



Evaluation of “Knowledge for Change” Research Projects Completed between 2012 and 2019

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Executive summary

This evaluation report, the third in the KCP's almost two decade-long history, reaches the same conclusions as its two predecessor evaluations – namely that the KCP continues to be an effective means for donors to fund high-quality, meaningful research for the benefit of the global development community. The report evaluates fifteen randomly-chosen KCP-funded research projects, roughly 10 percent of 152 research projects completed between 2012 and 2019. Of these fifteen: five were impact evaluation studies linked to Bank-financed projects; four were explicitly devoted to the development of the World Bank's central databases; another four explored innovative ideas with varying success; and two explored macro-policy questions.

Every one of the fifteen projects focused on interesting and important development questions, or provided the data and models to do so. Using efficacy and process criteria, 12 projects were judged to range from “very good” to “outstanding” and the remainder, while yielding disappointing results, still added value. None were outright failures.

The evaluation points to several factors underpinning this high success rate: the World Bank's large set of skilled, diverse, and qualified researchers whose focus is solely on addressing policy design and implementation challenges confronting developing countries; the tight management of these researchers who are encouraged to work closely with the Bank's vast network of country and global practice departments that work closely with client governments on development issues in real-time; and economies of scale and scope in the Bank's broad research program that permits cross-fertilization across sectors, countries, and regions, and flexibility to reallocate effort when circumstances require.

Based on a detailed assessment of each of the fifteen research projects, the evaluation ends with five recommendations that are aimed at asking the Bank's management to raise its standards yet higher. Specifically, this report recommends that:

- The Development Economics Department (DEC -- which manages the KCP) could tighten the criteria for selecting which research proposals receive KCP funding;
- A random selection of implementation completion reports of completed research projects should be used by DEC to genuinely reflect on what went right or wrong and what management lessons can be drawn to ensure an even higher success rate in the future;
- DEC needs to ensure that data generated by KCP-funded projects are accessible by the global development community through the Bank's web-based data portals as soon after project completion as possible;
- Now that digital storage is virtually costless, more attention could be paid to archiving all research outputs from KCP-funded projects – papers, articles, presentations, blogs, training materials -- in ways that permit easy access by the global development community; and
- DEC could expend greater effort at communicating the research findings of KCP-funded projects using different formats, languages and media outlets to better target its intended audiences – development practitioners, policymakers, NGOs, opinion makers, students, and the general public.

Evaluation of “Knowledge for Change” Research Projects Completed between 2012 and 2019

Vikram Nehru¹

Introduction

This is the third evaluation of research projects wholly or partially financed through the “Knowledge for Change Program” (KCP) since the program became operational in 2002. The first evaluation was conducted in 2007 and evaluated the entire program as well as all the 35 research projects that had been completed up to that point; and the second evaluation, conducted in 2012, did an in-depth evaluation of 25 randomly selected research projects from a total of 75 that had been completed between 2007 and 2012. This evaluation examines 15 research projects from 152 that have been completed under the second and third phases of KCP (KCP II and KCP III) between 2012 and now.

The terms of reference² states the evaluation’s objectives as follows:

“The primary objective of the proposed evaluation is to assess if KCP-funded projects achieved research rigor (the “Knowledge” part of KCP) and policy impact inside the Bank and beyond (the “Change” part of KCP). More specifically, the evaluation would aim to understand if the projects i) successfully addressed the proposed research questions, ii) helped enhance the understanding of development policies and processes, and iii) informed tangible policy changes at local, regional or global levels, including shifts in program design or policies in other Bank-supported operations. The evaluation will cover a set of 15 projects reflecting a range of themes, regions, sizes and approaches from the pool of completed projects since the 2012 evaluation.”

To ensure continuity with previous evaluations of the KCP, this evaluation used the same evaluation criteria as the 2012 report, namely:

- Relevance (did the research focus on the right issue?);
- Quality (did the research have clear objectives, adopt a rigorous methodology, and ensure transparency in its sourcing and use of data?);
- Reach (did it influence the development community, including other researchers?); and
- Impact (to what extent did the research inform policy decisions?).

The evaluation also used criteria to judge the practical conduct of the research, including:

- Did the research achieve its objectives?
- Did it adhere to its planned schedule?
- Was it cost effective?
- Did it help build capacity in the client countries?

In applying these criteria, the evaluation applied qualitative, subjective assessments.

¹ Distinguished Practitioner-in-Residence, Johns Hopkins University School of Advanced International Studies. The report was finalized on May 6, 2021. The author would like to thank Kerina Wang and Bintao Wang for their help in collecting the data and providing logistical support for this evaluation. They should, however, not be implicated in any of the report's findings, which remain the sole responsibility of the author.

² The terms of reference are available upon request from kerinawang@worldbank.org.

The conclusions of this evaluation align well with the results of the previous two evaluations. The KCP continues to be an effective channel for donors to fund high-quality economic research on the latest development challenges. It achieves this by tapping into economies of scale and scope offered by the World Bank's large number of research economists, as well as the institution's relatively strong organization, processes, management, and leadership. The Bank's work on research, data and analytics – of which the KCP is a relatively small, albeit critical, part – employs rigorous procedures that routinize project selection, management, supervision, and internal evaluation. The strong links between the research and operations departments help channel demand-driven research priorities from the field where project and economic advisory staff are constantly confronted by new and practical challenges facing policymakers, government departments, and project implementation staff. Finally, the Bank's research economists have access to proprietorial data generated through its enormous portfolio of past, present, and future project and program loans and its advisory and analytical services to developing country governments around the world.

A progress report on this evaluation was presented to the KCP Partnership Council – composed of representatives from KCP donor countries – on November 19, 2020. The assessment included an overview of the research issues covered by the selected projects, as well as some initial impressions of their broad impact on policy formulation and implementation, the Bank's internal policies and procedures, and on the economic research community at large. The interim assessment also included some recommendations on how the KCP system can be strengthened further. This final report does not deviate from the main messages and broad outlines of that presentation, but it does add some further details and nuances.

Some background to the 15 research projects examined in this evaluation

Process for selecting 15 projects for this evaluation

The 15 research projects randomly selected for evaluation were drawn from the population of 266 KCP II and III projects. Of these, 177 were completed between 2012 and 2019 (Table 1), but 25 of them were excluded for the purposes of this evaluation exercise because they did not go through the competitive KCP selection process managed by the Bank's Development Economics Department, or DEC. These exceptions comprised: 19 World Bank's flagship reports (such as the World Development Reports); four special initiatives of the Bank's Chief Economist; and two research projects specifically earmarked by donors as a condition of their funding. Of the remaining 152, 15 (10 percent) were randomly selected for evaluation without any further stratification by thematic area. A third-party-provided seed was used in a random number generator process to ensure project selection was unambiguously random.³

Project costs

The 15 randomly selected projects appear to be fairly representative of the population of 152 projects from which they were drawn. For example, 12 of the 15 randomly selected research projects were funded through KCP II, accounting for roughly 10 percent of KCP II's 122

³ The third-party provided “seed” was inserted into a random number generator in Stata which then assigned uniform random numbers to the 152 projects. The 15 projects with the smallest 10 percent of random numbers were chosen to be evaluated.

completed projects, and were drawn from all four of its thematic areas. The remaining three (of the 15) account for exactly 10 percent of the 30 projects completed under KCP III, and were drawn from three of its seven thematic areas. Moreover, the average KCP funding for the 15 randomly selected projects (\$142,176) was only slightly higher than the average KCP funding for the overall population of 152 research projects (\$133,239).

Table 1. Situating the research projects chosen for this evaluation

| Completed research projects | All projects under KCP II and KCP III | | Completed projects in KCP II and KCP III since 2012 | | Excluding flagship, CE initiatives, donor targeted funding | | Randomly selected projects chosen for this evaluation | |
|---|---------------------------------------|-------------------|---|-------------------|--|-------------------|---|------------------|
| | # of projects | Amount \$ | # of projects | Amount \$ | # of projects | Amount \$ | # of projects | Amount \$ |
| KCPII | | | | | | | | |
| Poverty Dynamics and Public Service Delivery | 51 | 10,177,211 | 39 | 6,591,140 | 36 | 5,243,389 | 4 | 621,717 |
| Investment Climate & Trade and Integration | 54 | 5,054,062 | 38 | 4,075,483 | 36 | 3,279,187 | 4 | 271,220 |
| Global Public Goods | 33 | 7,215,406 | 28 | 6,337,317 | 27 | 4,624,024 | 3 | 799,161 |
| Economic Development and Structural Change | 33 | 7,441,000 | 32 | 6,854,631 | 23 | 3,426,435 | 1 | 200,000 |
| Sub total | 171 | 29,887,679 | 137 | 23,858,570 | 122 | 16,573,036 | 12 | 1,892,097 |
| KCP III | | | | | | | | |
| Fragility & Risk Management | 7 | 732,700 | 1 | 200,000 | - | - | | |
| Innovation in Data Production Methods | 25 | 2,966,000 | 9 | 1,165,703 | 8 | 965,921 | 1 | 65,844 |
| International cooperation & Global Public Goods | 10 | 1,377,939 | 6 | 657,929 | 6 | 657,929 | 1 | 99,706 |
| Service Delivery & Aid Effectiveness | 9 | 1,375,000 | 4 | 549,887 | 4 | 549,887 | 1 | 75,000 |
| Growth & Job Creation | 16 | 1,586,500 | 6 | 624,095 | 5 | 474,164 | | |
| Poverty & Shared Prosperity | 14 | 1,958,196 | 7 | 1,031,453 | 7 | 1,031,453 | | |
| WB Flagship Reports | 14 | 5,895,919 | 7 | 3,085,027 | - | | | |
| Sub total | 95 | 15,892,254 | 40 | 7,314,092 | 30 | 3,679,353 | 3 | 240,550 |
| Total | 266 | 45,779,933 | 177 | 31,172,663 | 152 | 20,252,388 | 15 | 2,132,647 |

The Bank supplements KCP funding through its internal budgetary resources as well as from other external funding sources (Table 2). The KCP's share of funding can vary considerably and can be as high as 100 percent of the research project cost, including Bank staff time in situations where other funding cannot be secured. The weighted average share for the 15 KCP projects under review comes to 37 percent, their unweighted average is exactly 50 percent, and the median is 49 percent. It took special effort to obtain these numbers, so it is difficult to know whether these cost shares are representative of the entire population of KCP projects as comparable estimates are unfortunately not available. The important point to note, however, is that KCP funding supports the entire range of Bank research, from projects where there is considerable additional funding support internally and externally to those which are more speculative and risky and garner little or no supplemental funds. It is not a coincidence that projects where the KCP share was above 50 percent either had a large public goods dimension (because they focused on developing databases for eventual global release) or were inherently riskier (because they used evolving methodologies or explored cutting-edge issues).

