when it is disembodied and codified. This of course sits well with the cooperative multilateral status of

[17] Theory says only that international agencies may have a role in financing the provision of global public goods, theory does not say that international agencies should provide the goods themselves; see, e.g., Jayaraman and Kanbur (1999). Stiglitz (1999) makes a slightly less bold claim with regard to public goods, arguing that the hallmark of nonrivalry is that the marginal cost of provision to another user is zero. This, he claims is true for knowledge provision, so social optimality implies public distribution. At the same time, though, he notes that people may often be excluded from access from information, making it an impure public good in those cases – and making it possible to charge for receipt of information (a fact that the consulting industry – and universities—understand well).

> the institution whereby it has a legitimate role in filling gaps in the provision of public goods caused by market failures. However, this does attenuate internal incentives for efficiency due to diffuse accountability and soft budget constraints typically encountered in the public sector. More important than cost inefficiencies, however, is the concern that the lack of adequate market tests may also lead to poor quality, for example though inadequate customization of knowledge transfers.

Khanna suggests that inadequate customization of knowledge may be a product of lack of effort on the part of Bank staff, produced by inadequate incentives to do better.[18] But the critique can go further – rather than generically poor quality knowledge sharing, could incentive systems lead to the promotion of certain kinds of knowledge that are deliberately shaded to further the bureaucratic objectives of Bank staff? Or, as in the discussion of (lack of) data collection below, might generically poor quality knowledge transmission be a mechanism to encourage particular decisions on the part of recipients?[19] Theoretical work on information transmission in macroeconomic contexts, for example, suggests that policy advice may at times be *deliberately* shaded to such a degree that it is difficult to ignore. In a more general theoretical setting, Crawford and Sobel (1982) argue that advisors have incentives to limit the richness of information they provide when they perceive potential conflicts with recipients.[20]

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[18] Low quality need not be a function of lack of overall effort. It may be the opposite: over-burdened staff with too many tasks to manage may not be able to be as attentive to any given task as they would like.
[19] Martine Haas (2001) suggests the opposite possibility based on her study of the internal efficiency of World Bank operations. She suggests that too much information can undermine projects where absorptive capacity is low. She does not suggest that this is strategic, but one might imagine that in some cases it could be. Just as with lawyers who sometimes dump too much information on opposing counsel, it may be strategic sometimes to provide too much information when trying to shape the actions of recipients.
[20] The observation that "knowledge" may be controlled and regulated by powerful institutions in society to foster particular conversations and ways of thinking (and to dissuade others) is not new (Haas, 1990). Both postmodern social critics and Marxist scholars have argued the point forcefully, and they been widely influential – although not, notably, within mainstream economics (Foucault, 1981; Lyotard, 1984). Even staying within a strictly neoclassical economic frame, though, questions of the strategic generation and sharing of information and knowledge – and implications for efficiency and equity – can be unpacked fruitfully (e.g., Dewatripont and Tirole, 1999). The kinds of questions this could raise are suggested below.

Take the issue of quality shading, for example. Under the incentive system criticized by Wapenhans, the Bank operations staff were rewarded for getting loans out the door. Thus, projects that involved large loans and little spadework were especially attractive. A cynical view suggests that this helps to explain the positive attention given to financial de-regulation in the World Bank's knowledge sharing during the 1990s.[21]

Another, related problem identified by Ferguson was a culture that exhibited low tolerance for project failure – even though, as Ferguson (1984, p. 8) suggests from his experience, "Again and again development projects in Lesotho are launched, and again and again they fail; but no matter how many times this happens there always seems to be someone ready to try again with yet another project." The World Bank's failure rates in 1991 were about one third, with failure rates over 80% in some African countries (World Bank, 1992). In 1996, 31% of projects were still "unsatisfactory", falling to 22% by April 2003.[22] These numbers are much higher than casual readers of World Bank publications would suspect. The problem for the Knowledge Bank is not so much that projects fail "again and again" but that the level of discussion of failure is inadequate. As taken up below, what results is lists of generic "Best Practices" but seldom careful renderings of mistaken approaches from which recipients (and other Bank staff) might more fruitfully learn.[23]

