



# Industry Competitiveness and Jobs

An Evaluation of World Bank Group Industry-Specific Support  
to Promote Industry Competitiveness and Its Implications for Jobs



**WORLD BANK GROUP**  
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## Industry Competitiveness and Jobs

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An Independent Evaluation

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# Abbreviations

CCSA	cross-cutting solutions area
CPS	country partnership strategy
DPL	development policy loan
EPZ	export processing zone
FPD	Finance and Private Sector Development
GCI	Global Competitiveness Index
ICT	information and communication technology
IEG	Independent Evaluation Group
IFC	International Finance Corporation
IFC AS	IFC Advisory Services
ILO	International Labour Organization
IT	information technology
ITES	IT-enabled services
MAS	Manufacturing, Agribusiness and Services
MIGA	Multilateral Investment Guarantee Agency
NPC	nonprice competitiveness
OECD	Organisation for Economic Co-operation and Development
PREM	Poverty Reduction and Economic Management
REER	real effective exchange rate
SDN	Sustainable Development Network
SEZ	special economic zone
ULC	unit labor cost
UNIDO	United Nations Industrial Development Organization
WEF	World Economic Forum

*All dollar amounts are U.S. dollars unless otherwise indicated.*

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# Overview

## Highlights

Productivity, competitiveness, and more and better jobs are key to economic development and are at the top of government development agendas. Supporting industry competitiveness has been an important part of World Bank Group activities, including International Finance Corporation, Multilateral Investment Guarantee Agency, and several World Bank networks. The World Bank Group supported 881 projects with some element of industry-specific support during 2008–14, for a total value of \$21.6 billion, accounting for about 6 percent of all operations. This evaluation’s objective is to assess the contribution of the World Bank Group’s industry-specific support to helping improve productivity and competitiveness in developing countries, and the implications of that support for jobs. Industry competitiveness can be enhanced through several different approaches including economy wide, industry specific, or a mix of economy wide with industry specific. The evaluation focuses on industry specific support and on four industries—agriculture, manufacturing, tourism, and information and communication technology.

This evaluation defines competitiveness as the sustained ability of firms and industry to capture market share and grow the market through productivity improvements. This evaluation measures productivity by the value of goods and services produced per unit of inputs. It assesses jobs on the quantity and on the employment characteristics that affect workers’ well-being.

The Independent Evaluation Group’s (IEG) evaluation finds that World Bank Group industry support has been relevant with regard to country priorities, country level of competitiveness, and stages of country development. The two areas of World Bank Group support that appear to be underemphasized given the state of current knowledge on competitiveness are management skills and manufacturing.

The World Bank’s development effectiveness, as measured by achievement of projects objectives or meeting performance benchmarks, is 64 percent success rate for the industry competitiveness portfolio of projects (below the institutional average). The World Bank Group’s industry-specific support is associated with distinctively positive improvements in competitiveness (measured by export performance), but without observable increases in productivity (measured by value added per worker) compared to available alternatives.

This finding suggests that achieving industry-specific productivity beyond what constitutes normal practice is difficult; the World Bank Group support does not seem to be associated with acceleration of productivity improvements at the industry level in client countries. The positive association with accelerated expansion and growth in export markets may indicate that the World Bank Group is contributing to accelerated expansion by alleviating industry constraints through provision of critical inputs or financing, but not by improving relative productivity (for example, through the achievement of economies of scale or technological enhancements).

Competitiveness is a cross-sectoral area. The World Bank Group has not had a distinct, overarching approach to supporting industry-specific competitiveness in the past decade. Furthermore, The World Bank Group's new organizational structure has distributed the industry competitiveness portfolio across global practices, creating a greater need for enhanced coordination across and within institutional units. The World Bank Group should clarify its approach to industry-level support for competitiveness and given the multiple points of engagement on competitiveness within it, Management should articulate the World Bank Group's approach in industry specific competitiveness work and ensure consistent treatment across the institutions.

World Bank Group support to manufacturing has declined in recent years—at a time when deindustrialization is emerging as a big problem for developing countries, particularly in Sub-Saharan Africa, where it is taking place in the context of little industrialization to begin with. The phenomenon of growing deindustrialization across the developing countries should be reflected by strengthening (in line with the Sustainable Development Goal 9.2) the World Bank Group's industry-level support (including through knowledge, policy advice, and financing) to inclusive and sustainable industrialization, taking into account specific country circumstances and, in particular, the challenges faced by low-income countries.

Employment is a central aspect of the productivity and competitiveness agenda. The evaluation illustrates the complex effects of productivity improvements on jobs, yet only a small proportion of the World Bank Group portfolio specifically references jobs in objectives, interventions, or indicators. Attention to job quality is even less common. The World Bank Group should integrate the jobs perspective in its industry-specific support to competitiveness by incorporating jobs effects in objectives, design, and monitoring and evaluation of its interventions. Given the institutional importance and cross-cutting challenge of employment, with multiple World Bank Group units working on jobs, Management should articulate the World Bank Group's approach in this area and ensure its consistency across the institutions.

## Evaluation Approach

This evaluation focuses on the World Bank Group's support to enhancing industry-specific productivity and competitiveness, and examines the implications of improved industry competitiveness for employment. The evaluation seeks to answer two questions: Has the World Bank Group's industry-specific support been effective in enhancing industry competitiveness? What has been the implication of this support on job quantity and quality?

The evaluation focuses only on those activities with explicit objectives to support competitiveness in four industries: manufacturing (including agribusiness), information and communication technology (ICT), tourism, and agriculture. The support to economy-wide reforms, which in turn might also have an impact on these industries, is beyond the scope of this evaluation.

The evaluation looks at seven types of World Bank Group interventions: specialized infrastructure, industry-specific institutions, industry-specific innovation, specialized skills, industry-specific

regulatory environment, specialized finance, and specialized trade and links. The evaluation covers World Bank Group industry competitiveness interventions during fiscal year (FY) 08–14.

## The World Bank Group’s Strategy and Approach

The World Bank Group does not have a distinct strategy for supporting industry competitiveness.

Largely, the World Bank Group’s strategies aim mainly to help enhance competitiveness by addressing industry-neutral, national-level constraints.

Conversely, the Trade and Competitiveness (T&C) Global Practice (GP) and the World Bank Group’s sector-specific strategies (such as ICT and agriculture) sought to support competitiveness in specific industries.

The International Finance Corporation (IFC) recognized the importance of promoting industry competitiveness in its corporate and Regional-level strategies and through its environmental and social standards. The Multilateral Investment Guarantee Agency (MIGA) supports competitiveness by facilitating inflows of foreign direct investment through political risk insurance.

## PORTFOLIO TO PROMOTE INDUSTRY COMPETITIVENESS

The World Bank Group supported 881 projects during 2008–14 that contained some elements of industry-specific support. These projects included 463 World Bank lending operations, 165 IFC investment projects, 190 IFC Advisory Services engagements, and 63 MIGA guarantee projects – a total value of \$21.6 billion, representing about 6 percent of total World Bank Group project approvals in the period.

IFC and MIGA activities had a narrower focus on firm expansion and growth, while World Bank activities covered broader areas, including industry-specific policy, infrastructure, and regulations.

Each World Bank Group institution also targeted distinct industries. A significant part of the World Bank’s activities (60 percent) supported agricultural productivity and competitiveness, but its industry-specific support for manufacturing competitiveness was limited and largely focused on agribusiness. By contrast, 70 percent of IFC investment and advisory projects and 80 percent of MIGA guarantee projects supporting industry competitiveness were in manufacturing (including agribusiness). IFC’s support to manufacturing has been declining.

The Sustainable Development Network (which was supporting agriculture, forests, food security, and water use, for example) implemented most of the World Bank-financed projects, followed by the Poverty Reduction and Economic Management Network (which supported governance and public sector management). The Financial and Private Sector Development Network (formerly the Private Sector Development Department, now part of T&C) accounted for 7 percent of the projects with industry competitiveness components. T&C provided its support mainly through analytical and advisory activities.

## Relevance

The evaluation assessed the relevance of the World Bank Group’s industry-specific support at the strategic, country, and intervention levels.

About half of all 245 World Bank Group country partnership strategies (CPS)

approved in the evaluation period identified industry-specific support as a strategic objective. In about 30 percent of these CPSs, the World Bank Group identified improving competitiveness in a specific industry as a strategic objective, and then approved industry-specific interventions during the CPS period. However, about 10 percent of CPSs identified industry-specific support, but it did not materialize into actual operations.

Based on the World Economic Forum's (WEF) Global Competitiveness Index (GCI) country rankings, the World Bank Group largely targeted countries with a greater need for support to improve their competitiveness.

The World Bank Group's intervention areas closely aligned with the implied priority areas that the WEF methodology identified. For example, in least competitive (factor-driven) countries, 56 percent of World Bank Group industry-specific interventions sought to support basic infrastructure, institutions, and regulations – in line with GCI expected shares.

Largely, the World Bank Group's interventions were consistent with the factors identified in the literature as important drivers of competitiveness. However, World Bank Group industry-specific interventions underemphasized relative to the current state of knowledge on competitiveness areas such as improving skills (particularly managerial skills) and manufacturing.

## Effectiveness of the World Bank Group

The evaluation assessed the effectiveness of World Bank Group industry-specific interventions to support competitiveness from two perspectives – project level and

national outcome level – and then illustrated the findings with country case studies.

### EFFECTIVENESS AT THE PROJECT LEVEL

Effectiveness is measured by the achievement of project objectives and relevant performance benchmarks. World Bank industry competitiveness projects show a lower achievement of project objectives than other World Bank projects (64 percent versus 72 percent). Development policy loans (DPLs) showed similar achievement (73 percent had satisfactory outcomes compared with 79 percent of all other DPLs evaluated during the period). IFC investment projects had success rates similar to the rest of the IFC portfolio. MIGA's guarantee projects performed better than the rest of its portfolio (75 percent versus 59 percent), although the sample is small.

Across World Bank Regions, Africa had the lowest performance ratings, except for IFC Advisory Services. In Sub-Saharan Africa, 50 percent of World Bank industry-specific projects had satisfactory outcomes compared with 67 percent of all other evaluated projects.

By sector, most World Bank agriculture projects achieved their immediate objectives of increasing access to inputs, improving infrastructure, and enhancing the capacity of farmers, agricultural institutions, and producer organizations. In manufacturing, the World Bank's direct contribution was limited, but several DPLs implemented institutional and sectoral reforms. Regarding IFC-supported firm operations, project assessments show improved efficiency, practices, and products. In ICT, World Bank projects helped liberalize or establish ICT regulatory environments, while IFC investments helped several telecommunications companies develop,

upgrade, and expand their cellular networks. World Bank and IFC support to tourism was modest, and achievement of objectives was uneven. Less than half of the 12 World Bank investment lending projects that included tourism interventions were successful.

Across interventions, the World Bank was as effective in helping enhance institutional capacity development as it was in introducing improved inputs and technology (about 70 percent satisfactory). It was less successful in helping develop industry-specific regulatory and institutional reform (60 percent satisfactory), although these interventions were successful 70 percent of the time when delivered through DPLs. Industry-specific infrastructure interventions were successful in three quarters of the cases. Projects that included links, access to finance, and skills performed well, but there were few of them evaluated.

#### EFFECTIVENESS AT THE NATIONAL OUTCOME LEVEL

The evaluation used national-level indicators of labor productivity (value added per worker) and trade competitiveness (share and value of world exports) in each industry to provide an added perspective on World Bank Group's contribution. This broad approach attempts to link interventions with impacts. It poses significant methodological challenges given the length of the result chain and the large and difficult to fully specify number of external and internal factors at play. While all the efforts have been made to address these methodological challenges within existing data constraints, the intention of this analysis (given its intrinsic limitations) is not to attribute impact to World Bank Group interventions, but rather to explore and shed additional light on the Group's implied contributions.

Countries that received World Bank competitiveness support in agriculture, agribusiness, and manufacturing did not show a significantly higher level of productivity than countries without such support. This does not mean that countries with support in these industries do not achieve higher productivity. However, this increase in productivity was not significantly different from such change in those countries that did not receive any World Bank support. Countries that received World Bank support in tourism show a higher level of productivity, but results in ICT are inconclusive.

Regarding improvements in competitiveness (level of exports and share of world exports), countries that received World Bank support to agriculture and manufacturing show a higher level of competitiveness than countries without such support. Although countries that received World Bank support in ICT and tourism show a higher value of exports after receiving World Bank support, this change is not different from the change registered in countries that did not receive such World Bank support.

The evaluation also controlled for external economy-wide factors such as macroeconomic conditions, trade openness, and the quality of the overall business environment because these factors could drive improvements in overall competitiveness including industry competitiveness. The results of these tests broadly confirm previous conclusions.

After dividing the sample of countries into two groups – those that received support in just one or two intervention categories (less breadth) and those that received support in three or more categories (more breadth) – the analysis shows that the breadth of World Bank Group support is important to

achieving higher competitiveness in both agriculture and agribusiness. The analysis did not obtain significant results for the other industries or for productivity in all industries.

The evaluation used different indicators for productivity and competitiveness—cost of \$1 of net sales, and net sales—to shed additional light on IFC’s contributions. Overall, IFC competitiveness investments show improvements in productivity and sales growth similar to other IFC client firms.

Relative to comparator companies beyond the IFC portfolio, the firms that received IFC support do not seem to show greater improvements in productivity than other comparable firms. Results are similar for net sales. If the sample is restricted only to firms that receive IFC support, the analysis shows a significant improvement in net sales in the before-and-after test only in agribusiness. However, the analysis could not detect any significant change in firms that receive IFC support relative to comparator firms.

#### EXPERIENCE IN FOUR COUNTRIES

A review of the World Bank Group’s experience in four countries—Kazakhstan, the former Yugoslav Republic of Macedonia, Mauritius, and Rwanda—helps in better understanding the dynamics behind the results. These experiences show that breadth of engagement is important for successful interventions, and that properly sequencing interventions and implementing them with a long-term vision is necessary. The privatization of tea factories in Rwanda was successful because of the ownership transfer and because several parallel measures accompanied such reforms, including implementation of a tea leaf price reform, and the creation of farmer cooperatives that effectively strengthened

the relationship between farmers and factories. Similarly, the success of the ICT sector in Mauritius was not simply due to World Bank-supported regulatory reforms, but also to combining such reforms with investments in critical infrastructure and the presence of an educated, multilingual labor force. Conversely, the lack of success in horticulture in Rwanda was due to one critical element missing in the support: cold storage infrastructure, suggesting that interventions must pay attention to the full set of binding constraints.

The experiences of FYR Macedonia, Rwanda, and Kazakhstan show the importance of properly sequencing interventions. FYR Macedonia was successful in supporting manufacturing because the World Bank supported the country’s competitiveness with exceptionally well-sequenced and well-executed tools and operations, starting with analytical work, followed by policy dialogue, integration of various instruments into a DPL platform, and accompanying technical assistance. By contrast, the attempt to attract foreign direct investment in Rwanda was less effective because of poor timing—that is, it started before the mitigation of all relevant risks. Similarly, World Bank Group support to agriculture diversification in Kazakhstan was unsuccessful because of poor project sequencing and insufficient attention to a lack of links between projects.

Multiple and properly sequenced interventions are successful when they are part of a long-term approach, and the World Bank Group’s experience in Kazakhstan, FYR Macedonia, and Mauritius are good, illustrative examples. Sustained government commitment was central to the success of FYR Macedonia’s reforms. Similarly, one reform critical to success in ICT in Mauritius was the privatization of

the telecommunications sector years before the implementation of the World Bank-supported regulatory reforms. However, the support failed in Kazakhstan because the World Bank Group's approach did not have a long-term vision, which led to a lack of links between World Bank projects and the government's own programs.

#### IMPLICATIONS OF THE WORLD BANK GROUP'S SUPPORT TO IMPROVE INDUSTRY COMPETITIVENESS ON JOB QUANTITY AND QUALITY

Increased productivity and competitiveness have the potential to both create and destroy jobs and to improve or worsen working conditions for workers. The direct effects of improved labor productivity on the demand for labor (other things equal) tend to be negative. The total effects (both direct and indirect through the impact of productivity on overall market size and market share) can be positive or negative depending on the relative sizes of these effects. Within the context of structural transformation, the relative size of some industries tend to decline with economic development while others tend to expand. These factors need to be taken into account when applying normative judgements to the effects of World Bank Group interventions on jobs in particular sectors. They also highlight the need to augment the industry focus with a broader economy-wide perspective as industry effects can be different from economy-wide effects. It is in this context that the evaluation findings regarding the jobs aspects of projects with industry-specific components need to be interpreted.

Recognizing that the World Bank and IFC adopt two different approaches with respect to jobs measurement, about half of the World Bank Group's projects with industry-specific competitiveness interventions referred to employment, especially IFC Investment Services projects. However,

only a quarter of them specifically referenced jobs in the project's objectives, interventions, or indicators, reflecting the difficulty of measuring effects on jobs.

Most projects identified indirect channels as the main mechanisms to create jobs, such as interventions on the business regulatory environment, competition policy, infrastructure (roads and irrigation), attracting investment, supply and value chains, and innovation.

References to job quality – represented by the employment characteristics that affect workers' well-being – were not common in World Bank Group projects supporting industry competitiveness. Fifteen percent of projects sought to improve specific work conditions, such as skills improvement and opportunities for career development, pay, working conditions, and benefits. Across industries, a higher percentage of manufacturing projects aimed to improve job quality compared with other industries.

IFC's focus on job quality is more dedicated. Independent Evaluation Group (IEG) evaluations found that compliance with labor and working conditions among IFC clients improves substantially from project approval stage to evaluation stage, implying that IFC has an important role in helping clients meet these standards.

Only one program in the World Bank Group is dedicated to enhancing job quality: the Better Work Program, established in 2006 as a partnership between IFC and the International Labour Organization. The program operates in eight countries. Interviews and Better Work survey results show that working conditions (environment, rights, and safety) of garment workers in Vietnam have improved in participating firms, which contributed to an increase in export orders

## OVERVIEW

and sales revenues, indicating that quality of work may be a contributing factor to improved competitiveness.

IEG's review shows that most industry competitiveness projects target industries with higher labor intensity. The evaluation tested for a correlation between World Bank support to industry competitiveness and job creation at the aggregate level.

Considering the limitations of this analysis, the results show that countries that received World Bank industry competitiveness projects in agriculture show a positive correlation with level of employment. In the other industries with available data (agribusiness, manufacturing, and tourism), no such association was evident.

The evaluation also performed this analysis across two groups of countries: those with limited World Bank support (with no more than two interventions categories) and countries with more extensive World Bank support (with three or more intervention categories). Results change significantly in this analysis, and all industries with available data (agriculture, agribusiness, manufacturing, and tourism) show a positive, significant association between the intensity of World Bank industry competitiveness support and job creation. The breadth of support in agriculture has likely had a smaller impact because both broad support and narrow support show a positive association with jobs.

### INTERNAL FACTORS OF PERFORMANCE

The evaluation examined efficiency by focusing on strategic and operational collaboration and internal performance factors.

The World Bank Group's new organizational structure has distributed the industry competitiveness portfolio across

global practices, creating a greater need for enhanced coordination across and within institutional units. An IEG survey shows that 60 percent of staff sees a need for collaboration at design, and only 47 percent consider it important during implementation. The World Bank staff surveyed believes there is more need for collaboration than does IFC staff surveyed (71 percent versus 24 percent).

At the operational level, most World Bank Group projects involve programmatic collaboration (defined as shared objectives among projects that are part of a program). Project completion documents indicate a low incidence of realized collaboration, though cross-support records indicate a significantly higher level of collaboration in the agriculture and ICT industry competitiveness portfolios.

According to both World Bank and IFC staff, the top three factors that foster collaboration are personal networks, staff presence in the field, and complementarity of investments (for example, combining technical assistance with lending), and factors that hinder collaboration are aspects of the work, such as budget-related issues and lack of formal incentives, procedures, and processes.

The evaluation reviewed and classified problems and mitigants (actions to address risks reported in project documents) to better understand the internal factors affecting the outcomes of World Bank Group projects. Overall, most problems are in areas under the full control of either the World Bank Group, or the client country or company. The analysis shows that some intervention categories are susceptible to implementation problems, but others manage to achieve their objectives even when faced with multiple problems. For example, problems encountered in

industry-specific regulation reforms seem easier to mitigate than problems identified in infrastructure interventions.

The analysis of risk mitigants and their effectiveness shows that 60 percent of projects had fully resolved the problems identified at design by the time the project closed. Some mitigants are less effective, especially in investment operations. For example, investment operations commonly used technical assistance as a risk mitigant; yet doing so is associated with a 13 percent reduction in the probability of resolving the risk. This suggests that the mitigants used can be too narrow and therefore cover only part of the risk, even though project teams generally identify the right risk category. The analysis also shows that when risks were identified but no mitigants used, the project's chance of achieving its objectives is 20 percent lower.

## Recommendations

### WORLD BANK GROUP APPROACH TO INDUSTRY COMPETITIVENESS

The World Bank Group has not had a distinct, overarching approach to supporting industry competitiveness in the past decade. Instead, different parts of the World Bank Group, such as the Trade and Competitiveness Global Practice (previously part of Financial and Private Sector Development, Poverty Reduction and Economic Management, and IFC Advisory Services), sought to support industry specific engagements as part of their own strategies or work programs, as did multiple global practices and IFC departments within their domains.

The analysis of support to industry competitiveness at the project level and the national level suggests that both the World Bank and IFC had limited success in

accelerating improvements in productivity, despite improvements in export performance. Furthermore, the success of specific interventions has not necessarily translated into increased productivity at the industry level, indicating important gaps in understanding the full set of key factors constraining productivity.

Evidence in this evaluation also shows the importance of supporting a combination of complementary factors to successfully promote competitiveness in an industry. Properly identifying and supporting the key elements of the industry's ecosystem is crucial for success, as there may be more than one binding constraint to performance. Case studies also indicate that the support's strength is as strong as the weakest factor in a value chain. This also requires a strategic approach to industry competitiveness. In general, engagements that are broader, longer term, and more strategic have a higher probability of success.

In forming the global practice in trade and competitiveness, the World Bank Group created a global practice dedicated to supporting competitiveness by providing integrated solutions through joint work across trade and competitiveness core themes, GPs, cross-cutting solutions areas (CCSAs), IFC, and MIGA in support to clients.

#### *Recommendation 1*

**The World Bank Group should clarify its approach to industry-level support for competitiveness –** that is, industry-specific measures to strengthen productivity and market performance of private enterprises – and adopt measures to enhance its effectiveness in this area by deepening its knowledge base and ensuring that its support is integrated and

programmatic over a medium- to long-term horizon.

Given the multiple points of engagement on competitiveness within the World Bank Group, and that the industry specific competitiveness work is delivered by the Trade and Competitiveness Global Practice and other units across the World Bank Group, Management should better articulate the World Bank Group's approach in industry specific competitiveness work and ensure consistent treatment across the institutions. Such an approach should embrace all aspects of the agenda, from analytical work to operational dimensions, and incorporate a stronger results framework with agreed indicators to stimulate Bank Group-wide learning.

#### INDUSTRY SPECIFIC INTERVENTIONS AND DEINDUSTRIALIZATION

Deindustrialization poses a major concern for developing countries. Reflecting these concerns, the Sustainable Development Goal 9 emphasizes increasing the share of manufacturing in developing countries. In line with these developments, there is an increasing demand from governments for the World Bank Group to strengthen such support.

World Bank Group support to manufacturing is mostly within IFC's realm. Most IFC support is in middle-income countries and the level has been declining in recent years. Furthermore, the evaluation findings show that the World Bank Group has been only partially successful in promoting manufacturing competitiveness.

#### *Recommendation 2*

**The World Bank Group should reflect in its work the phenomenon of growing deindustrialization across the developing countries by strengthening (in line with the**

Sustainable Development Goal 9.2) its **industry-level support** (including through knowledge, policy advice, and financing) **to inclusive and sustainable industrialization**, taking into account specific country circumstances and, in particular, the challenges faced by low-income countries.

#### Jobs

Employment is a central aspect of the productivity and competitiveness agenda. The evaluation illustrates the primary and secondary effects of productivity improvements on both quality and quantity of jobs as well as the conceptual and practical challenges in measuring the net impact of interventions on jobs. Yet only a small proportion of the World Bank Group portfolio specifically references jobs in objectives, interventions, or indicators, and even less so it measures implications of productivity on jobs. Similarly, little attention has been paid to understanding long-term impact on employment as well as impact on the quality of jobs. Task team leaders may have found it challenging to identify jobs objectives given the quantitative and qualitative attributes and both conceptual and measurement challenges related to jobs effects of sectoral competitiveness interventions. This is an important agenda that requires progress on issues ranging from research to results framework, to strengthen the employment focus of industry competitiveness work.

To date, there has been some work to deepen the understanding of the job impact of project interventions and there have been pilots across GPs to develop stronger results frameworks, led by the Jobs CCSA.

*Recommendation 3*

**The World Bank Group should integrate the jobs perspective in its industry-specific support to competitiveness by incorporating jobs effects in objectives, design, monitoring and evaluation of its interventions.** This perspective can be implemented differently based on the scale and type of support, and should consider

positive and negative as well as direct and indirect jobs effects.

Given the institutional importance and cross-cutting challenge of employment, with multiple World Bank Group units working on jobs, Management should articulate the Work Bank Group's approach in this area and ensure its consistency across the World Bank Group.

# Management Response

Management of the World Bank Group institutions welcomes the Independent Evaluation Group (IEG) report, *Industry Competitiveness and Jobs: An Evaluation of World Bank Group Industry-Specific Support to Promote Industry Competitiveness and Its Implications for Jobs*, and the opportunity to respond with comments. Management would like to thank IEG for a valuable and informative evaluation.

Management acknowledges IEG's thorough, relevant, and timely assessment of World Bank Group support to industry competitiveness as a means to create more and better jobs. The report will help the World Bank Group respond in a more effective manner to a growing demand from client countries on raising productivity and improving competitiveness at the sector level – particularly in manufacturing – as a way to widen better-paying job opportunities. Management overall agrees with the recommendations of the report.

## Overall Comments

The report highlights the need to strengthen the World Bank Group's support to inclusive and sustainable industrialization incorporating the jobs perspective in its interventions. Management concurs with the thrust of this advice and acknowledges that the IEG report provides a useful guidepost on how to move forward toward that end. The report also makes clear that important gaps persist regarding an understanding of the challenges in increasing industry competitiveness and on how to address country needs effectively.

Management is cognizant of those challenges and has been taking actions to tackle them. Since 2011–12, Management has progressively clarified its approach to industry competitiveness in line with client demand. These efforts have been further bolstered by the creation of the Trade and Competitiveness (T&C) Global Practice (GP) and its development of the 2015 T&C strategic roadmap, which delineates the role of its Competitive Sector's Unit and its industry-specific and spatial offerings as well as its integrated delivery of analytical, advisory, financing, and convening services. In addition, there is a renewed focus on collaboration on industry competitiveness, between key units such as T&C, the Jobs Cross-Cutting Solutions Area (CCSA), various Global Practices as well as the International Finance Corporation (IFC) Manufacturing, Agribusiness and Services (MAS) unit. As part of T&C's roadmap implementation, Management has launched a series of initiatives to deepen its knowledge base on industrial and productivity policies – around productivity-led growth, economic

diversification, global value chains, and spatial competitiveness, *inter alia* – to inform operational design and also to provide thought leadership as well as a more coherent, evidence-based approach across the World Bank Group. The World Bank's portfolio that sequence industry specific with economy-wide reforms is growing in a diverse set of countries. In many cases, these efforts support integrated solutions with other units and linkages to IFC investments.

## Definitions and Methodology

The Jobs CSSA is working on developing jobs related indicators to use in results frameworks, going beyond 'number of jobs created'. The work aims to broaden the range of jobs-related indicators in order to improve what we know about different projects and the various ways they can affect more, better, and inclusive jobs. Creating better jobs involves improvements in working conditions – such as benefits, better working conditions and improved income protection, as well as in productivity that leads to higher returns and earnings. Inclusiveness and gender perspectives are being incorporated in such efforts. Consistent with such an approach, World Bank Group projects have moved from a focus on job creation in past years, to an emphasis in creating more and better jobs.

In discussions within and outside the World Bank, there are different schools of thought on the appropriate definition of competitiveness and productivity. Management believes the most appropriate notion of competitiveness is that of improvements in productivity at the firm, sector or country level. Furthermore, Management is convinced that productivity growth is the only way to increase job quality over the long run, as the wage rate and everything it proxies for (workplace conditions, benefits, etc.) is dependent on the marginal product of labor so. While value-added per worker is often used as the definition of productivity, it is at best an indication of average labor productivity. Ideally, when looking at structural transformation, i.e., employment shifts across sectors, the appropriate variable would be marginal productivity of labor.

Similarly, discussions around industrial policy are complex and disagreement persists on the merits of targeting policies to specific industries. Management agrees with IEG that the effectiveness of industry specific measures can be enhanced in ways to promote productivity gains, job growth, and rising incomes. Management further believes that the efficacy of industry specific efforts requires not only bundling complementary elements of an industry's ecosystem, but more often than not, they require the deepening of economy-wide frameworks that support well-functioning factor and product markets. Indeed, in a number of countries, economy-wide incentives in and of themselves contribute to industry competitiveness and jobs. Sector-specific policies do

not necessarily imply “picking winners,” but rather policies (resolving credit, infrastructure etc.) that might apply to any sector *ex ante* but wind up affecting particular sectors. These types of policies are probably still where the World Bank should have its primary focus, although perhaps more aggressively than in the past.

Despite the important contributions of the IEG report, methodological challenges persist and constrain an appropriate assessment of World Bank Group activities on industrial competitiveness and jobs. Such challenges are related to issues pertaining to mechanisms of impact, identification of causal links, time lags, attribution, and applying appropriate analytical techniques to research questions. The analysis and evaluation of inherently complex phenomena can often obscure an understanding of what the World Bank Group projects have delivered and the differences they have made. This also needs to be considered when making recommendations on measuring jobs created by operations.

### Comments on Recommendations

First, Management agrees that the effectiveness of industry specific measures can be enhanced in ways to promote productivity gains, job growth, and rising incomes. However, the efficacy of industry specific efforts requires not only bundling complementary elements of an industry’s ecosystem, but more often than not, they require the deepening of economy-wide frameworks that support well-functioning factor and product markets, and therefore, economic integration with global and regional markets. In fact, in a number of countries, economy-wide incentives in and of themselves contribute to industry competitiveness and jobs.

Management has progressively clarified its approach to industry competitiveness in line with client demand since 2011–12. This has for instance been done through work with IFC by the Competitiveness Industries Unit (in the former Finance and Private Sector Development Vice Presidency). These efforts have been further bolstered by Management’s creation of the T&C GP and its development of the 2015 T&C strategic roadmap. The roadmap delineates the role of its Competitive Sector’s Unit and its industry-specific and spatial offerings (“the what”) as well as its integrated delivery of analytical, advisory, financing, and convening services (“the how”).

Analytics around productivity-led growth, economic diversification, global value chains, and spatial competitiveness are providing entry points for longer term country dialogue on industry competitiveness and jobs across Regions and countries. The World Bank’s portfolio of policy-based and Program-for-Results operations as well as investment policy financing – ones that sequence industry specific with economy-wide

reforms—is growing in countries as diverse as Jamaica, Macedonia, Pakistan, and Tanzania. In many cases, these efforts support integrated solutions with other units, and linkages to IFC investments. Central to this overall effort has been a renewed focus on collaboration on industry competitiveness, between key units such as T&C GP, the Jobs CCSA, various Global Practices as well as IFC MAS. Examples include joint studies on global value chains and joint implementation plans for agribusiness, which have helped develop coordinated sector-specific approaches in key countries.

Second, Management concurs that the slowdown in manufacturing growth in developing countries remains a concern. Management notes that there is scope for certain types of manufacturing, for instance, agriprocessing, to grow in lower-income countries. Yet any effort to promote industrialization should be rooted in an analysis of global economic trends, including of manufacturing value chains, and country prospects. Other opportunities yet to be seized—for instance, in agribusiness and services—also deserve attention as possible avenues for job growth and economic transformation.

Management would like to note that since 2014 a sizeable share of lending by T&C has involved investments in industrial infrastructure to support manufacturing (for instance, special economic zones in Bangladesh, Ethiopia, Haiti, and Jamaica; other types of zones in Mozambique; as well as industrial estates in Pakistan) along with related linkage efforts. The early results of these efforts have been mixed and deserve further scrutiny before further scale up. Management’s ongoing portfolio enhancement efforts have emphasized the importance of global value chain and connectivity analyses as well as political economy analyses to better prioritize these investments; stronger dialogue with the private sector to assess investor concerns; and robust supportive framework of trade, investment, and competition policies.

Management supports economic diversification, including industrialization. Management’s approach emphasizes connectivity to market opportunities (to augment trading and investment hubs), capabilities of firms and workers, and broad economic incentives to support functioning of factor and product markets, all of which provide a strong basis for economic diversification and transformation, and therefore jobs.