Table 2. The total cost of the 15 randomly selected research projects from all funding sources

| TF # | Project Name | Sources of funding | | | | | | Share of KCP funding |
|--------------|---|--------------------|-------------------|---------------------|-------------------|------------------|------------------|-------------------------|
| | | KCP | Bank budget (DEC) | Bank budget (Other) | RSB ^{a/} | Other funds | Total | |
| TF018042 | KCPII - Equality of Opportunity in Global Prosperity | 238,357 | | | | | 238,357 | 100% |
| TF010373 | KCPII - Least Developed Countries and the Externality Impact of WTO Dispute Settlement | 75,472 | | 385 | | | 75,857 | 99% |
| TF010730 | KCPII - Open Metadata and Methods application | 363,600 | 10,080 | | | | 373,680 | 97% |
| TF0A4778 | KCPIII - Using big data to measure urban congestion | 65,844 | | - | | 20,000 | 85,844 | 77% |
| TF010291 | KCPII - Data Resource Center for Structural Economic Analysis | 159,837 | 56,577 | | | | 216,414 | 74% |
| TF013183 | KCPII - Structural Change in a Dynamic World | 200,000 | 156,707 | | | | 356,707 | 56% |
| TF010390 | KCPII - Economic valuation of losses due to 'Amazon dieback' | 275,724 | 114,513 | | | 120,000 | 510,237 | 54% |
| TF015098 | KCPII - Worldwide Governance Indicators 2014-15 | 48,341 | 49,842 | | | | 98,183 | 49% |
| TF012991 | KCPII: Early Childhood Nutrition, Availability of Health Service Providers and Life Outcomes as Young Adults: Evidence from Indonesia | 159,489 | 99,919 | | | 180,000 | 439,408 | 36% |
| TF012976 | KCPII - Macro and Micro Lessons from Project Data | 49,584 | 149,525 | | | | 199,109 | 25% |
| TF0A1278 | KCPIII - Trade Policy, Poverty and Shared Prosperity | 99,706 | 134,944 | | 98,536 | 225,000 | 558,186 | 18% |
| TF010782 | KCPII - How does the Speed of Justice Affect Firms? Experimental Evidence from Senegal. | 97,822 | 53,676 | 80,000 | | 320,000 | 551,498 | 18% |
| TF015194 | KCPII - Behavioral economics for better public service management | 124,123 | 35,000 | 30,000 | | 575,000 | 764,123 | 16% |
| TF0A4654 | KCPIII - Performance Pay in Customs Evidence from Madagascar | 74,982 | 103,345 | 100,000 | 93,999 | 192,520 | 564,845 | 13% |
| TF010644 | KCPII - Implementing a Multi-Disciplinary Tool for Social Capital Measurement | 99,748 | 10,000 | 20,000 | | 625,000 | 754,748 | 13% |
| Total | | 2,132,629 | 974,127 | 230,385 | 192,535 | 2,257,520 | 5,787,195 | 37%^{b/} |

^{a/} RSB is the research support budget allocated by the Bank's research committee which is chaired by the Chief Economist.

^{b/} Weighted average. The simple average is exactly 50%.

Note: the numbers are based on the tables on actual project expenditures in project completion reports as well as the expenditures in the World Bank's accounting system under the KCP-linked project code. Where there are multiple sources of funding for one project, task team leaders (TTLs) were consulted to confirm the amount of funding from sources other than KCP. As the system doesn't distinguish expenditures among different components under one project code, some of the numbers are TTLs' best estimates. Note that TTLs often spent time on KCP projects but didn't charge their time to the code in the system, and therefore these costs are not captured in this table.

Finally, KCP funding in total represents a small proportion of the Bank’s overall research budget (Table 3). While the 15 projects under review in this evaluation comprised roughly 10 percent of total KCP II and III funding since 2012, disbursements of all KCP funds averaged 8.5 percent of DEC’s non-staff expenses during the same period (and DEC’s budget represents only a part of the Bank’s overall research effort). While 8.5 percent may seem small, it is significant enough to make a difference to the Bank’s research output and quality. If well used, therefore, KCP presents donors with two opportunities: first, it helps donors work jointly with the Bank to advance agreed research priorities drawn from a large and sprawling development research agenda; and second, it leverages the Bank’s large, high-quality, and well-managed research capacity to efficiently and cost-effectively generate policy-relevant findings that can influence donors’ own aid programs.

| Table 3. KCP funding in the context of overall funding of the World Bank’s Research Department (in percent) | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| DEC admin budget as share of overall Bank administrative budget, including Bank-executed trust funds (%) | 3.4 | 3.0 | 3.1 | 2.7 | 2.7 | 3.0 | 3.0 | 2.9 | 2.7 |
| KCP II/III budget (new allocations) as share of overall DEC non-staff expenses (%)** | 6.6 | 11.5 | 8.8 | -* | 10.6 | 11.4 | -* | 6.1 | 6.0 |
| KCP II/III disbursements as share of overall DEC non-staff expenses (%)** | 9.6 | 7.9 | 9.1 | 10.8 | 13.1 | 14.2 | 5.5 | 3.7 | 2.8 |
| Share of 15 selected KCP II disbursements in overall KCP II/III disbursement (%) | 8.4 | 9.1 | 9.4 | 7.5 | 5.0 | 2.0 | 1.0 | 6.5 | - |
| Share of 15 selected projects’ total budget in overall KCP II/III Project allocation budget (%) | 4.8% | | | | | | | | |
| Memo items: | | | | | | | | | |
| Total KCP II/III budget -- new allocations (in \$ millions) | 3.5 | 5.0 | 4.3 | 0.0* | 4.9 | 5.5 | 0.0* | 2.9 | 2.7 |
| Total KCP II/III disbursements (in \$ millions) | 5.0 | 3.5 | 4.4 | 5.3 | 6.1 | 6.9 | 2.5 | 1.8 | 1.3 |
| * No CFP/IMC meeting was conducted in FY15, FY18 | | | | | | | | | |
| ** Note: Data are based on all active KCP II/KCP III projects at the time. These include the 177 KCP II/KCP III projects completed during the evaluation period, as well as other projects that had not closed by the end of that period.” | | | | | | | | | |

Program governance

KCP’s governance structure has remained relatively stable ever since the program was launched. Its main elements are the Partnership Council (PC), an internal management committee (IMC), a program management unit (PMU), and the individual research teams. Their roles and responsibilities are briefly examined below.

Partnership Council (PC): The PC, chaired by the World Bank’s Chief Economist (or her designee), consists of KCP donor representatives. The Chair can decide to invite other interested parties as observers. The PC meets annually (virtually or physically), sometimes in conjunction with an IMC-organized research conference dedicated to specific themes. The PC’s members (i) provide oversight and strategic guidance to the IMC on the activities financed by the KCP; (ii) serve as advocates for KCP-supported research in their respective organizations; (iii) review and discuss

progress in program implementation and offer recommendations for improvement; and (iii) discuss the long-term strategy of the KCP.

Internal Management Committee (IMC): The IMC is chaired by the Bank's Chief Economist. It consists of: i) the Chief Economist; ii) DEC's department heads, and iii) selected members of the Bank's regional and practice chief economists, depending on their connection to the research topics under discussion. The IMC evaluates and selects proposals for KCP financing based on clear criteria and priorities. It may also suggest and commission research, recommend synthetic policy products, and propose new priorities and themes.

Program Management Unit (PMU): The PMU is housed in DEC and serves as the primary interface and coordination body among all the KCP stakeholders. The PMU monitors the day-to-day progress and quality assurance of the program, manages stakeholder relations, and leads the production of annual reports. It also tracks performance and quality of the portfolio, coordinates and delivers the annual report to the PC, organizes the annual PC meeting as well as other related meetings, prepares and implements the annual budget and all outreach activities and communications, and organizes program evaluations.

Research teams usually consist of DEC research economists who often collaborate with operational economists as well as researchers and practitioners from outside the World Bank.

Project governance

The KCP cycle begins when DEC's management, with participation by the IMC, discusses urgent knowledge gaps and research priorities for the coming year and consults with operational units across the Bank. The discussions are shaped in part by the strategic guidance and direction offered in KCP's annual PC meetings. The priorities that emerge within the Bank are then shared in a concept note and discussed with relevant development partners.

KCP follows a five-step process to assess research proposals and, if approved, their implementation. The first step constitutes a call for proposals upon which research teams submit short concept notes to their respective department heads outlining their research ideas and proposed methodologies. The department heads screen these proposals in a first round of quality control, and those that pass muster are required to be expanded by the research teams into full proposals.

The second step begins when each full proposal is sent for review to two external subject matter experts who rate and comment on each proposal's analytical design, data, literature review, program implementation, policy relevance, and local capacity building—using a rating scale of 1 to 5 for each of these criteria. When the two reviewers have significantly different reactions to a proposal—defined as a difference of 3 or more in the overall score—the full proposal is sent to an additional external reviewer for a third review. Unfortunately, the KCP's PMU could not locate external reviews for projects approved in 2011 and 2012 (comprising eight of the 15 research projects selected for this evaluation); after 2013, all reviews were digitized and were made available, two of which had three reviews each.