The shading and partial reporting may not be an explicit strategy; it may arise instead by not bending over backwards to provide alternative views and specific caveats. Where it is unreasonable for Bank staff to do the bending over backwards themselves, matters could be improved by providing links (and funding) to outside organizations that can fill in the knowledge gaps and alternative views, steps that in some cases are already being taken by providing outside organizations that have been allocated space on the Bank's "development gateway."

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[21] Bill Easterly suggested this example based on conversations with colleagues working on financial reform. Nancy Birdsall, a former senior staff member of the World Bank, has countered (in comments on an earlier draft of the present paper) that the Wapenhans Report diagnosis may be over-played.

[22] Data are from April 2003, from "A Changing World Bank", posted on DevNews Media Briefs on the World Bank website, www.worldbank.org.

[23] Students of public policy will note a change from a time when teaching focused mainly on intensive case studies of efforts that went awry. One difficulty is that that kind of pedagogy is harder to accomplish through distance-learning and web-based methods.

Giving more credence to alternative views may help the Bank's ability to make its own case. Kanbur (2002), for example, suggests that the appearance of one-sidedness can make knowledge provided by the Bank seem less than fully credible. Thus, to Kanbur (pp. 17-18),

> The central question is whether research in institutions like the Bank, who have to take stances and views on policy in their operations, can ever command wide enough trust to be a [global public good]. This is no way to impugn the motives of the many fine individuals who do research in these institutions. But they do face constraints, and this is entirely to be expected in an operational organization. The point is not whether there should or should not be a research organization in an operational institution – any such institution will need a group dedicated to specific analysis and to interacting with outside analysis. The point rather, is whether [International Financial Institution] research can claim the mantle of [a global public good]…Our conclusion on this is a skeptical one, at least where there is a widespread perception that the research is in the service of a particular line or policy stance to the exclusion of others.

So Kanbur argues that while "information" in the abstract may be a global public good, "World Bank information" may be too tainted to be so.

A different approach is to accept "World Bank information" as a package of contant that may be "relevant" or "shaded" (whether the shading is deliberate or not). Having greater access to more information, even if it's not wholly relevant, can still be useful. The question is whether recipients will be able to sort out the relevant content from the rest. To take matters further, imagine that analysts at the United States Agency for International Development were convinced that rapid economic reform is the surest means for success, while others believe that slower, careful reform often works better (as many Japanese economists have argued; Stiglitz, 2000). Because analysts at USAID are well-endowed with resources to complete analyses and disseminate results widely, they spread the word on the merits of rapid reform. It would be hoped that helpful aspects of their advice can be embraced and any unhelpful parts could be ignored.

But the very nature of knowledge as a global public good can create difficulties in distinguishing helpful from unhelpful advice. This is because, just as individual users of policy advice lack incentives to generate comprehensive knowledge bases on their own, they also lack incentives to build the capacity to independently assess the relevance of contested claims.[24] The dilemma is that the kinds of information required to verify, balance, and extend information provided by Knowledge Banks are often, themselves, public goods. The typical Knowledge Bank, though, is not set up to provide evidence that contradicts and questions the very information it seeks to disseminate as being most useful. Thus, independent users of the information, limited by their own resources and analytical capabilities, have little way to carefully judge World Bank (or other) studies for themselves.

Matsui and Morduch (2003) describe a theoretical context in which "knowledge" is ultimately a product of inputs provided by organizations like the World Bank and by local users. It is a context consistent, for example, with Stiglitz's (2001) dictum to "scan globally and reinvent locally." The World Bank can complement the local efforts or, possibly, supplant them, and information content may be shaded.