In the last two years, a sizeable share of lending by T&C has involved investments in industrial infrastructure to support manufacturing along with related linkage efforts. The early results of these efforts have been mixed and deserve further scrutiny before further scale up. Management’s ongoing portfolio enhancement efforts have emphasized the importance of global value chain and connectivity analyses; stronger dialogue with the private sector to assess investor concerns; and robust supportive framework of trade, investment, and competition policies. More recently, T&C has

## MANAGEMENT RESPONSE

started joint work with the Development Economics Vice Presidency to produce the first edition of the *Global Development Outlook*, in this case focused on “The Future of Manufacturing.” This will provide T&C with strong analytical underpinnings to operationalize the agenda in this area.

Third, Management is concerned with the report’s attempt to look at economy-wide or sector-wide effects of projects in specific sub-sectors in specific locations, as this does not take attribution concerns into account. Additional jobs-informed monitoring and evaluation tools (e.g., collecting employment information within the administrative data of projects, trace surveys to evaluate impacts on beneficiaries over time, and surveys to capture the indirect effects of jobs through value chains in specific sectors) are being developed that can provide better measures.

The Jobs Group is leading the development of an integrated conceptual framework that brings out how different types of interventions are expected to impact jobs, as well as developing a richer set of indicators to capture the range of potential jobs impacts. As the report’s findings and recommendation notes, job creation is not the only relevant jobs metric. The quality of jobs (e.g., productivity, earnings, working conditions) and the access to and inclusivity of jobs are also important.

# Management Action Record

IEG Findings and Conclusions	IEG Recommendations	Acceptance by Management	Management Response
<p><b><i>World Bank Group Approach to Industry Competitiveness</i></b></p> <p>The World Bank Group has not had a distinct, overarching approach to supporting industry competitiveness in the past decade. Instead, different parts of the World Bank Group, such as the Trade and Competitiveness (T&amp;C) Global Practice (GP)—previously part of Financial and Private Sector Development, Poverty Reduction and Economic Management, and International Finance Corporation (IFC) Advisory Services—sought to support industry specific engagements as part of their own strategies or work programs, as did multiple global practices and IFC departments within their domains.</p> <p>The analysis of support to industry competitiveness at the project level and the national</p>	<p><b>Recommendation 1: The World Bank Group should clarify its approach to industry-level support for competitiveness –</b> that is, industry-specific measures to strengthen productivity and market performance of private enterprises—and adopt measures to enhance its effectiveness in this area by deepening its knowledge base and ensuring that its support is integrated and programmatic over a medium- to long-term horizon.</p> <p>Given the multiple points of engagement on competitiveness within the World Bank Group, and that the industry specific competitiveness work is delivered by the T&amp;C GP and other units across the World Bank Group, Management should better articulate the approach in industry specific competitiveness work and ensure</p>	<p>World Bank Group: Agree</p>	<p>Management agrees that the World Bank Group should clarify its approach to industry level support for competitiveness and adopt measures to enhance its effectiveness in this area. It further agrees with the Independent Evaluation Group (IEG) that it should better articulate the World Bank Group's approach in industry specific competitiveness work and ensure a consistent treatment across the World Bank Group, with the T&amp;C GP playing a central role in such an effort. To that end, the World Bank Group should deepen its knowledge base and ensure that its support is integrated and programmatic over a medium- to long-term horizon.</p> <p>The efficacy of industry specific efforts requires not only bundling complementary elements of an industry's ecosystem, but more often than not, they require the deepening of economy-wide frameworks that support well-functioning factor and</p>

MANAGEMENT ACTION RECORD

IEG Findings and Conclusions	IEG Recommendations	Acceptance by Management	Management Response
<p>level suggests both the World Bank and IFC had limited success in accelerating improvements in productivity, despite improvements in export performance. Furthermore, the success of specific interventions has not necessarily translated into increased productivity at the industry level, indicating important gaps in understanding the full set of key factors constraining productivity.</p> <p>Evidence in this evaluation also shows the importance of supporting a combination of complementary factors to successfully promote competitiveness in an industry. Properly identifying and supporting the key elements of the industry's ecosystem is crucial for success, as there may be more than one binding constraint to performance. Case studies also indicate that the support's strength is as strong as the weakest factor in a value chain. This also requires a strategic approach to industry</p>	<p>consistent treatment across the institutions. Such an approach should embrace all aspects of the agenda, from analytical work to operational dimensions, and incorporate a stronger results framework with agreed indicators to stimulate World Bank Group-wide learning.</p>		<p>product markets, and therefore, economic integration with global and regional markets.</p> <p>As part of T&amp;C GP's roadmap implementation, Management has launched a series of initiatives to deepen its knowledge base on industrial and productivity policies inter alia to inform operational design and also to provide thought leadership as well as a more coherent, evidence-based approach across the World Bank Group.</p> <p>T&amp;C's results framework reflects industry specific and economy wide interventions. It is underpinned by an extensive learning agenda for staff that covers industry level topics including global value chains, sector analysis, and spatial efforts. T&amp;C has also started in fiscal year (FY)17 an effort to revamp the approach to productive development policies.</p>

IEG Findings and Conclusions	IEG Recommendations	Acceptance by Management	Management Response
<p>competitiveness. In general, engagements that are broader, longer term, and more strategic have a higher probability of success.</p> <p>In forming the Global Practice in Trade and Competitiveness, the World Bank Group created a global practice dedicated to supporting competitiveness by providing integrated solutions through joint work across T&amp;C core themes, GPs, cross-cutting solutions areas, IFC, and the Multilateral Investment Guarantee Agency in support to clients.</p>			
<p><b><i>Industry Specific Interventions and Deindustrialization</i></b></p> <p>Deindustrialization poses a major concern for developing countries. Reflecting these concerns, Sustainable Development Goal 9 emphasizes increasing the share of manufacturing in developing countries. In line with these developments, there is an increasing demand from</p>	<p><b>Recommendation 2: The World Bank Group should reflect in its work the phenomenon of growing deindustrialization across the developing countries by strengthening (in line with the Sustainable Development Goal 9.2) its industry-level support (including through knowledge, policy advice and financing) to inclusive and sustainable industrialization,</b></p>	<p>World Bank Group: Agree</p>	<p>Management agrees that the World Bank Group work should address the growing deindustrialization across the developing countries by strengthening its industry level support to inclusive and sustainable industrialization. The slowdown in manufacturing growth in developing countries remains a concern, as it may impinge upon future growth prospects and make reaching the World Bank Group's strategic</p>

MANAGEMENT ACTION RECORD

IEG Findings and Conclusions	IEG Recommendations	Acceptance by Management	Management Response
<p>governments for the World Bank Group to strengthen such support.</p> <p>World Bank Group support to manufacturing is mostly within IFC's realm. Most IFC support is in middle-income countries and the level has been declining in recent years. Furthermore, the evaluation findings show that the World Bank Group has been only partially successful in promoting manufacturing competitiveness.</p>	<p>taking into account specific country circumstances and, in particular, the challenges faced by low-income countries.</p>		<p>objectives and the Sustainable Development Goal 9.2 more difficult. There is a scope for certain types of manufacturing, for instance, agriprocessing, to grow in lower income countries. Yet any effort to promote industrialization should be rooted in an analysis of global economic trends, including of manufacturing value chains, and country prospects.</p> <p>T&amp;C started joint work with the Development Economics Vice Presidency to produce the first edition of the <i>Global Development Outlook</i>, in this case focused on "The Future of Manufacturing." This will provide T&amp;C with strong analytical underpinnings to operationalize the agenda in this area.</p> <p>Reflected in the T&amp;C roadmap as well as the World Bank Group's approach to jobs and economic transformation in the context of the 18th Replenishment of the International Development Association, Management's approach emphasizes connectivity to market opportunities (to augment trading and investment</p>

IEG Findings and Conclusions	IEG Recommendations	Acceptance by Management	Management Response
			<p>hubs), capabilities of firms and workers, and broad economic incentives to support functioning of factor and product markets, all of which provide a strong basis for economic diversification and transformation, and therefore jobs.</p> <p>In many parts of the world, including emerging markets, manufacturing faces over capacity, dampening new capital expenditure which has contributed to the slowing of new IFC investment. IFC is reformulating its manufacturing approach, with the intent of more prominently positioning its role as a driver of competitiveness more broadly in developing economies.</p> <p>Management also notes the greater linkages between manufacturing and services sectors, and the incorporation of much service sector value into manufactured goods, particularly in information and communication technology (ICT). IFC is seeking to expand support for nascent manufacturing sectors in low-income countries, which face much steeper</p>

MANAGEMENT ACTION RECORD

IEG Findings and Conclusions	IEG Recommendations	Acceptance by Management	Management Response
			obstacles to establishing competitive industry than in the past.
<p><b>Jobs</b></p> <p>Employment is a central aspect of the productivity and competitiveness agenda. The evaluation illustrates the primary and secondary effects of productivity improvements on both quality and quantity of jobs as well as the conceptual and practical challenges in measuring the net impact of interventions on jobs. Yet only a small proportion of the World Bank Group portfolio specifically references jobs in objectives, interventions, or indicators, and even less so it measures implications of productivity on jobs. Similarly, little attention has been paid to understanding long-term impact on employment as well as impact on the quality of jobs. Task team leaders may have found it challenging to identify jobs objectives given the quantitative and qualitative attributes and both conceptual and</p>	<p><b>Recommendation 3: The World Bank Group should integrate the jobs perspective in its industry-specific support to competitiveness by incorporating jobs effects in objectives, design, and monitoring and evaluation of its interventions.</b> This perspective can be implemented differently based on the scale and type of support, and should consider positive and negative as well as direct and indirect jobs effects.</p> <p>Given the institutional importance and cross-cutting challenge of employment, with multiple World Bank Group units working on jobs, Management should articulate the World Bank Group's approach in this area and ensure its consistency across the institutions.</p>	<p>World Bank Group: Agree</p>	<p>Management acknowledges that the jobs perspective should be reflected in its industry specific support to competitiveness. Management appreciates IEG's focus on the greater incorporation of jobs effects in objectives, design, monitoring and evaluation. Strengthening the indicators and results monitoring and evaluation (M&amp;E) on jobs will be important to capture and learn about the effectiveness of different approaches. Management believes it is key to focus on job effects, and take a nuanced approach to the measuring of operations' impact on jobs, since these are indirect links that are not directly attributable to the operations.</p> <p>As the recommendation notes, progress is being made, particularly in the two years since the period the report reviews, and with the creation of the Jobs Group. Strengthening the M&amp;E agenda for jobs is one of the Jobs Group's priority activities. While the Jobs Group is leading this work, it is being done in close collaboration</p>

IEG Findings and Conclusions	IEG Recommendations	Acceptance by Management	Management Response
<p>measurement challenges related to jobs effects of sectoral competitiveness interventions. This is an important agenda that requires progress on issues ranging from research to results framework, to strengthen the employment focus of industry competitiveness work.</p> <p>To date, there has been some work to deepen the understanding of the job impact of project interventions and there have been piloting across GPs to develop stronger results frameworks, led by the Jobs Crosscutting Solutions Areas.</p>			<p>with IFC and the key GPs, including T&amp;C, Agriculture, and Transport and ICT highlighted in this report.</p> <p>The Jobs Group is leading the development of an integrated conceptual framework that brings out how different types of interventions are expected to impact jobs, as well as developing a richer set of indicators to capture the range of potential jobs impacts. As the recommendation notes, job creation is not the only relevant jobs metric. The quality of jobs (e.g., productivity, earnings, working conditions) and the access to and inclusivity of jobs are also important. Depending on the nature of the intervention, the relevance of different dimensions will vary. Being clearer about potential trade-offs and loss of jobs, and the conditions under which this is likely to be the case, should encourage teams to address these effects in the design of their projects, whether there are ways to mitigate the downside risks or if there are supplementary interventions that may be needed to assist those whose jobs are negatively impacted by the project. Teams are not expected to use</p>

MANAGEMENT ACTION RECORD

IEG Findings and Conclusions	IEG Recommendations	Acceptance by Management	Management Response
			<p>all of the indicators; the selection would reflect the nature of the project, its theory of change and what existing evidence would indicate would be the relevant dimensions to capture.</p> <p>Part of the analytical work in the IEG report looks at economy-wide or sector-wide effects of projects, Management notes that this may not be appropriate level to see impact for projects which targeted specific sub-sectors in specific locations, as this does not take attribution concerns into account. Additional jobs-informed M&amp;E tools (e.g., collecting employment information within the administrative data of projects, trace surveys to evaluate impacts on beneficiaries over time and surveys to capture the indirect effects of jobs through value chains in specific sectors) are being developed that can provide better measures.</p>

# **Chairperson's Summary: Committee on Development Effectiveness**

The Committee on Development Effectiveness (CODE) discussed the Independent Evaluation Group (IEG) report *Industry Competitiveness and Jobs: An Evaluation of World Bank Group Industry-Specific Support to Promote Industry Competitiveness and Its Implications for Jobs* and the draft response from Management of the World Bank Group institutions.

Members found the report timely and comprehensive and endorsed IEG's recommendation to better articulate the World Bank Group approach to industry-level support to promote competitiveness and effectiveness. They stressed the importance of deepening the understanding of productivity and competitiveness; job market conditions including job loss and employment opportunities; and industrialization, job creation, and growth. They noted the key connection between competitiveness and the quantity and quality of jobs. Members underscored that these issues are relevant for achieving the corporate goals and the Sustainable Development Goals. They commented that generally they would like to see gender considerations and analysis incorporated in approach papers and evaluations as a matter of course going forward.

Members welcomed IEG and Management's agreement on the importance of reflecting on growing deindustrialization across developing countries. They highlighted the need to deepen analysis of economic transformation through domestic manufacturing and commodity-based industrialization in challenging environments, particularly in Sub-Saharan Africa. They underlined that discussions on industrial policy and industrialization must take into account the specific country contexts, including political economy. They commented on the importance of supporting inclusive and sustainable industrialization, particularly in the context of ongoing International Development Association discussions and in coordination with other development partners. Members raised questions and comments on private sector-led diversification; constraints of the traditional model of structural transformation from agriculture to manufacturing; the focus on a microeconomic approach at the firm level by the International Finance Corporation and the Multilateral Investment Guarantee Agency and at the industry level through the World Bank Group; addressing the needs of countries that do not experience deindustrialization; and the role of international trade and access to markets. Members acknowledged that IEG did not address trade in the evaluation since trade finance was discussed previously by CODE and an evaluation of trade facilitation is in the work program.

CHAIRPERSON'S SUMMARY:  
COMMITTEE ON DEVELOPMENT EFFECTIVENESS

Members noted Management's comments about the difficulties of job integration in industry-specific support and about achieving this objective by incorporating job effects in project results frameworks. In this regard, they highlighted the need to better understand and capture how World Bank Group projects impact the creation of jobs, directly and indirectly. They recognized that technically job effects are not always directly attributable to World Bank Group interventions. Members underscored that interventions should be combined with structural changes and complementary investments in education, infrastructure, and institution building, among others.

Members emphasized the importance of strengthening synergies within the World Bank Group, including across the Global Practices, in line with the "Forward Look."

# 1. Introduction and Evaluation Approach

## Highlights

- ❖ Growth strategies in developing countries increasingly emphasize the need to improve industry competitiveness as a key element
- ❖ The World Bank has promoted industry competitiveness since the 1950s using varying approaches. The World Bank Group in recent years has emphasized its support for improved competitiveness in specific industries, consistent with client governments' demand
- ❖ Improved competitiveness is associated with improvements in productivity. A country's international competitiveness is associated with its ability to increase its share of exports in the world economy
- ❖ The relationship between improvements in competitiveness and employment remains complex and dependent on context and time.
- ❖ This evaluation assesses the contribution of the World Bank Group's industry-specific support to improving industry competitiveness and its implications for jobs in the past decade, focusing on four industries: agriculture, manufacturing, information and communication technology, and tourism.

## Introduction

A core part of economic development is increased productivity and value addition in the production of goods and services. Low value addition in the production of goods and services, a narrow range of goods and services, and large gaps in productivity between traditional and modern economic activities generally characterize countries in an early stage of development. The process of development thus involves structural change—that is, moving labor and other production factors away from low-productivity activities toward high-productivity activities (Box 1.1) (Dinh et al. 2012). As this shift takes place across industries, overall productivity in the country tends to rise, and national income expands. Achieving this outcome presents a range of challenges and complexities for developing countries, and the process may lead to unintended negative outcomes.

The main vehicle for increased productivity is industry upgrading—that is, enhancing firms' capabilities to offer better products and services, to produce products and services more efficiently, and/or to enter into new products and services (diversification). Productivity is a measure of production efficiency, expressed as a ratio of inputs to outputs in the production process. The process of industry upgrading occurs within firms, and competition transmits it across an economy at the industry and country level.

Box 1.1. Structural Transformation: Stages of Economic Development and Leapfrogging

An economy's structure changes as countries develop over time. Historical evidence shows that agriculture is a developing economy's most important sector initially. However, as income per capita rises, agriculture loses its primacy and gives way first to a rise in the industrial sector (industrialization) and then to a rise in the service sector (deindustrialization or post-industrialization). Growing economies are likely to go through these stages of development, which can be explained by structural changes in consumer demand and in the relative labor productivity of the three major economic sectors. Conversely, part of the literature reflects the belief among policy makers and theoreticians that developing (latecomer) countries can also catch up with industrial countries and their level of industrial development by potentially skipping stages of their development (leapfrogging development). This strand of literature considers technologies key to industrial growth (Perez and Soete 1988) and distinguishes among three different types of leapfrogging: as part of entire development pathways, through industrial development, and through new technologies adoption and use.

However, market failures represent obstacles to efficient market functioning. Factor and product markets often may not be fully efficient. Uncompetitive environments, obstacles to market signals, market imperfections, obstacles to mobilizing resources, and government failures can undermine the process of industrial upgrading in developing countries. Some of these failures may require national-level solutions that affect all industries, and others may require specific solutions for some industries.

Policy makers worldwide include industry competitiveness as a central objective of their development strategies. Development practitioners have long debated industrial policy (Box 1.2). Developing and developed countries often used industry-specific policies, and the experience has been mixed. Most countries have recently undertaken efforts to enhance competitiveness by improving the business environment, improving infrastructure, maintaining macroeconomic stability, and so on. Some countries are increasingly trying to attract foreign direct investment, promote innovation, and focus on the development of specific industries. This renewed interest in industry-specific support is partly due to the understanding that drivers of growth and competitiveness differ from sector to sector (McKenzie and Sakho 2010). Sustainable Development Goal 8 aims to achieve higher levels of economic productivity through diversification, technological upgrading, and innovation through a focus on high-value-added and labor-intensive sectors. Furthermore, Sustainable Development Goal 9 seeks to promote inclusive and sustainable industrialization and significantly raise industry's share of employment and gross domestic product in line with national circumstances.

### Box 1.2. Industrial Policy Debate

Industrial policy aims to support or protect sectors expected to offer better prospects for economic growth or societal welfare (Warwick 2013). Industrial policy tools include tariffs, fiscal incentives, or subsidies for specific industries (Baldwin 1969; Bardhan 1971). A World Bank study defines industrial policy as “government efforts to alter industrial structure to promote productivity-based growth” (World Bank 1993).

The virtues of industrial policy have been long debated. The risks and rewards of such interventions and the ability of governments and the private sector to effectively undertake them are highly complex and challenging. Some (Rodrik 2013; Rowden 2011) believe that industrial policy is a proper recipe for real economic growth and structural transformation, while others disagree with merits of targeting and argue that Industrial Policy has often done more harm than good. Skeptics of industrial policy such as Nolan and Pack (2003) question the “success” of industrial policies in Asia, Pack and Saagi (2006) finds little empirical evidence for supporting an activist government policy, and Lederman and Maloney (2012) conclude that economy-wide policies appear to support productivity and quality. Critics also indicate that industrial policies risk having worse outcomes than market failures if the benefits are captured by vested interests, or because civil servants may not be capable of “picking winners” (DCED 2014).

Experience also shows mixed results. Developed and developing countries used industrial policies extensively to promote industry development between the 1950s and 1980s. East Asian countries and economies, including Japan, the Republic of Korea, Singapore, and Taiwan, China are considered good examples of industrial policies implemented successfully. However, some countries in Latin America and Africa did not successfully use these policies for economic transformation. These policies were not often used in 1990s. Since the early 2000s, a number of countries designed these types of policies with a more specific focus on particular industries or geographic areas. Furthermore, many countries implement industrial policy interventions without calling them as such.

More recent debates and efforts on industrial policies shifted from discussing the merits of industrial policy to specifying how to design and implement them by avoiding past mistakes. A recent United Nations Industrial Development Organization and German Agency for International Cooperation tool and an Inter-American Development Bank report (Crespi, Fernandez-Arias, and Stein 2014) on new generation of industrial policy, where the discussion is around policies that affect specific sectors, rather than focusing on picking winners, are some contributions to this effort.

*Note:* For more information about the German Agency for International Cooperation tool, visit the EQuIP website at <http://www.equip-project.org/toolbox>.

The World Bank Group in recent years has emphasized support for competitiveness in specific industries, consistent with client government demand. The current World Bank Group strategy adopted in 2013 recognizes that competitiveness is important in helping generate sustainable and inclusive economic growth to reduce poverty and share prosperity. The strategy states “Most countries that have successfully transitioned to high-income status followed a path of urbanization and concentrated industrial

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### INTRODUCTION AND EVALUATION APPROACH

development that enhanced productivity, expanded service delivery, and generated broad-based gains in social welfare.” The focus on industry competitiveness is not new to the World Bank Group, though its emphasis has shifted through the years. In the 1950s and 1960s, the World Bank supported industrial strategies based on import substitution, and from the 1980s to the late 1990s, it supported outward-oriented trade policies. Starting in the late 1990s, the World Bank began to focus on the broader, overall business environment to enhance competitiveness. In 2011, the World Bank introduced a new emphasis on promoting the competitiveness of specific industries, focusing on agribusiness, construction, information and communication technology (ICT), manufacturing, mining, and tourism. In 2014, with the establishment of the Trade and Competitiveness (T&C) Global Practice (GP)—a joint World Bank and IFC practice, the World Bank started to expand its support to sector policies by including spatial solutions such as special economic zones (SEZ), growth poles, clusters and city competitiveness. More recently, the emphasis is on integrated solutions—joint work across its core themes and across GPs, CCSAs, IFC and MIGA.

This evaluation seeks to assess the contributions of the World Bank Group’s industry-specific support to industry competitiveness in developing countries and its implications for jobs. Industry competitiveness can be enhanced through several different approaches including economy wide, industry specific, or mix of economy wide and industry specific. The evaluation focuses on industry specific support and on four industries—agriculture, manufacturing, tourism, and information and communication technology. The first part of the evaluation assesses the extent to which the World Bank Group achieved its goal of helping client countries enhance the competitiveness of specific industries, and assesses the World Bank Group’s support using the criteria of relevance, effectiveness, and efficiency in delivery. The second part of the evaluation makes an initial effort to understand the implications of this industry-specific support for job quantity and quality in the industry, which is an issue of central concern to policy makers.

### Implications of Improved Industry Competitiveness on Jobs

The relationship between improvements in competitiveness and employment remains complex. A major debate has persisted in recent years about the effect of productivity and competitiveness on jobs (Moser, Urban, and Weder di Mauro 2009; UNIDO 2013b; UNCTAD 2010). Box 1.3 presents the definitions of competitiveness, productivity, and jobs as used in the literature, at the World Bank Group, and in this evaluation. An intuitive connection exists between competitiveness and jobs—firms that are more productive and capable are better able to compete, gain market share, and grow, and therefore generate employment. Workers who are more productive and capable can

reap the benefits of their productivity through higher wages and benefits.<sup>1</sup> However, the interaction of productivity and jobs is both conceptually and empirically more complex and is dependent on context and time. Enhancing competitiveness through industrial upgrading can also induce dislocations as resources shift within and between sectors. These dislocations can result in unemployment and destabilize some firms, industries, or whole regions.

A range of factors can affect a country's competitiveness. Wide ranges of micro and macro determinants influence competitiveness at the firm, industry, and country level. Factors affecting productivity and competitiveness cover essentially the entire general environment for conducting business in a country and are often captured in composite indicators (appendix A). At the industry level, competitiveness is influenced by the distinct set of circumstances facing the industry, which includes specialized infrastructure, industry-specific public policy, specialized skills, institutional capacity, technological stage, access to finance, and regulations (Table 1.1). For example, the Porter Diamond Model identifies a range of factors that can affect competitiveness of a particular industry (Porter 1990), including the following:

- Factor conditions (such as human resources or infrastructure needed to compete in an industry)
- Demand conditions (such as sophisticated home market buyers to pressure firms to innovate, create more advanced products, and enhance competitiveness)
- Related and supporting industries (that can produce internationally competitive inputs)
- Firm strategy, structure, and rivalry (conditions that govern how firms are created, organized, and managed, the type of domestic rivalry that can encourage innovation, and so on).

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#### Box 1.3. Competitiveness, Productivity, and Jobs Definitions

**Competitiveness:** Competitiveness is a broad concept for which the literature presents different definitions, interpretations, and indicators. Competitiveness has been used interchangeably with comparative advantage or the ability to produce a good or service at a lower opportunity cost than others (Baldwin and Krugman 1986; Spencer and Brander 2008; Lall 2001). Other definitions refer to a favorable business environment. The International Institute for Management Development's definition of competitiveness includes political, cultural, and social dimensions of the environment in which enterprises operate. Furthermore, competitiveness is often intertwined with productivity. For example, the Global Competitiveness Index defines competitiveness as the set of institutions, policies, and factors that determine an economy's level of productivity (Schwab 2013). The Institute for Strategy and Competitiveness at Harvard Business School defines competitiveness as the productivity with which a location uses its human, capital, and natural endowments to create value.

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Supporting competitiveness has long been part of the World Bank Group's operations, and it takes on several meanings in World Bank Group projects. In the World Bank portfolio, competitiveness mostly means increased volume of exports or enhanced value of goods produced or exported, or both. In IFC, firm-level competitiveness refers to a firm's market share or volume of production or exports. This evaluation adopts the World Bank Group Trade and Competitiveness Global Practice's definition of competitiveness: The ability of firms to generate new investments and to increase market share in goods and services through improved productivity" (World Bank 2014, 3).

**Productivity:** The ability of firms and industry to capture market share and grow the market (competitiveness) derives from productivity improvement. Productivity is a measure of production efficiency, expressed as a ratio of inputs to outputs in the production process. The main vehicle for increased productivity is industrial upgrading—that is, enhancing firms' capabilities to offer better products and services, produce products and services more efficiently, and/or enter into new products and services (diversification). "Industry" broadly refers to all sectors of commercial activity, including agriculture, manufacturing, and services.

Productivity in World Bank Group projects mostly refers to land and water productivity because most of the portfolio is in agriculture, and it is usually measured by increased yields or decreased losses per hectare or per unit of water. In IFC, productivity refers to firms' modernization and upgrading in their production processes (firms being more efficient in the use of inputs, such as energy and raw materials). Productivity is measured by the value of goods and services produced per unit of input. This evaluation uses the definition of productivity most commonly used in the literature, which is value added per worker.

**Industrial upgrading:** Enhancing firms' capabilities (through new or expanded technology, new methods) to offer better products and services, to produce products and services more efficiently, and/or to enter into new products and services (diversification).

**Jobs:** *World Development Report 2013: Jobs* defines jobs as "activities that generate income, monetary or in kind, without violating human rights." The employment challenge in developing countries refers both to job creation and to enhancing job quality. Job quality includes work and employment characteristics that affect workers' well-being, such as pay, training, and worker safety (de Bustillo et al. 2011; Green 2007). A good job (or better job) also implies high (or improved) productivity that leads to higher returns and earnings. In line with these concepts, the evaluation refers to generating employment and enhancing job quality. This evaluation assesses jobs on the quantity and on the employment characteristics that affect workers' well-being.

*Note:* For more information about the drivers of competitiveness from the Harvard Business School Institute for Strategy and Competitiveness, visit <http://www.isc.hbs.edu/competitiveness-economic-development/frameworks-and-key-concepts/pages/drivers-of-competitiveness.aspx>.

Table 1.1. Drivers of Productivity Enhancements in Three Country-Level Competitiveness Indexes

Driver	GCI	Porter's Competitiveness Index	World Competitiveness Yearbook
Infrastructure	X	X	X
Macroeconomy	X	X	—
Institutions	X	X	—
Basic health and education	X	X	X
Innovation technology	X	X	X
Skills and Training	X	X	X
Finance	X	X	—
Market endowment	X	X	X
Labor market regulations	X	—	—
Trade and regulatory environment	X	X	—
Firm-level support	X	X	—

Source: Global Competitiveness Index; Porter's Competitiveness Index; World Competitiveness Yearbook.

Note: GCI = Global Competitiveness Index; X = the relevant index includes the item as a driver of productivity; — = not applicable.

A number of interconnected factors influence the overall level of employment. Implications for jobs from industrial upgrading can be estimated using a simple framework for examining the relationships among productivity, competitiveness, and employment (Box 1.4). Industrial upgrading's direct employment effect depends (negatively) on the size of the increase in productivity (defined as labor productivity because the interest is in the effect of competitiveness on jobs), (positively) on the rate of expansion of market size, and (positively) on the increase in competitiveness (market share). Regarding industry growth and competitiveness, various combinations are possible with different implications for the demand for labor. If the growth rate in market size plus market share exceeds growth in productivity, then the productivity increase will translate into higher direct employment. In general, productivity increases will translate into higher employment at the respective level of analysis (firm, industry, or country) if the rate of increase in output (market size + market share) exceeds the rate of increase in productivity. In turn, the rate of growth in market size depends on income and price elasticity of demand; the increase in competitiveness (market share); the price of competing goods and services (and indirectly on the relative productivity of the firm, industry, or country in question compared with competitors); and the extent to which the process of industrial upgrading affects the labor intensity of production—that is, is labor-saving, capital-saving, or technologically neutral.

Box 1.4. A Simple Framework for Analyzing the Relationships among Productivity, Competitiveness, and Employment

From the identity  $LP * L = S * I$ , where LP is labor productivity, L is labor employed, S is market share, and I is market size,  $I = I + s - lp$  is obtained, where  $I =$  the change in labor employment,  $i =$  market size change,  $s =$  change in market share, and  $lp =$  change in labor productivity.

The direct employment effect of industrial upgrading, therefore, is negatively correlated to the size of increase in labor productivity, positively correlated to the rate of expansion of market size, and positively correlated to the increase in competitiveness (market share).

*Source:* IEG, adapted from Blanchard, Solow, and Wilson (1995) and Nordhaus (2005).

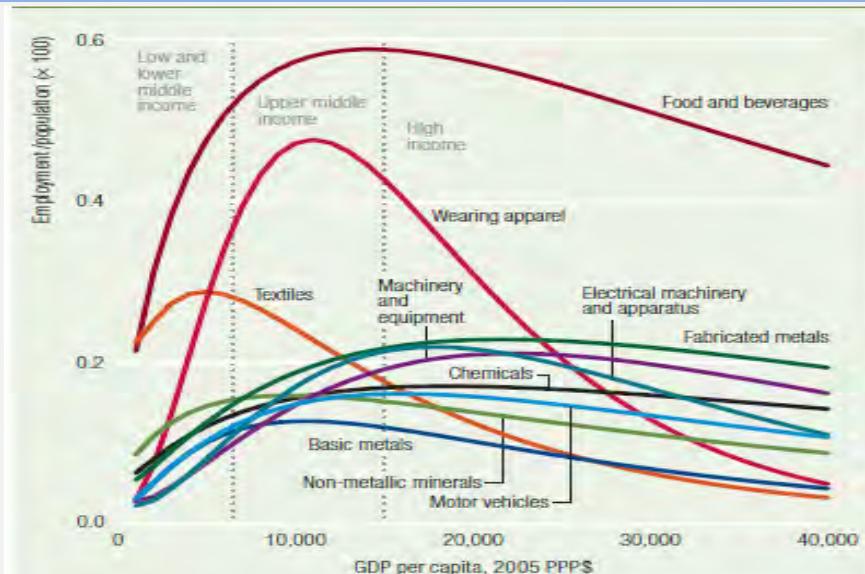
*Note:* The variables are expressed in log terms.

Productivity improvements in some industries have significantly greater implications for jobs than in other industries. Empirical research shows that the effect of productivity growth and competitiveness on employment depends on the level of sophistication (or complexity) of specific industries. Where production is labor-intensive (mostly associated with lower level of industry sophistication), enhancing productivity appears to have a significant beneficial impact on employment. This is true for the food and beverages, textiles, and wearing apparels industries (figure 1.1). At higher levels of industry sophistication, high-tech industries do not sustain labor employment along with the increase in productivity, although they show a positive effect on indirect job creation in related services.

The implication for jobs will also depend on an economy's stage of development and ongoing changes in the global economy. Additional evidence, though mixed, shows that the correlation between competitiveness and job creation also depends on the economy's stage of development and its labor market regulations (Moser, Urban, and Weder di Mauro 2009). In low-income countries, industries with relatively high employment levels (such as textiles and apparel) increase employment as income grows. However, in higher-income countries, many manufacturing industries reduce employment with rising income (UNIDO 2013a). Similarly, labor market regulations may preserve jobs among established firms in the presence of negative external shocks, although jobs will be destroyed later on when the least-efficient firms go out of business. These historical patterns are conditioned by several factors operating in the global economy, such as the development of global value chains that rearrange the distribution of production around the world, technological changes within manufacturing industries that are making manufacturing more capital and skill intensive, and increasing international competition. Finally, environmental concerns have a much larger role than they did in the past, making it costlier to develop

traditional “dirty industries,” such as steel, paper, and chemicals, with resulting implications for jobs.