The third step is when the IMC meets to decide on which proposals merit KCP funding (Table 4). Members of the IMC take into account the ratings, comments, and recommendations from the external reviewers. In addition, they take into account their own assessment of the overall strategic,

operational, and policy relevance of the proposal, the feasibility of the methodology, and the availability of funding. Unfortunately, no minutes are written for these meetings, so this evaluator could not ascertain: the rationale behind the decisions to reject or accept projects; why most projects were given less funds than researchers had requested; or whether the IMC required changes to the project's design based on the comments of external reviewers. Indeed, some researchers interviewed for this evaluation indicated that other than the approval notice, they received no guidance or feedback from the IMC. They did, however, receive a copy of the external reviewers' comments but had little direct incentive to take them into account.

| Table 4. Number of KCP grant requests and share that were approved | | | | | | |
|---|------------------|-------------------|-----------------|------------|-------------------|------------|
| | Requested | | Approved | | | |
| | # | Amount \$ | # | % | Amount \$ | % |
| KCP II | | | | | | |
| FY12 CFP | 42 | 8,645,716 | 21 | 50% | 3,450,000 | 40% |
| FY13 CFP | 47 | 8,179,300 | 26 | 55% | 3,050,000 | 37% |
| FY14 CFP | 45 | 8,254,083 | 29 | 64% | 4,301,000 | 52% |
| KCP III | | | | | | |
| FY16 CFP | 52 | 12,320,000 | 29 | 56% | 3,300,000 | 27% |
| FY17 CFP | 61 | 12,514,278 | 19 | 31% | 3,128,000 | 25% |
| FY19 CFP | 54 | 8,954,530 | 24 | 44% | 2,650,000 | 30% |
| FY20 CFP | 60 | 9,312,823 | 21 | 35% | 2,652,135 | 28% |
| Total | 361 | 68,180,730 | 169 | 47% | 22,531,135 | 33% |
| Note: - This table shows data of submitted full proposals, and how many were approved by the IMC. - The total number of approved KCP II and III projects in this table (169) doesn't correspond to the 177 projects that constituted the population of KCP II and III projects completed since 2012. There are two reasons for this: the 169 includes projects that are still ongoing and there are some projects that were approved before FY2012 but completed after FY2012. - A few projects with donor preferred funding were approved out of the CFP cycle; these are not included in this table. | | | | | | |

The fourth step is when the IMC's decisions are communicated to the research teams and work on the approved proposals begins. DEC department heads are responsible for monitoring progress and guiding research teams as and when necessary. The IMC receives periodic progress reports on the project. When the research is completed and grant disbursements end, the research team is required to submit an Implementation Completion Report (ICR) which contains an assessment of how the project may have changed through its implementation, the final results and outputs that were produced, whether and how the results were disseminated, the development implications, if any, resulting from the research findings, and whether any capacity was built in the developing countries where the research was undertaken. Department managers sign off on ICRs to ensure they meet minimum quality standards, but the IMC could also usefully review a random sample periodically to critically evaluate the objectivity of the ICRs and whether the IMC's approval criteria have withstood the test of post-completion scrutiny.

The fifth and final step is an external evaluation of randomly selected projects – such as this one – which often occurs several years after project completion. As this and previous evaluations attest, the timing of such evaluations remains a challenging governance question. Too long a delay, and the original researchers and managers have moved on, retired, or forgotten details, and records tend to get lost. Too short a gap, and it becomes difficult to assess the quality, efficacy, and development impact of the research projects, the findings of which take time to enter into the policy process and become operationalized in government programs and policies. This evaluation, like others before, has had to deal with these challenges.

Evaluation of the 15 randomly selected projects

Rather than categorize the 15 research projects according to their KCP-provided thematic categories, this evaluation categorizes them somewhat differently to better organize the evaluation.

- Five were impact evaluation studies linked to Bank-financed projects:
 - “Performance pay in customs evidence from Madagascar.”
 - “Early childhood nutrition, availability of health service providers and life outcomes as young adults: Evidence from Indonesia”
 - “How does the speed of justice affect firms? Experimental evidence from Senegal.”
 - “Implementing a multi-disciplinary tool for social capital measurement”
 - “Behavioral economics for better public service management”
- Four were explicitly devoted to the development of the World Bank’s central databases:
 - “Worldwide governance indicators 2014-15”
 - “Open metadata and methods application”
 - “Data resource center for structural data analysis”
 - “Structural change in a dynamic world”
- Four explored innovative ideas with varying success:
 - “Economic valuation of losses due to 'Amazon dieback””
 - “Least developed countries and the externality impact of WTO dispute settlement”
 - “Equality of opportunity in global prosperity”
 - “Using big data to measure urban congestion”
- And two explored macro-policy questions
 - “Macro and micro lessons from project data”
 - “Trade policy, poverty and shared prosperity”

These projects are evaluated below, grouped in accordance with these four categories.

Five impact evaluation studies

The five impact evaluation studies -- their achievements and challenges -- are presented below.

Performance pay in customs: Evidence from Madagascar. This research provided the analytical basis for an IDA-financed project on public sector performance. It aimed to understand how better human resource management can enhance customs performance and provided useful insights for the design and implementation of the loan. It is a good example of why applied research can achieve impressive results but, at the same time, founder when it comes to sustainability or

replication. The project – the first of its kind applied to customs administration – examined the effect of performance-based contracts on customs revenue performance in Madagascar’s main port of Toamasina. At the same time, it used an algorithm using reverse trade data from Madagascar’s trade partners to identify the risk of collusion between customs inspectors and brokers.

The results were nothing short of spectacular. The ICR states that clearance times of goods in Toamasina port dropped by a quarter, customs revenue climbed by 93 percent between 2015 and 2018, and four customs inspectors suspected of collusion either resigned or were suspended, while others retired early or were moved to positions less prone to corruption. Moreover, government officials were trained in the statistical methods developed under the project and the systems were embedded in the administration. In addition, the approach was expanded to include Madagascar’s smaller ports, with appropriate modifications (since they had fewer customs inspectors).

The findings of the research have been disseminated widely and were included in a World Bank research working paper.

Quite apart from the quality of the research and the willingness of the researchers to listen closely to the concerns of their Malagasy counterparts, what sets this project apart was the enthusiasm with which the authorities cooperated closely with the researchers. Without their willingness to share detailed human resource management and customs data and act on the findings of the research, the project would not have achieved the results that it did. Indeed, the Director General of Customs himself made several presentations of the project to international audiences, demonstrating ownership of the process and giving its findings considerable heft and credibility.

But while this project stands as among the more impactful in the Bank’s research portfolio, all its results were difficult to sustain. To be sure, some of the project’s successes -- notably the reduction in customs clearance times and upgrading of the IT infrastructure -- have been maintained till today. But other dimensions of the project didn’t do as well. As one would expect, the reforms were met with pushback by customs personnel and repeated strikes. In the aftermath of the reforms and new presidential elections, some politically powerful and corrupt inspectors maintained their positions of privilege. The new government replaced all the senior people in customs. The more blatantly corrupt officers were promoted to powerful positions. The Director General who spearheaded the reforms and became its most vocal advocate was himself accused of collusion and put in jail. The new administration nominally followed the performance-based contracts developed under the project, but not with the same enthusiasm as before. More importantly, customs personnel found new ways to game the system.

A second important takeaway is best expressed in a quote from the project’s principal researcher, who said: “The instinct to transplant our solutions to other locations is misguided.” While project designs and solutions are not necessarily transplantable, the approach of the Madagascar research team is certainly worth replicating -- listening to local partners, cultivating trust, experimenting and seeking continuous feedback, and mercilessly redesigning components that are not working. These takeaways have been adopted by Bank teams in ongoing research on customs in Niger, Somalia and Kenya. Such research requires a deep understanding of the country and its systems, trust and rapport with the counterparts, and above all, local capacity. The reality is that such research projects are labor-intensive and costly in terms of time and quality personnel. When conditions and circumstances differ, transplanted solutions almost certainly wither and die. Where institutional structures are weak, the Bank will need to research entirely new approaches for the solutions to be

successful and sustained. In the Philippines, for example, which has shown some interest in similar research, government capacity is greater and the history, strengths and weaknesses of institutions are altogether different. This further highlights the need for the Bank to pursue tailor-made approaches in close collaboration with their counterpart researchers and the authorities.

Early childhood nutrition, availability of health service providers and life outcomes. This research, conducted in Indonesia, provides an interesting example of how good research projects can: (a) lead to results that insert themselves through multiple analytical and policy channels; and (b) the most important output promised in the grant funding request may not (perhaps never) be completed, and yet the project could be considered a qualified success.

The research proposal asked for KCP funds to support the Fifth Indonesia Family Life Survey (IFLS5), the latest in a long line of longitudinal surveys starting in 1993-94 which covers multiple economic and non-economic indicators of well-being of individuals and households. The added value of the project was the insertion of modules to measure cognition and personality with the aim of linking these analytically to stunting, childhood nutrition, the availability of health service providers, and life outcomes. These modules, in conjunction with others, has spawned a significant volume of research.⁴

The grant funding request also promised analytical work linking the incidence of stunting with access to midwives. Significant analytical work was indeed done on this issue, with very promising results that were presented to the American Economics Association and the International Health Economics Association. The finding – that access to midwives can significantly improve the nutritional status of infants and hence lower the probability of stunting – has important, inexpensive, and easily implementable policy implications. But, for multiple reasons, these results were never written up for publication in a peer reviewed journal: one of the Indonesian counterpart researchers was called to an important government policymaking position (in part, because of his work on this project); the complex econometrics ran into methodological issues that required additional time and effort to resolve; and the principal researcher eventually moved on to other research (in his interview for this evaluation, he stated his commitment to finish the paper and submit it for publication).

How does the speed of justice affect firms? Experimental evidence from Senegal. This research project delves into the question of whether legal reforms can improve court efficiency, whether there is a trade-off between efficiency and quality of judicial decisions, and the impact of court

⁴ These include: Pengpid S, Peltzer K, Susilowati IH. 2019. "[Cognitive Functioning and Associated Factors in Older Adults: Results from the Indonesian Family Life Survey-5 \(IFLS-5\) in 2014-2015](#)". Current Gerontology and Geriatrics Research, 2019:4527647. Published February 3, 2019.

Peltzer, K., Pengpid, S. 2019. "[Loneliness correlates and associations with health variables in the general population in Indonesia](#)", International Journal of Mental Health Systems, 13, 24 (2019).

Rizky, M., D. Suryadarma, and A. Suryahadi. 2019. "[Effect of Growing Up Poor on Labor Market Outcomes: Evidence from Indonesia](#)", ADBI Working Paper 1002. Tokyo: Asian Development Bank Institute.

Maharani, A. 2019. "[Childhood Socioeconomic Status and Cognitive Function Later in Life: Evidence From a National Survey in Indonesia](#)", Journal of Geriatric Psychiatry and Neurology, <https://doi.org/10.1177/0891988719874120>.

Strauss, John, Firman Witoelar, Qinqin Meng, Yaohui Zhao, Bondan Sikoki, and Yafeng Wang. 2018. "[Cognition and SES Relationships Among the Mid-Aged and Elderly: A Comparison of China and Indonesia](#)", NBER Working Paper No. 24583 May 2018 JEL No. I15,O53.