The framework takes as given that World Bank knowledge inputs may be a substitute or a complement (in the traditional economic senses of those terms) with local knowledge inputs. When the overall objective is to maximize the co-production of the final knowledge outcome that arises when all inputs are combined, optimal strategies will be conditioned on the nature of the complementarities and possibilities for substitution.

In the case of complements, the Bank can provide information inputs and help to build local analytical capacity in ways that reinforce the possibility of "crowding in" local knowledge, a vision highlighted by King and McGrath's (2004) survey of knowledge banking efforts by development agencies. The idea is already part of the Bank's Global Development Learning Network initiative, for example, as well as efforts

[24] So unlike, for example, assumptions maintained in the seminal theoretical work of Milgrom and Roberts (1986), information is not verifiable.

to ensure that the Bank's well-regarded Living Standards Measurement Surveys are comparable and publicly accessible.

Alternatively, restricting data access and providing information of limited usefulness (so local efforts also bring lower returns), can crowd out local efforts. This much should be obvious. In the case of substitutes, though, the Bank might crowd out local efforts by taking what had been the favorable path above—i.e., by providing information that appears to be so useful that local efforts are not worth making.[25] Crowding out local efforts is not inherently bad, but in principle there will be cases in which overall welfare is reduced, even though local efforts are voluntarily restricted.

The idea that knowledge is a public good thus does not, in itself, justify the Bank's actions at all times. Since local knowledge inputs may be public goods themselves, the theoretical justification for the Knowledge Bank is conditional on the nature of the co-production of knowledge—i.e., the way that "global" and "local" knowledge inputs combine to produce relevant understandings by end-users. As King and McGrath (2004) argue, effective knowledge banking efforts should thus be built from the bottom up.

6. Lessons from microcredit: Are "best practices" always best?

Microcredit (or "microfinance") involves the expansion of banking services in poor and low-income communities, made possible by combining lessons from both formal and informal financial institutions (see, e.g., Armendariz de Aghion and Morduch, 2005). Microbanking is in many ways a perfect match for knowledge banking: it is a well-defined intervention that can take many forms and be started at a variety of scales. The

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[25] A different case in which too much knowledge can be problematic emerges when there is "herding." Consider the case of a favored new idea like microcredit. It is one of many possible solutions, but it has generated particular attention in the past decade. With each new program and each replication, the microcredit community learns more about the practice. Over time, prospective microlenders have richer stories and more reliable data by which to judge whether or not to join the movement. And, with that data, they are more likely to jump aboard. In turn, another example is created, adding more stories and more data—and a stronger push toward microcredit. The trouble is not that microcredit is a bad idea, it is that there are other ideas that do not get adequately tested simply because they lack an initial impetus. In recent theoretical work Burguet and Vives (2000) show that there are cases when keeping quiet about new ideas – taking the opposite approach from the Knowledge Bank – can improve welfare. This is because keeping quiet limits the chances that an "inefficient" fad will emerge and gives a wider variety of ideas a fighting chance. As Burguet and Vives conclude: "more public information may hurt…" The policy conclusion is not to stay mum but to be aware that providing information can sometimes (unintentionally) lead to disproportionate focuses on particular interventions at the expense of others.

"microfinance gateway" launched on the internet by the Consultative Group to Assist the Poor, a donor consortium based at the World Bank, is an impressive effort to share knowledge and spread current thinking, paralleling the larger and broader "development gateway."

There are a range of approaches to providing microcredit, but the major donors have settled on a particular set of ideas about the right approaches. The microfinance gateway contains a spectrum of views, but most support the donor consensus. Those ideas hinge on the argument that poor customers are able to profit handsomely from small loans—and thus should be able to pay high enough interest rates to support microbanks operating on a commercial basis (e.g., Gonzalez-Vega 1994). The role for donors in this "new world" of finance for the poor, it is argued, should be limited to aiding new institutions during their initial start-up years.[26] Behind this vision is the assumption that these new commercial microbanks, with boards seeking profits, will not drift toward richer clients at the expense of the poor. It is also argued that customers should look elsewhere for support if they cannot pay full-price for financial services—they should turn to traditional charities, for example, or health and education programs. And, it has been argued by those pushing this line, that providing financial services are sufficient: there are no real gains (and considerable complications) to also providing health or skills-training services alongside finance. In sum, the push toward commercialization is viewed as the most effective path toward poverty reduction on a large scale.[27]