Figure 1.1. Change in Employment by Income and Manufacturing Industry, 1963–2007



Source: UNIDO 2010b.

## Evaluation Approach

In this evaluation, IEG assesses the contribution of the World Bank Group’s industry-specific support to improving industry competitiveness and its implications for jobs. Competitiveness is defined as the sustained ability of a firm or industry to capture an increased share of global markets in tradables and grow the local market in nontradables. The sustained ability of firms and industry to capture market share and grow the market derives from productivity improvement. Productivity is measured by the value of goods and services produced per unit of its resources. In assessing World Bank Group effectiveness in this area, the evaluation examines productivity defined as outcomes, and examines competitiveness as impacts.

A wide range of systemic and country-specific factors (such as macroeconomic stability, infrastructure, health and education, labor regulations, the general business environment, as well as industry-specific conditions) influence industry competitiveness in developing countries. This evaluation focuses on the World Bank Group’s support for industry-specific conditions that contribute to improved productivity and competitiveness in the industry. It also seeks to address the implications of improved industry competitiveness for employment, which is a key

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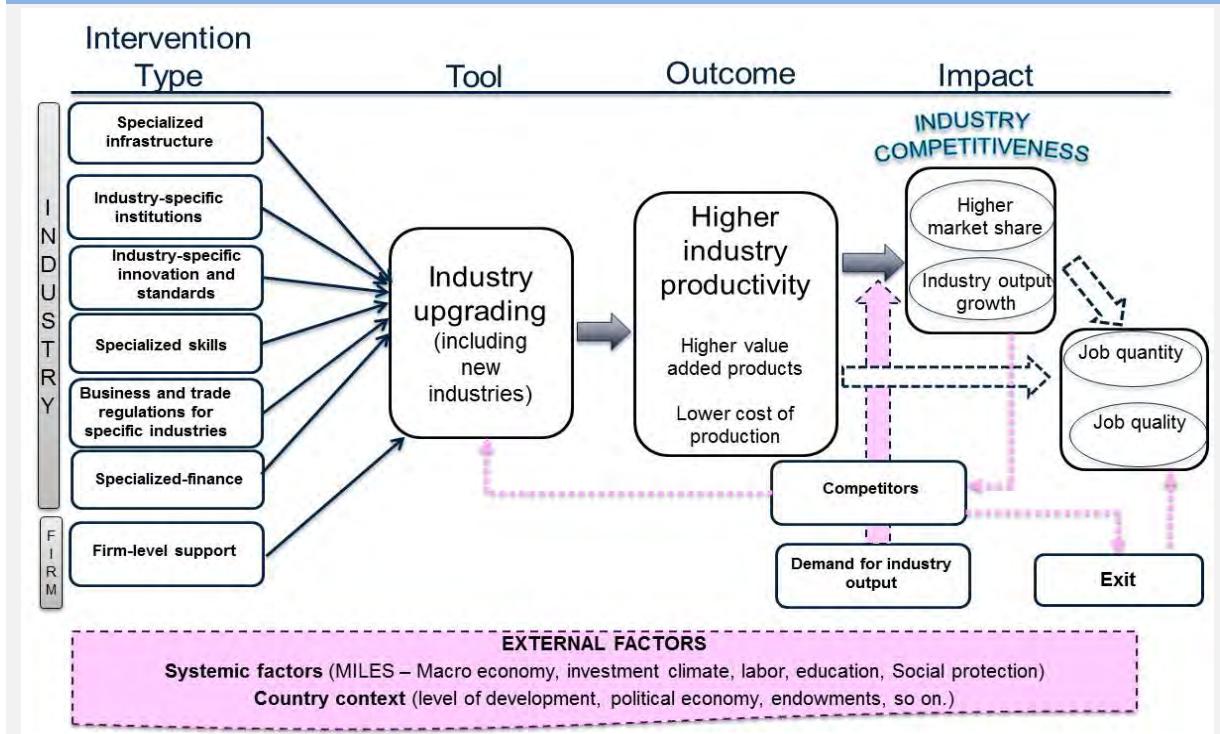
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concern of policy makers. The evaluation seeks to answer two questions: Has the World Bank Group's industry-specific support been effective in enhancing industrial competitiveness? What has been the implication of this support on job quantity and quality?

The evaluation covers the World Bank Group's industry-specific activities in four industries: manufacturing, ICT, tourism, and agriculture. Based on the literature on industrial upgrading, productivity, and competitiveness and the draft World Bank Group Trade and Competitiveness Global Practice strategy for industry competitiveness, IEG developed a framework to assess the contribution of the World Bank Group's industry-specific interventions to industry competitiveness (Figure 1.2). The evaluation focuses only on those activities that have explicit objectives to support industry competitiveness in four industries: manufacturing (including agribusiness), ICT, tourism, and agriculture. IEG selected these industries because they represent industries at different levels of sophistication and stages of economic development, include both goods and services and are tradable, and are the focus of World Bank Group support for industry competitiveness. The evaluation classified the interventions into seven basic areas identified as contributing to industry competitiveness: specialized infrastructure, industry-specific institutions, industry-specific innovation, specialized skills, industry-specific regulatory environment, specialized finance, and trade links. The evaluation covers World Bank Group industry competitiveness interventions during FY08–14 and relies on project documentation (for example, project appraisal documents, Implementation Completion Reports, Expanded Project Supervision Reports, and Project Data Sheet-Approval).<sup>2</sup> The team also reviewed 10 in-depth case studies (selected to cover each industry, region, and income group) and included four country visits: the former Yugoslav Republic of Macedonia, Mauritius, Rwanda, and Vietnam (appendix B).

The evaluation assesses the World Bank Group's contributions by examining the relevance, effectiveness, and efficiency in delivery of its industry-specific support to promote industry competitiveness. IEG assessed relevance based on whether the World Bank Group's industry-specific interventions are appropriate to address the needs in client countries. IEG assessed the effectiveness of World Bank Group support based on whether its industry-specific interventions contributed to industrial upgrading and were successful in achieving enhanced competitiveness. IEG assessed efficiency in delivery according to whether the World Bank Group's institutional arrangements were appropriate to achieve relevance and effectiveness in industry competitiveness. Furthermore, the report makes an initial effort to identify the implications of the World Bank Group's support for industry competitiveness on job quantity and quality across the analyzed industries.

Figure 1.2. Industry Competitiveness Framework and Evaluation Logical Framework



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<sup>1</sup> Improving a sector's "competitiveness" may require a decrease in market share of certain firms or other sectors. For instance, if the sector is dominated by a state-owned enterprise that heavily subsidizes its output, improving competitiveness of the sector may require eliminating this distortion to allow other firms to compete. In any market characterized by high levels of competition, prices will likely rise from distorted levels and the market may indeed get smaller. In fact, in the post-Soviet era, output declined but productivity went up.

<sup>2</sup> The portfolio coverage was expanded to FY04 in the effectiveness analysis to enlarge the sample size.

## 2. The World Bank Group's Industry-Specific Competitiveness Strategies and Portfolio

### Highlights

- ❖ The World Bank Group's strategies and operations have long supported industry competitiveness. The approach has evolved over time, from supporting import substitution strategies in the 1950s and 1960s, to emphasizing outward-oriented trade policies in the 1970s and 1980s, to improving the overall business environment to enhance competitiveness since the 1990s, to a stronger focus on promoting competitiveness in specific industries in recent years
- ❖ The World Bank Group did not have a distinct, overall strategy to support industry competitiveness. Its approach has been largely embedded in private sector development, sector development, and country partnership strategies. IFC recognizes the importance of promoting industry competitiveness in its corporate and Regional strategies
- ❖ The World Bank Group supported 881 projects that contained some element of industry-specific competitiveness support during 2008–14, worth \$21.6 billion. The World Bank, IFC, and MIGA supported industry competitiveness in different ways that reflect their distinct business models
- ❖ World Bank projects in agriculture (mainly in low-income countries and Africa) sought to improve adoption of new and improved inputs and technologies, enhance agricultural institutions' capacity, and improve agricultural infrastructure
- ❖ Most World Bank Group activities to help improve manufacturing competitiveness consisted of firm-level support provided by IFC Investment Services and Advisory Services, and MIGA guarantee projects. World Bank activities directly supporting manufacturing competitiveness were limited and focused mainly on agribusiness
- ❖ Most World Bank support to help improve tourism competitiveness was included as one of several components of a project and focused in Africa and Latin America and the Caribbean. IFC- and MIGA-supported projects mostly involved expanding and rehabilitating hotels
- ❖ The World Bank Group's interventions in information and communication technology mostly consisted of regulatory and institutional reforms, and upgrading telecommunications and other industry infrastructure.

### The World Bank Group's Approach and Strategy

The World Bank Group's strategies and operations have long supported competitiveness. In the 1950s and 1960s, the World Bank supported industrialization strategies to promote industry competitiveness, focused on comprehensive planning, import substitution, and extensive government participation in industrial activity (IEG 1992). Outward-oriented trade policies were regarded as central to success during the 1970s, after the perceived success of the newly industrialized countries in East Asia.

Since the 1990s, attention has focused on improving the broad range of factors that affect the business environment, and promoting private sector development and industrialization within a market-friendly approach to development (IEG 1992). Privatization became a core part of the World Bank's private sector development strategy in the 1990s. Price and trade liberalization were promoted to help enable market signals, foster competitive forces, open new markets, and promote the transfer of expertise and technology to developing economies. In the 2000s strategies emphasized reforms that improved the business environment in which the private sector operated. Activities to support industry competitiveness included enhancing the regulatory environment, improving logistics, strengthening interfirm links, supporting global integration, improving corporate governance, and encouraging foreign direct investment. The focus shifted later in the decade to competitiveness along with the core agenda of investment climate and competition (Commission on Growth and Development 2008).

The World Bank Group in 2011 began to emphasize competitive industries as a distinct area of support. The World Bank Group's Financial and Private Sector Development Vice Presidency created the Competitive Industries Practice as part of a new, pilot business model involving six global practices. Responding to widespread demand, the Competitive Industries Practice aimed to help client countries identify and address macro and microeconomic barriers that impeded the growth of specific industries to maximize economic and social benefits. Industries included were agribusiness, construction, ICT, manufacturing, mining, and tourism. A typical engagement consisted of the following:

- Problem diagnosis (assessing market structure and industry performance); supply chain and key players in the industry; market failure types and causes; the potential magnitude of industry's social and economic benefits; and policy options affecting firm behavior in the industry
- Subsequent dialogue with public-private taskforces to review policy options and identify cross-cutting and industry-specific solutions
- Support for implementing solutions, including regulatory changes, subsidies within specific areas, training and consulting services for groups of firms, or increasing infrastructure access in some areas.

The initiative was described as "a new departure in the field of economic development" that sought to put two decades of development experience into practice "in a holistic manner with the right checks and balances" (World Bank 2011d). The World Bank Group currently maintains a competitive industries theme within its Trade and Competitiveness Global Practice. Established after an internal reorganization in 2014, the global practice maintained the competitive industries as one of its four global

themes. The 2015 Trade and Competitiveness Global Practice strategy emphasizes industry-specific constraints and the importance of addressing them through industry-specific interventions (World Bank 2015e), and identified agribusiness, manufacturing, tourism, and other services as priority industries. The competitive industries theme also focuses on spatial growth and investment strategies that involves support for development and management of special economic zones; fostering growth poles, clusters, and links from anchor investments; and support for city competitiveness strategies. The recent developments and strategic directions of T&C, especially in the competitive industry theme are presented in box 2.1.

#### Box 2.1 Recent Developments in T&C and Its Competitive Sectors Theme

In 2014 Trade and Competitiveness (T&C) was created as a joint Global Practice (GP), incorporating different parts of World Bank departments (i.e., Finance and Private Sector Development and Poverty Reduction and Economic Management) and IFC Advisory Services. One of the four main themes of this GP is competitive sectors, focusing on industry specific support, especially in agribusiness, manufacturing, tourism and other sectors, along with spatial growth and investment strategies. Given that the practice was established recently and has been implementing its strategy only over a year, the Independent Evaluation Group does not intend to assess neither its strategy nor its performance in this evaluation.

T&C intends to focus on integrated solutions. Such integrated solutions intend to provide a response to the multi-dimensional challenges that countries face by supporting multiple areas. T&C seeks to promote delivery modalities that are a blend of financial and advisory services along with economy-wide support (recent examples are Georgia, Serbia, and Tanzania). Further, the industry specific work is sought to be supported together with T&C's other themes and in partnership with other GPs, cross-cutting solutions areas, the International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency (MIGA). Some of the ongoing partnerships include the Agricultural Spatial Solutions investment policy financing with the Agriculture GP and Sustainable Tourism Solutions with several GPs, IFC, and MIGA.

Another area of focus in T&C is applied research and knowledge program. Currently T&C is working toward analytical products that are able to integrate economy wide and industry specific themes together (e.g., the trade regime, investment climate, product markets, economic diversification, productivity, connectivity). T&C aims to go beyond sector specific diagnostics, and provide interdisciplinary cross practice analytics. Similarly, economic diversification is another area T&C plans to support through in-depth analytics and a range of instruments, including hands-on implementation support. Finally, in terms of results measurement, T&C has developed a results chain that elaborates expected theory of change, including results chain for industry specific interventions.

Source: T&C internal documents and IEG.

Note: Overall, as of January 2016, T&C had 55 active operations totaling \$3.6 billion in International Bank for Reconstruction and Development and International Development Association lending and a recipient-executed trust fund, and over 450 active Advisory Services and Analytics tasks totaling \$439 million. It is one of the biggest Reimbursable Advisory Service providers in the World Bank, \$35 million worth in 16 countries.

The World Bank Group has not had a distinct, overall approach to supporting industry competitiveness in the past decade. Instead, different parts of the World Bank Group sought to support industry specific engagements as part of their own strategies or work programs. The World Bank Group's approach to industry competitiveness was largely embedded in its broader private sector development, sector development, and country partnership strategies. At the corporate level, these strategies do not clearly differentiate between supporting competitiveness at the broad, national level and supporting it at the specific industry level. Although corporate strategies and many country strategies aim to enhance competitiveness through national-level support (relevant to all industries), the World Bank Group's Trade and Competitiveness Global Practice focuses on sector or industry-specific policies and growth, along with spatial growth and investment strategies. Furthermore, a wide range of World Bank Group industry-specific interventions sought to support competitiveness in specific industries, especially in agriculture and ICT.

Sector strategies identify the World Bank Group's approach to improving competitiveness in agriculture. The 2010–12 and 2013–15 Agriculture Action Plans both emphasized the importance of enhanced agricultural productivity, linking farmers to markets, strengthened value chains, and creating more and better rural jobs. The action plans intended to achieve productivity increases by adopting new technology, enhancing agricultural water management, improving tenure security and land markets, and strengthening agricultural innovation systems. They also aimed to link farmers to markets by strengthening producer organizations, improving market information, enhancing competitiveness, and improving trade. The plans were consistent with the 2008 World Development Report's categorization of three worlds of agriculture, explicitly differentiating support across countries and regions. Support focused on agricultural productivity growth (particularly food staples) in Africa and parts of Asia, where agriculture is a major contributor to overall growth and poverty reduction. In parts of East Asia and Pacific and South Asia Regions and in Europe and Central Asia Regions, the action plans emphasized linking farmers to higher value markets (World Bank 2010, 2013). The agriculture action plans sought to support agricultural productivity with larger projects and longer-term solutions. In the last couple of years, agricultural competitiveness projects have increasingly been undertaken jointly by the Agriculture GP and others. For example, a new global solutions group on Agribusiness has been set up jointly by the Agriculture GP and T&C. Another cross cutting global solutions group focused on Agricultural jobs and rural livelihoods has been set up jointly by the Jobs CCSA, Agriculture GP, and T&C.

The World Bank Group's ICT sector strategy emphasizes technology diffusion's role in increasing productivity and accelerating economic growth. The 2011 World Bank Group ICT strategy highlights the role of technological progress in economic transformation

and job creation for youth and women. The strategy has three main pillars: connectivity, innovation, and transformation. The innovation pillar aims to develop competitive IT-based service industries and foster ICT innovation to support job creation. The World Bank, IFC, and MIGA intend to collaborate to support this industry.<sup>1</sup> The previous strategy supported broadening and deepening sector and institutional reforms; access to ICT infrastructure; and ICT technology applications. During the previous (2000) strategy period, ICT skill support was limited in scale and not sufficiently integrated with the World Bank Group's core operational instruments.

World Bank strategies identify broad approaches to help improve competitiveness at the Regional level. The 2011 Sub-Saharan Africa Regional strategy focuses on jobs and competitiveness (including tradable goods and services, domestic sectors, and competitive cities). The strategy in the East Asia and Pacific Region is to help middle-income countries move up the value chain, and integrate low-income countries into regional and global economies through private sector development activities, infrastructure, and new growth strategies (World Bank 2011a). In the Latin America and the Caribbean Region, the World Bank Group sought to help improve competitiveness and productivity through support for product quality and standards, worker training, export and foreign direct investment promotion, innovation and technology centers, cluster development, and infrastructure and trade logistics (World Bank 2015c). The 2010–15 Middle East and North Africa Region strategy sought to enhance market reach and efficiency by promoting competition and industrial policies. Competitiveness and shared prosperity through jobs is one of the two main pillars of the Region, according to the 2015 Europe and Central Asia Regional update. The strategy aims to achieve this objective through a sound macroeconomy, business environment, human capital, infrastructure, and financial sector development.

IFC recognized the importance of promoting industry competitiveness in its corporate and Regional level strategies. At the corporate level, IFC recognizes the importance of industry competitiveness for increased market access, broad-based growth, and expanded economic activity and job creation. IFC seeks to support industrial upgrading and foreign direct investment through investments and advisory services that help companies upgrade their technologies, improve efficiency, and introduce new products. IFC's dedicated industry departments enable it to take distinct approaches to competitiveness at each industry level (for example, enhancing productivity in agriculture, accelerating structural change in manufacturing, and providing modern infrastructure through hotels in tourism). The 2013 manufacturing sector strategy articulates a differentiated approach to supporting manufacturing competitiveness of companies according to a country's stage of development. Countries in the agrarian stage have low capabilities, so IFC aims to focus its support on establishing basic construction materials and supporting the growth of labor-intensive light

manufacturing. For countries in the transforming stage (medium capabilities), IFC sought to focus on basic chemicals, and the automobile and machinery industries and focus on competitive industrial clusters in urbanized countries (IFC 2013). The most recent strategic business outlook of IFC places emphasis on “disruptive technologies.” Another example that shows IFC’s focus on industry competitiveness is the Partnership in Cleaner Textile (PaCT), supporting the long-term competitiveness and environmental sustainability of the textile wet processing sector in Bangladesh. Also, IFC increasingly sees its performance standards as a tool for industrial upgrading and a source for increased competitiveness among the supported companies (IFC 2014).

The most recent IFC corporate strategy (2016–18) identifies the approaches to fostering competitiveness in each Region. Innovation and competitiveness are key priorities in Latin America and the Caribbean, and IFC plans to support infrastructure, sustainable cities development, capital market development, financial access and inclusion, energy, telecommunications, and agribusiness to support this objective. The goal in South Asia is to help strengthen the competitiveness and sustainability of the ready-made garment industry and tourism for job creation. In Africa, IFC continues to invest in agribusiness value chains and help improve yields, promote modern retail in the food sector, help increase exports, and support financial institutions dedicated to serving farmers and agribusiness enterprises to create a more competitive and productive real sector (IFC 2016). IFC identifies lack of competitiveness and weak investment climate as challenges in the Europe and Central Asia Region; however, the focus is on energy infrastructure, capital markets, and promotion of sustainable cities (IFC 2016).

MIGA provides political risk insurance to support foreign investment inflows. The institution supports competitiveness by promoting foreign direct investment in developing countries, with a potentially positive impact on firm and industry competitiveness from benefits such as technology transfer, managerial expertise, market access, and access to inputs.

## The World Bank Group's Industry-Specific Interventions to Promote Industry Competitiveness

### OVERVIEW OF WORLD BANK GROUP INTERVENTIONS

The World Bank Group approved 881 projects that contained some element of industry-specific support during 2008–14.<sup>2</sup> These included 463 World Bank lending operations, 165 IFC investment projects, 190 IFC Advisory Services engagements, and 63 MIGA guarantee projects (appendix C). The total value of these projects was \$21.6 billion (about 6 percent of total World Bank Group project approvals in the period). The share of World Bank projects with industry competitiveness components was about 5 percent

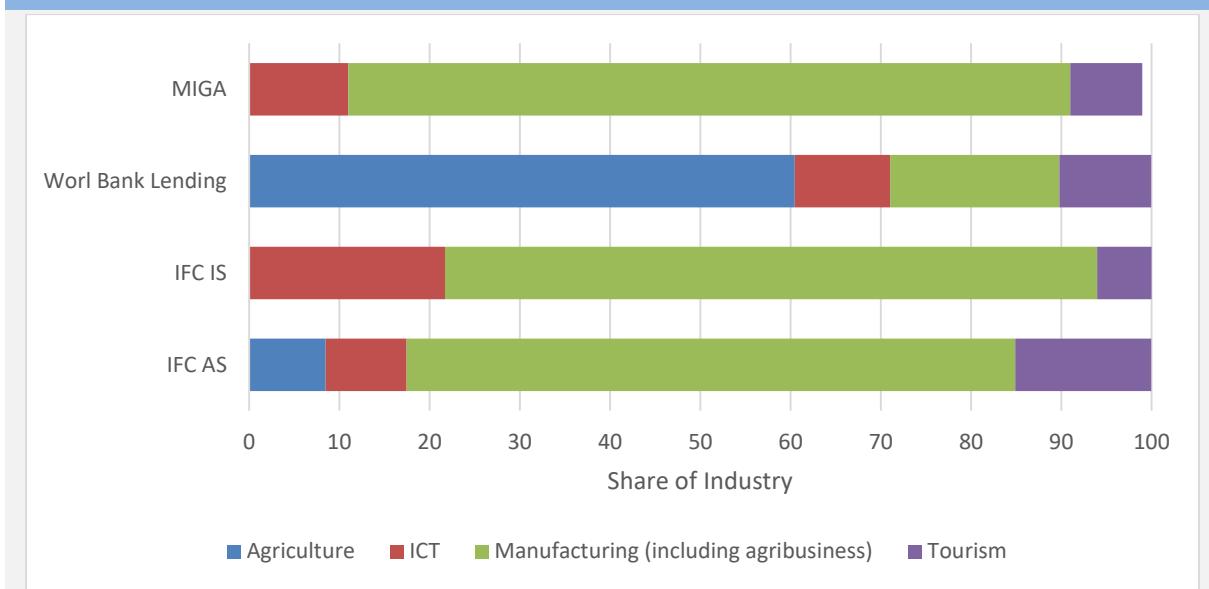
## CHAPTER 2

### THE WORLD BANK GROUP'S INDUSTRY-SPECIFIC COMPETITIVENESS STRATEGIES AND PORTFOLIO

of total approvals in the period by volume and about 20 percent by number (appendix C). IFC's share was 6 percent of total approvals by volume and 8 percent by number, and the share of IFC Advisory Services projects with industry competitiveness components was 14 percent of total approvals in the period. MIGA guarantee projects in the four industries of the evaluation's focus (manufacturing, ICT, tourism, and agriculture) represented 14 percent by volume of total gross exposure and 25 percent by number during the period.

The World Bank, IFC, and MIGA supported industry competitiveness in different ways that reflect their distinct business models. The World Bank's industry competitiveness interventions largely focused on the industry level, and most IFC and MIGA activities were at the firm level. IFC and MIGA focused more narrowly on firm expansion and growth, while World Bank support covered broader areas, including industry-specific policy, infrastructure, and regulations. Each World Bank Group institution also targeted distinct industries. A significant part of the World Bank's activities (60 percent) supported agriculture, but its direct support for manufacturing competitiveness was limited and largely supported agribusiness. By contrast, 70 percent of IFC's investment and advisory projects and 80 percent of MIGA guarantees supporting industry competitiveness were in manufacturing, including agribusiness (Figure 2.1).<sup>3</sup> At the Regional level, about 40 percent of World Bank support and half of MIGA's support were in Africa, which has more low-income, agriculture-based economies. Most IFC investments were in Europe and Central Asia and Latin America and the Caribbean, which have higher-incomes and more advanced economies (appendix C). Most IFC Advisory Services projects were in East and South Asia and Africa.

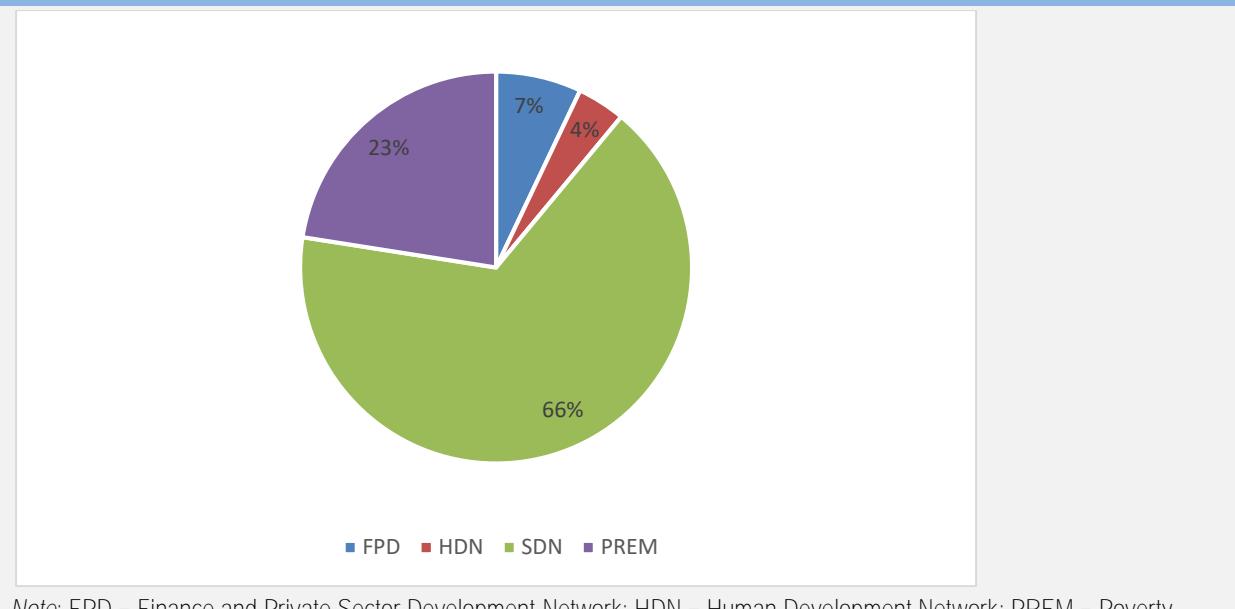
Figure 2.1. Share of World Bank Group Projects with Industry-Specific Competitiveness Components across the World Bank Group, by Industry



Note: ICT = Information and communication technology; IFC AS = IFC Advisory Services; IFC IS = IFC Investment Services.

The evaluation portfolio shows that industry competitiveness is a focus for many networks. Across the World Bank's networks, projects with industry-specific competitiveness activities tended to have distinct objectives and approaches. Most World Bank-financed projects with industry competitiveness components were in agriculture, implemented through the Social Development Network and then the Poverty Reduction and Economic Management Network. The Financial and Private Sector Development Network (formerly the private sector development department, now part of the Trade and Competitiveness Global Practice) accounted for 7 percent of the projects with industry competitiveness components, focusing on analytical and advisory activities to deliver this type of support (Figure 2.2). Across networks, projects with industry competitiveness components had distinct objectives and approaches. In the Social Development Network, about 20 percent of the projects' overarching objectives aimed to improve basic industry-specific infrastructure such as irrigation and transport; 17 percent specifically aimed to improve productivity or competitiveness through lending and development policy loans (DPLs), and about 10 percent supported sustainable development. In the Poverty Reduction and Economic Management Network, project objectives mainly aimed to enhance industry-specific reforms (35 percent), and regulatory environment (15 percent) through DPLs, and in the Financial and Private Sector Development Network, about 30 percent of projects supported competitiveness as an overarching project objective.

Figure 2.2. World Bank Lending Operations with Industry Competitiveness Components, by Network



Note: FPD = Finance and Private Sector Development Network; HDN = Human Development Network; PREM = Poverty Reduction and Economic Management Network; SDN = Sustainable Development Network.

### World Bank Group Interventions by Intermediate Objective

IEG classified the World Bank Groups industry-specific interventions into seven groups according to their objectives, to help understand the nature of support for industry competitiveness. IEG grouped the industry-specific interventions (including self-standing projects or components of broader projects that aimed to promote industry competitiveness) into seven broad categories: industry-specific innovation, specialized infrastructure, industry-specific institutions, industry-specific regulatory environment, specialized finance, specialized skills, and specialized trade and links. The nature of the World Bank Group's interventions to support each intermediate objective is as follows:

- **Enhancing industry-specific innovation.** Innovation was the most common intervention category supported by each World Bank Group institution across countries and Regions (about 35 percent) Table 2.1. Although the type of support (innovation) is similar across World Bank Group institutions, the nature of the support varies across industry, networks, and institutions. If IFC investments and MIGA guarantees provided the innovation-type support, the objectives were to upgrade a firm's equipment, or to introduce a new or significantly improved product or design, a better marketing strategy, a new production technique, or organization. World Bank innovation-type support activities were mostly agriculture extension services, research and development institutions, standards,

introduction of new or improved inputs and farming techniques, and upgrading buildings, equipment, and services

- **Developing specialized infrastructure.** Infrastructure interventions provided basic industry-specific infrastructure to improve access to irrigation, building or rehabilitating roads, building telecommunication infrastructure, and rehabilitate cultural heritage sites. IFC and MIGA projects also included infrastructure of telecommunication towers or expansion of firms through new infrastructure
- **Improving industry-specific regulatory reforms.** These interventions aimed to improve the business environment, including industry development and implementing laws, regulations, and institutional reforms. IFC Advisory Services and DPLs provided most of this support
- **Supporting industry-specific institutions.** Support through capacity-building and technical advice sought to help establish and strengthen public and private institutions and focused mainly on institutions with a role in enhancing agricultural competitiveness. The World Bank and IFC Advisory Services supported government agencies, producer associations, nongovernmental organizations, and others through capacity-building interventions
- **Specialized access to finance.** Loans or grants to facilitate access to finance
- **Specialized skills.** Skill programs that are specific to an industry
- **Specialized Trade and Links.** Trade facilitation or supply chain related interventions.

Table 2.1. Distribution of Industry Competitiveness Interventions, by Industry

	Intervention Type	Percent of Total Interventions
Access to finance	Funding for a specific industry	5
Innovation	Agriculture: extension services—introduction of new or improved inputs (seed, fertilizer) and technologies, techniques, and practices Manufacturing: adoption of new technologies, demonstration of techniques, good practices ICT: standards (industry and international standards), research and development, links between research and other	36
Institutions	Support to public or private institutions (producer organizations, ministry of agriculture, extension research staff)	17
Infrastructure	Irrigation, roads, other	16
Regulations	Regulations and reforms to enhance industry enabling environment	16
Trade links	Links between farmers and markets, value chain, trade facilitation	6
Skills training	Employee skills, upgrading entrepreneurial capabilities, vocational training	4

Note: Percentages indicate the share of all interventions.

## World Bank Group Interventions by Industry

### AGRICULTURE

Most of the World Bank's interventions on competitiveness were in agriculture and aimed to increase the adoption of new and improved inputs and technologies, enhance the capacity of agricultural institutions, and improve agricultural infrastructure.

Projects focused on improving productivity dominated the World Bank's industry competitiveness portfolio because agriculture's role in creating jobs and reducing poverty is strong. This evaluation reviewed mainly World Bank–funded agricultural competitiveness projects that focused on livestock, subsistence crops, and high-value crops such as vegetable and fruits. Regarding intermediary objectives, 64 percent of agriculture projects sought to improve farmers' use of fertilizer, seeds, and techniques, and introducing new standards through training and outreach events. More than half of the projects supported agricultural institutions, such as departments of agriculture, public extension agencies, and producer organizations. Irrigation systems and agricultural transportation were also common intervention areas. About 30 percent of interventions were to enhance the agricultural business environment. The World Bank also sought to improve links between agricultural producers and markets, reduce market transaction costs, align production decisions with business and market opportunities, and link smallholder farms to international market supply chains. These activities are consistent with the World Bank's agriculture strategies that focus on improving productivity through innovative agricultural systems, water management, and linking farmers to markets.

Table 2.2. World Bank Interventions to Promote Competitiveness in Agriculture

Intervention Type	Percent of Portfolio (n = 332)
Adoption of new and improved inputs and technology	64
Institutional support (extension service, producer organizations)	50
Infrastructure (irrigation, rural road)	45
Regulations	31
Trade links (supply chain)	11
Skills	5
Access to finance	8

Note: Percentages indicate the share of projects in the industry portfolio that include the specific intervention. n = number of projects.