Anwar SL, Tampubolon G, Van Hemelrijck M, et al. 2018. "[Determinants of cancer screening awareness and participation among Indonesian women](#)", BMC Cancer, 18(1):208, March 6, 2018.

efficiency on litigants (in this case, private firms). A cross-disciplinary team created a database that retraced the full history of all civil and commercial cases, down to each hearing. These data helped the Ministry shape its reform agenda. The key legal reform studied by the Bank's impact evaluation team was the imposition of a four-month deadline for pre-trial hearings (the most important source of judicial delays) in the First Instance Court of Dakar, together with new powers for judges to reject cases at the first pre-trial hearing or place them on a fast track. Since the rollout was staggered across the six chambers of the court (four commercial and two civil), the 5,297 cases in the database provided rich material for conducting an event study.

The study found that these procedural reforms reduced pre-trial hearings by 46 days, increased the number of summary rejections and fast-tracked cases, and increased the probability of strict deadlines for adjournments. An interesting externality was that tax disputes were settled faster, so legal disputes didn't hurt firms' revenues as much, thus increasing tax revenues. All this was achieved without a reduction in the quality of decisions; for example, there was no significant change in the number of appeals or the number and speed of decision hearings, while the reforms were perceived positively by private firms.

These research findings, important and insightful as they were, did not inject impetus for policy reforms in the judicial system beyond those already achieved by the project. The key reason was the lack of consensus within the Senegalese government. The principal counterpart agency for the World Bank, the Ministry of Finance, saw the potential for further efficiency increases in the judicial system as a way to raise Senegal's global ranking in the Ease of Doing Business Indicators and improve the institutional environment for private investment. The Ministry of Justice, however, saw the finance ministry's pressure as encroachment on its independence and resisted it forcefully. Thus, the government missed an opportunity for transforming the remarkable digital database collected by the researchers on the progress of cases through the court system into an ongoing low-cost management information system to provide real-time performance feedback to the Head of the Chamber on where delays were occurring in the system. Arguably, strict rules protecting the use of administrative data may have played a part in preventing the government from following through. If true, then future Bank efforts to build statistical capacity could perhaps be accompanied by technical assistance to improve data governance.

As is often the case with development research, however, where one opportunity is missed, another presents itself. The improvement in revenues and the increased speed of tax dispute settlement generated new interest and fresh opportunities to improve tax administration. In addition, the digitization of records meant that court judgments are now available online, marking important progress in judicial transparency.

The World Bank has also learned lessons from its experience in Senegal. The relevant global practice now has someone dedicated to pursuing evidence-based judicial reforms. It has also stimulated interest in collecting microdata on justice systems (as well as bureaucracies and civil services more generally) to identify opportunities for reform-driven efficiency improvements.

Finally, this research project also highlights an opportunity for improved practice within the Bank. Many research projects, such as this one, create potentially rich databases, some of which find an institutional home in the Bank's microdata catalogue. Others, however, remain with research teams and ultimately get buried in obscure archives, lost to future researchers, and untraceable except for the most determined data archaeologist. The Bank should consider a protocol that all microdata

collected by research projects be transferred to the microdata catalogue within a certain period after the completion of the ICR, and that these can then be made available for public use provided, of course, they meet confidentiality and privacy standards (see the section below: “Evaluation and recommendations”). This protocol is observed for all projects funded by the Bank’s Research Support Budget (RSB) and there is no reason why it cannot be extended to the KCP as well.

Implementing a multi-disciplinary tool for social capital measurement. Development economists point to four types of capital necessary for growth – physical, human, natural, and social. There is a large literature and significant advances on measuring the first three types, but little on the measurement of social capital, which is defined as the resources available to individuals and groups through memberships in social networks. This research project represents a contribution toward this relatively under-researched dimension of development.

The project focused on fragile states and consisted of two parts: measurement of social capital and whether Bank-funded community driven development (CDD) programs helped communities increase their social capital. In all three completed studies (Sudan, Burkina Faso, and Cambodia), researchers used a “lab-in-field” technique to measure social capital, and in two of them (Sudan and Cambodia), they then went on to conduct an impact evaluation study to assess whether CDD programs helped build social capital in areas where they were implemented.

Perhaps the most sobering result of the two impact evaluation studies was that the CDD programs had virtually no impact on social capital. In the case of Sudan, interestingly, self-reported participation in the community was greater than indicated by the lab-in-field study. Both studies emerge with this disappointing result, leaving unanswered the difficult question of how CDD programs can be designed to promote social capital accumulation. In the Burkina Faso study, the measurement of social capital shows that social connections based on similarities in ethnicity, religion, gender, age, household size, physical proximity and family play a bigger role than similarities in language, education and occupation are found to be less important.

The project was focused on numerous fragile states, so the study team had to start and stop in several locations as some went into crisis or the Bank had to stop operations in others. As a result, one of the studies reported here (Cambodia) was completed in 2020, seven years after the KCP grant was completed. Two impact evaluation studies are on hold (Zambia and the Central African Republic). And two are still ongoing (Angola and Azerbaijan).

The staggered implementation of this project makes a thorough evaluation challenging. Parts of the research are still ongoing. Some members of the research team in the project’s earlier years have moved on. Even so, it is clear that the research has been of high quality despite challenging conditions. At the same time, rather like other research projects evaluated here, some of the outputs mentioned in the projects ICR are no longer available for examination. Most importantly, the datasets were not carefully archived and are therefore seem unavailable to current and future researchers. It is imperative that they be found and submitted to the microdata catalogue, and that all future datasets are similarly catalogued. As important, all future outputs of the project – datasets, papers, presentations, blogs – are carefully archived and accessible to future researchers inside and outside the Bank.

Behavioral economics for better public sector management. This project presents an example of how conditions can rapidly change in the Bank’s client countries, the flexibility that researchers need

to demonstrate when this happens, and how KCP funding seeds research that may generate results well after KCP funding ends

The original proposal for this project was intended to conduct impact evaluation assessments of civil service performance in Sierra Leone and local government performance Burkina Faso. It soon became apparent, however, that the research project was not implementable in Sierra Leone because of the country situation, and work on Burkina Faso was delayed when the President was ousted in 2014 and local governments ceased to function for almost two years. Halfway through the project, therefore, the team switched their attention to impact assessments of the functioning of the Angola Social Support Fund and the Kenya judiciary. Later, in 2016, the team returned to its work in Burkina Faso once local governments became operational again. On top of that, the research faced procurement delays and challenges for the baseline surveys in all three cases.

The grant funds and resulting outputs from this project were not only delayed but spread thinly across three countries. The teams, however, accessed other funds to keep the research going. The data on the first phase of the project in Burkina Faso is only being received now and the second stage is being prepared. Similarly, in the other two countries (Angola and Kenya), only the baseline surveys had been completed by the completion date of the grant and the follow up impact evaluation surveys had yet to be done. Nevertheless, the work involved in designing, launching, and analyzing the baseline surveys was of use to the clients in different and interesting ways: in Angola, it was used to fine tune community scorecard interventions, in Kenya, it informed the judiciary of the extent of the case backlog and how it varies by court, and in Burkina Faso it enabled the launch of the annual municipal performance survey. Moreover, thanks to funding from other sources, the work on Burkina Faso continued well after the KCP funds ended, and culminated in several publications,⁵ some in conjunction with other research teams working on other countries. Similarly, the Angola research, while still ongoing, has also culminated in some research output.⁶

This experience demonstrates that development research, especially in low income countries, does not necessarily follow a linear, well laid-out path. On the contrary, the research often unfolds in unpredictable ways, and its evaluation requires taking a broader view than the one offered in the project's implementation completion report. This broader view shows that the researchers associated with this project were able to adjust to uncertainty and continue their work despite disruptions, producing many of their outputs years after KCP project funds were exhausted and the KCP-funded project was officially "completed". Along the way, the initial work helped launch complementary research and operational constraints and new opportunities dictated tweaks – and

⁵ Dunning, Thad et. al. 2019. "[Voter information campaigns and political accountability: Cumulative findings from a preregistered meta-analysis of coordinated trials](#)", Science Advances, 2019; July, 3 2019.

Lierl, Malte and Marcus Holmlund. 2017. "[Performance Information and Voting Behavior in Burkina Faso's Municipal Elections: Separating the Effects of Information Content and Information Delivery](#)", mimeo., October 4, 2017.

Lierl, Malte. 2017. "[Elections and Embezzlement: Experimental Evidence from Burkina Faso](#)", World Bank Policy Research Working Paper No. 8067, May 2017.

Holmlund, Marcus and Felipe Dunsch. 2019. "[Think local, act local: Working with civil society for better development outcomes in Burkina Faso](#)", Blog article, March 19, 2019.

Holmlund, Marcus and Felipe Dunsch. 2018. "[Increasing performance transparency! Generating citizen participation! Improving local government! It's SUPERMUN](#)", Blog article, November 7, 2018.

⁶ Di Maro, Vincenzo et. al. 2020. "[Mobilizing Parents at Home and at School: An Experiment on Primary Education in Angola](#)", NOVAFRICA Working Paper Series, Working Paper No. 2002, February 2020.

sometimes important changes – to the focus of the work. The body of work accumulated so far for a research project that is still ongoing is quite impressive.

Unfortunately, like all the other projects examined in this evaluation report, the researchers were focused on the exciting dimensions of the research which often culminated in analyzing the results of surveys, writing papers, and presenting their results in seminars and conferences. The survey results themselves were not carefully documented, archived, and transferred to the Bank's microdata catalog, depriving other researchers of the chance to use the data for their research purposes. It cannot be emphasized enough that databases form a key "public good" emerging from KCP-funded research, but they are not "public" unless they are made accessible through the Bank's data website.

Four common themes. This examination of the five impact evaluation studies yields the following four common themes.

The first is the critical importance of choosing impact evaluation research that addresses an important constraint to the country's development progress. This has broadly been the case for all five projects. As a development institution, the Bank has the advantage of strong operational and research departments, and the choice of topics for such development research is one way in which that synergy is leveraged. The policy focus of each study was the outcome of close interaction between these two arms of the Bank. The Bank's researchers are required to dedicate at least a third of their time to operational work, and their operational involvement makes them conversant with implementation challenges where research could point a way forward.