These are cogent arguments built on particular assumptions about household behavior and the nature of returns to capital. They are not universal truths, though, and are apt to vary with the contexts in which microcredit operates. All the same, the major donors' list of microcredit "Best Practices" follows the single-minded orthodoxy above. In keeping with that particular thought-chain, the Best Practices list is long on ways to improve the financial success of the new institutions and short on other ways to effect meaningful social change in communities – and, perhaps most strikingly, short on ways

[26] That it is a "new world" is a characterization taken from Otero, Rhyne, and Houghton (1994). See also Robinson (2001).

[27] Thus the public position of USAID and the World Bank's Consultative Group to Assist the Poor is against ongoing subsidies for these new poverty alleviation efforts, although basic economic principles dictate that if the subsidies are effective in delivering important social changes to the poor, then the subsidies should be taken seriously as a policy tool. CGAP positions are succinctly summarized in their "focus notes" and "donor briefs" available at www.cgap.org. For a broader view, see Morduch (2000).

of considering trade-offs between the two.[28] Moroever, the "Best Practices" put forward as "consensus" guidelines are notably devoid of context, implying that there may be many paths but a single direction to follow in achieving economic and social goals.

The debates over the applicability of the vision—over the pros and cons of commercialization and subsidization are neither mystical nor metaphysical; to the contrary, they involve largely straightforward technical questions. The underlying empirical questions (How great are returns to capital for different groups below poverty lines? How high are household impacts?) are answerable with the right data, but getting comprehensive data is complicated enough that independent researchers have had difficulty making headway on their own.

Donors have not helped as much as they might have. Financial data on microcredit has been collected, posted, and analyzed with much greater energy than is the case for rigorous data on social outcomes.[29] Just a scattering of reliable control-treatment impact studies have been completed in the past fifteen years. Few programs have completed even basic, comparable surveys of their clients. Thus they can not easily communicate to outsiders exactly how poor their clients are (e.g., the percentage below national poverty lines). Donors have instead relied on average loan size as the rough-and ready metric of the depth of outreach, a data point that is calculated by microbanks in the course of their financial accounting. Since poorer customers tend to take smaller loans than richer countries, the average loan size given by a microbank gives an indication of how poor their clients are, but the measure is widely known to be noisy and often misleading (Dunford, 2002). The situation became so problematic that in 2004 the US Congress felt compelled to force the US Agency for International Development to develop practical methods for surveying the living standards of microcredit customers, a stipulation at the heart of "The Microenterprise Results and Accountability Act of 2004."[30]

[28] In practice, there is not a single official list but instead a series of partial lists that recur in reports and policy notes of key donors and advocates. The donor community is a large and ever-changing group, and microcredit conversations are not static. While there are important counter-tendencies on the margins, the observations here capture general tendencies within the movement.
[29] See for example the *Microbanking Bulletin* at www.mixmbb.org.
[30] "The Microenterprise Results and Accountability Act of 2004," 108th Congress, 2d Session, H. R. 3818, February 24, 2004.

Why are we missing exactly the data that practitioners and policymakers need to contextualize Best Practices, explore assumptions, and draw specific lessons for the wide variety of microcredit contexts? One explanation is that data collection is expensive—and that incentives work against funding public goods. Another explanation for the muddiness is that the lack of clarity has yielded important benefits: it has helped microcredit to become popular quickly, riding a crest of success stories unchecked by hard numbers. It has also fostered a remarkable degree of consensus and good will for the movement, built on fuzzy measures of inputs and outcomes. Most microcredit institutions themselves have not been eager to collect sharper data for reasons described above--but it is likely that they would have with donor pressure and support.