Most World Bank support to improve agriculture competitiveness was in low-income countries and the Africa Region. Across country income groups, 51 percent of support was in low-income countries, followed by lower-middle-income countries with 37 percent. The type of interventions supported across income groups was broadly similar;

however, institutional and innovation interventions (such as improved inputs and new technologies) in lower-middle-income countries were relatively more common than in other income groups. Across Regions, Africa accounted for nearly half of the World Bank's interventions to support competitiveness in agriculture. The projects aimed to improve the adoption of new and improved inputs, techniques, standards, links between farmers, and research in all Regions except the Middle East and North Africa Region (appendix C).

World Bank Group interventions in Rwanda, Armenia, and the Philippines are examples of typical World Bank support to improve agricultural competitiveness. In Rwanda in the 2000s, a series of rural sector support projects supported environmentally sustainable agriculture through irrigation and infrastructure investments, innovations in land management techniques and production technologies, and greater farmer participation in market-based value chains. World Bank support to Armenia's agriculture productivity was under the rural economic development component of a broader policy-lending program that aimed to strengthen and expand the use of agricultural extension services, approve a new legal regime for producing certified seeds and increasing their use, and establish and stimulate the use of modern food safety and phytosanitary standards. In the Philippines, the World Bank sought to increase agricultural competitiveness by enhancing the government's capacity to provide market-oriented services, establishing an agriculture and fisheries market information system, strengthening safety and quality assurance systems, and enhancing market-linked technology development and dissemination.

Some interventions to improve competitiveness had explicit objectives to enhance women's roles in agriculture, but only a few reported actions or indicators. A recent IEG report found that in general World Bank Group projects and strategies do not define gender relevance and therefore struggle to define an explicit results chain and proper indicators (IEG 2016). Although nearly all country strategies incorporated gender, only a few reported actions or indicators. Most of these indicators are narrow in scope and tend to measure output instead of outcomes. This evaluation also examined gender-specific aspects in the industry competitiveness portfolio and found similar results – about 20 percent of agriculture projects were gender-informed (the project development objectives, interventions, or indicators referred to gender). In the Africa Region, gender-informed objectives aimed to promote women's market access, value chains, or inputs. A World Bank agriculture and agribusiness competitiveness project in Ethiopia aimed to "increase agricultural productivity and market access for key crop and livestock products in targeted areas with increased participation of women and youth." In Rwanda, an agriculture project included "strengthening the participation of women and men beneficiaries in market-based value chains." However, less than 10 percent of agriculture projects included performance indicators disaggregated by

gender. The most common type of performance indicator in the World Bank refers to adoption of new technologies, jobs created, and beneficiaries receiving project-sponsored services. The projects report these indicators as a general target for men and women. For example, a World Bank agricultural project in Nigeria measured the number of farmers (disaggregated by gender) adopting a new technology, seed, or fertilizer.

#### MANUFACTURING

Most World Bank Group support to improve manufacturing competitiveness was firm-level support provided by IFC Investment Services, IFC Advisory Services, and MIGA guarantees. IFC invested in a range of manufacturing projects in the food and beverage, textiles and apparel, metals, and automotive industries. Most IFC investment projects involved new technologies, new systems to firms, and introducing new products in a market. IFC Advisory Services mainly aimed to enhance practices of firms by introducing standards, linking farmers to markets, and supporting the regulatory environment. IFC investments financed mostly machinery, new systems, and technology financing, and IFC Advisory Services used capacity building and outreach to agribusiness firms to introduce new standards or good practices and help farmers connect to supply chains. MIGA supports competitiveness by promoting foreign direct investment and technology transfer to developing countries, with a potentially positive impact on firm and industry competitiveness. During the evaluation period, MIGA guarantees supported 48 companies in a variety of manufacturing subsectors. Most of these projects (60 percent) supported investments in traditional manufacturing companies for production of chemicals, machinery, or materials (metals, glass, plastics, and cement).

IFC and MIGA interventions illustrate the potential contribution of firm-level investments in promoting manufacturing competitiveness. An IFC project in Europe and Central Asia provided financing to a foreign-owned glass manufacturer to help improve quality of its products, enhance operational efficiency by installing an advanced furnace, improve energy efficiency, transfer expertise in modern glass manufacturing methods, and strengthen the local supply chains. MIGA also provided a guarantee to cover an investment in an aluminum beverage can manufacturing plant in Russia. The project, which introduced an automated facility, could help meet Russia's growing demand for aluminum beverage cans. The project helped strengthen industry competition (Russia had only one aluminum beverage can producer), facilitate the transfer of advanced technology, introduce European Union (EU) standards and practices, and establish and operate a network of recycling centers to recycle used beverage cans for raw material.

IFC investments in manufacturing were mainly in economies that are more developed, and MIGA guarantees were in low-income countries. About 70 percent of IFC's investment and advisory portfolio and 80 percent of MIGA guarantees were in manufacturing (including agribusiness). Most MIGA guarantees were in low-income countries (43 percent) and lower-middle-income countries (40 percent) and, in terms of Region, were in Africa (47 percent). Most IFC investments were in middle-income countries, mainly in Europe and Central Asia, Latin America and the Caribbean, and East Asia and Pacific. According to IFC, its challenge in the manufacturing sector in low-income countries is to find a strong project sponsors. A 2015 IEG internal review found that manufacturing investments mainly supported large markets. Russia, India, China, and Turkey constituted about 30 percent of IFC Investment Services' industry competitiveness manufacturing portfolio (appendix C). Potential investment is too small in many developing economies (especially in many small markets), with sponsor issues, costly transaction processes, and little incentive for investment officers to conclude these deals.

IFC's level of engagement in manufacturing has been declining in recent years. Manufacturing's share of total IFC projects decreased from 12 percent in FY05 to 4 percent in FY15. A decrease is also evident within the Manufacturing Agribusiness and Services cluster, where the share of manufacturing declined from more than 30 percent to less than 20 percent. This decline reflects the decline in manufacturing's share of the gross domestic product of developing countries (except for select countries in East Asia).

World Bank direct support to promote manufacturing competitiveness was limited mostly to agribusiness. During the evaluation period, 20 percent of World Bank industry-specific competitiveness support was in manufacturing, of which 80 percent supported agribusiness. A significant share of the projects was in Africa and in low-income countries. For example, the Commercial Agriculture and Value Chain Management Project (focusing on agribusiness) for The Gambia in 2014 supported improved productivity and market access for targeted agricultural commodities for smallholders. The project supported irrigation, private sector investment in agribusiness, value chain management, institutional capacity of farmer-based organizations and professional associations, and marketing and agribusiness development through engaging with private sector stakeholders. Overall, World Bank manufacturing interventions (mostly agribusiness) sought to introduce new ways of doing business, new technologies, and practices (45 percent), enhance the capacity of public and private institutions (31 percent), link farmers and enterprises to markets (24 percent), and improve the regulatory environment to support agribusiness industries (22 percent) (Table 2.3).

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Table 2.3. World Bank Group Interventions to Support Manufacturing Competitiveness, by Institution (percent of portfolio)

Intervention	World Bank (n = 91)	IFC AS (n = 137)	IFC IS (n = 119)	MIGA (n = 8 <sup>a</sup> )
Upgrading, transfer, or adoption of new technologies and new standards	45	53	94	100
Institutional support (public and private)	31	15	-	-
Infrastructure (road, air, building)	15	7	8	75
Regulations	22	34	-	-
Trade link (supply chain)	24	20	6	38

Note: Percentages indicate the share of projects in the industry portfolio that include an industry specific intervention. IFC AS = IFC Advisory Services; IFC IS = IFC Investment Services; n = number of projects.

a. Only projects with evaluations were included in the review.

Note: An empty cell indicates that there was no relevant intervention under that category

Several World Bank Group interventions supported special economic zones (SEZs) to improve manufacturing competitiveness. SEZs are designated areas in which governments provide preferential economic and business facilities and regulations (typically investing, taxation, trading, and labor regulations) to attract investment (frequently foreign direct investment). Theoretically, the advantages of SEZs include specialized labor pooling, increased supply of information and technology, and shared knowledge and ideas. Typical goals of SEZs are to increase trade and investment, create jobs, test market-oriented reforms, and introduce advanced technology and management methods. The World Bank Group supported 12 SEZ-focused projects during FY08–14. The projects' focus was on promoting manufacturing competitiveness and jobs, with total financing of \$378 million. Most of the projects (nine) were in low-income countries. World Bank and IFC interventions sought to help establish and manage the SEZs, and establish a conducive regulatory support for business regulations and modernization of SEZs, including supporting business regulatory framework, advising on trade and export policy, increasing private participation in operations and ownership, simplifying customs procedures, and modernizing the customs system serving the SEZ.

## TOURISM

Most World Bank interventions to promote tourism competitiveness were part of broader projects. Generally, most interventions in the tourism sector (mainly by the Social Development Network and the Financial and Private Sector Development Network) were part of larger projects that also supported other industries. For example, a project in Zambia aimed to support tourism along with supporting the country's diversification efforts to agribusiness and the gemstone sector. Only a few World Bank projects (in Ethiopia, Haiti, Montenegro, and Peru) focused solely on tourism sector development.

Table 2.4 World Bank Group Interventions to Support Tourism Competitiveness, by Institution and Instrument (percent of portfolio)

Intervention	World Bank (n = 56)	IFC AS (n = 32)	IFC IS (n = 10)
Rehabilitation of tourism site, improved services	30	41	60
Institutional support	29	3	0
Tourism infrastructure (road, air, building)	30	9	40
Regulations	20	50	0
Skills	9	6	10

Note: Percentages indicate the share of projects in the industry portfolio that include the specific intervention.

World Bank and IFC Advisory Services projects supported several aspects of the tourism sector, and IFC Investment Services and MIGA tourism support focused on development and rehabilitation of hotel businesses. The World Bank and IFC supported diverse aspects of tourism, including rehabilitation, institutional development, tourism infrastructure, the regulatory environment, and skills development (to a certain extent) (Table 2.4). For example, the World Bank supported a comprehensive approach to improving tourism competitiveness in Ethiopia that sought to increase the yearly number of international visitors, increase visitors' average spending, and increase tourism-related jobs (both direct and indirect). The project rehabilitated and enhanced basic infrastructure in key historic sites, enhanced visitor services, established a demand-driven links program using a matching grant scheme, supported institutional development in sector management institutions, and supported tourism products (development, positioning, and marketing). IFC Advisory Services tourism projects aimed to help governments improve the business environment, finance tourism studies, and help tourism businesses improve their practices. For example, in Lesotho, IFC sought to help develop tourism public-private partnerships, streamline the tourism licensing process, and develop a hospitality grading system. MIGA and IFC investments mostly supported building or rehabilitating hotels. For example, an IFC project supported a client's investment program to refurbish its hotels and resorts in Sri Lanka and to acquire new hotels and resorts in Maldives and India.

#### INFORMATION AND COMMUNICATION TECHNOLOGY

The World Bank Group's ICT interventions mostly consisted of regulatory and institutional reforms, and upgrading telecommunications and infrastructure. World Bank Group-supported projects to improve ICT competitiveness sought to liberalize the telecommunications industry, improve the ICT business environment, increase connectivity, enhance the geographical reach of phone and Internet services, and decrease the cost of mobile calls and Internet services. The World Bank's main support to ICT competitiveness was through regulations, infrastructure, capacity building to ICT institutions, and some ICT skills development. For example, a World Bank ICT

development program in Mexico aimed to improve human skills, infrastructure, financing, the industry's legal and regulatory framework, and links between local and global companies. Most World Bank interventions were in low-income countries in Africa or lower-middle-income countries in East Asia and Pacific. IFC Investment Services and MIGA guarantee projects supported mobile telephone companies' expansion and upgrading efforts. For example, in Albania, IFC Investments helped the client to make available reliable telecommunications services in many places where the current level of phone service is inadequate, as well as to offer new prepaid services at competitive rates, giving a larger part of the population access to telecommunications and increasing competition.

The World Bank Group sought to improve infrastructure and regulations to catalyze ICT industry development in Mauritius. The government of Mauritius began an overall reform process to increase competitiveness in previously protected sectors because of increasing competition from emerging economies (China and India) and the end of preferential trade agreements in sugar and textiles. The government started improving infrastructure and regulations in the ICT sector (with help from the World Bank Group) so the private sector could invest in the industry and grow. The strategy focused on establishing a business environment made up of critical specialized infrastructure (Cyber City and cable connections) and a solid regulatory framework to attract local and foreign investment to the sector.

Table 2.5. World Bank Group Interventions to Support ICT Competitiveness, by Institution (percent of portfolio)

Intervention	World Bank (n = 58)	IFC AS (n = 19)	IFC IS (n = 36)	MIGA (n = 3)
Privatization, incubators, research and development, upgrading of technology	26	42	69	100
Institutional support	26	5	-	-
ICT infrastructure (tower, fiber optic line, building)	29	5	44	100
Regulations	67	21	-	-
Skills	14	11	-	67

Note: Percentages indicate the share of projects in the industry portfolio that include the specific intervention. ICT = information and communication technology; IFC AS = IFC Advisory Services; IFC IS = IFC Investment Services. An empty cell indicates that there was no relevant intervention under the category.

#### Box 2.2. A Gender-Informed ICT Competitiveness Project in Bangladesh

The World Bank's Leveraging ICT Growth, Employment, and Governance Project in Bangladesh, approved in 2013, seeks to catalyze the growth of Bangladesh's information technology (IT) and IT-enabled services (ITES) industry for employment creation and export diversification. The project expects Bangladesh to create an estimated 30,000 direct jobs and

up to 120,000 indirect jobs through IT/ITES industry development. The project also expects IT/ITES to have significant social development impact because the industry's hiring bias toward women and youth. The project team cites findings from sector studies and World Bank analytical and advisory activities that support the hiring bias: women account for about 35 percent of the IT/ITES workforce in India and 65 percent in the Philippines, representing a higher female participation rate than most other service industries in these countries. Project activities for ICT competitiveness include training grants to ITES companies for rapid employment expansion, and a training program to convert non-IT science graduates into IT services professionals. The team seeks to maintain a gender balance throughout the project's skills and training interventions to encourage women to participate, and plans to conduct a social impact assessment to ensure a participatory, inclusive approach to skills development. Furthermore, the project intends to conduct an outreach program for youth and women to encourage them to participate in the IT/ITES industry (particularly in skills development programs) by reaching out to women-oriented educational institutions, identifying relevant women spokespersons, and promoting in media channels that are relevant to women.

### World Bank Group Industry Specific Projects with Productivity and or Competitiveness Objectives

Intensity of industry focus, measured by number of industry specific interventions in a project, and type of typical outcome indicators differed between projects with productivity and or competitiveness objectives and the rest. In around 30 percent of the portfolio under review, competitiveness and/or productivity appear as an overall project development objective. In the rest of the projects such focus is embedded in project components. Projects with competitiveness and productivity included on average more industry specific intervention categories (2.1 vs 1.8) than the rest of the portfolio under review. Although these two groups of projects were quite similar in terms of their intensity of support, they were different in terms of outcome indicators used. Around 60 percent of projects with productivity objectives used as typical indicators increased production, volume of output or productivity increase, whereas the rest of the portfolio used other indicators such as increased sales, access to services, adoption of technologies and irrigated areas (annex C). Across World Bank departments, the share of projects with competitiveness objectives within Finance and Private Sector Development (FPD) was higher than in other World Bank departments, reflecting the department's industry competitiveness focus.

Among projects with productivity and competitiveness development objective, agriculture projects have used competitiveness or productivity as an objective more often than other industries. When World Bank projects in agriculture include competitiveness or productivity as a project development objective, is the measure most often used was increase production or productivity. Interestingly, when agriculture

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projects did not have such objectives the indicators used were more often intermediary outcomes such as land irrigated, and adoption of new technologies. Projects in agribusiness or manufacturing have a more diverse set of indicators used to measure competitiveness objectives, including increased sales or income, reduced losses, increased production, improved productivity, volume or value of exports, and job creation or improvements. Competitiveness PDO indicators for tourism generally included increased traffic of people or tourists. In the case of ICT there was no common indicator.

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<sup>1</sup> The World Bank, Washington, DC. Bank does not have distinct strategies for manufacturing or tourism. In FY14–15, T&C in collaboration with IFC and other GPs developed a tourism sector initiative, trying to address some of the shortcomings of the lack of systematic approach in the industry.

<sup>2</sup> Appendix B provides a detailed overview of the evaluation's project selection methodology.

<sup>3</sup> When a project included multiple industries, relevant industries were counted individually.

### 3. Relevance of the World Bank Group's Industry-Specific Support to Promote Industry Competitiveness

#### Highlights

- ❖ This evaluation assesses the relevance of the World Bank Group's industry-specific interventions to support competitiveness at three levels: strategic, country, and intervention
- ❖ A strong link generally exists between national strategies to promote competitiveness and the industry-specific measures identified in World Bank Group country partnership strategies, as observed in 10 country case studies. The record of translating stated objectives in country partnership strategies into operational activities has been mixed
- ❖ The World Bank Group provided at least some industry-specific competitiveness support in almost 90 percent of the least competitive countries as defined by World Economic Forum (WEF) classifications, suggesting that the World Bank Group largely supported the countries that most need support to improve their competitiveness
- ❖ Based on the WEF's stage of development country classifications and drivers of competitiveness, the World Bank Group largely provided support in appropriate areas for helping countries improve competitiveness
- ❖ World Bank Group interventions to support industry competitiveness were largely consistent with the factors that academic research has broadly recognized as the main drivers of competitiveness.

The evaluation assesses the relevance of World Bank Group interventions at three levels: strategic, country and intervention. In this chapter, IEG examines the extent to which World Bank Group support to industry competitiveness was appropriate to address the client countries' needs. IEG conducted the analysis at the strategic level (examining the alignment between the World Bank Group and client countries), the country level (assessing whether the World Bank Group allocated its support in the right countries), and the intervention level (assessing whether the World Bank Group provided the right type of support). This chapter also provides evidence on the extent to which the type of World Bank Group interventions is consistent with the factors that research identified as important to fostering productivity and competitiveness.

#### Relevance at the Strategic Level

A strong link generally exists between national strategies to promote competitiveness and the industry-specific measures identified in World Bank Group country partnership strategies (CPSs). A review of industry competitiveness measures in 10 national

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strategies showed a strong link between the national strategies and the World Bank Group's CPSs (appendix D). For example, the *Economic Development and Poverty Reduction Strategy 2008–12* for Rwanda identified a range of measures for developing the country's agribusiness industry that were largely incorporated into the FY09–12 CPS. Similarly, FYR Macedonia's 2009–20 industrial policy identified specific measures to support the manufacturing sector, such as accessing new markets, developing high value-added products, removing trade barriers, supporting small and medium enterprises and entrepreneurs, and introducing new technologies, tech zones, clusters, foreign direct investment. The measures identified in the industrial policy became World Bank Group support priorities in the FY11–14 FYR Macedonia CPS. Jamaica's 2009 ICT Sector Plan (part of the *Vision 2030 Jamaica National Development Plan*) identified several priorities to support the ICT industry, such as e-inclusion, education and training, network readiness, infrastructure development, e-business, e-government, and development of a conducive policy and legal framework. The 2014–17 World Bank Group CPS emphasizes support for creative industries and ICT as potential sources of increased competitiveness and jobs. World Bank Group support for technologic adoption, innovation, and education in the ICT sector intends to support outreach, training, and incubator and hub development.

The extent to which priorities on industry competitiveness in CPSs translated into operational activities varied substantially. The evaluation reviewed all 245 World Bank Group CPSs approved between 2004 and 2014 to examine the extent to which the strategic objectives of enhancing industry competitiveness (as presented in CPSs) translated into relevant analytical and lending activities during the CPS period. About half of the CPSs identified industry-specific support for at least one of four industries—agriculture, manufacturing, tourism, and ICT—as a strategic objective. In about 30 percent of CPSs, the World Bank Group both identified at least one industry as a strategic objective and then approved industry-specific interventions during the CPS period. Thirteen percent of the CPSs identified industry-specific support, but it did not translate into any industry-focused World Bank Group operations. In 36 percent of cases, the World Bank Group provided industry-specific competitiveness support within a CPS period even though it was not a priority for support. These mismatches varied considerably across industries. In some cases, projects that were ongoing during CPS approval may have addressed the CPS priorities.

A review of World Bank Group analytical work in 10 case studies shows a high degree of variability in the alignment between constraints identified in the diagnostic work and those supported by industry specific operations. Within the context of the 10 case studies, IEG reviewed the analytical work produced by the World Bank to establish a link between the constraints identified in these diagnostic reports and industry specific

interventions supported by World Bank operations. On average the review finds that such alignment varied significantly across countries. In the majority of cases the alignment was modest. Only for one country case (Rwanda), was the alignment substantial, that is, most of the constraints mentioned in the internal literature review were supported by bank operations. For the other cases only a small share of the industry specific interventions addressed constraints identified in the internal literature review. In the case of Bangladesh, for example, only two of the 10 industry specific interventions addressed constraints identified in the internal literature review. On the other hand, in Madagascar six constraints mentioned in the internal literature review were not addressed by the industry specific interventions. Across intervention categories, the constraints most often aligned with operations are skills and training, and infrastructure, followed by business regulations. Low alignment was found on innovation, trade facilitation, and institutional support, areas that are likely supported by economy-wide interventions.

### Relevance at the Country Level

Whether the World Bank Group is supporting industry competitiveness in the right countries is a key aspect of relevance. To determine whether the World Bank supported countries that needed its support the most, the evaluation mapped the World Bank's country-level industry-specific competitiveness interventions with the World Economic Forum's (WEF) Global Competitiveness Index (GCI) country competitiveness rankings (Box 3.1.) The evaluation uses these ratings to assess whether the World Bank Group's industry-specific interventions focused on the right countries.<sup>1</sup> The assumption is that the least competitive countries will have the most need for the industry-specific support to improve their competitiveness, and the World Bank Group, on average, would concentrate its interventions on those countries.

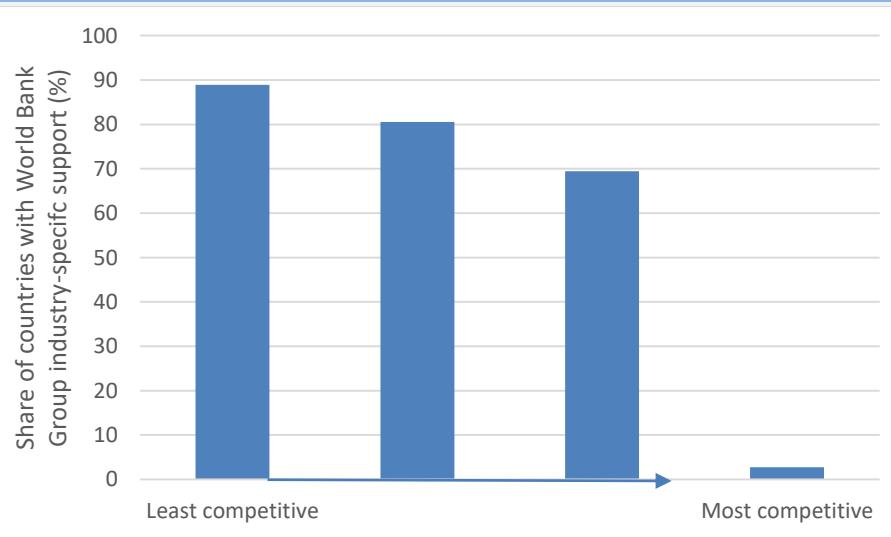
Box 3.1. The Global Competitiveness Index

The World Economic Forum (WEF) has been assessing countries' national competitiveness and ranking them since 2005 using a composite index called the Global Competitiveness Index (GCI). The GCI consists of 12 pillars that encompass all the factors considered to influence the overall level of productivity of a given country (its competitiveness). Each pillar captures a distinct determinant of competitiveness and consists of several subcategories that contain both qualitative and quantitative indicators. Each of these indicators is included in the final composite index (the GCI) with weights that vary according to their respective pillar. WEF publishes the GCI once a year and ranks countries according to their competitiveness.

Note: For more information, see the WEF's website at <http://reports.weforum.org/global-competitiveness-report-2015-2016/methodology/> (accessed on February 2, 2016).

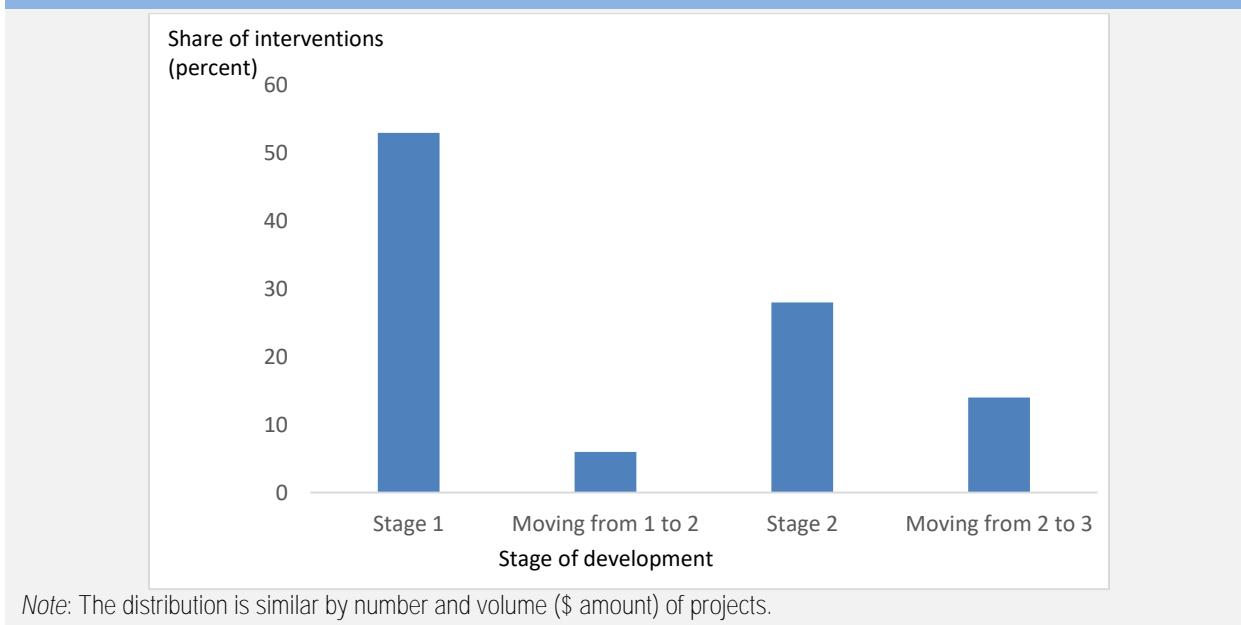
The World Bank Group provided industry-specific support to nearly all the least competitive countries. The analysis examined the proportion of countries in which the World Bank Group had at least one industry-specific intervention since 2004, according to the GCI ranking quartiles. The World Bank Group provided at least some industry-specific competitiveness support in almost 90 percent of the least competitive countries (those ranked in the lowest quartile) (Figure 3.1). The share of countries in which the World Bank had at least some industry-specific engagement also remains high (though it declines) in the second and third quartiles. In the highest quartiles (most competitive countries), the World Bank Group had industry-specific interventions in 38 percent of countries.<sup>2</sup> Therefore, the World Bank Group largely focused its industry-specific interventions on the countries that most need support to improve their competitiveness.

Figure 3.1. Proportion of Countries in Which the World Bank Group Had Industry-Specific Interventions, by Country Competitiveness Ratings



The World Bank Group's industry-specific interventions were mostly in countries in the lower stages of development. The evaluation used the WEF's classification of countries by stage of development as an added test of country selection. As part of its methodology, the WEF groups all countries in three stages: factor-driven (first stage), efficiency-driven (second stage), and innovation-driven (third stage). The basis of this classification is income per capita and export composition, and thus it correlates with a country's level of competitiveness (the first group represents the least competitive countries). The expectation was the World Bank Group would focus more in countries in the least competitive countries (those in the first and second stages). Results from the analysis confirm this expectation: slightly more than half of the World Bank's industry-specific interventions since 2004 were in countries in the factor-driven stage (the least competitive economies). No industry-specific operations were in countries in the third (innovation-driven) stage (Figure 3.2). Therefore, more than half of the World Bank's support was to factor-driven countries' competitiveness efforts through its industry-specific interventions. The situation is different for IFC investment operations. About 35 percent of IFC investments were in factor-driven, and the rest were in efficiency-driven countries. Part of the reason for this is the weakness of the business environment and of the capacity of the private sector, making difficult to identify suitable investments. That's why, in many factor-driven countries, IFC engages first through advisory services aiming at improving the business environment and fostering private sector development.

Figure 3.2. Distribution of World Bank Group Industry-Specific Interventions to Promote Industry Competitiveness by Country Stage of Development



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### Relevance at the Intervention Level

Another critical aspect of relevance is whether the World Bank Group is supporting industry competitiveness with the right interventions. This section assesses the extent to which the World Bank Group used the right set of industry-specific interventions to support competitiveness. The evaluation reviewed the literature of academic research papers on competitiveness and productivity, identified findings on what factors affect competitiveness, and mapped these findings to the World Bank Group interventions.

Research points to different drivers of competitiveness and economic growth as countries develop. During the earlier stages of development, an economy builds its industrial base and the physical infrastructure to support it. Capital is the preeminent source of growth, and countries that grew rapidly are the ones that succeeded in mobilizing larger volumes of domestic and foreign resources and putting them to productive use, most notably in tradable activities (Haddad and Shepherd, 2011). Korea and China are among the examples of this process in Asia, and Ethiopia and Rwanda are examples in Africa. Once economies are past the initial stages of development and achieved middle-income status, maintaining growth momentum calls for increasing attention to measures that augment factor productivity, particularly in the leading industrial sectors. Capital continues to account for one-third or more of growth in middle-income countries. Among the highest performers, however, the contribution of productivity improvements (mostly at the firm level) is almost equal to that of capital. In advanced economies, which are largely reliant on capital-lite services and have stable or declining workforces, changes in productivity closely tie to growth (Chien 2015).

The GCI methodology suggests distinct focus areas for countries to improve their competitiveness, depending on their stage of development. According to the WEF methodology, all factors in each of its pillars contribute to a country's competitiveness, but they do not do so equally. Different factors have more influence depending on the country's stage of development. Well-functioning public and private institutions, well-developed infrastructure, a stable macroeconomic environment, and good basic health and education drive competitiveness in factor-driven economies (those that compete based on their factor endowments, such as unskilled labor and natural resources). Productivity increases and wages rise as a country becomes more competitive and moves into the second efficiency-driven stage, in which higher education and training, efficient goods markets, well-functioning labor markets, developed financial markets, technological readiness, and large domestic or foreign markets drive competitiveness. In the third innovation-driven stage, a country competes through new and unique products using sophisticated business production processes and innovation. The

evaluation mapped the World Bank Group's industry-specific interventions to each of these three stages. On this basis, infrastructure, institutions, business regulations, privatization, and standards are the most appropriate areas to support in countries in the first stage. The most appropriate areas to support in countries in the second stage are access to finance, labor laws, skills, innovation (adoption of new inputs, rehabilitation of roads, irrigation, and touristic sites), research and development, and linkages to markets. In the third stage of development, product and process innovation are the most important interventions to help countries become more competitive (Table 3.1).

Based on the WEF methodology, the World Bank Group largely provided support in appropriate areas to help countries improve their competitiveness. According to the analysis, the World Bank Group's intervention areas closely aligned with the implied priority areas (by stage of development) that the WEF methodology identified. In factor-driven countries, 56 percent of World Bank Group industry-specific interventions sought to support basic infrastructure, institutions, and regulations compared with the 60 percent weight that the GCI places on these factors in factor-driven economies (table 3.2). In efficiency-driven countries, one-third of the support focused on innovation interventions (compared with a 50 percent weight in the WEF methodology) and 47 percent focused on regulations and institutions, which is close to the 40 percent weighting in the WEF. Furthermore, according to the WEF methodology, the higher the development stage, the more important it becomes to support innovation and business sophistication, which reflects in the distribution of the World Bank Group's industry competitiveness interventions.

Table 3.1. Mapping of World Bank Group Interventions with World Economic Forum Pillars

Global Competitiveness Index	World Bank Group Intervention Categories
Basic requirements	Infrastructure Institutions Regulatory environment
Efficiency enhancers	Access to finance Labor Innovation (new inputs for agriculture, rehabilitation of sites, standards, better marketing, new processes) Research and development Privatization Links Trade Skills
Innovation and business sophistication factors	Product innovation Process innovation

Source: World Economic Forum.

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The type of World Bank Group interventions to support innovation and business sophistication to improve competitiveness varied according to the country's stage of development. In higher-stage countries, World Bank Group interventions focused on a higher level of business sophistication and innovation. In upper-middle-income countries, support focused on introducing a new product, machinery, and systems, or new ways of processing. However, in lower-stage countries, support for innovation focused mostly on basic areas, such as agriculture extension services and rehabilitation of tourist and historical sites. The distinct nature of the World Bank Group's interventions by country stage of development reflect, to some extent, a response to different country needs according to the nature of their constraints to competitiveness at the time.