The second is the challenge of replicability. Impact evaluation studies examine whether government interventions – policies, programs, or changes in public service delivery – achieve their designed outcomes. The five research projects we examined cover such issues as reducing corruption in customs or the courts, increasing local government accountability, improving the quality of nutrition and reducing the incidence of stunting, increasing the speed of justice, and enhancing social capital. Almost by definition, such research needs to be uniquely tailored to circumstances in each country, including the country's history, culture, institutional framework and political-economy. World Bank researchers possess a comparative advantage in research methodology, but for country knowledge they rely on the expertise of the Bank's project and country teams. Such research projects usually require time, effort, patience, and resources. Researchers need to build trust with their in-country counterparts with whom they must design and implement the baseline and follow-up surveys. What is replicable across institutions, subnational regions, or countries, therefore is not necessarily the research design and implementation arrangements. Rather, it is the processes for listening to clients and partners, cultivating trust, experimenting with different options, seeking continuous feedback, and adjusting the program in light of new information.

The third is the imperative of flexibility. Impact evaluation research must be done in close collaboration with in-country researchers or government officials, and use country procurement systems when surveys need to be contracted. This often requires training local counterparts in survey methodology and implementation, data collection and collation, as well as data analysis. The challenges become harder still in low income countries which may suffer from political or macroeconomic instability and where institutions, capacity, counterparts, and incentives may be weak. Good research tends to take longer in such circumstances, making disruptions and discontinuities more probable. The projects examined here point to the Bank's unique flexibility in

redirecting its researchers to other countries and other issues, and return later to the disrupted project once conditions return to some semblance of normalcy.

The fourth is that the Bank needs to give greater priority to ensuring that the databases generated by research projects are made more accessible to the public. It is certainly the case that researchers have an incentive to publish their work in respected academic journals, and most journals have adopted the current standard of requiring the publication of replication datasets. Beyond this, individual researchers enhance their reputations by posting their datasets on their own personal websites. But the Bank needs to do its part in assisting researchers make their research-generated data public and accessible at the Bank's designated data platforms located on its main website. The reasons are threefold: first, readying a database for public use is not easy and often requires considerable additional work; second, preparing a database for public use isn't usually a researcher's comparative advantage; and third, some researchers may need an incentive to make their data public. What is clear, however, is that databases constitute an important part of the "public goods" generated by KCP-funded projects and a protocol must be instituted to make them accessible on the Bank's well-established data platforms, provided of course they meet the standards established by the Bank's Data Privacy Initiative.⁷ Otherwise, valuable parts of KCP-funded research output are lost to future researchers, whether insider or outside the Bank. Moreover, for data integrity purposes, it is important that the databases generated through KCP-funded research are subjected to the scrutiny of outsiders.

Four research projects devoted to the development of the Bank's central databases

The four KCP-funded research projects devoted to strengthening or updating the Bank's central databases were designed to deliver an important public service. The Open Data Initiative launched in 2010 permits free access to all users, so it is difficult to estimate the value that such a global public service provides. Available on the web, the Bank's central databases – housed at "databank" – have seen over 9 million downloads and been visited over 31 million times.⁸ Not only is it probably one of the most visited data websites in the world, almost half of the visits come from developing countries. Constant improvement, expansion, security, updating, and maintenance of the database tend to be costly, and KCP funding has proved helpful in meeting some of these costs. Nevertheless, as the discussion below suggests, the KCP could focus its funding on periodic, once-off improvements and expansion of the central databases, but the Bank's budget should be considered a more appropriate funding source for routine expenditures associated with updating, security, and maintenance.

The Worldwide Governance Indicators, 2014-15. Consider the first of the four research projects evaluated in this section – the "Worldwide Governance Indicators, 2014-2015" (WGI). This project was the fourteenth iteration of the WGI (there have been five more since), and the data series that it contributed to represents one of the more important data and intellectual contributions by the Bank. The WGI has become the premier global database worldwide for governance indicators and is widely used – for example, it receives about 379,000 hits in Google Scholar and, along with the Bank's Doing Business Indicators (DBI), is among the Bank's most popular databases (but with none of the controversy surrounding the DBI). Even the Disney Corporation uses the WGI for

⁷ The last section on "evaluation and recommendations" provides one possible approach to address this challenge

⁸ The totals include downloads/visits from/to: <https://databank.worldbank.org/home>;
<https://datacatalog.worldbank.org/>; and <https://microdata.worldbank.org/>

sourcing their branded merchandise, the Millennium Challenge Corporation uses it when applying its country financing criteria, and the bond rating agencies (Fitch, Moody's) use it for their models.

What makes the WGI so popular is that it draws its data from a very broad set of original data sources that few organizations have the reach and capacity to accomplish, and it applies a sophisticated methodology for aggregating these diverse sources into indicators.⁹ Even though the process is elaborate and requires care and oversight by experienced researchers, it has nevertheless become relatively routine. This explains why its total cost is among the three lowest among the 15 projects being examined in this evaluation.

Some may argue that the update of the WGI database can no longer be called “research”, but it is still a significant annual contribution to the steady accumulation of knowledge on the complex and elusive concept of governance. What makes it particularly valuable is that there is probably no other institution, other than the Bank, that can routinely produce this data with minimum fuss and at relatively low cost. Nevertheless, a strong case can be made that such routine work should be borne by the Bank's budget (it accounted for about half the cost in this project, but now accounts for the bulk of the cost), freeing funds for more innovative work.

Open metadata and methods application. A similar issue arises for the second research project considered here: “Open metadata and methods application”. This project delivers another “pure public service” by performing two functions: first, it documents the provenance of data that the Bank places in the public domain; and second, it makes transparent the algorithms that the data are subjected to do before they are shared with the world. The project's inception was driven by the Bank's commitment to the Open Data Initiative launched in 2010. The project's ambitious objective was to provide to anyone in the world the same access to the Bank's databases that the Bank staff enjoyed. The global response to this initiative has been nothing short of remarkable, placing pressure on the Bank to ensure that those using the data are made fully aware of what exactly they were accessing. Now, data from databank can be downloaded through a variety of ways, including through application programming interfaces (APIs) – considered best practice in open data websites. It essentially allows researchers using programming tools to automatically download the data together with the metadata that describes sources and what exactly the data measures.

Some 80% of the required metadata additions to the Bank's central databases were provided by this KCP-funded project. The KCP funds were used to streamline the metadata structure, centralize how metadata is made available, and standardize the approach across all datasets. The Bank's metadata embedded in its databases contain considerable detail – including data periodicity, variable definitions, citations of publications where datasets were used, any algorithms used to ensure cross-country comparability, and information on data licensing. Work is now ongoing to further strengthen links between the microdata catalog and the metadata glossary. Moreover, key indicators from the Bank's central databases are now available in English, Chinese, French, Spanish, and

⁹ When aggregating across diverse indicators, other organizations tend to arbitrarily assign weights to individual datapoints (such as the Human Development Index, for example). The WGI, however, uses a statistical methodology (Unobserved Components Model) that standardizes data into comparable units, constructs aggregates as a weighted average of the underlying source variables, and constructs margins of error to reflect the variation across different sources.

Arabic, and data for another 17 countries are available in their local language (for example, data on Indonesia is available in the five languages listed above as well as in Bahasa Indonesia).

Once the bulk of the work on adding metadata to the Bank's central databases was completed and the remaining work consisted of either updating or developing better user guides to the metadata, the Bank ceased to use KCP funding and now funds the work entirely through its internal budget as part of the Development Data Hub (DDH) program. This is a model that may be worth emulating in other data-related projects.

Data resource center for structural economic analysis. The third research project in this category is arguably the least impressive of the four being examined in this section – for reasons that were outside the control of the researchers. The project itself was promoted by the Bank's Chief Economist at the time (in 2011), who was very interested in the economics of structural change and its role in driving growth. Research on this topic was hindered by a lack of sufficiently long term data series on a range of macroeconomic and financial indicators for a broad swath of countries. The KCP funding was used to hire a consultant with considerable experience in putting together such databases, but he was given the seemingly impossible task of not only collecting the data but also the systems for transferring, documenting, archiving, and then presenting them.

The biggest challenge proved to be unearthing useful data prior to the 1960s.¹⁰ The data to be collected -- output and value added by industrial sector, labor force, social and demographic change, productivity, and measures of economic endowments -- was carefully curated and then a global hunt for the data began. Eventually, some 60 databases were collected from a diverse range of sources. About three-quarters of the databases collected were held in other international organizations, such as FAO, UNIDO, ITU, IEA, and the UN Statistics Department. Other promising data sources included the Maddison historical database housed in the University of Groningen. The exercise proved useful in generating inter-agency dialogue in putting together the data and in understanding what were the missing pieces in the data puzzle. At the same time, the challenges of providing a researcher-friendly database became more apparent. The passage of time between the pre-1960s and the present day had wrought many changes in country borders, definitions of variables, data collection procedures, measurement techniques, data continuity, and so on. Providing comparability across countries *and* time proved a mammoth task that would have required significantly more resources with potentially small benefits. Although the original intention may have been to put together a "Super World Development Indicators" – the main output eventually became a "database of databases". A presentation by the Bank at an international conference in the early days of the project points out these challenges.¹¹

Notwithstanding these challenges, the implementation completion report for this project displayed optimism that potentially usable products were still to be generated. These included: "launch of the data resource center for structural economics" with accompanying publicity on social media, at relevant conferences, and with blogs and feature stories on the Bank's websites; a "FAQ in the User Voice section of Open Data website"; and additional information on data resources in the training modules section of the Open Data website.

¹⁰ The furthest back the Bank's central databases go is 1960, and that too for a very few variables and countries. The databases become increasingly populated with data as the years progress, especially from 1970 onward.

¹¹ "A Framework for Monitoring Economic Development: Data for understanding structural change", presentation to the International Forum on Monitoring National Development: Issues and Challenges. 27-29 September 2011, Beijing, China, by Eric Swanson, Senior Advisor, Development Data Group, The World Bank.

Unfortunately, none of these “outputs” seem to have materialized. A key reason was unexpected roadblocks by some of the partner institutions providing the original data (for example, the ITU and IEA, among others). Largely for commercial reasons, they objected to the Bank housing the data and providing free access to the world (despite the launch of the Open Data Initiative in 2010).

Unable to find the nourishment of public access, these databases failed to garner much public attention. To make matters worse, the 60 databases that had been collected -- all focusing on the structure of economies -- were placed on a digital platform called “Socrata” that aids visualization of the data. Eventually, the entire set of databases were transferred to the World Bank’s digital platform called “[Finances One](#)” -- a website run by the Bank’s finance complex that “provides clients and partners access to public financial data from across all the WBG’s entities in one place”. Parking this remarkably rich and painfully constructed “database of databases” on economic structure in a platform specializing in the World Bank Group’s finances was justified on the grounds that the institution’s license for Socrata lay with the finance complex.¹² As result, while it is possible that some of the collected data was used by Bank researchers (before and after they left the Bank), its obscure location has meant that it has probably not been used since. This unfortunate outcome could have been avoided had the research team done more to find the database an institutional home where it would have enjoyed continuous visibility, use, and accessibility by external researchers. To encourage this in the future, DEC management may wish to consider the location and organization of all research-generated data an institutional priority such that these databases gain maximum exposure to researchers around the world.