Now that the microcredit movement has matured, the time is opportune for deploying that pressure and support. USAID has now advanced several model impact studies and the Consultative Group to Assist the Poor has developed tools to gauge poverty levels. The World Bank's research committee is also sponsoring novel new studies on microcredit impacts and mechanisms. These are good starts, and they reflect shifts in leadership that have brought ideological loosenings, coupled with new understandings about microcredit and external pressures (from the U.S. Congress, for example, and from increasingly active "social investors" in the private sector).[31] While the trends are positive, the earlier experience of selective data collection and analysis is a reminder that knowledge distribution is partly a political outcome, determined in large part by who is at the helm of knowledge banks and the constraints under which they operate.

7. What next?

Hollis Chenery, in the quote at the top of this essay, highlighted the successful "joint sponsorship of agricultural research by multilateral and bilateral aid agencies." Evenson, Pray, and Rosengrant (1999) bear this out for India, calculating that the marginal internal rates of return to agricultural research between 1956 and 1987 were over 50% for public

[31] While Best Practices get circulated, failures tend to be papered over and forgotten (unless it serves a useful objective of donors). A nice exception is Elisabeth Rhyne's (2001) recent book on financial and institutional problems that competition brought to commercialized microcredit in Bolivia and Jean Steege's (1998) anatomy of the boom and bust of Colombia's Corposol. Discussions of financially sound institutions that fail to achieve social missions are far harder to find.

research—higher than the marginal returns for extension, imported HYVs, or private research and development. It is a vision of knowledge banking that goes beyond "knowledge sharing," the preferred term of the World Bank (see, e.g., www.worldbank.org/ks/).

The Bank's own Global Development Learning Network initiative, Living Standards Measurement Surveys, and research efforts provide models for more active knowledge creation efforts (Squire, 2000). As noted, above, though, both knowledge creation and knowledge sharing are likely to be driven in part by bureaucratic and professional incentives, not just by the pure pursuit of relevant information. The essential problem highlighted above is that knowledge about development is contested and that learning often arises by synthesizing viewpoints and experience from multiple angles. While it is often said that the knowledge collected by development agencies has the property of a public good, dissent and contrarian evidence are often public goods as well. Strategies that build on this recognition cannot rely just on synthesizing existing experience as seen from the vantage of development agencies; optimal strategies will also require active support for systematic experimentation with competing models and activist data collection efforts. Creating more favorable incentives can be done only in a culture that tolerates failure and seeks to learn from it; judges performance by outcomes, not inputs; and respects alternative positions and seeks open debate.

The World Bank is arguably the world's most important creator of data on development, but the lack of relevant data, particularly on project impacts and household behavior, continues to be a constraint. There will always be arguments against collecting data and completing high-quality empirical evaluations, so a strong hand may be required to encourage and coordinate efforts. One challenge will be to secure funding and find mechanisms to ensure voluntary participation by households in the surveys. In principle, there will be times when compensation is necessary to encourage voluntary participation in experiments—on the principle that the knowledge gained is, after all, a public good to be shared globally. Ultimately, the data collected should be publicly accessible.

Implementing high-quality independent impact evaluations for all Bank projects would be burdensome, though, and one option is to evaluate project impacts on a random basis—just as tax authorities regularly complete random audits of tax returns. In this case, though, an independent evaluation team would enter the picture from the start of the project and would be given the authority (and funding) to modify the project as needed for the evaluation, possibly introducing randomized elements or staggering the program roll-out in ways that foster evaluation. The possibility of being chosen would have to be recognized from the start and accepted as part of the standard operational protocols. As with tax audits, the probability of evaluation could be increased by specific features of the project deemed of particular importance to learning efforts. If implemented, the approach would take the development community closer toward sorting through current debates—and would take the Knowledge Bank closer to meeting its potential.

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