The World Bank Group support's industry focus adjusted in relation to country income levels. The evaluation sought to assess whether the World Bank Group's industry-specific support changed as client countries developed over time. Research shows that development is associated with the transition from low-value-added industries (agriculture) to high-value industries (manufacturing and services). Twelve countries moved from low-income to lower-middle-income status, and 14 moved from lower-middle-income to upper-middle-income status during the period under review. In the first case, most of the World Bank's industry-specific support in these countries at the beginning of the period was to help improve competitiveness in agriculture. This support gradually decreased in time, while the share of industry-specific support in manufacturing and tourism increased and eventually dominated World Bank Group support in these countries at the end of the review period (figure 3.3). Similarly, the focus of World Bank Group support shifted as countries moved from lower-middle-income to upper-middle-income groups. However, among the 14 countries that shifted during the review period, support to agriculture showed an increasing trend (figure 3.4). The data show a heavy concentration of World Bank industry support in agriculture, regardless of the client country's level of development.

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Table 3.2. Distribution of World Bank Group Interventions by Stages of Competitiveness and Comparisons to Global Competitiveness Index Weights

Intervention	Factor-Driven (%)		Efficiency-Driven (%)		Transition from Stage 2 to 3 (%)	
	GCI weight	Share of World Bank Group interventions	GCI weight	Share of World Bank Group interventions	GCI weight	Share of World Bank Group interventions
Basic requirements	60	56	40	47	20–40	33
Efficiency enhancers	35	32	50	30	50	32
Innovation and sophistication factors	5	12	10	23	10–30	35
Total	100	100	100	100	100	100

Source: World Economic Forum CGI methodology.

Note: GCI = Global Competitiveness Index.

Figure 3.3. Share of World Bank Group Industry-Specific Interventions in 12 Countries that Moved from Low-Income to Lower-Middle-Income Level, by Industry

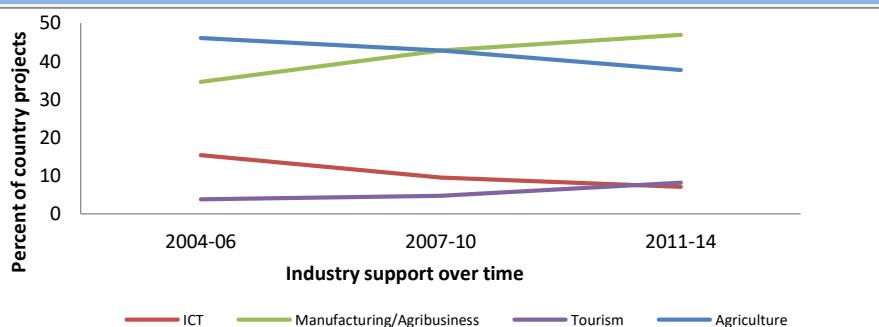
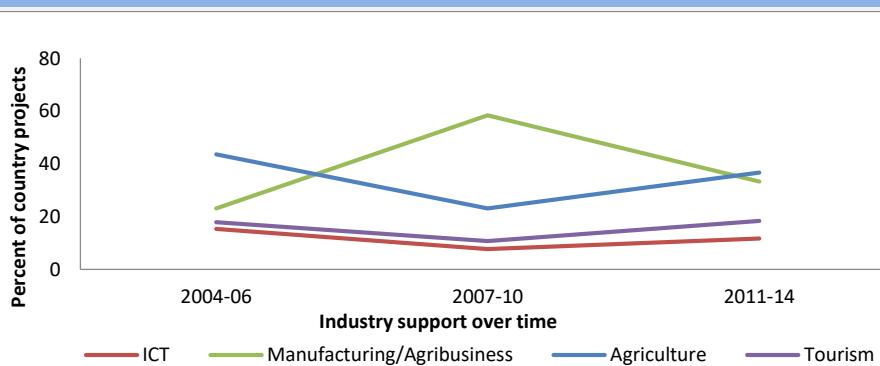


Figure 3.4. Share of World Bank Group Portfolio in Countries that Moved from Lower-Middle Income to Upper-Middle-Income Level, by Industry



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## Alignment with Research

Research identifies several key drivers of productivity and competitiveness. In this final section of the chapter, the evaluation presents evidence on the extent to which the World Bank Group uses the right tools to support competitiveness. IEG conducted a literature review of academic papers on industry competitiveness and productivity, identified factors affecting competitiveness in research, and mapped these findings with World Bank Group interventions.

The World Bank Group supported specialized infrastructure investment, which research identified as a critical constraint to improved competitiveness, including in middle-income countries. Research also shows that inadequate transportation, energy, water supply, and other basic infrastructure is a significant constraint to productivity by impeding market access and inputs, imposing higher costs on firms, and limiting the productivity that accrues from urban agglomeration. Infrastructure bottlenecks seriously constrained the performance of industry and agriculture even in middle-income countries, such as South Africa, India, and Brazil (Mitra, Varoudakis, and Véganzonès-Varoudakis 2002). The World Bank Group provided substantial support to help develop specialized infrastructure. Nearly 20 percent of World Bank Group interventions during the review period supported transport and water infrastructure development. A limited number of industry-specific interventions supported energy infrastructure because generally support to energy infrastructure is at the national level instead of industry-specific. Most of the World Bank's support to specialized infrastructure was in agriculture, ICT, and tourism. Infrastructure required in manufacturing is generally not specific to manufacturing, and therefore did not feature in the World Bank Group's support.

The World Bank Group's support focused on only two of three factors that research shows have an important, combined role in productivity improvements in firms: management, intangible capital, and resource misallocation. Productivity at the firm level is a function of several complementary factors. Technology adoption can sometimes explain sharply different levels of productivity among firms in the same subsectors. In advanced countries, firms operating at the technology frontier can have four or five times the total factor productivity of the least productive firms in the industry, and labor productivity can differ by a factor of 10. The differences can be even greater in developing countries, which have a small number of firms at the upper end of the distribution and a long tail of less-productive firms at the other end (Andrews et al. 2015; Hsieh and Klenow 2014). Management, intangible capital, and resource misallocation caused by regulatory and institutional impediments can have a prominent role in the reason why some firms with access to the same technologies can be less

productive than others can. However, World Bank Group interventions supporting industry competitiveness focused mostly on two of the factors: intangible capital, and misallocation caused by institutional and regulatory impediments. The World Bank Group rightly assigned importance to the drivers of process and product innovation and standards, many of which constitute the intangible capital of firms. The World Bank Group industry portfolio presents a substantial number of interventions related to institutional and regulatory reforms. This targeting tends to be diffused instead of being specific (exit of firms or supportive of the growth of gazelles). The role of management skills has long been recognized in the business literature, whereas the economics literature brought it to the forefront more recently. In the World Bank such support is broad and partly covered under the World Bank's support to small and medium enterprises.

Research shows that manufacturing is a crucial driver of employment and growth. Unconditional convergence is observed only in the manufacturing sector (Rodrik 2013). Generally manufacturing features prominently in the development process of countries. The development success in East Asia occurred largely on the back of growth in manufacturing exports. Manufacturing shares are the lowest in Sub-Saharan Africa. Recognizing the importance of manufacturing as a key driver of development, Sustainable Development Goal 9 aims to promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least-developed countries. Relative to these needs, goals and empirical results, the World Bank Group's support to manufacturing development has lagged. Capacities and operations at the World Bank have faded over the years, and the sector has been stagnant and struggling at IFC.

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<sup>1</sup> For each World Bank Group client country in the portfolio, IEG took the corresponding CGI index rating for each project's year of approval, calculated the average rating for each country with multiple projects, and then divided the distribution in quartiles to determine the share of countries (across time) the World Bank Group supported.

<sup>2</sup> The figure excludes high-income countries, which traditionally are not World Bank Group clients. If high-income countries are included, the proportion of countries in which the World Bank Group was engaged drops to 3 percent.

## 4. Effectiveness of the World Bank Group

### Highlights

- ❖ World Bank projects with industry-specific competitiveness components had lower success rates than the rest of the portfolio. IFC investment projects in the four industries—manufacturing, agribusiness, information and communication technology (ICT), and tourism—had success rates at the average, and MIGA projects were above average in the four industries
- ❖ Most World Bank agriculture projects achieved their immediate objectives, improving regulatory environments, irrigation, inputs, technologies, and practices. In manufacturing, the main contributions were through IFC Investment Services and Advisory Services. The World Bank's main contribution in ICT was helping to reform institutional and regulatory environments. IFC investments helped several telecommunications companies to develop, upgrade, and expand their cellular networks. World Bank and IFC support for tourism competitiveness was modest and had uneven success
- ❖ The evaluation also measured effectiveness of industry-level improvements in productivity and competitiveness based on external data. In the agriculture, agribusiness, and manufacturing industries, the evidence shows that World Bank-supported countries had levels of productivity improvements similar to countries without such support. The World Bank's support to tourism seems to have a positive contribution on productivity (outcome). Results in the ICT sector are inconclusive
- ❖ Countries that received World Bank competitiveness support for agriculture and manufacturing show greater improvement in competitiveness (export performance) in these industries than countries without such support
- ❖ The results also show that the greater the breadth of World Bank Group support, the more likely such support contributes to enhancing competitiveness, as measured by export performance.
- ❖ IFC investments seem to be associated with the same level of productivity and competitiveness improvements as those of similar firms
- ❖ Experience from four country case studies validate earlier findings that the broader the scope of World Bank Group support, the higher the contribution to competitiveness; properly sequencing interventions is crucial; and a strategic or long-term approach is needed to implement multiple and properly sequenced interventions.

This evaluation assesses the effectiveness of World Bank Group industry-specific interventions to support competitiveness from three perspectives. First, IEG used project evaluation material.<sup>1</sup> Therefore, effectiveness is gauged by the effectiveness of World Bank industry-specific projects and achievement of development objectives for IFC Advisory Services projects, and the achievement of market benchmarks for relevant IFC investment operations and MIGA guarantees. This approach provides some insight into the achievements of World Bank-supported projects with industry-specific components. However, World Bank support focuses on the industry level, and IFC and

MIGA focus on the firm level, so the result indicators (firm productivity versus industry productivity and firm market share versus country industry share) are different – this is one of the cross-institutional approach's limitations. Another limitation is that many industry-specific interventions, especially DPLs are embedded in projects with broader objectives, and therefore it is difficult to isolate the outcomes of industry-specific components. To mitigate this, the evaluation used only the ratings of projects that predominantly consisted of industry-specific competitiveness support. Second, the analysis measured the effectiveness using external indicators of national-level output per worker (productivity) and growth in exports (competitiveness) in the four industries. IEG conducted two analyses: before-and-after, and difference-in-differences. A key limitation is that multiple factors affect the outcomes and impacts to which the World Bank-supported industry-specific interventions aimed to contribute. Therefore, attribution of results is not possible, even though the analysis seeks to control for external factors. Third, IEG observed the effectiveness of the World Bank Group's interventions and their contribution to improving industry competitiveness through five country case studies. The analysis seeks to understand and illustrate the nature and circumstances of the World Bank Group's contributions to improving industry competitiveness through industry-specific interventions, though it cannot draw generalizations from the cases studied.

### Overview of the Effectiveness of the World Bank Group's Industry-Specific Competitiveness Interventions

Most of the World Bank Group's industry-specific interventions achieved their objectives. During the FY04–14 review period, IEG evaluated 54 World Bank investment projects that allocated at least 50 percent of their total financing to industry-specific interventions.<sup>2</sup> Sixty-five percent of these projects had ratings of moderately satisfactory or satisfactory at completion,<sup>3,4</sup> which is below the 72 percent average for all other World Bank investment projects evaluated in the same period. IEG rated 52 percent of evaluated industry-specific investment projects as having high risks to development outcome compared with 46 percent for all other evaluated investment projects during the same period. To some extent, this is because the majority of evaluated industry-specific projects (80 percent) were in low- and lower-middle-income countries, where the risks to development outcome are generally higher (47 percent of all World Bank projects in low- and lower-middle-income countries had high risk to development outcome ratings compared with 29 percent for upper-middle-income countries). Of the 120 DPLs with industry-specific competitiveness measures evaluated in FY04–14, 73 percent had satisfactory outcomes compared with 79 percent for all other DPLs evaluated during the period. Although prior actions addressing competitiveness and business environment are the second largest cluster in DPLs, it was not possible to

identify which DPLs predominantly focused on industry-specific competitiveness support (IEG 2016).

Outcomes varied across income groups. Overall, projects in upper-middle-income countries had the highest performance in the World Bank (appendix E). More than 80 percent of projects in upper-middle-income countries were successful, which is attributable to government partners with strong capacity and stable political environments. Seventy-three percent of evaluated industry-specific projects in low-income countries had satisfactory outcomes compared with 55 percent in lower-middle-income countries. Project evaluations identified weak government capacity, challenging political environments, and unrealistic expectations at project design as the most common factors undermining these projects' success. Performance differed sharply between World Bank lending projects and DPLs in lower-middle-income countries. Most of the lending projects that failed were in the Europe and Central Asia Region and focused mostly on agriculture and supporting innovation and institutional development. Borrower performance in these projects was also low. Conversely, World Bank DPLs had successful bank and borrower performance that supported a more diverse set of industries, usually through regulatory reforms.

IFC investment projects' success rates were at the average in the four industries, and MIGA projects were above the average. Thirty-six evaluated investment operations supported competitiveness in the four industries under review. Out of 36 projects, 67 percent achieved high development outcomes, which is in line with the rest of the IFC portfolio (Table 4.1).<sup>5</sup> The analysis of 35 Expanded Project Supervision Reports shows that 57 percent of projects under review had successful or excellent project business performance (in line with the rest of the portfolio), so the financial outcomes of IFC's competitiveness projects are comparable to the rest of the portfolio. Similarly, the projects under review were as successful as the rest of the portfolio on investment outcome, which is essential for IFC's sustainability and achieving its mission.<sup>6</sup> Across Regions, the development performance and investment outcome of the IFC's industry competitiveness projects were higher in Europe and Central Asia and Latin America and the Caribbean (appendix E). Across income levels, development performance was the highest in lower-middle-income countries, followed by upper-middle-income countries (appendix E). These findings are mostly in line with the rest of the IFC portfolio's performance ratings. Within a small sample of 12 projects, MIGA projects were more successful (75 percent success rate) than the rest of MIGA's portfolio (59 percent success rate). Industry competitiveness projects also outperformed the rest of MIGA's portfolio in another area for which IEG evaluates and validates ratings. Eighty-three percent of competitiveness projects were successful regarding economic sustainability (compared with 67 percent in the rest of the portfolio).

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Table 4.1. Outcome Ratings of Evaluated Competitiveness Projects with Industry-Specific Components by Industry, FY04–14 (percent successful)

Industry	DPLs (n = 120)	Other DPLs (n = 321)	Major Investment (n = 54)	Other Major Investment (n = 711)	IFC Investment (n = 36)	IFC Other Investment (n = 460)
Agriculture	70	—	67	71	—	—
Manufacturing	84	—	67	—	71	72
Tourism	100	—	50	—	50	—
ICT	81	—	100	50	63	46
Overall	73	79	65	72	67	64

Note: DPL = development policy loan; ICT = information and communication technology; IFC = International Finance Corporation; — = data not available (no disaggregated rating).

## Effectiveness of World Bank Group Industry-Specific Competitiveness Interventions by Industry

### AGRICULTURE

Most World Bank investment projects supporting improved agriculture competitiveness achieved their immediate objectives. About 70 percent of World Bank-supported investment projects that aimed to improve productivity and agriculture competitiveness had satisfactory outcomes, which is in line with the average for all World Bank investment projects. Most of these contributions consisted of increasing access to inputs through extension services (including outreach), capacity building, improving infrastructure (especially through irrigation), enhancing the capacity of agricultural institutions and producer organizations, increasing international standards, and adopting better practices for farmers. The projects measured success against yield per hectare, export share of crops, and adoption rate of technologies. A lack of monitoring of productivity and competitiveness outcomes limits the evidence on these projects' contribution to improved productivity and competitiveness in the respective industries, mostly due to difficulties in attributing broader outcomes to individual interventions given the wide array of factors that affect productivity and competitiveness in agriculture.

Policy loans that supported agriculture competitiveness through regulatory and institutional reforms were mostly successful. During the review period, 94 DPLs included objectives to promote agricultural productivity or competitiveness, of which 70 percent were successful. The DPLs focused on regulatory and institutional reform in the agriculture sector, and their key contributions included reforms in agricultural

policy, development and implementation of action plans and strategies (such as a fertilizer strategy), adoption of commodity-specific strategies (such as cotton), and adoption of frameworks for agricultural extension, research, and education. The key reason DPLs failed to achieve objectives related to agricultural productivity and competitiveness was that implementation of sector and institutional reforms did not proceed as expected because of several factors (including loss of government commitment, change in political context, and weak capacity of the institutions implementing reforms). For example, the World Bank supported improved productivity and competitiveness in Burkina Faso's cotton industry through a series of Poverty Reduction Support Credits in 2008–10. The government initiated several reforms, including restructuring and recapitalizing SOFITEX (the large, public-owned cotton company), measures to expand private sector participation in the sector, and aligning the domestic cotton price mechanism with international market pricing. However, the pace of cotton sector reforms was uneven, and combined with global cotton price volatility, cotton exports showed no significant increase.

World Bank-supported investment projects mostly achieved their productivity or competitiveness objectives in agriculture by introducing improved inputs and technologies, providing capacity building to public and private institutions, and improving agricultural infrastructure. About 80 percent of the evaluated investment projects supporting agriculture competitiveness involved support for farm extension or agricultural support services to farmers, and these interventions mostly achieved their intermediary objectives. For example, agriculture competitiveness projects in Vietnam helped to develop applied research, extension of technology, enhanced sustainable farming practices, and critical public infrastructure. The agricultural technologies the project promoted led to an increase in crop yields of nearly 17 percent and a 22 percent increase in the value of sales for farmers who adopted the technologies compared with a control group. Two-thirds of the trained farmers reported satisfaction with the demonstrated technologies, and technology adoption rates were about 30 percent. Evidence suggests that upgrading roads led to average reductions of 31 percent in post-harvest losses, 20 percent in transport time, and 29 percent in transport costs. Infrastructure was another common intervention, and all infrastructure interventions among the investment projects rehabilitated or built the intended infrastructure, even if the project failed at the aggregate level (Romania and Albania, for example). An IEG meta-analysis of agriculture impact evaluations worldwide supports this finding. Regarding World Bank-supported agriculture interventions, the meta-analysis found that about 68 percent of all such interventions led to positive results (measured mostly by changes in yield). Furthermore, interventions that sought to improve yields or farm income by addressing market link failures, easing access to technologically enhanced

inputs, and promoting farmer knowledge through advisory services had the highest share of positive impacts (IEG 2011).

Several gender-focused projects helped improve the environment for women's participation in agriculture and agribusiness. IEG identified 10 agriculture competitiveness projects in the evaluated portfolio with either a gender-related objective or gender-referenced interventions, of which 60 percent were successful. These projects helped increase access to finance for small, income-generating women-owned microenterprises, increase awareness of land rights among women, and create job opportunities for women. However, a World Bank-supported project in Ethiopia failed to improve the environment for greater women's engagement in agriculture because of various project implementation difficulties.

#### MANUFACTURING

Most of the World Bank Group's industry-specific interventions to improve competitiveness in manufacturing (including agribusiness) were through IFC Investment Services and Advisory Services. IFC Advisory Services projects aimed to increase firms' competitiveness and access to international markets by adopting better practices or international standards. Fifty-six percent of these advisory projects had successful development effectiveness, similar to the rest of the evaluated Advisory Services portfolio. The development success of IFC Investment Services projects (71 percent) was also in line with the average for the overall IFC portfolio (67 percent). Most of these projects had foreign sponsors and helped firms upgrade their businesses by introducing new equipment, products, systems, or operations. For example, IFC financing to a foreign-owned glass manufacturer in the Europe and Central Asia Region helped the company modernize its production processes and expand its market into the Balkans and Eastern Europe. The company's improvements included modernized equipment and production methods, higher product quality, new energy efficiency measures, and strengthened local supply chains.

MIGA indirectly contributed to improved manufacturing competitiveness by enabling foreign direct investment in several successful manufacturing projects. MIGA, through its political risk insurance, helped attract foreign direct investment in manufacturing through eight guarantee projects evaluated during the period. MIGA's manufacturing sector guarantee projects were more successful than the rest of MIGA's portfolio (75 percent success rate versus 59 percent, respectively), though the sample is small. A foreign direct investment project in the metals and glass manufacturing industry in the Europe and Central Asia Region is an example of a successful MIGA competitiveness project. The company introduced an automated facility to manufacture aluminum beverage cans using modern technology and established EU standards and practices at the production facility.

The World Bank's direct contribution to manufacturing competitiveness was limited, but several DPLs contributed through institutional and sectoral reforms. During the review period, IEG evaluated 17 manufacturing and agribusiness DPLs that had an 82 percent success rate. Key policy and institutional reforms achieved under the DPLs helped improve the competitive environment, investment, exports, and liberalization of markets. For example, in Bangladesh, the government privatized its state-owned enterprises in manufacturing, including a jute mill company. In Moldova, a law facilitated harmonizing Moldovan product standards with EU standards for a significant number of manufacturing products categories. These interventions were successful partly because of adequate implementation resources and strong client commitment through a reform champion. However, several World Bank DPL measures to improve competitiveness (increasing export volume and share) in The Gambia's cotton sector and Benin's groundnut sector were unsuccessful. Factors behind the failures centered on the implementing agencies' weaknesses. Lending projects that helped increase exports of agricultural products had a 65 percent success rate. Unsuccessful investment projects were in agribusiness (two out of four were in Africa), and these projects failed because of ambitious project designs (projects in Zambia and Georgia restructured and downsized during implementation), overestimated client commitment, and lack of capacity to implement reforms. In Zambia, the objective of diversifying from mining to agribusiness was unsuccessful because of lack of government commitment. In Georgia, the project scaled down its support for supply chain development. Only one grant (provided to citrus exporters) aimed at achieving access to new markets.

The World Bank Group's experience with industry-specific special economic zones (SEZs) during the review period was limited; therefore, IEG cannot assess the effectiveness of SEZs in promoting industry competitiveness. Among the evaluated industry-specific projects were 12 projects with industry specific SEZs to help developing countries improve industry competitiveness. IEG evaluated only two of the projects, which makes it difficult to draw strong conclusions. In Bangladesh, IFC supported the government's efforts to establish a low-carbon green export processing zone (EPZ) through an Advisory Services project in 2012. The zone benefited from investment promotion capacity building that helped generate \$113 million of new investments and associated new jobs. The project used a set of regulatory and technical measures to help the SEZ become a low-carbon green zone, and these efforts promoted the uptake of energy-efficient processes and equipment, and encouraged competitive sales and energy exchange to and between different firms in the SEZ. The project had also strong demonstration effects. There is some evidence that firms who were not audited by the AS project may have indeed been influenced by the project's work, undertaking energy efficiency changes and investments. The guidelines developed for

the zone was, after IFC's AS project closed, officially adopted by BEPZA as a voluntary directive for all EPZs in Bangladesh. In this project, IFC took a pragmatic and innovative approach to driving the green agenda in the zone and IFC effort was highly collaborative across the World Bank Group, effectively leveraging skills and resources to move the agenda forward. In the second project (as part of an investment climate program), IFC Advisory Services helped the government of Rwanda develop best practice policies and a legal and regulatory framework to operationalize Rwanda's first SEZ to attract investors between 2011 and 2013. The project estimated that the SEZ would leverage investments by \$25 million, leading to a minimum of 4,000 direct jobs in the SEZ. However, at project completion, poor zone administration and a lack of progress on operationalizing new titling and land regulations as well as some external factors such as regional politics inhibited the SEZ, and therefore, increased investment and job creation in SEZ were not achieved.

#### INFORMATION AND COMMUNICATION TECHNOLOGY

The World Bank's main contribution to improving the ICT sector's competitiveness was through advancing institutional and regulatory reforms. Of the 27 evaluated DPLs that supported institutional and policy reforms in the ICT sector, about 80 percent had satisfactory outcomes. A series of DPLs in Mauritius supported a range of measures to improve ICT competitiveness, including industry deregulation, promoting investment in high fixed cost broadband networks, promoting competition in a market dominated by a single player, strengthening the Information and Communication Technologies Authority's independence, and developing an education strategy substantially focused on ICT-related skills. The projects fully implemented these measures and helped the ICT business process outsourcing industry diversify into higher-end products. However, developing the necessary skills for further ICT sector growth faces continuing challenges. The World Bank supported Armenia's ICT development through a series of Poverty Reduction Support Credits that supported modernizing the telecommunications law and expanding telecommunications services. However, the government passed a new telecommunications law in 2005 (without changing the monopoly over landlines) that opened mobile phone and Internet services to competition. The government defined a new regulatory policy based on that law and since then has licensed three mobile telephone companies and about 40 Internet service providers. The number of mobile phone subscribers jumped from about 200,000 in 2004 to about 1.6 million in 2008, and Internet services became widely available. The World Bank achieved the goal of establishing a competitive telecommunication sector.

IFC investments helped several telecommunications companies develop, upgrade, and expand their cellular networks. Of eight ICT investments in the evaluated portfolio, five had successful outcomes. An IFC investment in a telecommunications company in Chad

brought in capital investment to expand and upgrade network technology and provide a modern telecommunications system. A project evaluation showed that the project helped introduce competition into a monopolized sector and accelerated network expansion for other operators through demonstration effects. Mobile penetration levels in Chad after the project more than doubled, mobile tariffs declined, and new technology and services (including mobile money) were publicly available. An IFC telecommunications company client in India expanded its services and achieved stronger-than-expected growth in its subscriber base and market share, becoming one of the top three players in the national market. However, IFC was less successful in Papua New Guinea, where an investment sought to help a telecommunications company improve sales capacity and increase telephone penetration rates and revenues in rural areas. The project was unsuccessful in achieving its objectives partly because of the client's inability to collect data on sales performance. Several IFC Advisory Services projects helped ICT firms access international markets, raise awareness of international standards, manage training for distributors, and provide regulatory support for an ICT park (in Kenya).

MIGA guarantee projects, although a few, faced significant challenges in improving ICT competitiveness. IEG cannot reach a conclusion out of 3 projects, but the following text intend to illustrate MIGA experience in this area. MIGA provided guarantees for three ICT projects, but only one was commercially successful. One company achieved less than satisfactory business performance because it tried to outspend the competition to gain customers, which caused operating costs to double. The company also faced operational and regulatory challenges in the country. The investor in another project failed to increase market share as it had done in neighboring countries because the company was still in an early stage of business growth and had narrow product offerings in the country. The company's pursuit of greater market share contributed to increased operating expenses, and the start-up faced challenges from political upheaval in the country and widespread electricity supply disruptions.

#### TOURISM

World Bank and IFC support for tourism competitiveness was modest, success was uneven, and without a systematic approach. During the period, IEG evaluated nine DPLs supporting tourism reforms that had a 100 percent success rate, but less than half of the 12 World Bank investment lending projects were successful. Policy and institutional reforms achieved under the DPLs included business licensing procedures for hotels and tour operators in Cabo Verde, labor competency standards in the Lao People's Democratic Republic, and tourism training for authorities in Rwanda. World Bank-supported investment lending projects mainly sought to improve infrastructure, strengthen institutions, and rehabilitate historic sites. Most tourism interventions

achieved their expected outputs, such as producing studies, training small and medium enterprises, and paving roads, but other interventions saw only partial implementation. For example, in Zambia, national park infrastructure and skills saw overall improvement, but a tourism bill did not pass, and the number of days to receive a tourism license increased instead of declining. The government's commitment was limited, and it is difficult to achieve significant results without a thorough understanding of the political dynamics of reform. The successful projects helped rehabilitate tourism road infrastructure in Tanzania, develop water and aviation facilities in Madagascar, and improve skills for the tourism industry in St. Lucia and Egypt. IFC's contribution to tourism development was limited to 13 projects evaluated during the decade. Two out of four evaluated IFC tourism investments and six out of nine Advisory Services projects were successful. IFC Investment Services and Advisory Services helped several hotels in developing countries access international customers or upgrade their facilities, such as Nepal and in southern Europe. However, IFC Investment Services and Advisory Services projects in tourism concentrated mainly on hotel businesses and essentially lacked breadth.<sup>7</sup> The successful projects, although on a limited scale, helped increase tourist arrivals, improve road access to tourist locations, and increase employment in tourism areas.

The World Bank Group's country strategies in small island states (the Organization of Eastern Caribbean States, Pacific Island Countries, and Cabo Verde) prominently featured enhancing tourism competitiveness, but with limited focus and operations. A recent IEG evaluation found that promoting tourism competitiveness was among the small island states' objectives (World Bank 2016). The World Bank Group's tourism support selectively focused on the policy and regulatory framework. For example, the World Bank provided analytical and advisory activities in Cabo Verde to develop a new tourism strategy. In the Organization of Eastern Caribbean States, it provided analytic work on backward links for the tourism sector (notably to agriculture). In 2012, IFC launched the Pacific Regional Tourism Initiative (PRTI)—with a focus on Samoa, Tonga, and Vanuatu. This initiative aims to generate an additional \$10 million in annual tourism revenues and as many as 4,000 new tourist arrivals across the three pilot countries. It will do so by opening up new tourist markets for the Pacific by promoting Pacific tourism in China and working with project partner Carnival Australia to increase the value of cruising for the Pacific islands, such as through development of fly or cruise vacations that will start from Fiji rather than Australia. IFC AS also approved an Investment Climate Project in São Tomé and Príncipe in 2013. Specifically, in the area of tourism, the project seeks to reduce the cost to enter the country by 60 percent and time by 80 percent through simplification of the visa regime (e-visa); and to support the government in adopting new standards for tourism construction—simplify regulations while ensuring protection of environment, fresh water supplies and energy efficiency.

## Effectiveness of World Bank Group Industry-Specific Interventions by Objective

The World Bank Group's effectiveness in promoting competitiveness through investment lending did not vary across intermediate objectives. The World Bank was as effective at helping enhance institutional capacity as it was at introducing improved inputs and technology (about 70 percent satisfactory). It was less successful in helping develop industry-specific regulatory and institutional reforms (60 percent satisfactory), though these interventions were 70 percent successful when supported through DPLs. The industry-specific infrastructure interventions were 75 percent successful, and the projects in which they were embedded were 50 percent successful. Projects that included links, access to finance, and skills performed well, but there were few industry-specific interventions in this area (Table 4.2).

Table 4.2. Outcome Ratings of Evaluated Investment Lending Projects with Industry-Specific Components by Intermediate Objective, FY04–14

Intermediate Objective	Intervention Type	Major Investment Lending (satisfactory outcome, %)
Access to finance (n = 7)	Funding (loans to farmers)	71
Innovation (n = 40)	Agriculture: extension services—introduction of new or improved inputs (seed, fertilizer) and technologies, techniques, and practices Manufacturing: adoption of new technologies, demonstration of techniques, good practices Tourism: rehabilitation of cultural, historic, and tourist sites and hotels ICT: standards (industry and international standards), research and development, links between research and other,	69
Institutions (n = 34)	Support to industry-specific public or private institutions	68
Infrastructure (n = 12)	Irrigation, roads, other	74
Regulations (n = 10)	Industry-specific business regulations and investment policy	60
Trade (n = 7)	Links between farmers and markets, value chain, trade facilitation	71
Skills training (n = 7)	Industry-specific employee skill upgrading, entrepreneurial capabilities, vocational training	85

Note: The table presents intervention level performance of World Bank investment lending projects, excluding DPLs.

### INDUSTRY-SPECIFIC ACCESS TO FINANCE

Some World Bank interventions helped improve the legal and regulatory environment for access to finance in the agriculture sector, though use of credits lines for farmers was limited.<sup>8</sup> World Bank support for access to finance was industry specific only in

agriculture. Twelve projects in the evaluated portfolio (seven World Bank investment projects and five DPLs) aimed to enhance access to commercial financial services for farmers and small and medium rural enterprises. The loans were successful in increasing access to finance for farmers, with few exceptions (five out of seven lending projects). Six out of seven investment lending interventions were in Europe and Central Asia and aimed to help enhance rural farm and rural enterprise productivity and competitiveness by increasing access to financial services. The World Bank used two main approaches to enhancing rural access to finance: financial intermediary lending, and legal policy and institutional support. The World Bank's interventions were often successful at improving the legal and regulatory environment (legislation for access to finance and adoption of savings laws, for example). Efforts to channel funds to farmers and rural enterprises through rural credit showed a lower success rate, undermined by macroeconomic factors and low take-up of credit lines. In Kazakhstan, the World Bank restructured its credit line for farmers twice in the early 2000s because the intermediary banks preferred to focus on large borrowers rather than small-scale agricultural and rural lending. Similarly, in Kyrgyzstan, the global financial crisis of 2008 diverted the banks' focus away from farmers and rural small and medium enterprises. The World Bank eventually disbursed the credit line to agriprocessors, which helped expand the activity level of downstream agroprocessing, marketing, and trade activities. However, IEG's review of financial intermediary loans shows no evidence that industry-specific intermediary loans were an effective way to support farmers' productivity and income.