Structural change in a dynamic world. The last research project to be examined in this section – “Structural change in a dynamic world” – belongs to the arcane world of global modeling. It is an example of the investment needed in data and methodology to better support the Bank’s important country and global flagship reports (country economic memoranda, global economic prospects, regional economic outlooks, World Development Reports, and so on). There are few people in the world who populate this highly technical area of economics, and many of them work (or worked) in the World Bank. For decades, the Bank’s global economic model (GEM) – a computable general equilibrium (CGE) model -- used the latest structural parameters of economies together with elasticities from a variety of external sources as the basis for their projections. The problem with such an approach was that these latest parameters were exogenous and thus didn’t incorporate information on how they could change with economic growth and external conditions. The objective of the research was to develop a methodology whereby such parameters were endogenous to the CGE model. Modeling of advanced countries such as the United States didn’t face this problem because annual social accounting matrices (SAMs) effectively allow modelers to embed continuously varying structural and other parameters. Not so for developing countries where SAMs are prepared much less frequently, perhaps once in five or ten years (and in some countries even less frequently). This forces modelers to use stationary interpolated estimates of structural parameters and output and supply elasticities, leading to projections that eventually are based on parameters that become far removed from reality.

¹² It should be noted that the Bank’s finance complex website – Finances One – has databases not just on economic structure, but on a range of other subjects unrelated to the Bank’s finances, from MSME country indicators to Morocco citizen engagement, education knowledge activities, and Afghanistan reconstruction trust fund acronyms.

One of the team's first tasks was to pull together a database of available SAMs. They then used a three-step Bayesian cross-entropy estimation approach which essentially uses beginning and end-points to endogenize key parameters in the context of limited information. The specification of the model that minimizes the difference between actual and projected values for the beginning and end points and the intervening years is the one that is eventually adopted and the structural parameters and elasticities essentially become endogenous.¹³ The end result gave modelers greater confidence in their projections because they used all the data available and could historical trends more closely.

The Bayesian cross-entropy estimation methodology was initially applied to Niger in 2014 and then expanded to other countries; the method was essentially applied at the national level before the results were aggregated into the Bank's regional and global models. The methodology has been applied for over 60 countries as well as in MAMS (Maquette for Millennium Development Goal Simulations). Research economists at the University of Sussex, University of Purdue and the University of Wisconsin-Madison have used it and one at the Oxford Brookes University is considering it. No researchers in developing countries have used it yet.

The project also yielded a paper in a peer reviewed journal,¹⁴ and another research output was written but not published.¹⁵ Perhaps more importantly, the research team gave several presentations on the approach to Bank staff and international audiences, prepared the associated computer code and user guide for other researchers,¹⁶ and held training workshops to familiarize Bank staff with the methodology.

Four projects exploring innovative ideas

The four research projects examined in this section stand out for their innovative ideas and the relatively high risk of their research. They range from very successful to relatively unsuccessful, but all research portfolios but they all point to potentially new approaches tackle complex policy challenges.

Economic valuation of losses due to 'Amazon dieback'. This research project had a somewhat unusual history. The project was initiated in the Bank by the Environment and Development Ministry in Norway, outside the KCP ecosystem, in large part because one of the researchers – a noted environmental economist in the Bank – is Norwegian. Ultimately, the project was implemented along two parallel financing tracks – one being KCP (together with funds from the research support budget and the Bank's internal budget) and the other being earmarked Norwegian grant funds.

The objective of the project was to estimate the value attached to environmental benefits and costs using the Delphi technique. Named after the ancient Greek oracle, the Delphi technique originated

¹³ The actual values are given by the few SAMs that were available.

¹⁴ These include: Go, D.S., H. Lofgren, F. M. Ramos, and S. Robinson. 2016. "*Estimating Parameters and Structural Change in CGE Models in Using a Bayesian Cross-Entropy Estimation Approach*", *Economic Modelling*, 52 (2016): 790-811.

¹⁵ Garrido, Leonardo. 2015. "*Structural Transformation. An Update of the Traditional View and a Connection to a Modern Paradigm*", mimeo., World Bank.

¹⁶ Go, D.S., H. Lofgren, F. M. Ramos, and S. Robinson. 2016. "*A Bayesian Cross-Entropy Estimation Approach in CGE Models – A User's Guide with Illustrations*", Draft.

in the 1950s and uses a group of individuals – experts and/or lay participants -- to collectively address a complex problem through a structured communication process.¹⁷ It is generally considered best practice for revealing the value of intangible costs or benefits, and there is nothing more intangible than climate change.

This particular research project sought to value the Amazon rainforest and thereby arrive at a non-market assessment of the cost of the “Amazon dieback” – for the population in the Amazon as well as for the global community. It used three stated preference contingent valuation studies: a two-step evaluation by 48 European environmental valuation experts in Europe, who were asked to estimate the willingness to pay for Amazon forest preservation among their own countries’ populations;¹⁸ a similar exercise with 200 environmental valuation experts from 36 countries;¹⁹ and an elaborately constructed and prepared single step survey of the general population of North America.²⁰ A contingent valuation survey of experts was prepared and piloted in Brazil, but the final survey never materialized for lack of funds. The extensive interaction with senior Brazilian officials, however, was instrumental in the creation of an internet platform which houses data, interactive maps, papers, and economic valuations of different aspects of the Amazon rainforest.²¹

Although the researchers had plans to extend the Delphi methodology to other Amazon countries (Bolivia, Colombia, Ecuador and Peru) as well as some Asian countries with vulnerably environmental ecosystems (such as Papua New Guinea), such work has not yet materialized. In addition, although workshops were held on the use of the technique in evaluating environmental costs and benefits, it hasn’t yet been adopted by the Bank’s operational teams. Finally, as in virtually all the other research projects evaluated in this report, the database generated by the researchers has remained with them and not transferred to the Bank’s central database system where it can be accessed by any researcher insider or outside the Bank.

Least developed countries and the externality impact of WTO dispute settlement. This KCP-funded research project is just as unusual and innovative as the one discussed above, but it is also representative of how researchers can responsibly make their datasets and statistical programs easily accessible to other researchers.²²

The research objective was to examine the intriguing question as to whether and how WTO disputes tend to affect non-disputants. To explore this question quantitatively, the researcher put together an exhaustive database of over 400 WTO disputes which are then analyzed to determine whether developing countries experience negative trade volume or terms of trade externalities from disputes in which they are not a participant. Quite apart from the dataset, the research led to the production

¹⁷ Dalkey, N. & O. Helmer. 1963. “*An experimental application of the Delphi method to the use of experts*”, Management Science, 9, 458–467.

¹⁸ Navrud, Ståle. 2013. “*Valuing global public goods: A European Delphi stated preference survey of population Willingness to pay for Amazon rainforest preservation*”, World Bank Policy Research Working Paper No. 6637, October 2013.

¹⁹ Strand et. al. 2014. “*A “Delphi Exercise” as a tool in Amazon rainforest valuation*”, World Bank Policy Research Working Paper No. 7143, December 2014.

²⁰ Siikamäki, Juha V. et. al. 2019. “*International willingness to pay for the protection of the Amazon rainforest*”, World Bank Policy Research Working Paper No. 8775, March 2019.

²¹ This includes: Strand, Jon et. al. 2018. “*Spatially explicit valuation of the Brazilian Amazon Forest’s Ecosystem Services*”, Nature Sustainability, Vol 1, November 2018, pp. 657–664.

²² It should be noted that this was the only project for which the principal researcher -- who is no longer with the World Bank – was unavailable to meet with the evaluator.

of three papers, two of which were in peer-reviewed journals, reflective of their high quality; a fourth output through an electronic portal that focuses on publicizing commentary on economic research and policy analysis.²³

Some of the more interesting outcomes of the project are macro-level insights derived from an examination of the database. In addition, while examination of the “externality” effects of trade disputes lead to disappointingly weak results, the analysis nevertheless points to important reasons why complainants step forward to lodge a protest with the WTO and the broader consequences of dispute settlement amongst third parties to disputes and non-participants. The insights gained from the research came in good use when the Bank was asked to assist Liberia in its deliberations on whether to join the WTO (the lead researcher of this project was part of the team that advised the Liberian authorities).

Finally, the researchers took care to make available the dataset and methodologies that they use in arriving at their results. The database is not only explained in a data annex to the working paper but can be found in the Bank’s data catalog, and the authors provide supplementary materials in their paper that include statistical programs that underpin the production of their tables and figures.

Equality of opportunity in global prosperity. This research project was particularly risky because it intended to break new ground in an area where the Bank had little comparative advantage. The Bank’s success in preparing the Ease of Doing Business Indicators and its project on women, business, and the law, encouraged management in DEC to expand the exercise to new areas of interest in development economics.

This project was to be a six-country pilot for compiling a cross-country comparable dataset of laws, policies, and regulations that were judged to either discriminate against or protect ethnic, religious, and sexual minorities (for example, by excluding them from labor and capital markets), with the goal of eventually expanding it to all 189 countries and to examine its evolution over time. One country was chosen from each of the Bank’s five developing region and a sixth was an OECD economy that served as a benchmark for comparison. The research initially involved developing a set of indicators – itself not a small task, preparing questionnaires, accumulating existing public data sets (especially useful in cross-referencing the results), consulting and partnering with international organizations, and then identifying 43 experts in the countries (lawyers, judges, trade unionists, ombudsmen, and so on) who would then respond to the questions.

The research project emerged in the form of a paper,²⁴ a dataset, and a powerpoint presentation that highlighted the findings for a conference on the equality of opportunity. Unfortunately, for a variety of reasons, there has not been any follow up to this project:

²³ Bown, Chad P. and Kara M. Reynolds. 2017. "[Trade Agreements and Enforcement: Evidence from WTO Dispute Settlement](#)", American Economic Journal: Economic Policy, v9, n4 (November 2017): 64-100.

Bown, Chad P. and Kara M. Reynolds. 2015. "[Trade Flows and Trade Disputes](#)", Review of International Organizations, v10, n2 (June 2015): 145-177.

Bown, Chad P. and Kara M. Reynolds. 2014. "[Trade Flows and Trade Disputes](#)", World Bank Policy Research Working Paper No. 6979, July 2014.

Bown, Chad P. and Kara M. Reynolds., 2014. "[WTO Trade Disputes, Big and Small](#)", VoxEU.org, 10 August 2014.

²⁴ Panter, Elaine et. al. 2017. "[Antidiscrimination law and shared prosperity: an analysis of the legal framework of six economies and their impact on the equality of opportunities of ethnic, religious, and sexual minorities](#)", World Bank Policy Research Working Paper No. 7992, March 2017.

- * First, preparing a cross-country database on discriminatory laws and regulations turned out to be harder than anticipated, especially when discrimination tends to take place indirectly through non-implementation of laws and societal norms and pressures. It also became clear that expanding the research would have required skills that were in short supply in DEC. Moreover, this was research that required sustained support over several iterations to ensure the data was robust, acceptable, and comparable across countries. Research on other doing business indicators took a decade or more before the methodology was considered sufficiently kosher for the data to be released for general use.
- * Second, the manager in DEC who initially championed the research moved to another position and his replacement was less enthusiastic. In this context it is important to note that this is the only research project among the 15 evaluated here that relied solely on KCP funding, suggesting that the research was not able to garner additional external or internal financial support. As a result, the research team ran out of funds before their results could be disseminated in the target countries, and the country teams who should have done this did not consider this a high priority. Indeed, the research touched on sensitive issues such as religious, ethnic, and sexual discrimination, so operational units may have been less than enthusiastic in discussing these issues with government, especially if they couldn't link the findings to their country program priorities. Furthermore, there was no natural government counterpart agency with whom the findings could be discussed.
- * Third, and finally, the research never grew out of its infancy, so the researchers neither had the breadth or depth of data to conduct cross-country analysis and make a compelling case to Bank management or external partners that the policy implications from further research would have important policy and economic implications.

This research project is a good example of a high-risk activity that tried to break new ground and didn't succeed. Arguably, the ambition-level was too high and the research methodology insufficiently developed to warrant further follow up. It sought to expand the well-founded concept of the inequality of opportunity into new and uncharted territory and didn't have the requisite expertise to succeed. The fact that the working paper produced by the project has been downloaded 1665 times (better than the two research projects examined above in this section) suggests that there is broad interest in the subject and that at some point the Bank may have to return to this subject.

Using big data to measure urban congestion. This was another high risk project and so far there is little evidence that it has succeeded in its original objectives. Indeed, its overall thrust and objectives have shifted during the project's implementation and after its "completion". The original project was intended to use big data to construct indicators of traffic congestion in different developing country cities and use them to design, implement, and monitor policies to ease traffic flow and reduce congestion and air pollution. Big data sources were seen as roadside static sensors, vehicle GPS measures, real time cell phone information, aerial imagery from drones, and social media. The research team partnered with a firm in the data analytical industry to access data as well as the latest quantitative and data processing techniques.

Unfortunately, there were significant delays in moving the research forward in the three candidate cities -- Cape Town, Buenos Aires and Dar-es-Salaam -- and only Cape Town displayed interest, but only for a long-term engagement (in part because South Africa at the time was preoccupied with water shortages). As a result, as a way to develop proof of concept, the project shifted its focus and the research team produced a paper in collaboration with its industrial partner which was essentially

a literature review and included a section on how big data could be used to develop short- and medium-term inter-city traffic projections in Italy.²⁵ The choice of Italy was purely opportunistic, driven by data availability. Subsequently, as the Covid crisis broke in 2020, the team changed its focus yet again, this time providing a similar literature review but replacing the Italian inter-city traffic analysis with an evaluation of the Coronavirus outbreak on traffic congestion in selected advanced and developing country cities.²⁶ Their findings are in line with those of other researchers who use the Google mobility index.²⁷

Contrary to its original proposal, then, this research yielded no concrete results of any use to developing country transport infrastructure planners. Even if the research had succeeded in developing congestion indices for developing country indices, neither the team's proposal nor the final outputs made clear how this data could then be used for transport planning purposes – an issue which the ex-ante reviewers had warned about. The research was one of several efforts in DEC to use big data for development policy purposes. In this instance, big data was a hammer looking for a (development policy) nail which partly explains why it met with such little success. Nevertheless, the research effort has contributed to the Bank's broader efforts at using big data for transport infrastructure planning among other applications (for example in India and Morocco), encouraged the Bank to use one of its annual urban development conferences to focus its proceedings on potential applications of big data, and permitted continuing dialogue with the South African authorities who remain interested in using big data planning for its transport planning.

Two projects examining macroeconomic issues

Macro and micro lessons from project data. The examination of the correlates of World Bank project performance has been ongoing since 1992 when the first seminal article on this question was published.²⁸ Since then, other articles and papers have been published, extending the analysis in different directions.²⁹ This work heavily influenced the World Bank and other multilateral development banks in helping counterpart policymakers develop an overall policy environment in which investment projects would more likely succeed. This research project extended this analysis beyond projects financed by the World Bank, and for the first time included projects financed by the Asian Development Bank.³⁰ In a somewhat different direction, the research also examined the

²⁵ Selod, Harris et. al. 2019. "[*Big Data in Transportation: An Economics Perspective*](#)", September 2019, World Bank mimeo.

²⁶ Selod, Harris, and Souleymane Soumahoro. 2020. "[*Big Data in Transportation: An Economics Perspective*](#)", World Bank Policy Research Working Paper No. 9308, June 2020

²⁷ Maloney, William F. & Temel Taskin, 2020. "[*Determinants of Social Distancing and Economic Activity during COVID-19: A Global View*](#)," Policy Research Working Paper Series 9242, The World Bank.

²⁸ Kaufmann, Daniel and Yan Wang. 1992. "[*How Macroeconomic Policies Affect Project Performance in the Social Sectors*](#)", World Bank Policy Research Working Paper No. 939, July 1992.

²⁹ Denizer, Cevdet, Daniel Kaufmann, and Aart Kraay. 2011. Good Countries or Good Projects? Macro and Micro Correlates of World Bank Project Performance, World Bank Policy Research Working Paper No. 5646, May 2011.

Isham, Jonathan, Daniel Kaufmann and Lant Pritchett (1997). "[*Civil Liberties, Democracy, and the Performance of Government Projects*](#)". World Bank Economic Review. 11(2): 219-242.

Isham, Jonathan and Daniel Kaufmann (1999). "[*The Forgotten Rationale for Policy Reform: The Productivity of Investment Projects*](#)". Quarterly Journal of Economics. 114(1):149-184.

Geli, Patricia, Aart Kraay, and Hoveida Nobakht. 2014. "[*Predicting World Bank Project Outcome Ratings*](#)", World Bank Policy Research Working Paper No. 7001, August 2014.

³⁰ Bulman, David, Walter Kolkma, & Aart Kraay. 2017. "[*Good countries or good projects? Comparing macro and micro correlates of World Bank and Asian Development Bank project performance*](#)", Review of International Organizations, (2017) 12:335–363.

vexing question of whether aid inflows may lead to an appreciation of the exchange rate.³¹

The research on the macro and micro correlates of World Bank and Asian Development Bank project performance has yielded three important findings:

- * first, it confirms earlier research that while differences in GDP growth and the macro policy environment between countries are significantly correlated with project performance, they only explain between a fifth to a quarter of all variation in project performance; three-quarters to four-fifths of the variation are explained by project-level micro variables (such as project duration and the presence of additional financing);
- * second, of the micro-correlates of project performance, the track record of the project manager in delivering successful projects is highly plays an outsized role in determining project performance; and
- * third, both institutions – the World Bank and the Asian Development Bank – exhibit similar correlates of project performance with no significant difference between them.

These findings are of enormous importance to the management of all development finance institutions, multilateral or bilateral. They point to the need for training project managers and tracking their performance so that complex operations are given to the most competent among them. Unfortunately, there is no evidence that such thinking has influenced senior management in either the World Bank or the Asian Development Bank, although there have been efforts to change the way project managers are selected.

The second strand of this research project related to the link between aid inflows and the real exchange rate of aid recipients. This has been a well-researched area in economics and the results have been fairly varied.³² The KCP-funded research approaches the question using a new synthetic estimate of aid disbursements from official aid agencies and applies careful econometric analysis to this dataset. The results yield a somewhat counterintuitive result that aid yields an initial small depreciation that then leads to a statistically insignificant real appreciation. While these results have been disseminated across the Bank, it is difficult to ascertain whether and how such findings seep into the broader macroeconomic policy dialogue in aid receiving countries.

Trade policy, poverty and shared prosperity. This research project is a good example of how a relatively simple model which, despite its simplicity, can prove useful in assessing the impact of proposed trade policies. The objective of the research is to assess the first-order short-term effects

³¹ Jarotschkin, Alexandra, and Aart Kraay. 2013. “*Aid, Disbursement Delays, and the Real Exchange Rate*”, World Bank Policy Research Working Paper No. 6501, May 2013.

³² For example, Rajan, Raghuram G. and Arvind Subramanian. 2011. “*Aid, Dutch disease, and manufacturing growth*”, Journal of Development Economics, Volume 94, Issue 1, January 2011, Pages 106-118.

Prasad, Eswar S., Raghuram G. Rajan, Arvind Subramanian. 2007. “*Foreign capital and economic growth*” NBER working paper series, Working Paper 13619, November 2007.

Rajan, Raghuram G. and Arvind Subramanian. 2005. “*Aid and growth: what does the cross-country evidence really show?*”, NBER working paper series Working Paper 11513.

Bulir, Ales and Timothy Lane. 2006. “*Aid and fiscal management*” in Mody, Ashoka and Catherine Patillo (eds.). 2006. “Macroeconomic policies and poverty reduction”, Routledge Studies in the Modern World Economy, Vol. 53 (London: Routledge), pp. 126-150.

of changes in tariff (or the tariff-equivalent of non-tariff barriers) on the distribution of income. It contributes to a growing body of literature that purport to shed light on the distributional effects of globalization and the trade-off between the income gains and inequality costs of trade policies.

The research marries household survey data with trade data, translating the impact of tariffs on prices of goods and the quantifying the effects on the household welfare by centile of the income distribution. To keep the model simple and usable by practicing operational economists, the model ignores second-order substitution effects and general equilibrium effects of changes in tariffs – issues that the researchers intend to introduce gradually in research that is already in the pipeline. As a result the research team was able to develop a model that was potentially usable in 54 countries which had the requisite data.