#### INDUSTRY-SPECIFIC INNOVATION

Industry-specific innovation interventions embedded in investment lending projects helped improve adoption of new inputs and technologies, and improve standards and agricultural research in the agriculture sector. Sixty-nine percent of World Bank investment lending interventions supporting these types of interventions were successful (mainly agricultural extension services, supported training, knowledge dissemination, and provision of seeds or technologies). The interventions helped increase yields in many countries (China, Malawi, and Tanzania, for example), but failed to increase yields in Benin. Five of nine Africa Region investment lending projects that embedded innovation failed. IEG evaluations found that many interventions supporting innovation failed because they were too complex. In Ethiopia, the World Bank was unsuccessful in helping improve agricultural innovation—complex project design and a myriad of project implementation issues undermined efforts to disseminate new processes, support research programs, and develop sanitary and phytosanitary standards. Similar implementation and project complexity issues undermined efforts in Romania to improve agriculture production processes by introducing new, low-head sprinkler equipment to reduce irrigation energy consumption. In Peru, the World Bank sought to help develop a decentralized market

for agricultural innovation professional services to strengthen agricultural research and technological development. Substantial changes in the project's institutional arrangements impeded the effort and undermined the project's original concept of independent, demand-driven financing of private and public sector research and extension innovations. In the case of IFC and MIGA, a majority of projects supported innovation through the introduction of new technology and best practices that in turn led to increased sales, and efficiency.

#### INDUSTRY-SPECIFIC INSTITUTIONS

The World Bank's contributions to institutional development for promoting competitiveness were mostly in strengthening agriculture sector institutions. Strong institutions that can continue implementing policies after World Bank support are crucial to ensure project sustainability. About 68 percent of interventions that sought to strengthen industry-specific institutions were successful. The World Bank helped key institutions such as agricultural research agencies, public oversight bodies, and producer organizations. World Bank-supported interventions provided training and capacity building, though there is little evidence that the capacity-building efforts translated into behavioral changes. In the Latin America and Caribbean Region, two out of four projects focused on institutional strengthening and experienced problems that led to unsatisfactory rating. For example, a World Bank-supported project in Honduras that sought to strengthen public institutions piloted the creation of local competitiveness strategies in four different areas to provide a platform for understanding the constraints to local business development. The project also created a fund to develop consensus-building initiatives on broad themes related to competitiveness through seminars, media campaigns, and a training program for journalists. However, the institutional capacity to implement such a complex project was overestimated (the project supported a wide range of activities and relied on many public and private institutions for implementation), as were risks posed by the country's changing political environment. Legislative changes passed by a new government created disruptions in some of the project-supported institutions.

#### INDUSTRY-SPECIFIC INFRASTRUCTURE

World Bank Group-supported projects that helped develop industry-specific infrastructure were mostly in agriculture and tourism. The portfolio included 19 World Bank investment projects with industry-specific infrastructure interventions, and about 65 percent supported agricultural infrastructure (especially irrigation systems and feeder roads) and about 40 percent supported tourism infrastructure through building or rehabilitating roads or air infrastructure. At the project level, half of the projects that included infrastructure interventions failed, but at the intervention level, the projects successfully completed about 75 percent of the infrastructure interventions.

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Interventions that did not reach their immediate infrastructure objectives were mainly in tourism infrastructure (four of five). Infrastructure interventions were successful in building roads and rehabilitating irrigation and land. However, the successful completion of infrastructure interventions did not always lead to the intended outcomes. For example, the Sustainable Land Management Project in Ethiopia supported sustainable land management activities that were expected to contribute to (among other things) agricultural productivity by reducing erosion and improving soil fertility and moisture retention. Yields for major crops in all treated watersheds increased by 10 percent at project closure, which is well below the original 50 percent target and the revised target of 30 percent.

#### INDUSTRY-SPECIFIC REGULATORY ENVIRONMENT

World Bank DPLs were effective in helping improve the regulatory environment for specific industries, particularly in low-income countries. World Bank country strategies show that establishing a conducive policy and regulatory environment is the basis for improved industry competitiveness, and DPLs reflect the World Bank's approach to competitiveness in that respect. World Bank-supported projects to help improve the regulatory environment for industries had a relatively high success rate of 70 percent, mostly through DPLs. A few investment lending interventions for improving the regulatory environment helped improve the policy, legal, institutional, and regulatory framework governing specific industries. In Armenia, for example, interventions helped improve the regulatory framework governing the agriculture and ICT industries with key measures such as liberalization of the telecommunications sector, which resulted in three new telephone companies and about 40 new Internet service providers entering the market, and an increase in mobile phone subscribers. In Uganda, World Bank interventions helped introduce better agricultural technology and institutional capacity development at the Ministry of Agriculture through a program to improve resource allocation, water resources, and market information systems. However, interventions did not achieve land reform objectives because of political tensions and inaction in the parliament. All of the projects with poor outcomes were in low-income countries, except one. For example, efforts to improve the regulatory environment in the agriculture sector were less successful in Burkina Faso and Mali, to some extent because of worsening external factors such as global commodity price volatility (in Burkina Faso) and social unrest and instability (in Mali).

#### INDUSTRY-SPECIFIC SKILLS DEVELOPMENT

The World Bank Group's contributions in industry-specific skills, though limited to date, show that the private sector plays a crucial role in delivering skills development. Seven major World Bank projects had industry-specific skills development interventions, and all but one achieved their objectives. The interventions aimed to

increase the skills of rural entrepreneurs, students, and working people through training, brochures, and distance learning. One common area was the role of public or private sector in delivering training programs. In Bhutan, the first occupant of an IT park stopped its operations in November 2012 because of lack of skills. The World Bank collaborated with international and private organizations to provide support for ICT training and employment programs. The programs achieved their objectives of enhancing ICT skills (56 percent of students passed the IT-enabled services industry competency assessment, against a target of 35 percent) and placing young people in jobs (more than 60 percent of the students who were trained obtained successful employment in the private sector). One reason for the programs' success is that potential investors, who paid part of the training costs, directly undertook the training and employment programs, which decreased the cost to the government and allowed customized skills development for industry needs. In Mauritius, skills requirements in the sector have been changing, and educational institutions have not kept pace with the new requirements. Despite concerted efforts by responsible agencies to promote the use of ICT tools in primary and secondary schools, they have not yet been integrated into the school curriculum, partly because of poor coordination between government bodies. The World Bank and governments face the challenge of how to invest in higher education while continuing to improve basic and secondary education quality and coverage. Although the private sector had a role in ICT training in the past, the government recently took over management of the ICT academy.

### Effectiveness of the World Bank Group Industry Support Based on Outcome and Impact Indicators

Outcome and impact indicators from external sources enable a broader view of the World Bank Group's effectiveness. Along with presenting evidence on effectiveness based on project evaluation material, the evaluation also measured effectiveness of the outcome and impact of World Bank Group interventions based on external data. This broad approach enables the evaluation to provide a big picture of the World Bank Group's group effectiveness in supporting industry competitiveness while acknowledging its limitations (Box 4.1)In line with the evaluation's logical framework, this analysis is performed using external indicators of valued added per worker in each industry in a country as an indicator of productivity (outcome), and export volume and share of global exports in each industry in a country as indicators of competitiveness (impact). Different indicators and proxies were used in some cases because of data availability constraints.<sup>9</sup> Table 4.3 presents the indicators used and their sources.

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Table 4.3. Indicators of Outcome and Impact for Each Industry in a Country

Industry	Description	Source	Type
AGRICULTURE	Agriculture value added per worker US\$ (real prices)	World Development Indicators	Outcome
	Exports of agriculture (ISIC Rev.3; Cat.A+B) \$, millions (real prices)	UN Comtrade	Impact
	Exports of agriculture (ISIC Rev.3; Cat.A+B) world share (%)	UN Comtrade	Impact
AGRIBUSINESS	Manufacturing value added per worker \$ (real prices)*	World Development Indicators/ILO	Outcome
	Exports of agribusiness (ISIC Rev.3; Cat.D, Div.15) \$, millions (real prices)	UN Comtrade	Impact
	Exports of agribusiness (ISIC Rev.3; Cat.D, Div.15) world share (%)	UN Comtrade	Impact
MANUFACTURING (inc. agribusiness)	Manufacturing value added per worker \$ (real prices)	World Development Indicators/ILO	Outcome
	Exports of manufacturing (ISIC Rev.3; Cat.D) \$, millions (real prices)	UN Comtrade	Impact
	Exports of manufacturing (ISIC Rev.3; Cat.D) world share (%)	UN Comtrade	Impact
TELECOM and IT	Mobile cellular subscriptions (per 100 people)	World Development Indicators	Outcome
	Exports of ICT goods (ISIC Rev.3; Cat.D, Div.30-33; Cat I, Div.64) \$, millions (real prices)	UN Comtrade	Impact
	Exports of ICT goods (ISIC Rev.3; Cat.D, Div.30-33; Cat I, Div.64) world share (%)	UN Comtrade	Impact
TOURISM	Travel and tourism value added per worker US\$ (real prices)	World Travel and Tourism Council	Outcome
	Travel and tourism visitor exports (foreign spending) \$, millions (real prices)	World Travel and Tourism Council	Impact
	Travel and tourism visitor exports (foreign spending) world share (%)	World Travel and Tourism Council	Impact

\* Used as proxy

Source: Collected from multiple sources.

The evaluation performed two separate tests, with each providing a different perspective on outcome and impact. First, the evaluation used a before-and-after approach to test whether countries that had received World Bank industry-specific competitiveness support during the evaluation period show a statistically significant change in the indicators. Second, the difference-in-differences approach shows whether the change in the relevant indicators of outcome and impact across countries that received World Bank support and across countries that did not (comparators) are significant. All tests include a lag of 3 years from approval fiscal year.<sup>10</sup> IEG conducted the analysis at the industry level across countries and found that the results were largely consistent across methods. Table 4.4 presents the results of these tests.

Countries that received World Bank support for agriculture competitiveness and manufacturing did not show a significantly higher level of productivity (outcome) than countries without such support. The evaluation could not find evidence of a significantly higher level of productivity in agriculture, agribusiness, and manufacturing in countries that received World Bank support versus countries that did not receive such support (table 4.4, columns 1 and 2). This does not mean that countries with support in these industries do not achieve higher productivity. The results of the before-and-after test show a positive, significant change in productivity, implying that countries that received World Bank industry-specific competitiveness support in these industries do show an increase in productivity after the support. However, the difference-in-differences test results suggest that the change in productivity is not significantly different from the change in countries that did not receive World Bank support.

#### Box 4.1. Methodological Caveats

IEG acknowledges that the measures and methodologies applied in the evaluation are imperfect, but they should help to provide a broad picture of the association of World Bank Group competitiveness interventions with indicators of outcome and impact at the national sectoral level. Specifically, the limitations of this methodology refer to:

- The analysis looks only at industry specific interventions and does not take into account economy-wide support that could have an impact of specific industries. Controlling for a set of macroeconomic variables partially offsets this limitation.
- Measurement errors of indicators of productivity and competitiveness. Labor productivity is used as a proxy of total factor productivity.
- Model specifications. Omitted variable bias, nonlinearity, parallel path assumptions, standard error inconsistencies, and so on could affect the model.
- Variability of scale of World Bank Group interventions. Outcomes and impact at the sector level might be different depending on the value of the World Bank Group interventions.
- Employment measures, which are imperfect and typically exclude informal employment.
- There is a limited time period covered by the evaluation. It is possible that where no effect is found, it might be due to the longer time period beyond the evaluation scope needed to show impact.

The World Bank support to tourism seems to have a positive contribution to productivity (outcome), but results in the ICT sector are inconclusive. The results on productivity are different in the service sector (the ICT and tourism industries). In ICT, the type of indicator used drives the results. Table 4.4 includes the results for the mobile cellular subscriptions indicator, which shows a statistically significant increase compared with countries that did not receive World Bank ICT sector support. However, other indicators, such as fixed (wired) broadband subscription and Internet users, do not lead to the same conclusion. The lack of a proper indicator of productivity in the ICT sector made it impossible to establish the World Bank support's contribution with certainty compared with countries without support. In tourism, however, the analysis shows a positive contribution of the World Bank support to productivity, both in absolute terms and when compared with the productivity change in countries not supported by the World Bank.

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Table 4.4. Before-and-After and Difference-in-Differences Tests for Outcome and Impact of the World Bank's Industry-Specific Interventions to Promote Competitiveness

	OUTCOME		IMPACT					
	B/A (1)	DID (2)	B/A (3)	DID (4)	B/A (5)	DID (6)	EXTERNAL FACTORS	
	<b>Agr. VA per worker</b>		<b>Export Value</b>		<b>Export Share</b>		<b>Export Value</b>	<b>Export Share</b>
<b>AGRICULTURE</b>	761.8***	-204.6	684***	563***	0.152**	0.170***	627***	0.175***
Number of treated countries	45	51	44	48	46	48	46	46
	<b>Manuf. VA per worker</b>		<b>Export Value</b>		<b>Export Share</b>		<b>Export Value</b>	<b>Export Share</b>
<b>AGRIBUSINESS</b>	1672*	-1,895	1,356**	1,216***	0.155**	0.132**	1,256***	0.143**
Number of treated countries	--	14	23	31	28	32	30	31
	<b>Manuf VA per worker</b>		<b>Export Value</b>		<b>Export Share</b>		<b>Export Value</b>	<b>Export Share</b>
<b>MANUF. (INC. AGRIB.)</b>	1,366*	-2,153	14,700**	14,130**	0.165	0.188	15,240**	0.227
Number of treated countries	--	18	29	38	35	39	37	38
	<b>Mobile cell. subscr.</b>		<b>Export Value</b>		<b>Export Share</b>		<b>Export Value</b>	<b>Export Share</b>
<b>TELECOM&amp;IT</b>	62.06***	14.14***	1,025*	898	0.013	0.0124	1,168	0.0138
Number of treated countries	21	26	19	23	22	23	23	23
	<b>VA per worker</b>		<b>Foreign Spending</b>		<b>Foreign Spend. Share</b>		<b>Foreign Spending</b>	<b>Foreign. Spend. Share</b>
<b>Tourism</b>	1,632***	1,106***	939**	670	-0.0055	0.00629	1,143	0.00608
Number of treated countries	26	28	29	29	29	29	28	28

Note: — indicates that the number of observations of treatment is less than 10. B/A = before-and-after; DID = difference-in-differences; VA = value added.

\*p < 0.1      \*\*p < 0.05      \*\*\*p < 0.01

The World Bank seems to have positive contribution to export competitiveness (impact) in agriculture and manufacturing. Table 4.4 shows tests for competitiveness (impact) based on two indicators: export volume (columns 3 and 4) and share of world exports (columns 5 and 6). The results show a positive contribution of the World Bank in agriculture, agribusiness, and manufacturing because countries that received World Bank support show a statistically significant higher level of export value and share of world exports both in absolute terms and when compared with countries that did not receive World Bank support. However, the service industries do not show the same type of result. Although countries that received World Bank support in ICT and tourism show a higher value of exports after receiving the World Bank support, this change is not different from the change registered in countries that did not receive such World Bank support. Again, this does not mean that the countries did not improve their competitiveness, but rather such improvement is not significantly different from that in countries without World Bank support.

The evaluation also conducted similar tests to control for external factors. The evaluation controlled for external factors, such as macroeconomic factors, trade openness, or the quality of the business environment in countries, because these factors could drive the results in competitiveness (export volumes and shares in world exports). The World Bank supports countries that have a better trade policy, a more

stable macroenvironment, or better trade regulations to begin with, so it is possible that these external factors are driving the observed positive association between receiving World Bank industry competitiveness support and a country's export performance. If this were the case, factors external to the World Bank's industry-specific interventions under review would drive the statistical tests that show an association between World Bank support and export performance. To account for this possibility, the evaluation conducted another difference-in-differences test that added controls for several factors that the literature identified as determinants of a country's level of exports,<sup>11</sup> together with controls for country fixed effects.

The results remain consistent even when controlling for the influence of external factors. The results of these added tests broadly confirm previous conclusions (table 4.4, columns 7 and 8).<sup>12</sup> Even accounting for factors that the literature identifies as important determinants of export performance, evidence exists of a positive contribution of World Bank competitiveness support because countries with such support in agribusiness and agriculture show a higher level of export performance in both volume and share of world exports than countries that do not receive such support. The results in manufacturing show that countries with World Bank support still show a higher volume of exports, though not a higher share of world exports. Overall, the analysis of outcome and impact suggests that in agriculture, agribusiness, and manufacturing, countries with World Bank industry-specific support increase their productivity, but not any higher than countries without such support. However, they show a higher value of exports and greater share of world exports compared with countries without World Bank competitiveness support. The opposite seems to be true in ICT and tourism, though lack of data (for productivity in ICT) represents a major limitation.

The association between World Bank support and improvements in competitiveness is stronger when World Bank support in the country is broader. In line with findings from the case studies and the literature on competitiveness, the evaluation also attempted to investigate the extent to which the association between World Bank competitiveness support to countries and their improvements in productivity and competitiveness varied according to the breadth of World Bank support.<sup>13</sup> In this analysis, the evaluation divided the sample of countries that received World Bank competitiveness support into two groups: those that received support in only one or two intervention categories (less breadth) and those that received support in three or more categories (more breadth).<sup>14</sup> The results show that the wider the breadth of support, the more likely such support contributes to enhancing competitiveness as measured by export performance (table 4.5). In both agriculture and agribusiness, supporting client countries in only one or two intervention categories is not associated with improvements in export performance (table 4.5, columns 3 and 5). Conversely, the analysis detected a positive increase in

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export value and share of world exports in countries that received World Bank support in three or more intervention categories (table 4.5, columns 4 and 6). This result is confirmed even when controlling for the influence of external factors (table 4.5, columns 7 to 10). Regarding productivity, again the analysis detected no change except for agriculture, where too much support seems to contribute negatively to productivity compared with countries that did not receive any World Bank competitiveness support in agriculture (table 4.5, columns 1 and 2).

IFC investments seem to be associated with the same level of productivity and competitiveness improvements as those of similar firms. IEG performed a similar analysis to assess the effectiveness of IFC investments. All tests include a lag of 2 years from approval fiscal year. In this analysis, cost of net sales is the indicator of productivity, and net sales is the indicator of competitiveness. IEG conducted the analysis across two groups of comparator companies: companies within the IFC portfolio (other than the industry competitiveness projects included in the review), and similar companies from the Orbis Global database of large firms. The analysis shows that companies with IFC industry competitiveness support show the same change in productivity after such support as in the rest of the IFC portfolio. The analysis found similar results when using companies beyond the IFC portfolio (the Orbis Global database) as comparator (table 4.6). Results are similar when taking net sales (indicator of competitiveness) into account. The IFC support shows a significant improvement in net sales in the before-and-after test only in agribusiness. The analysis could not detect any significant contribution in firms that receive IFC support compared with comparator companies.

Table 4.5. Before-and-After and Difference-in-Differences Tests for Outcome and Impact of World Bank Competitiveness Support, by Breadth of Support

	OUTCOME				IMPACT				
	DID		DID			EXTERNAL FACTORS			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Number of intervention categories									
	<=2	>=3	<=2	>=3	<=2	>=3	<=2	>=3	<=2
<b>AGRICULTURE</b>	Agr. VA per worker		Export Value		Export Share		Export Value		Export Share
225.1	-420.5***	96	760***	0.0578	0.218***	129	806***	0.0728	0.218***
Number of treated countries	16	35	15	33	15	33	14	32	14
<b>AGRIBUSINESS</b>	Manuf. VA per worker		Export Value		Export Share		Export Value		Export Share
-1,680	-2,100	863	1,396**	0.157	0.116*	893*	1,413**	0.175	0.113*
Number of treated countries	--	--	10	21	11	21	--	21	10
<b>MANUF. (INC. AGRIB.)</b>	Manuf. VA per worker		Export Value		Export Share		Export Value		Export Share
-2,351	-1,769	563	23,860**	0.00489	0.331	423	25,130**	0.00727	0.372
Number of treated countries	--	--	14	24	15	24	13	24	14
<b>TELECOM&amp;IT</b>	Mobile cell. subscr.		Export Value		Export Share		Export Value		Export Share
23.36***	5.633	507	1,248	0.0377*	-0.0136	532	1,704	0.0444	-0.0161
Number of treated countries	14	12	12	11	12	11	12	11	12
<b>TOURISM</b>	VA per worker		Visitor Exports		Visitor Exp. Share		Visitor Exports		Visitor Exp. Share
2,288***	182.0	59	1,147	-0.00950	0.0182	263	1,526	-0.0157	0.0174
Number of treated countries	12	16	13	16	13	16	12	16	12

Note: — indicates that the number of observations of treatment is less than 10. DID = difference-in-differences; VA = value added.

\*p < 0.1      \*\*p < 0.05      \*\*\*p < 0.01

Table 4.6. Before-and-After and Difference-in-Differences Tests for Outcome and Impact of IFC Investments Support

	WITHIN IFC				ORBIS DATABASE			
	OUTCOME		IMPACT		OUTCOME		IMPACT	
	B/A	DID	B/A	DID	B/A	DID	B/A	DID
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Cost of \$1 of Net Sales								
<b>AGRIBUSINESS</b>	-0.01	-0.03	64.09***	22.94	-0.01	0.02	68.08**	50.36
Number of obs. of treatment	30	34	31	34	15	16	15	16
<b>MANUF. (INC. AGRIB.)</b>	-0.01	-0.03	28.09*	7.6	-0.01	0.03	18.85	-122.28
Number of obs. of treatment	61	71	60	71	37	42	36	42
<b>MANUF. (EXC. AGRIB.)</b>	-0.02	-0.08	-10.54	25.29	-0.01	-0.0002	-16.31	106.96
Number of obs. of treatment	28	35	27	35	22	26	21	26

Note: — indicates that the number of observations of treatment is less than 10. B/A = before-and-after; DID = difference-in-differences; VA = value added.

\*p < 0.1      \*\*p < 0.05      \*\*\*p < 0.01

## Effectiveness of the World Bank Group Illustrated through Four Country Case Studies

A review of the World Bank Group's experience in four countries validates the effectiveness findings and helps in better understanding the dynamics behind these results. The analysis from these cases studies seeks to understand and illustrate the nature and circumstances of the World Bank Group's contributions to improving industry competitiveness through industry-specific interventions.<sup>15</sup> IEG reviewed the World Bank Group's contribution to improving competitiveness in one industry in each of four countries: the agriculture industry in Kazakhstan and Rwanda, the manufacturing industry in FYR Macedonia, and the ICT industry in Mauritius.

Breadth of engagement is important for successful interventions to promote competitiveness. The experience in these countries further shows that the number of areas supported are important to achieving higher competitiveness, and that properly sequencing interventions and implementing them with a long-term vision is necessary. The privatization of tea factories in Rwanda was successful because of the ownership transfer and because several parallel measures accompanied such reforms, including the creation of farmer cooperatives that effectively strengthened the relationship between farmers and factories, and the implementation of a tea leaf price reform. Similarly, the success of the ICT sectors in Mauritius was not simply due to World Bank-supported regulatory reforms, but also to combining such reforms with investments in critical infrastructure and the presence of an educated, multilingual labor force. Conversely, the lack of success in support to horticulture in Rwanda was due to one critical element missing in the support—cold storage infrastructure.

The experience of Kazakhstan, FYR Macedonia, and Rwanda shows the importance of properly sequencing the interventions supporting competitiveness. FYR Macedonia was successful in supporting manufacturing because the World Bank supported the country's competitiveness with exceptionally well-sequenced and well-executed tools and operations, starting with analytical work, followed by policy dialogue, integration of various instruments into a DPL platform, and accompanying technical assistance. Furthermore, the World Bank Group is leveraging its AAA in FYR Macedonia to design a new operation in support of industry-specific competitiveness in the Region. By contrast, the attempt to attract foreign direct investment in Rwanda was less effective because of poor timing—that is, it started before the mitigation of all relevant risks. Similarly, World Bank Group support to agriculture diversification in Kazakhstan was unsuccessful because of poor project sequencing and insufficient attention to a lack of links between projects.

Multiple and properly sequenced interventions are successful when they are part of a long-term<sup>16</sup> approach. The World Bank Group's experience in Kazakhstan, FYR Macedonia, and Mauritius are good, illustrative examples. Sustained government commitment was central to the success of FYR Macedonia's reforms. The government's broad, sustained effort to support the manufacturing sector laid the foundation for improved competitiveness. Similarly, one reform critical to success in ICT in Mauritius was the privatization of the telecommunications sector years before the World Bank-supported regulatory reforms. However, the support failed in Kazakhstan because the World Bank Group's approach did not have a long-term vision, which led to a lack of links between World Bank projects and the government's own programs.

## Reference

World Bank. 2016. *World Bank Group Engagement in Small States: The Cases of the OECS, Pacific Island Countries, Mauritius, the Seychelles, Cabo Verde, and Djibouti*. Washington, DC: World Bank.

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<sup>1</sup> Project evaluation material includes IEG validations of Implementation Completion Results Reports, Expanded Project Supervision Reports, Professional Services Reviews (MIGA), and Project Completion Report ratings, and self-evaluation reports and country and sector evaluation studies.

<sup>2</sup> Given the difficulty in separating individual component outcomes from overall project outcome ratings, the team excluded from the analysis investment projects that allocated less than 50 percent of their total financing to industry-specific competitiveness components. World Bank DPLs that contained industry-specific measures are treated separately because it is difficult to establish their cost distribution across policy measures.

<sup>3</sup> A satisfactory project outcome at completion for a World Bank project indicates that a project achieved its relevant objectives efficiently. In this evaluation, satisfactory project outcomes include projects that IEG assessed as moderately satisfactory or above.

<sup>4</sup> Only 30 percent of major industry-specific projects had an adequate monitoring and evaluation quality, reflecting the usual issues with project performance measurement.

<sup>5</sup> IEG measures the performance of IFC investment projects at two dimensions: development performance and investment outcome. Development performance is a synthesis rating of project business, economic sustainability, contribution to private sector development, and environment and social effects. This rating shows a project's overall impact on its host country's development.

<sup>6</sup> Project business outcome is one dimension of the development outcome. It is the project's financial returns, which are crucial for the investors and to attract future investment. Project business performance is measured by comparing a project's financial rate of return with a company's real weighted average cost of capital. This outcome shows whether the company benefits financially from the project. This measure can be considered a proxy to assess whether the company's competitiveness efforts paid back.

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<sup>7</sup> The evaluation portfolio is selected based on competitiveness and industry focus. Consequently, competitiveness projects with a direct link to tourism industry is included. For example, some airport projects can be excluded due to their economy-wide effects, rather than one specific industry.

<sup>8</sup> The evaluation portfolio is selected based on competitiveness and industry focus. Consequently, some projects such as IFC's financing that includes farmers or agribusiness firms may be excluded due to broad nature of the projects.

<sup>9</sup> Information and communication technology used different indicators of productivity (outcome), such as mobile cellular subscriptions per capita, fixed (wired) broadband subscriptions, and Internet users. Furthermore, because value added per worker is not available for agribusiness, the report uses value added per worker in manufacturing as a proxy.

<sup>10</sup> Similarity is established according to the propensity score match. The “post” period is defined as the average of 3 years – after a 3-year lag from approval FY, if the country receives only one support. If the country receives more than one support, the post period is defined as the average of 3+ years (after the 3-year lag).

<sup>11</sup> The literature identified these factors as determinants to a country's level of exports: consumer price index, foreign direct investment (net inflows percent of gross domestic product), net barter terms of trade index, trade (percent of gross domestic product), gross fixed capital formation (percent of gross domestic product), official exchange rate (local currency units per U.S. dollar, period average), and rule of law (appendix E). Along with these controls, the evaluation also took into account the role of other donors. Using Aid Data ([aiddata.org](http://aiddata.org)) to identify the development finance support of multilateral agencies in the industries object of this evaluation, the team conducted tests to compare countries with support from the World Bank and other donors with similar countries in which only other donors supported industry competitiveness. The results of these additional tests confirm the suggested positive contribution of the World Bank by showing that the countries with support from both the World Bank and other donors perform better than countries with support only from other donors. These additional tests (with cautious interpretation of results), while in part controlling for selection bias, provide further evidence that is in line with earlier results.

<sup>12</sup> The report presents only the coefficients for the main variables of interest. The full set of regression results for the external variables are reported in appendix G, along with the total number of observations for each test.

<sup>13</sup> These tests control in part for scale of support. Rather than taking into account the dollar value of support (given that some interventions – such as advisory – are generally very small in monetary value), the team measured the extent of support by the number intervention categories included in the projects.

<sup>14</sup> The World Bank provided support in these intervention categories: specialized access to finance, specialized innovation, specialized institutions, specialized infrastructure, specialized regulations, and specialized skills development.

<sup>15</sup> These four country case studies were selected because of their compelling learning potential. The Kazakhstan review benefited significantly from IEG's country program evaluation. The Mauritius, Rwanda, and Vietnam cases are based on field visits and desk reviews.

<sup>16</sup> Long-term refers to the time needed for all interventions to achieve their outcomes.

## 5. Implications of the World Bank Group's Industry-Specific Interventions to Promote Competitiveness on Job Quantity and Quality

### Highlights

- ❖ About half of the World Bank Group's projects with industry specific competitiveness components (486 out of 881 projects) referred to employment in the project appraisal documents. Two-thirds of these projects specifically referenced jobs in the objectives, interventions, or indicators. Most projects identified indirect channels as the main mechanisms to create jobs, such as improving the business-enabling environment or infrastructure
- ❖ The World Bank Group's objectives related to employment in industry-specific competitiveness projects were about creating jobs (80 percent) instead of improving the quality of existing jobs (5-10 percent)
- ❖ Among World Bank Group institutions, IFC focuses the most on job quality through two instruments: a set of performance standards on labor and working conditions, and a partnership with the International Labour Organization aimed at enhancing working conditions in the garments sector
- ❖ Industry competitiveness projects often target labor-intensive industries
- ❖ Tests of association between World Bank Group industry-specific support and industrial employment in the country show that stronger World Bank Group support seems to be associated with an increase in employment in all industries, with agriculture showing a positive association regardless of the breadth of support
- ❖ Analysis of the relationship between productivity, market share, and market size with employment in countries supported by World Bank Group industry-specific interventions shows that employment changes in agriculture are mostly associated with a change in market size, and there is a negative correlation between employment and productivity
- ❖ Among World Bank-supported countries, both market share and export market size have an important role in employment changes.

Increased productivity and competitiveness have the potential to both create and destroy jobs and to improve or worsen working conditions for workers (World Bank 2013b). In this chapter, the evaluation assesses the implications of the World Bank Group's industry-specific support to promote competitiveness on employment and job quality, acknowledging the difficulty associated with measuring jobs (Box 5.1). The world (especially the developing world) is confronted with a global unemployment crisis in which 200 million people are unemployed, and many more millions are underemployed and working in informal, low-productivity sectors (World Bank 2014).

### Box 5.1. Measuring Jobs

The World Bank Group and the development community face challenges in producing credible jobs measurements without universally recognized metrics or a common approach to measuring jobs.

Measuring jobs presents several challenges, including attribution issues, counterfactuals, creation of new jobs versus formalizing existing jobs, and information accuracy. The World Bank Group struggles to mainstream jobs in World Bank Group activities; articulate jobs outcomes in projects, particularly when job creation is indirect; show the conceptual link with jobs in World Bank Group activities; and show results. As a consequence, the World Bank Group operational staff face little incentives given the difficulty associated with showing that goals have been met and that they can be attributed to project actions. Another challenge is capacity of governments to collect and monitor such information. For example, in FYR Macedonia, while employment has been one of the key goals of the government's strategy for FDI attraction, World Bank Group staff have registered insufficient institutional capacity to monitor progress, lack of data and uneven data quality

A recent paper from DFID (2014) outlines important issues to consider when measuring job creation and suggests steps to follow when measuring jobs. These include determining whether measuring job creation makes sense, defining jobs, determining what types of jobs are likely to be created, selecting the appropriate measurement methods, incorporating job creation into results chains, and defining job creation indicators. Conscious of these problems, the World Bank Group Jobs Cross-cutting Solution Area is working on a conceptual framework to help World Bank Group staff measure, monitor, evaluate, and report the results of jobs-focused operations. Currently, the Jobs Group is working on developing jobs related indicators to use in results frameworks as a basis for developing suitable metrics. The work aims to broaden the range of jobs related indicators in order to improve the current knowledge about different projects and the various ways they can affect more, better and inclusive jobs.

*Source:* World Bank internal documents and DFID 2014.

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The evaluation assesses whether the World Bank Group's industry-specific interventions to promote competitiveness is associated with job creation and how they do it. It also assesses the extent to which influencing job quality is part of the World Bank Group's industry-specific interventions. A variety of indicators measure job quality, such as wage premium, insurance, unionization, and type of work as measured in household surveys. The chapter simply reports the extent to which jobs have been referenced in project documents. This section presents findings on IFC's job quality support through performance standards related to working conditions and the Better Work Program.