The usefulness of the model can be assessed by the demand for its use. World Bank economists have sought to use it to analyze gender-differentiated effects of trade policy, and in analyses of trade policy effects in Nigeria, Pakistan, Sri Lanka, Guatemala, and Nepal. Requests to use the model have also come from organizations outside the World Bank, including for policy work on Uganda and Rwanda. It has also been used to assess the distributional effects of recent trade restrictions introduced in the wake of the Covid crisis as well as instructional material for training of economists within the World Bank as well as in some client countries.

Overall evaluation and recommendations

The evaluation and recommendations in this section rest on a detailed examination of 15 randomly selected research projects out of 152 that were funded through KCP II and III, together with interviews of researchers and managers in DEC. The Covid crisis prevented any possibility to meet people face-to-face in DEC and the operational units of the World Bank, let alone hold discussions with policymakers and counterparts in client countries. Nevertheless, the availability of new digital technologies significantly reduced this handicap, but did not eliminate it altogether.

The KCP Charter states that the program's fundamental objective "is to promote high-quality, cutting edge research (including data collection in the direct context of research) that creates knowledge to support policies for poverty reduction and sustainable development." The entire portfolio of KCP-funded research projects reinforces the view that the World Bank is a solid choice to undertake the vast range of development research that respond to the KCP's stated objectives. The organization possesses a large, skilled, and diverse set of qualified researchers with a strong reputation who focus solely on practical challenges related to the design and implementation of development policies and programs. Moreover, the Bank's researchers are assisted by the Bank's vast network of country and global practice departments in identifying real-time challenges faced by policymakers and governments in developing countries. This close interaction, cemented by a combination of incentives and years of teamwork, tends to give the KCP-funded research program a sense of urgency rooted in the development challenges facing the Bank's client countries and the potential for real-world application of the development solutions that may emerge from research.

The research economists in DEC's four departments (development data, development research, impact evaluation, and global indicators) and their interactions with an even larger body of development practitioners in the operations arms of the World Bank provide economies of scale

and scope to the Bank’s research program.³³ This brings several advantages: first, it allows for cross-fertilization between DEC’s departments and between the research and practitioner communities; second, it facilitates the translation of on-the-ground development challenges into researchable questions that can then be analyzed using rigorous research techniques; third, given relatively volatile political and economic conditions in many developing countries, the DEC’s size and the range of the Bank’s operations provides in-built flexibility that allows research effort to be redirected quickly if conditions warrant; and fourth, decades of experience has honed the World Bank’s management and information systems that now allow the organization to routinize the entire delivery process for complex research projects, starting with the call for proposals to the production of final completion and evaluation reports (such as this one) -- although, as this evaluation notes below, these systems could be improved still further.

Every one of the fifteen research projects evaluated in this report researched interesting development questions – or provided the data and models to do so -- with practical applications in developing country contexts. Although some used recent developments in theory or research techniques, none could themselves be considered theoretical, placing them in stark contrast to research normally undertaken in universities.

Overall, the 15 research projects left a favorable impression with over four-fifths ranging from “very good” to “outstanding” (Table 5). The research projects ranged widely in the relevance, quality, reach, and impact of the outputs, as well as in their adherence to such process criteria as meeting deadlines, staying within budget, and building local capacity. But none could be considered uninteresting or unnecessary. Moreover, none evaluated here could be considered outright failures. A few were outstanding, some were disappointing, but all added value.

Table 5. The 15 selected research projects evaluated by key criteria^{a/}

| | Outstanding | Excellent | Very good | Good | Disappointing |
|-------------------------------|-------------|-----------|-----------|------|---------------|
| 1. Overall value | 8 | 3 | 2 | 1 | 1 |
| 2. Research output | | | | | |
| Relevance | 11 | 3 | 0 | 1 | 0 |
| Quality | 9 | 3 | 2 | 1 | 0 |
| Reach | 7 | 4 | 1 | 0 | 3 |
| Impact | 6 | 3 | 3 | 0 | 3 |
| 3. Conduct of research | | | | | |
| Meeting objectives | 8 | 3 | 2 | 0 | 2 |
| Delivering on schedule | 8 | 3 | 1 | 2 | 1 |
| Cost effectiveness | 6 | 4 | 2 | 2 | 1 |
| Capacity building | 2 | 4 | 2 | 0 | 1 |

^{a/} The format of this table is largely taken from the 2012 evaluation report with one minor modification. The performance assessment according to each criterion is entirely subjective.

³³ DEC accounts for about 3 percent of the Bank’s total workforce but has an outsized influence on the Bank’s thinking on development issues.

Based on this small sample size, the challenge of KCP-funded research is to go from good to great – so that all projects are rated as “outstanding” in all categories. Of course, such an objective would be aspirational, but its implications for management are worth considering carefully. It is in this spirit that the following recommendations are crafted.

First, there appears to be an unspoken, gentleman’s agreement within the Implementation Management Committee (IMC), composed of DEC’s senior managers, that DEC’s four departments get a fair (though not necessarily equal) share of KCP funds. Thus, good projects prepared by competent researchers may be overlooked to accommodate relatively less meritorious proposals prepared by less competent researchers to ensure broad access to funds across departments. There should be only three considerations that deserve emphasis when choosing which project proposals are approved: first, will the proposed research investigate an interesting and important question that has implications for the design or implementation of development policies and programs in developing countries; second, is the researcher capable of producing a high quality product and has a track record that shows it; and third, would the activity generate value for money. Which DEC department originates the proposal should not enter into the equation.³⁴ To ensure integrity in the process and to inject transparency to the decision-making process, IMC meetings should record minutes of its proceedings that should be made available to all those who submitted proposals.

Second, the IMC focuses its efforts on deciding which research proposals receive KCP funds and how much they should receive. But being a body charged with the implementation of KCP, it could more actively monitor progress of the approved research, ensuring their recommendations to adjust the research design at the project approval stage are taken seriously. The IMC could also examine a randomly selected handful of implementation completion reports (ICRs) to make sure the final products are completed on time, within budget, meet the original objectives of the project, take into account concerns raised by the external reviewers, and meet DEC’s quality standards. The current arrangement leaves such decisions solely to unit managers. They naturally – and rightly -- pay considerable attention to the research outputs generated by their staff. But someone outside “the chain of command” could also use the preparation of implementation completion reports (ICRs) as an opportunity to genuinely reflect on what went right or wrong, what could be done better, and what lessons to draw for the future. The IMC would be the natural body for such reflection, and it could do so with a light touch. Researchers and their unit managers would then have the right incentive to ensure that quality standards are not just maintained but improved over time.

Third, DEC’s management needs to harvest more effectively the data generated by KCP-funded research and make this available to the development community within and outside the Bank as soon after the completion of the research as possible. The public value of this data cannot be overestimated because it is inspired by development practice and reveals insights that are very different to theoretical research. Moreover, making available the data harvested from KCP-funded projects will enhance the transparency of DEC’s research and provide a valuable public service to the global development community. Indeed, the new standard in most respected economic journals is to make available the data used in published articles. Most KCP-funded research projects reviewed in this evaluation have failed to do this. Researchers and managers (rightly!) focus on

³⁴ Of course, funds are fungible, and if one DEC department gets the lion’s share of KCP funds, then there is every likelihood that the Bank’s budget could be reallocated to compensate the other departments. This consideration, however, should not disqualify this recommendation because the IMC’s approval of projects is an important signaling device that high quality proposals prepared by capable researchers are valued and deserving of KCP funds.

research outputs in part because it enhances their reputation. The added task of organizing and annotating the data and making it available on the Bank's external websites is a classic case of a positive externality that does not align with the private incentives of research staff. The challenge is to devise incentives that bring them into alignment. One such approach (among many) would be to allocate additional funds at the ICR stage earmarked solely for ensuring the data is organized, cleaned, annotated, and placed on the Bank's external websites in accordance with the Bank's standards. A researcher's subsequent access to KCP funds in support of a fresh research proposal could be made contingent upon completion of this important task.

Fourth, just as databases from KCP-funded research should find a permanent institutional home where they are accessible to other researchers, the same can be said for all the material associated with the KCP-funded research process. All grant funding requests and implementation completion reports have been carefully archived, but the same cannot be said about the comments by external reviews, the instructions from the IMC to researchers, and all the outputs generated by KCP-funded research – presentations, papers, blogs, training material, articles -- and any other material that is referred to in the implementation completion reports. Now that digital storage is virtually costless, there is no excuse for not storing such material systematically.

Fifth, DEC can extract a much higher return from its KCP-funded research by encouraging researchers to do three things: repackage, repackage, repackage. Researchers and managers place great store by DEC's research appearing in respected economic journals, and this is important because the rigorous peer review process required by good journals establishes the pedigree of the research and is an unequivocal signal of quality. But exposure in journal articles only tends to reach academics rather than the target community that needs to receive such knowledge – development practitioners, developing country practitioners, non-government organizations, opinion makers, and the general public. DEC management must require its researchers to complement their journal articles with policy briefs, infographics, blogs, short videos, write-ups in social media outlets, op-eds, and steady exposure through online flagship Bank outlets. These products should consistently be translated into languages that would further spread their message. None of these activities requires generating more knowledge capital. Rather it is repackaging that capital in ways that reach the appropriate target audiences. Researchers are not necessarily good communicators, and no sooner is one research project completed that they want to move on to the next one. Getting them to focus on re-crafting their findings in different ways for different audiences will require a combination of support from the communications arm of the World Bank, together with some training and some incentives.

Finally, the KCP Partnership Council is appropriately concerned about the capacity building dimensions of KCP-funded research. There are three channels through which these projects can build capacity: (i) in survey design, data collection, data checking, and data annotation; (ii) participation of local counterparts in the research process itself; and (iii) in the dissemination and implementation of the research results. In this evaluation, the only sources of information for the capacity building assessment for each project were the implementation completion reports, the final research outputs, and interviews of the researchers. But all assessments of capacity building should be viewed with caution. To begin with, capacity is difficult to assess under any circumstances, but it has been made all the more difficult by the pandemic which prevented any site visits. As important, capacity – like any form of accumulated capital – depreciates with time unless constantly maintained and replenished; skills learned by developing country counterparts in once-off research projects need to be honed through practice, and this can only be accomplished in local eco-systems that are

supportive and value such skills. Thus, evaluating the capacity effects of projects requires assessing the eco-system in which capacity is created. And that is something that lay outside the scope of this evaluation.