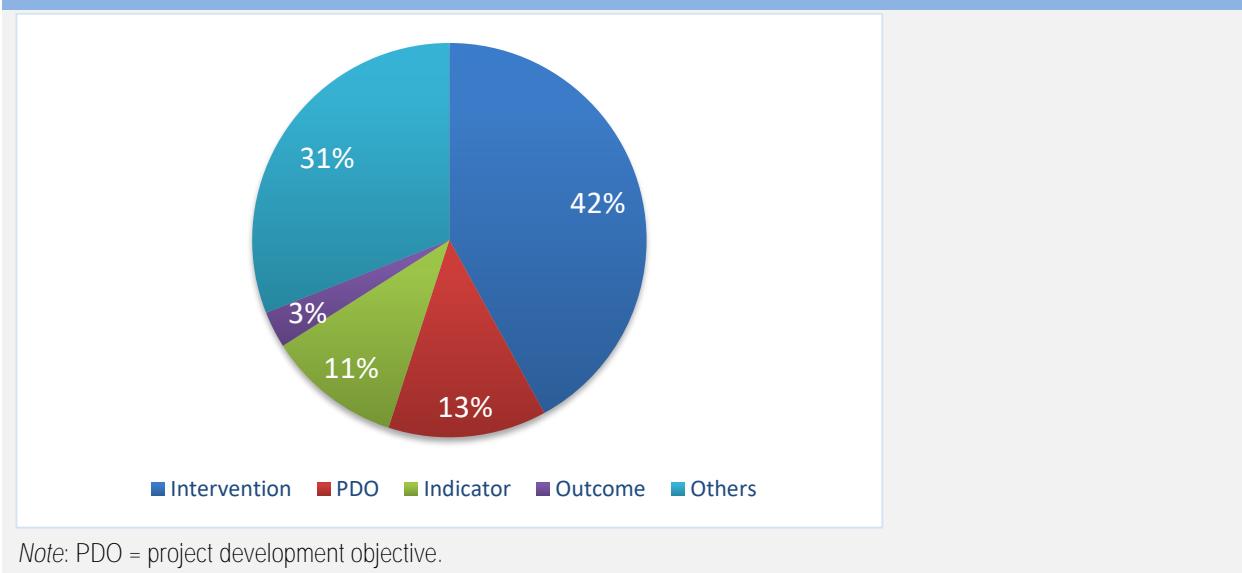
## Job-Related Objectives in Industry-Specific Competitiveness Projects

About half of the World Bank Group's industry-specific competitiveness interventions identified employment issues. Among the 881 industry-specific competitiveness projects under review, 486 referred to employment in the project appraisal documents. While creating more and better jobs is a strong motivation for policy support, the review finds that projects have been making reference to jobs over the years.

Recognizing that the World Bank and IFC adopt two different approaches with respect to jobs measurement,<sup>1</sup> about half of World Bank projects refer to jobs, and almost 70 percent of IFC Investment Services projects and one-third of IFC Advisory Services projects supporting improved competitiveness referred to jobs in the project approval documents. IFC includes job numbers in project reporting, which explains the higher number of job references in IFC investment project documents. Recent IFC Advisory Services projects also include a section on jobs.

Two-thirds of projects that referred to jobs in the project appraisal documents specifically referenced jobs in the project's objectives, interventions, or indicators. In one-third of the 486 job-related projects, the jobs reference was a generic reference to the project's potential medium-term and long-term effects on employment. About 40 percent of the job-related projects had at least one intervention targeting jobs, and a quarter of them had a job-related project development objective or at least one jobs indicator. A small percentage of projects job-related projects (3 percent) included a job-related outcome (Figure 5.1).<sup>2</sup>

Figure 5.1. Jobs References in Project Documents



## CHAPTER 5

### IMPLICATIONS OF THE WORLD BANK GROUP'S INDUSTRY-SPECIFIC INTERVENTIONS TO PROMOTE COMPETITIVENESS ON JOB QUANTITY AND QUALITY

Projects with job references do not typically identify the groups that job implications would affect. Only 30 percent of projects that referred to jobs (149 projects) provided information on the type of beneficiaries that projects' employment-related implications would affect. Of the beneficiary groups the evaluation identified, 45 percent were poor or vulnerable groups or individuals, and 36 percent were in a specific age group (youth or elderly). Gender-specific employment targeting was present in 16 percent of job-related projects.

Projects with jobs references varied across industries, Regions, and country-income groups. References to jobs among the World Bank Group's industry-specific competitiveness projects were more frequent in the manufacturing sector, followed by agriculture, ICT, and tourism. The higher frequency in manufacturing is mainly because most manufacturing sector projects were IFC investment operations that report such information. The distribution of job-related projects also shows a variation on the industry focus across Regions. Across income categories, the World Bank Group's focus on jobs was mainly on low- and lower-middle-income countries (40 percent each). A large percentage of job-related agriculture projects were in low-income countries, and most job-related manufacturing projects were in lower-middle-income countries.

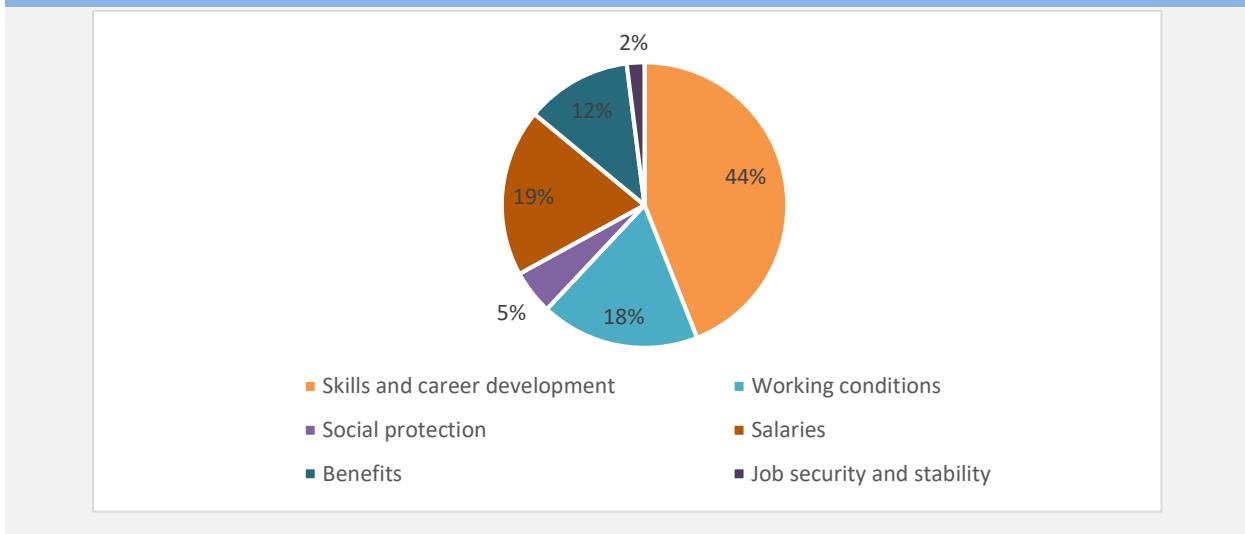
Most projects identified indirect channels as the main mechanisms to create jobs. The evaluation reviewed the channels for creating jobs to understand how the World Bank Group sees its contribution to generating employment. About 90 percent of projects that explicitly referred to job creation discussed how to achieve it and identified direct and indirect channels, though projects (more than 60 percent) identified indirect channels as the main mechanism. The most common indirect channels were improving the business regulatory environment, competition policy, infrastructure (roads and irrigation), promoting investment, supply and value chains, and innovation. For example, an IFC investment in an agribusiness processing plant expected to support about 1,500 direct jobs and create about 500 more in the five years after commitment (including 400 more jobs for women). A 2014 World Bank project to help Côte d'Ivoire develop domestic processing of raw nuts estimated that increasing raw nut processing in rural areas to 30 percent of national production would create more than 40,000 jobs, of which at least 60 percent would be held by women.

About 20–30 World Bank Group industry-specific competitiveness projects aimed to create jobs directly, mostly through supporting firm or industry expansion. Project activities in infrastructure or facilities also sought to create jobs directly either during site construction or after construction (as centers of commerce and employment). For example, five projects intended to create jobs in project-supported economic zones, such as special economic zones (SEZs), EPZs, or growth poles. One of these approved was

the 2014 Ethiopia competitiveness and job creation project that aimed to create jobs through supporting an SEZ.

Only a small proportion of World Bank Group industry-specific projects addressed job quality. Both job creation and enhancing job quality are employment challenges in developing countries. Job quality includes work and employment characteristics that affect workers' well-being, such as pay, training, and work safety (de Bustillo et al. 2011; Green 2007). A growing body of research highlights the benefits to businesses of investments that promote decent jobs, including better risk management, mitigation of skill shortages, and improved business relationships (ILO, 2015). The World Bank Group's employment-related objectives in industry competitiveness projects focused mostly on creating jobs instead of improving the quality of existing jobs. Of the 486 job-related projects, only 5 to 10 percent had objectives related to job quality improvements.<sup>3</sup> Specific measures related to improving job quality included skills improvement, opportunities for career development, pay, working conditions, and employment benefits (Figure 5.2). A higher percentage of manufacturing projects aimed to improving job quality compared with projects in other industries.

Figure 5.2. Measures to Support Job Quality in World Bank Group Industry Competitiveness Projects



IFC's addresses job quality through performance standards for its investment projects on labor and working conditions, and a partnership with the International Labour Organization (the Better Work Program). IFC investment project clients must comply with a set of performance standards that aim to ensure that protecting workers' rights complements employment creation and income generation. These performance standards for managing and monitoring environmental and social risks have included

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labor and working conditions standards since 2006. The labor and working conditions standards aim to establish, maintain, and improve a worker-management relationship; promote fair treatment, nondiscrimination, and equal opportunity, and compliance with national labor and employment laws; address child labor and forced labor to protect the workforce; and promote safe and healthy working conditions, and protect and promote workers' health. IFC expanded the revised standards in 2012 to cover more categories of workers and include vulnerable groups, such as children, migrant workers, workers engaged by third parties, and workers in the client's supply chain. The Better Work Program is another IFC direct contribution to improving job quality (box 5.2).

#### Box 5.2. Better Work Program

The Better Work Program is a partnership between IFC and the International Labour Organization established in 2006 with the objective of improving workers' rights in the garment sector. The initiative collaborates with governments, employers, workers, international buyers, and other relevant stakeholders, and seeks to show that good working conditions and factory profitability go hand-in-hand. Better Work operates in eight countries: Bangladesh, Cambodia, Haiti, Indonesia, Jordan, Lesotho, Nicaragua, and Vietnam. The program works with more than 900 garment factories to assess and enhance working conditions. Better Work assess factories on international and national labor standards, including child labor, forced labor, discrimination, freedom of association and collective bargaining, contracts and human resources, working time, compensation and benefits, and safety and health. The program provides assessments and capacity building to factories, and advice focuses on bringing workers and managers together to assess and solve factories' issues. Better Work spearheads a 16-month engagement to support and build capacity at the factory level and (with the factory's permission) disseminates the results of the engagement to eligible international buyers.

Note: For more information, see the Better Work Program website at <http://www.better.org>.

## Relevance and Effectiveness of the World Bank Group's Focus on Jobs

Employment is high on the World Bank Group's agenda at the corporate and Regional level, and operations reflect this priority. The current World Bank Group corporate strategy emphasizes the importance of jobs (World Bank 2013a). The World Bank Group's strategy in the Africa Region seeks to help countries diversify their economies and generate jobs (World Bank 2011c). Similarly, jobs and private sector-led growth are a priority in the East Asia and Pacific strategy.<sup>4</sup> The Europe and Central Asia strategy emphasizes that creating new and quality jobs requires structural reforms to strengthen the competitiveness of the Region's economy.<sup>5</sup> A stronger private sector that can create

jobs and opportunities for youth is a pillar of the World Bank Group's strategy in the Middle East and North Africa Region (World Bank 2015d). The distribution of job-related projects across Regions reflects these strategic priorities. The proportion of industry-specific competitiveness projects that refer to jobs is about the same for each Region (at or about 50 percent). The Middle East and North Africa Region shows the highest proportion (69 percent).

The World Bank Group's industry-specific competitiveness projects generally targeted industries with high labor intensity. The share of industry-specific competitiveness projects in labor-intensive industries is higher than in industries with low labor intensity, regardless of whether or not the projects are job-focused (table 5.1). Because industries link to each other, support to one industry might create jobs in other industries (indirect effect). IEG performed two tests to clarify the short-term and long-term indirect job impact of generating jobs in one industry: the multiplier effect and the Moretti approach (Box 5.3).<sup>6</sup>

Table 5.1. Share of Portfolio by Level of Industry Labor Intensity

Industry	Labor Intensity	Overall (%)	Job-Related Projects (%)
Agriculture	High	45	38
Agribusiness	High	28	28
ICT	Low	15	17
Manufacturing	Medium	14	18
Tourism	Low	13	18

Note: ICT = Information and communication technology.

### Box 5.3. Indirect Employment Estimation

Support to enhance competitiveness in industries can lead to job creation in growing industries and job destruction in declining industries. However, links between industries entail changes in employment in expanding and contracting industries (UNIDO 2013b). Therefore, analysis of the effects of increased competitiveness on job creation must consider indirect employment effects.

IEG uses two different approaches to estimate indirect effects: multiplier effects (based on input-output tables) and the estimation method by Moretti (2010).

#### Multiplier Effects

Output multipliers are a major concept in the analysis of input-output tables and the basis to estimate employment multipliers. Output multipliers measure the increase in output of the whole economy (in monetary units) caused by an exogenous increase in final demand in a

specific sector. The multiplier consists of two parts: the direct (multiplier) effect and the indirect (multiplier) effect. Direct effects are equal to the increase in output within the sector in which the increase in final demand occurs, and indirect effects are equal to the increase in output in supplying sectors. For example, if an increase in final demand in manufacturing is observed, then manufacturing output has to increase to meet the increase in final demand and, most likely, more manufacturing inputs will also be used in the production process (as a result, the increase in output in manufacturing will be larger than the change in final demand). The direct effect is this increase in manufacturing output. Conversely, changes in output in supplying sectors (such as ICT services, energy, and so on), are regarded as indirect effects.

Output multipliers can also be used to calculate employment multipliers. Direct and indirect employment effects of an increase in final demand can be analyzed by multiplying output multipliers with employment shares ( $\text{employment}/\text{output}_i$  where  $i$  represents a specific sector of an economy). Similar to the output multiplier, the direct employment effect measures the increase in employment in the sector in which the increase in final demand occurs, and indirect employment effects are defined as the increase in employment in the supplying sectors.

### **Moretti's Approach**

Although the multiplier effect described focuses on the short-term effects because of an increase in final demand, the Moretti approach focuses on long-term effects from a general equilibrium perspective, in which he distinguishes between nontradable and tradable goods. Thus Moretti analyzes changes in employment during a 10-year period in nontradables and tradables, dependent on changes in employment of tradable goods sectors. Furthermore, Moretti employs two methods: He estimates elasticities by instrumental variable regressions, thus accounting for exogenous changes in labor demand at the macro level, and he estimates elasticities by ordinary least squares (which does not account for exogenous changes in labor demand).

IEG estimates the effects of a change in employment in a specific sector on employment in linked sectors. Although Moretti estimates employment elasticities at the city level, IEG estimates employment elasticities at the country level because data limitations allow deploying only the ordinary least squares approach. Furthermore, though Moretti estimates changes in employment during a 10-year period, IEG estimates changes during 5-year periods using employment observations in 1995, 2000, 2005, and 2010.

a. Technical details and a description of the data can be found in appendix H.

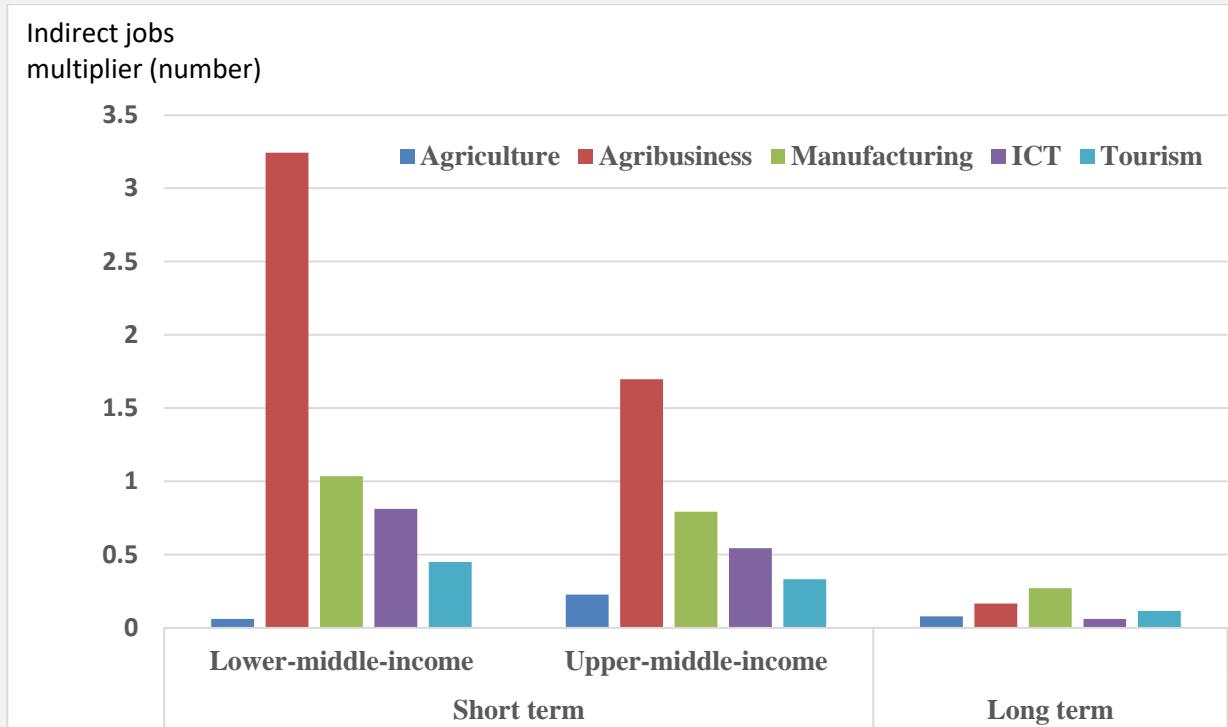
b. See Miller and Blair (2009) for a detailed discussion of input-output tables and multiplier analysis.

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Both agribusiness and manufacturing have important indirect short-term employment effects on other industries. Test results show that the indirect impact on job creation is higher in the short term and significantly lower in the long term after prices adjust. The values of indirect multipliers are different depending on the country's income level, with generally higher multipliers in lower-middle-income countries, except for agriculture (figure 5.3). Agribusiness has the highest short-term indirect employment

impact, where creating one job generates more than double the number of jobs in the rest of the economy (depending on the country's income level). Agribusiness has the highest short-term indirect impact because of its strong link to labor-intensive agriculture. Therefore, an increase in output in agribusiness will have a high indirect effect, especially in agriculture. Manufacturing also has significant short-term indirect multiplier effects. Test results show that indirect jobs double in the rest of the economy after a job increase in the manufacturing sector. Lower indirect effects are present in the other industries, particularly in agriculture, which remains the industry with the lowest indirect job creation effect.

Figure 5.3. Short-Term and Long-Term Indirect Job Creation in Lower- and Upper-Middle-Income Countries, by Industry



Note: ICT = information and communication technology.

Some industries the World Bank Group targeted also show long-term indirect job creation effects, though the effect is lower than in the short term. The long-term indirect impact on jobs (after allowing prices and wages to adjust) shows that manufacturing and agribusiness have the highest indirect employment impact. However, this impact is much lower than the short-term impact. In the long term, every four jobs created in manufacturing create one indirect job in the rest of the economy, and every six jobs in agribusiness create one indirect job in the rest of the economy. In tourism, every 10 direct jobs create one indirect job (Figure 5.3).<sup>7</sup> Overall, the results of the analysis show

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that the World Bank Group's industry-specific interventions to promote competitiveness mostly targeted industries with the highest direct and indirect job-creation potential.

The evaluation ran several tests to examine the contribution of the World Bank Group's industry-specific interventions to generating employment in client countries. To test for a correlation between World Bank Group support to industry competitiveness and job creation at the aggregate level, the evaluation performed the same before-and-after and difference-in-difference tests presented earlier, but using employment as the outcome variable. The same limitations presented in box 4.1 with respect to measurement errors and model specification apply to this analysis.<sup>8</sup> Furthermore, irrespective of the sign of the correlation, a positive or negative judgment cannot be inferred because the analysis is only industry specific and does not take into account changes in employment across industries. These tests cannot imply attribution of job creation and quality enhancement outcomes to the World Bank Group's interventions because of the sample composition. Furthermore, the limited data available on employment outcomes do not allow the tests to be restricted only to World Bank Group projects that had specific job creation objectives. Therefore, the sample includes all World Bank Group projects with industry-specific competitiveness components, and interpretation of results must be as a broad association between the World Bank Group's industry-specific competitiveness support and employment outcomes. Table 5.2 presents the variables used as indicators of employment and their sources.

Table 5.2. Indicators of Employment, by Industry

Industry	Description	Source
AGRICULTURE	Agriculture total employment (thousands)	World Development Indicators
	Agriculture female employment (thousands)	ILO - Key Indicators of Labor Market
AGRIBUSINESS	Manufacturing total employment (thousands) <sup>a</sup>	ILO - Key Indicators of Labor Market
	Manufacturing female employment (thousands) <sup>a</sup>	ILO - Key Indicators of Labor Market
MANUFACTURING (inc. agribusiness)	Manufacturing total employment (thousands)	ILO - Key Indicators of Labor Market
	Manufacturing female employment (thousands)	ILO - Key Indicators of Labor Market
TOURISM	Travel and tourism direct contribution to employment (thousands of jobs)	World Travel and Tourism Council

Note: ILO = International Labour Organization.

a. Used as proxy.

World Bank Group industry competitiveness support seems associated with increases in employment only in the agriculture sector, regardless of the intensity of the support. The analysis shows an association between World Bank Group industry competitiveness support in the agriculture sector and level of employment both after receiving such support and when compared with countries that did not receive such support. However, in the other industries (agribusiness, manufacturing, and tourism), no association is evident. The positive association between industry competitiveness

support and employment growth disappears when accounting for female employment. None of the industries for which data are available shows a positive or negative association between World Bank Group competitiveness support and female employment growth (table 5.3, columns 3 and 4).

The analysis shows a positive association between World Bank Group industry competitiveness support and employment growth in all industries when support is more intense. The evaluation performed the difference-in-differences test across two groups of countries: those with limited World Bank Group competitiveness support (no more than two intervention categories during the evaluation period) and countries with extensive World Bank Group competitiveness support (with three or more intervention categories). The results change significantly in this analysis. All sectors with available data (table 5.3, columns 5 and 6) show a positive association between the intensity of World Bank industry competitiveness support and employment growth, except for agriculture, which shows a positive association regardless of breadth of support. The intensity of World Bank Group support seems to have a positive association with female employment growth in manufacturing and agribusiness, but not in agriculture (figure 5.3, columns 7 and 8).

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#### Box 5.4. Examples of the Contribution of Bank Group Projects to Employment in the ICT Industry

Interventions in the information and communication technology (ICT) industry often aim to foster employment, especially for youth, which represent a good fit for employment in this industry. Examples of successful World Bank Group support are in Bhutan and Jamaica, where the World Bank Group supported training, networking, business facilitation, and infrastructure development. The Bhutan project led to 255 job leads and achieved a 60 percent employment rate for students trained. Overall, the project created almost 2,000 jobs. The first project supporting the ICT sector in Jamaica and two follow-up projects led to 150 start-up companies, establishment of a start-up hub, \$7 million in seed funding, and about 400 jobs (among other things).

Sources: IEG ICRR. 2014. Bhutan Private Sector Development (P073458) and IEG ICRR. 2013. First Programmatic Debt and Fiscal Sustainability Development Policy Loan (S123241).

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Table 5.3. Implications of World Bank Industry Specific Support for Job Creation

	B/A (1)	DID (2)	B/A (3)	DID (4)	BY BREADTH OF SUPPORT <sup>a</sup>			
	Total Employment		Female Employment		Total Employment	Female Employment		
<b>AGRICULTURE</b>	<b>1,072**</b>	<b>1,043**</b>	-2.71	-62.26	<b>150.0**</b>	<b>1,478**</b>	<b>32.91*</b>	-101.2
	Number of treated countries	45	51	11	16	35	11	19
<b>AGRIBUSINESS</b>	<b>Manuf. Total Employment</b>		<b>Manuf. Female Employment</b>		<b>Man. Tot. Employment</b>		<b>Man. Female Employ.</b>	
	121	-10.51	38.71	24.23	-123.6**	97.91**	-71.44***	116.0***
<b>MANUF. (INC. AGRIB.)</b>	<b>Total Employment</b>		<b>Female Employment</b>		<b>Total Employment</b>		<b>Female Employment</b>	
	275.6*	174.7	12.05	3.204	195.1	132.7***	-59.77***	122.9***
<b>Tourism</b>	<b>Total Employment</b>		<b>Female Employment</b>		<b>Total Employment</b>		<b>Female Employment</b>	
	145.8*	153.8			-7.965	279.3*	13	16
Number of treated countries								
29								

Source: IEG.

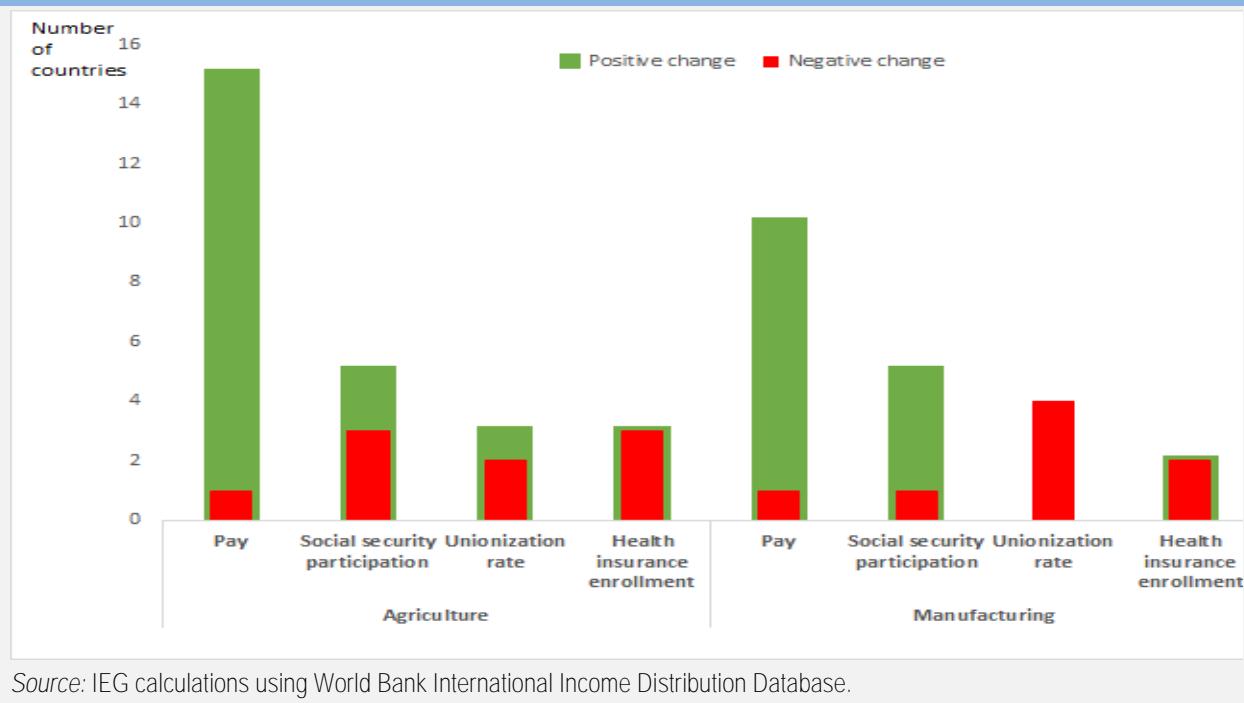
Note: — indicates that the number of observations of treatment is less than 10. VA = value added.

a. By number of intervention categories, using difference-in-differences test.

\*p < 0.1.      \*\*p < 0.05.      \*\*\*p < 0.01

The evaluation also performed tests to assess the relationship between World Bank Group interventions and job quality in the targeted industries. The evaluation examined the relationship between World Bank Group competitiveness interventions and several indicators of worker welfare, including pay, social security, union status, and health insurance. IEG performed two tests to observe the potential effects of World Bank Group programs on these variables: changes in each indicator before and after the World Bank Group's interventions, and difference-in-differences estimation with a set of comparison countries that did not receive World Bank Group competitiveness support. IEG used data in these tests from available household and labor force surveys in up to 30 countries.

Figure 5.4. Results of Before-and-After Tests on Work Quality Indicators in Agriculture and Manufacturing



Source: IEG calculations using World Bank International Income Distribution Database.

World Bank competitiveness interventions have a positive association with work quality improvements in the agriculture and manufacturing sectors. In agriculture, three work quality indicators—pay, social security enrollment, and unionization—showed a positive association after World Bank interventions in the sector. Health insurance participation showed a positive change in three countries and a negative change in another three countries (figure 5.4). The evidence is less compelling in manufacturing, where two indicators showed a positive change after World Bank interventions in the sector (pay and social security participation), and one indicator, unionization rate, showed a negative change after World Bank interventions in all four countries for which data are available. Health insurance participation showed a positive change after World Bank interventions in two countries and a negative change in another two countries (figure 5.4). Results from the difference-in-differences test showed a positive impact on almost all work quality indicators in countries that received World Bank support compared with countries that did not (table 5.4). Therefore, the available data show a positive association with job quality improvements in both agriculture and manufacturing in the countries where the World Bank supported industry competitiveness.

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Table 5.4. Results of Difference-in-Differences Tests on Work Quality Indicators in Agriculture and Manufacturing

Indicator	Difference-in-Differences <sup>a</sup>	
	Agriculture	Manufacturing
Pay <sup>b</sup>	0.078***	0.054***
Social security participation	0.005***	0.080***
Unionization rate	0.033***	0.022***
Health insurance enrollment	0.216***	-0.050***

Source: IEG using World Bank International Income Distribution Database.

Note: green = positive impact; red = negative impact.

a. Regression coefficient.

b. Hourly wage rate.

\*\*\*p < 0.01

Data shows improved working conditions for women in the manufacturing sector of countries that had World Bank support, but less improvement in the agriculture sector. The available data enabled IEG to examine the association between World Bank competitiveness support and disaggregated improvements in job quality indicators for male and female employees (Table 5.5). Countries with World Bank industry competitiveness support in agriculture and manufacturing showed a higher increase in hourly wages for female employees in both industries compared with countries that did not receive World Bank support in these industries. This increase seems to be even higher than the increase in pay for male employees. However, in agriculture, all the other indicators showed a worsening in the quality of employment for females compared with males. In manufacturing, two indicators showed an improvement in work quality for women, and one showed a deterioration. Therefore, the available data shows a greater improvement in working conditions for women in manufacturing than in agriculture in the countries where the World Bank supported industry competitiveness, except for pay, which shows a positive increase for females in both industries.

Table 5.5. Results of Difference-in-Differences Tests on Work Quality Indicators in Agriculture and Manufacturing, by Gender

Indicator	Difference-in-Differences <sup>a</sup>			
	Agriculture		Manufacturing	
	Male	Female	Male	Female
Pay <sup>b</sup>	0.092***	0.097**	-0.039***	0.203***
Social security participation	0.011***	-0.023***	0.042***	0.138***
Unionization rate	0.040***	-0.019**	0.030***	0.012***
Health insurance enrollment	0.237***	0.107***	-0.068***	-0.022**

Source: World Bank International Income Distribution Database.

Note: green = positive impact; red = negative impact.

a. Regression coefficient.

b. Hourly wage rate.

\*\*\*p < 0.01

## Effectiveness of IFC's Performance Standards and the Better Work Program in Helping Improve Job Quality

IFC's efforts contributed to improving working conditions. According to previous IEG studies, IFC's monitoring of its performance standards on working conditions is an important contribution in the manufacturing sector. One internal IEG assessment found that client compliance with labor and working conditions improved from the approval stage to the evaluation stage (67 percent to 78 percent), implying that IFC's role in helping clients improve these standards is important (IEG 2014). Of the industry competitiveness projects with ex post data on standards compliance, 75 percent complied with IFC's performance standards on labor and working conditions compared with 75 percent for other IFC projects. Noncompliance was mainly due to failure to meet standards on occupational health and safety. For example, a company in a manufacturing project in Middle East and North Africa showed high levels of lost time partly because of unsupervised machinery and failure of personnel to use proper equipment. In another project in the Africa Region, several fatalities occurred during five months of operations.

The Better Work Program helped improve working conditions in participating Vietnamese garment factories. IEG did not assess the entire Better Work Program, only the Vietnam program's contribution to working conditions in Vietnam's garment industry (members of the evaluation team visited the program in Vietnam) (box 5.5). IEG interviews with stakeholders showed that the Better Work Program is

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reputable, and its role in enhancing working conditions for garment workers is important. A 2013 study of Vietnam's Better Work Program found positive impacts on labor conditions and competitiveness among participating factories.<sup>9</sup> The study found that the program contributed to a 10 per cent increase in worker income and a 3 per cent improvement in workers' health between 2010 and 2013.<sup>10</sup> The capacity utilization rate of Better Work Program factories increased by 15 percent, and the proportion of factories that became preferred suppliers increased by more than 20 per cent. A March 2015 Better Work Program research study (March 2015) found that garment factor profitability increased as working conditions improved because worker productivity improved, which translated into higher wages. The report concluded that moving away from "sweatshop conditions" increases profitability by 6 percent, and achieving a comfortable work environment led to a 7.6 percent increase in profitability.

Stakeholders observed a clear difference between Better Work Program factories and those that do not take part in the program regarding working conditions, productivity, and market opportunities.

#### Box 5.5. The Better Work Program in Vietnam

Vietnam's Better Work Program, established in 2009, is the largest in any country. It includes more than 350 apparel factories, nearly 300,000 workers, and more than 60 buyers (mostly from Europe and the United States). The program typically engages international buyers through buyer forums that bring all stakeholders together to foster business opportunities. The program also conducts specific outreach to strengthen partnerships with international brands. Better Work's Project Advisory Committee monitors the program's development and progress, and includes representatives from the Ministry of Labor, Invalids, and Social Affairs, the Vietnam Chamber of Commerce and Industry, and the Vietnam General Confederation of Labor. Donors from countries such as Canada, Ireland, the Netherlands, and Switzerland support the program.

However, ensuring that factories comply with improved conditions remains a challenge. Global buyers help drive the Better Work Program. Motivated by the reputational risk associated with consumer sensitivity to working conditions in developing countries, the buyers influence their supplier factories to take part in the program to ensure adequate working conditions. However, many factories perceive the program as burdensome and join it only if global buyers make joining the program a requirement to fill orders. A recent compliance report (ILO 2015) shows that although compensation-related issues improved, more than half of the participating factories are noncompliant with freedom of association and collective bargaining conditions, and nearly 80 percent of factories are noncompliant with paid leave. Occupational safety and health, contracts and human resources, and working time present the highest

noncompliance rates. Furthermore, almost every factory was noncompliant with overtime because of internal productivity and production planning.

The Better Work Program has had limited reach to date in Vietnam. Participation was limited to garments firms in southern Vietnam until 2015. Factories do not volunteer to join because they perceive the program as adding to their costs (through program fees and investments necessary for compliance). To increase demand, the program is trying to show that taking part can benefit the factories through productivity increases, research findings, free seminars, and training. However, these efforts have been unsuccessful so far. Some local stakeholder observed potential for making the Better Work Program financially independent, and others see benefits in expanding the program to other industries.

IFC provided significant logistical support for establishing the Better Work Program in Vietnam, but its current role and contribution in the country is unclear. IFC's main value since the beginning of the program was its private sector view and experience, and its role in establishing the program (according to interviews with stakeholders). IFC's aim is to help the program gain financial sustainability and expand in other countries. However, IFC's contribution to the program seems to have diminished with time, especially after IFC Advisory Services reorganized and the staff assigned to the program left Vietnam. Furthermore, other relevant stakeholders in the country did not fully agree with IFC's Vietnam-specific priorities (expansion to other industries and environmental areas, as evidenced by interviews and the program's midterm review).

### Relationship among Competitiveness, Productivity, and Employment

The evaluation investigated the relationship among productivity, competitiveness, and employment in countries that received World Bank Group industry-specific support. Theoretically, the direct employment effect of industrial upgrading depends (negatively) on the size of the increase in productivity, (positively) on the rate of expansion of market size, and (positively) on the increase in competitiveness (market share) (box 1.4). The evaluation tested this relationship using the sample of countries that received World Bank Group industry competitiveness support. Table 5.6 presents the results for both manufacturing and agriculture. As mentioned earlier, the analysis is a simple association and needs to be interpreted with caution given the complexity of measuring the effect of competitiveness on job creation. Increasing productivity or competitiveness often involves upgrading their production systems to become more capital intensive. Thereby, within-sector productivity growth might be accompanied by within-sector job destruction in these cases. The extent to which industry interventions

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translate into overall employment growth will depend to a large extent on the ease by which factors of production can move, so that they could be absorbed by other industries.

Employment changes in agriculture are mostly associated with a change in market size, but both market share and export market size have an important role in manufacturing. The negative correlation between employment and productivity is particularly strong in agriculture, but less so in manufacturing. Productivity in agriculture maintains a clear, negative association with employment (table 5.6, column 4) because of the sector's low efficiency. Productivity also has a positive association with export market share and market size (columns 1 and 2). In contrast, neither market size nor export market share shows any association with employment when no other control variable is introduced (columns 3 and 5). When all variables are considered, productivity remains negative, and market size shows a positive coefficient with employment (columns 6). This implies that agriculture employment growth in World Bank client countries is mainly associated with an increase in market size instead of export share. This effect compensates for productivity's negative effect because the overall impact is positive. In manufacturing, productivity again has a positive association with export share and market size (columns 1 and 2). However, productivity shows no association with employment when both with and without other control variables (column 4 and 6), which shows that the combined positive effect of export shares and market size on employment is greater than productivity's negative effect (column 3 and 5). The productivity coefficient becomes negative when considering all variables, even though it remains insignificant (column 6). Therefore, an increase in manufacturing employment is mostly due to an increase in export market share and market size, which compensates for productivity's negative effect on employment.

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Table 5.6. Regression Results of Employment on Productivity, Market Share, and Market Size for Manufacturing and Agriculture (Countries with World Bank Industry-Specific Interventions)

Agriculture

VARIABLES	(1) Export Market Share	(2) Market size	(3) Employment	(4) Employment	(5) Employment	(6) Employment
Productivity	1.35e-05*** (3.20e-06)	15,875*** (1,180)		-0.0638* (0.0337)		-0.0733** (0.0359)
Export Market Share					-182.2 (121.7)	-142.5 (132.1)
Market size			1.20e-06 (7.35e-07)			1.39e-06* (7.75e-07)
Constant	-0.167 (0.135)	2.345e+08*** (4.709e+07)	-182.2 (555.5)	921.5 (584.0)	16,806*** (599.0)	602.0 (624.2)
Observations	1,127	1,100	400	404	405	381
R-squared	0.970	0.326	0.999	0.999	0.999	0.999

Regression results include country fixed effect controls (not reported).

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Manufacturing

VARIABLES	(1) Export Market Share	(2) Market size	(3) Employment	(4) Employment	(5) Employment	(6) Employment
Productivity	8.38e-06*** (1.58e-06)	116,580*** (36,467)		0.00769 (0.00731)		-0.0170 (0.0115)
Export Market Share					951.4*** (45.36)	2,398*** (229.2)
Market size			6.19e-08*** (1.91e-08)			9.61e-08*** (1.80e-08)
Constant	-0.0975* (0.0526)	5.467e+09*** (1.421e+09)	-45.34 (445.3)	31,933*** (292.0)	23,404*** (481.2)	9,866*** (2,103)
Observations	328	331	376	354	382	330
R-squared	0.988	0.327	0.996	0.996	0.998	0.995

Regression results include country fixed effect controls (not reported).

Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

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<sup>1</sup> The different nature of the business models, clients, project governance in the World Bank and IFC leads to differences on how teams design projects for job results and implications on results measurement – particularly with considerably varying projects timelines between the two institutions and results on jobs expected within such period.

<sup>2</sup> The team collected this information from the social impacts or benefits sections of the project appraisal documents.

<sup>3</sup> Including 8.5 percent that sought to both create jobs and improve job quality.

<sup>4</sup> World Bank. Strategy for East Asia and Pacific Region.

<http://www.worldbank.org/en/region/eap/overview#2> (visited in December 2015)

<sup>5</sup> World Bank Strategy for Europe and Central Asia Region:

<http://www.worldbank.org/en/region/eca/overview#2>.

<sup>6</sup>The estimation of indirect jobs effects used in the chapter is very data intensive. Consequently, the indirect jobs effects presented are for illustrative purpose only and are not linked to any project, ICRR or evaluation. See appendix B for a description of these methods and country coverage.

<sup>7</sup>Data availability does not allow for estimation by income levels.

<sup>8</sup> See box 4.1.

<sup>9</sup> According to the Better Work program's reports, 60 percent of Better Work factories expanded employment, 65 percent increased sales, and 75 percent increases sales orders.

<sup>10</sup>Source: ILO 2015. Better Work. <http://betterwork.org/global>.

## 6. Internal Factors of World Bank Group Performance

### Highlights

- ❖ The evaluation examines two factors affecting World Bank Group performance: collaboration across networks and institutions, and the extent to which projects mitigated the risks to the achievement of project objectives.
- ❖ Country strategies generally consider each World Bank Group institution's roles and advantages in the approach to promoting industry competitiveness in client countries. However, according to a staff survey, most World Bank Group staff does not believe that substantive collaboration takes place at the country strategy level.
- ❖ More than half of industry-specific projects referred to some element of collaboration in the project appraisal documents; excluding Development Policy Loans (DPLs), only 27 percent of projects involved collaboration. World Bank Group institutions generally collaborated at a programmatic level instead of the project level in supporting industry competitiveness.
- ❖ Data are inadequate to establish a clear correlation between collaboration and achievement of project outcomes. Extensive cross-support expertise on projects suggests improved development outcomes.
- ❖ The top three factors that foster collaboration are personal networks, staff presence in the field, and the complementarity of investments (for example, combining technical assistance with lending), and factors that hinder collaboration are budget-related issues and lack of formal incentives, procedures, and processes.
- ❖ Potential problems identified in World Bank industry-specific investment projects and IFC Advisory Services were mostly in the World Bank Group's control. In World Bank DPLs and IFC investments operations, about half of the problems identified were in the World Bank Group's control. The occurrence of problems in the World Bank Group's control reduces the probability of achieving the development objectives by 25 percent.
- ❖ Technical assistance was the most common instrument used to mitigate potential risks to the achievement of project objectives. The use of mitigants effectively resolved the identified problem in 60 percent of projects. Some mitigants were less effective, especially in investment operations, indicating that they may be too narrow to effectively address the risk.

The evaluation examined two performance factors internal to the World Bank Group. In this chapter, the evaluation assesses factors that can contribute to the success or failure of industry-specific competitiveness interventions that are within the World Bank Group's control. Two factors examined are collaboration across World Bank Group networks and institutions, and implementation problems and the extent to which they were successfully mitigated. The first part of this chapter discusses the extent to which the various networks and the World Bank, IFC, and MIGA collaborated to support industry competitiveness in client countries. The second part examines the types of

implementation problems that affect development outcome achievement and then assesses how the projects successfully mitigated them.

### Collaboration across the World Bank Group

This evaluation defines collaboration as any coordinated effort within and across World Bank Group institutions aimed at using knowledge and resources to the maximum advantage to enhance results. The recently adopted World Bank Group strategy emphasizes the need to use synergies across units and institutions to the maximum advantage and “work better together.” The evaluation examined collaboration across units and institutions in two dimensions: strategic and operational. In analyzing operational collaboration, the evaluation examined three aspects: whether collaboration between projects was expected or needed, whether collaboration occurred, and whether collaboration influenced the project’s results or work quality (see methodology in appendix I). The analysis draws on evidence from 10 country case studies selected for this evaluation, and the portfolio of 262 evaluated projects with industry-specific competitiveness components. The evaluation also draws on a staff survey on collaboration that IEG conducted in December 2015.<sup>1</sup>

After the World Bank Group reorganized in 2013, industry-specific projects were distributed more among the World Bank Group units. Before the reorganization, projects with industry-specific competitiveness components in the four industries—manufacturing (including agribusiness), ICT, tourism, and agriculture—were concentrated mainly in the Social Development Network. The new organizational structure became effective in 2013 and aimed to catalyze and use the World Bank Group institutions’ combined resources and expertise to maximum advantage. IFC Advisory Services’ government projects were mapped to the Trade and Competitiveness Global Practice, and private sector projects were either mapped to the corresponding IFC industry department or to Cross-cutting Advisory Solutions Department. After this remapping, the World Bank Group’s new structure shows a more distributed placement of projects with industry-specific competitiveness components. Figure 6.1 shows the mapping of World Bank Group industry-specific projects before and after the reorganization.

Figure 6.1. Industry Competitiveness Portfolio Mapping against the World Bank Group Organizational Structure



Note: World Bank networks: FPD = Finance and Private Sector Development, HDN = Human Development, OPCS = Operations Policy and Country Services, PREM = Poverty Reduction and Economic Management, SDN = Sustainable development. IFC AS business lines: A2F = Access to Finance, IC = Investment Climate, PPP = Public-Private Partnerships. SBA = Sustainable Business Advisory. IFC Industry Groups: CTT = Telecom Media and Technology, Infra = Infrastructure, MAS = Manufacturing, Agribusiness, and Services.

Country strategies generally consider each World Bank Group institution's roles and advantages in the approach to promoting industry competitiveness. IFC-World Bank (and where appropriate, MIGA) joint country strategies have increased in recent years. Less than half of the country assistance strategies were joint strategies in FY01, and by FY10–12, more than 83 percent were joint strategies that generally defined each World Bank Group institution's relative responsibilities and strategies (IEG 2014). A review of 10 countries assistance strategies revealed that the World Bank Group's approach to promoting industry competitiveness generally considered the comparative advantages of different units and World Bank Group institutions (box 6.1).

However, most World Bank Group staff does not believe that substantive collaboration takes place at the country strategy level. IEG survey results show that only a quarter of World Bank Group staff believes that institutions collaborate effectively at the country level. The IEG survey of World Bank Group staff showed that 55 percent of respondents

believe that the country strategies always need collaboration, but only 24 percent thought that collaboration takes place effectively, and 16 percent believe that collaboration between institutions rarely takes place at the country level. The top three factors that foster collaboration are personal networks, staff presence in the field, and the complementarity of investments (for example, combining technical assistance with lending). Key obstacles to collaboration include current formal incentive structures, procedures and processes, and budget implications.

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Box 6.1. World Bank Group Collaboration to Promote Industry Competitiveness at the Country Strategic Level

The World Bank's country assistance strategy in Tajikistan sought to use policy-based lending to support reforms that would complement and reinforce the impact of investment operations. As a result, the development policy operations team engaged World Bank staff working on a range of investment operations. This extensive collaboration helped build strong links between actions supported through ongoing investment operations and the policy operation (World Bank 2010).

A sector country diagnostic in Haiti highlighted high degrees of concentrated ownership in the Haitian economy. Elite families dominated a number of key industries, and this translated into limited opportunities for other private sector activity in most industries. The diagnostic report also highlighted the unrealized high potential for agribusiness, mostly because of lack of infrastructure and logistical constraints. The Country Partnership Framework designed a strategy that included a package of World Bank Group activities in response to development challenges the country faced, stressing elements of collaboration and synergies between IFC and the World Bank in trade facilitation, agriculture, and infrastructure.

In FYR Macedonia, the World Bank country manager and the IFC country officer together set goals and principles of collaboration and established forums for collaboration. A World Bank-IFC Collaboration Group identified priority areas for collaboration between the two institutions, including trade logistics and job creation and employment. The collaboration group also created a joint World Bank-IFC contact group to review ongoing and planned activities and identify points of potential cooperation (World Bank 2013). During the review period, good internal, cross-sectoral cooperation made a quick and high-quality response possible. A team preparing a series of development policy loans (DPLs) cooperated with the Social Development Network on the agribusiness component of the DPLs (land management and efficiency of agriculture), with the trade department of the Poverty Reduction and Economic Management Network and IFC on trade logistics, and with the Human Development Network on innovation and skills. This experience was an example of good practice in cooperation and use of different World Bank Group instruments.

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According to staff, more than half of World Bank Group projects need collaboration, particularly at the design stage. Forty-two percent of industry-specific competitiveness projects' approval documents refer to collaboration across units. However, the staff surveyed estimates that about 60 percent of projects need collaboration across units

during the project design phase, but 47 percent of projects need collaboration during project implementation. World Bank staff has stronger feelings about collaboration needs than IFC staff. For example, World Bank staff estimates a need for collaboration in about 71 percent of projects at the design stage, while IFC staff sees this need in just 24 percent of projects. The main drivers of collaboration needs are joint or complementary objectives with other projects, the need to access technical expertise not available in the unit or department, and the need to provide the client with the right set of World Bank Group services and solutions.

More than half of industry-specific projects referred to some element of collaboration. Based on statements in project completion reports, 54 percent of World Bank Group projects involved collaboration across units. However, excluding Development Policy Loans, only 27 percent of projects involved collaboration. The share of projects with collaboration varied across industries, from 64 percent in agriculture to 42 percent in the manufacturing sector. If the administrative cross-support indicator of collaboration is used, the incidence of collaboration seems to be higher, particularly in investment projects.<sup>2</sup> For example, among World Bank ICT investment projects, the incidence of collaboration rises to 50 percent. A typical model of World Bank-IFC Advisory Services collaboration is one in which IFC's ongoing sectoral technical assistance and advisory work underpins the policy dialogue and implementation of the DPL's policy actions (box 6.2). IFC investment projects have little collaboration between institutions because the design and implementation of IFC investments rarely involves inputs from World Bank staff (10 percent of projects). In Rwanda, interviews showed that effective collaboration occurs when the World Bank Group frames a solution by identifying both institution's comparative advantage, engaging all stakeholders, and having a clear plan for labor division. Box 6.3 summarizes lessons learned from a World Bank-IFC Advisory Services collaborative effort that emphasizes willingness to collaborate and complementarity of tools and skills as key aspects of a successful collaboration.

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#### Box 6.2. Linking Development Policy Loans with IFC Advisory Services Work

IFC had been providing advisory services to the government of Tajikistan since 2004. This work involved continual, in-the-field support and training for regulatory agencies and work with the government to help draft and implement new laws in inspection and licensing. IFC had also conducted biannual large-scale surveys of the small and medium enterprise sector for seven years, providing extensive background data covering the entire country.

The World Bank launched a series of development policy loans (DPLs) in Tajikistan starting in 2006. Using IFC survey data, the World Bank Group team developed an approach and targets for licensing and inspection reform that informed the policy dialogue and DPL negotiations with the government. This internal collaboration between the World Bank and IFC culminated in the inclusion of specific inspections and licensing reforms as prior actions

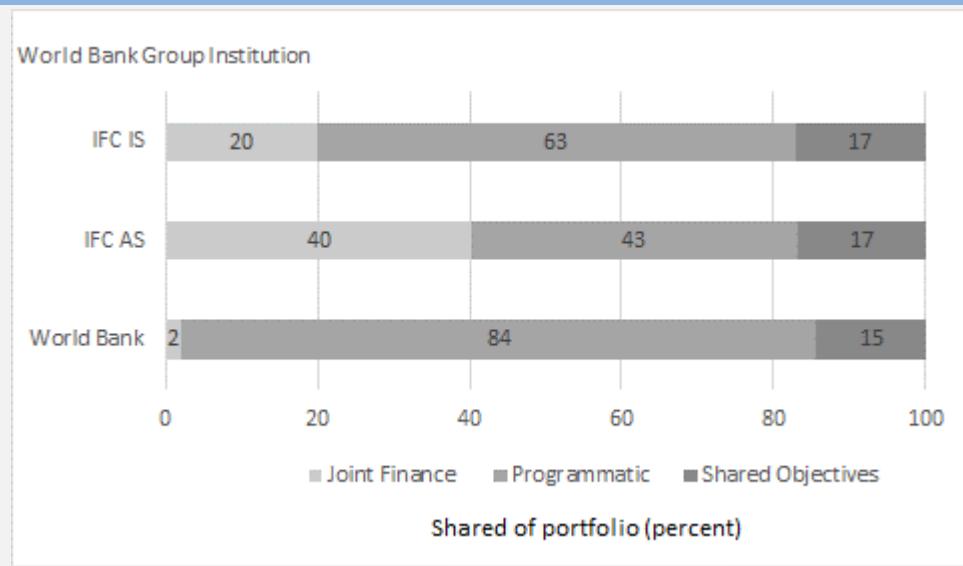
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in Development Policy Operations, which helped sustain and strengthen progress on licensing and inspections reform.

Source: <http://smartlessons.ifc.org/smartlessons/lesson.html?id=1427> (accessed on Jan. 11, 2016).

World Bank Group institutions generally collaborated at a programmatic level instead of the project level in supporting industry competitiveness (Figure 6.2). A 2009 International Development Association-IFC Secretariat paper identified three common collaboration mechanisms in the World Bank Group: joint financing of a single project (project finance), shared objectives among projects that are part of a program (programmatic collaboration), and shared objectives across independent projects (shared objectives). Programmatic collaboration was the type most frequently present in World Bank Group projects with industry-specific competitiveness components. Most World Bank projects (60 percent) that had this type of collaboration were DPLs. In IFC, most programmatic collaboration in investment projects involved teams working on projects with repeat clients. Among IFC Advisory Services projects, it involved deployment of the same types of projects with the same objectives in different countries in a Region (Regional program). Therefore, most programmatic collaboration occurred mostly within each World Bank Group institution instead of across institutions (World Bank-IFC).

Figure 6.2. Type of Collaboration by Institution (percentage of total)



Note: IFC AS = IFC Advisory Services; IFC IS = IFC Investment Services.

### Box 6.3. World Bank Group Collaboration on Investment Climate Reforms

The Foreign Investment Climate Advisory Services (FIAS) launched a program in Mali that drew on several Business Enabling Environment products: business registration, investment promotion and policy, and special economic zones. A World Bank Finance and Private Sector Development project providing assistance for investment climate reforms was also under way.

The FIAS team coordinated with the PAC team and other parts of the World Bank from the program's design stage. Lessons learned from working together are:

- Learn who else is working in which area. Mali was already receiving a lot of donor assistance in investment climate reforms. The FIAS team's first task was to learn who else was supporting Mali's investment climate reforms and how they add value to a seemingly crowded terrain
- Be aware of perceived and real strengths and weaknesses, and build the division of labor accordingly. Institutionally, FIAS can mobilize experts to conduct a top-notch needs analysis, but by design, it cannot easily facilitate a large procurement of equipment. However, such a procurement is well within the World Bank's scope of services. The World Bank and FIAS agreed that the project would take over the information technology equipment financing.

FIAS had the expertise to develop the regulatory and institutional framework for special economic zone development, but it would be difficult for FIAS to implement the framework without the incentives of the World Bank providing financing to catalyze infrastructure development. The lesson learned from this experience is that good internal communication is essential for the World Bank Group to provide coherent advice to the government. The government on many occasions sent a request for nonobjection for items that FIAS had advised against. By checking on every request for nonobjection, the World Bank made sure that FIASs' recommendations were respected, and found better ways to use each other's resources.

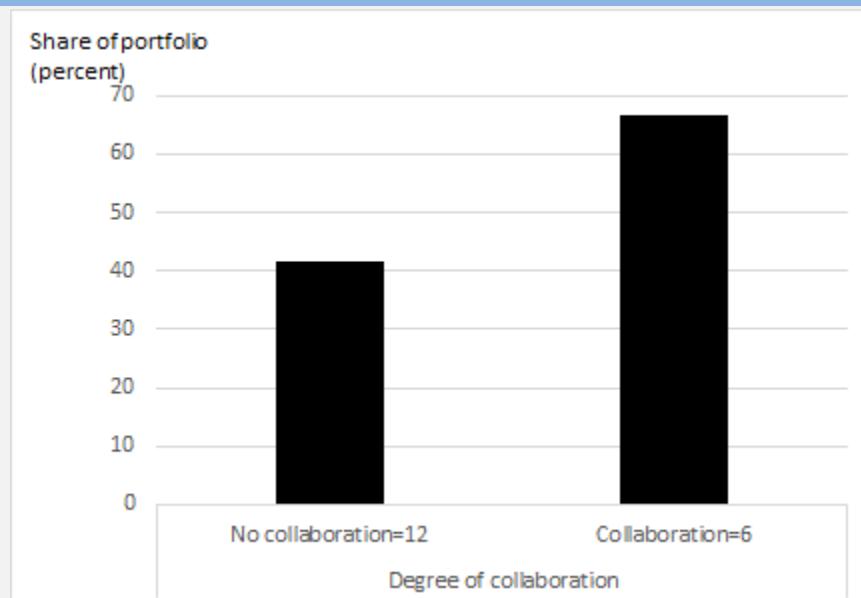
Source: <http://smartlessons.ifc.org/smartlessons/lesson.html?id=1427> (accessed on Jan. 11, 2016).

Data are inadequate to establish a clear correlation between collaboration and achievement of project outcomes. IEG found no correlation between collaboration reported in project documents and achievement of project development objectives. However, the cross-support collaboration indicator available for some industries suggests that collaboration reported in project documents may not reflect actual collaboration. The evaluation also examined World Bank lending projects that supported two or more industries – by definition, such projects need collaboration across units to engage the necessary sector expertise. Although this filter significantly reduced the number of observations (to 18 projects), this sample showed that collaboration across units correlated with project effectiveness (Figure 6.3). Effectiveness also depends on the intensity of collaboration. The evaluation reviewed the depth of collaboration, measured by average staff time spent on a project. The analysis shows

CHAPTER 6  
INTERNAL FACTORS OF WORLD BANK GROUP PERFORMANCE

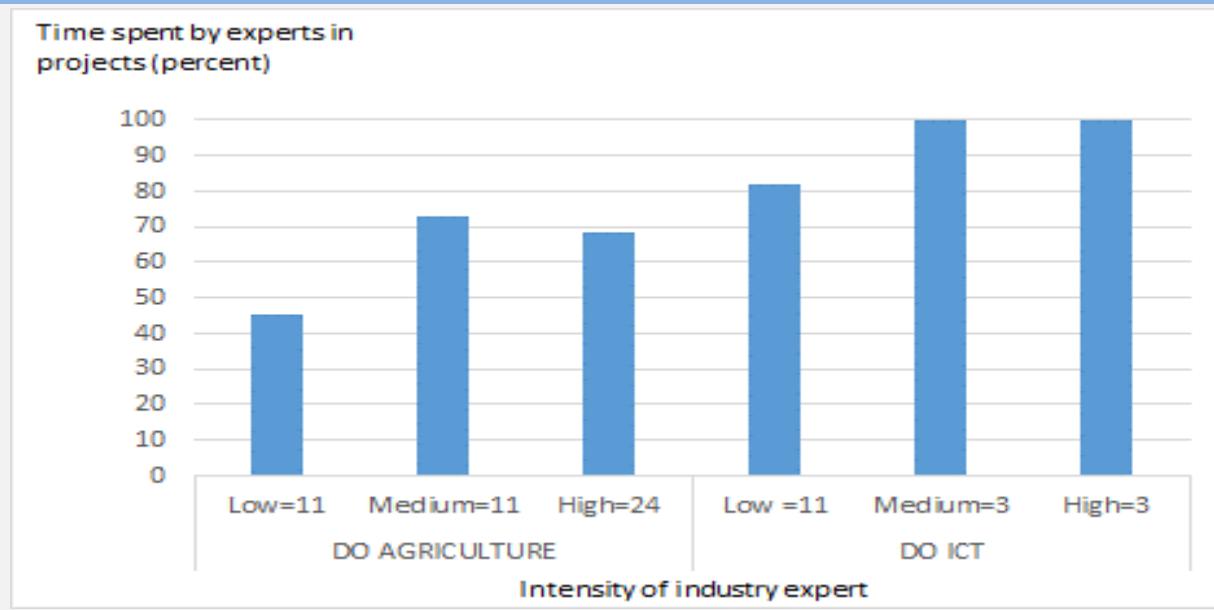
that the time ICT and agricultural experts spent on a project in another unit had a positive effect on results. For example, in agriculture, 42 percent of projects achieved their objectives when the time spent (intensity) by an industry expert was low, but 67 percent achieved their objectives when the time spent was high (51 percent of total project duration or more). These estimates are even higher for ICT (Figure 6.4).

Figure 6.3. Development Outcomes of Complex Projects with and without Collaboration



Sources: Source: Human Resources, Time Recording System, and Independent Evaluation Group (databases), World Bank, Washington, DC (accessed June 1, 2016).

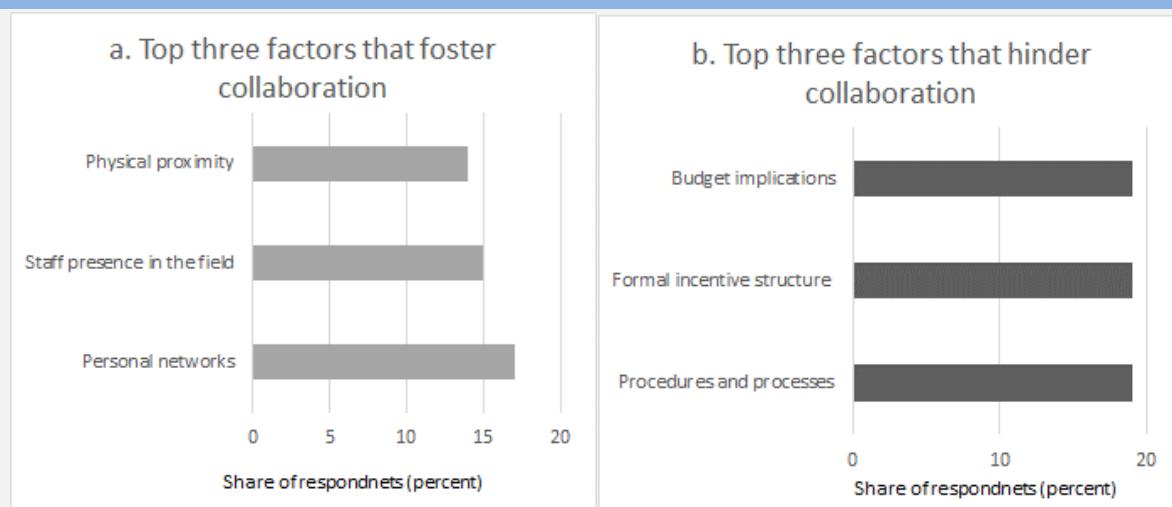
Figure 6.4. Development Outcomes by Intensity of Collaboration



Sources: Human Resources, Time Recording System, and Independent Evaluation Group (databases), World Bank, Washington, DC (accessed June 1, 2016).

Note: ICT = information and communication technology.

Figure 6.5. Top Three Factors That Hinder and Foster Collaboration



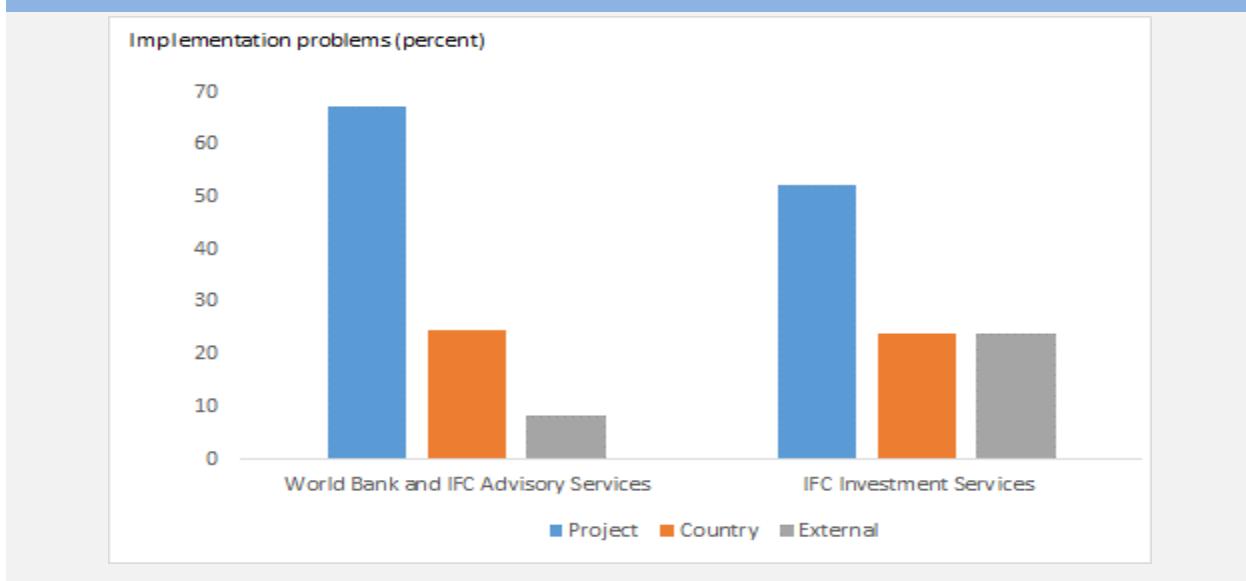
Source: IEG staff survey results.

## Mitigating Project Risks

The evaluation classified and reviewed project risks and problems according to whether the World Bank Group has control over them. This section reviews problems reported in project appraisal and completion documents, and then examines the extent to which projects mitigated these problems. The analysis reviewed 180 projects with industry-specific competitiveness components that had IEG-validated self-evaluation reports.<sup>3</sup> The review identified 476 problems that the evaluation grouped into three categories based on the degree to which the World Bank Group has control over them (appendix J for list of risks and mitigations). The first category includes project-related problems that the World Bank Group can control the most, such as technical design or definition of objectives. The second category includes problems largely related to the client country (that is, the World Bank Group has a limited level of control), such as macroeconomic stability or corruption. The third category includes problems related to external factors (both the World Bank Group and the government have limited control), such as civil unrest or external economic shocks.

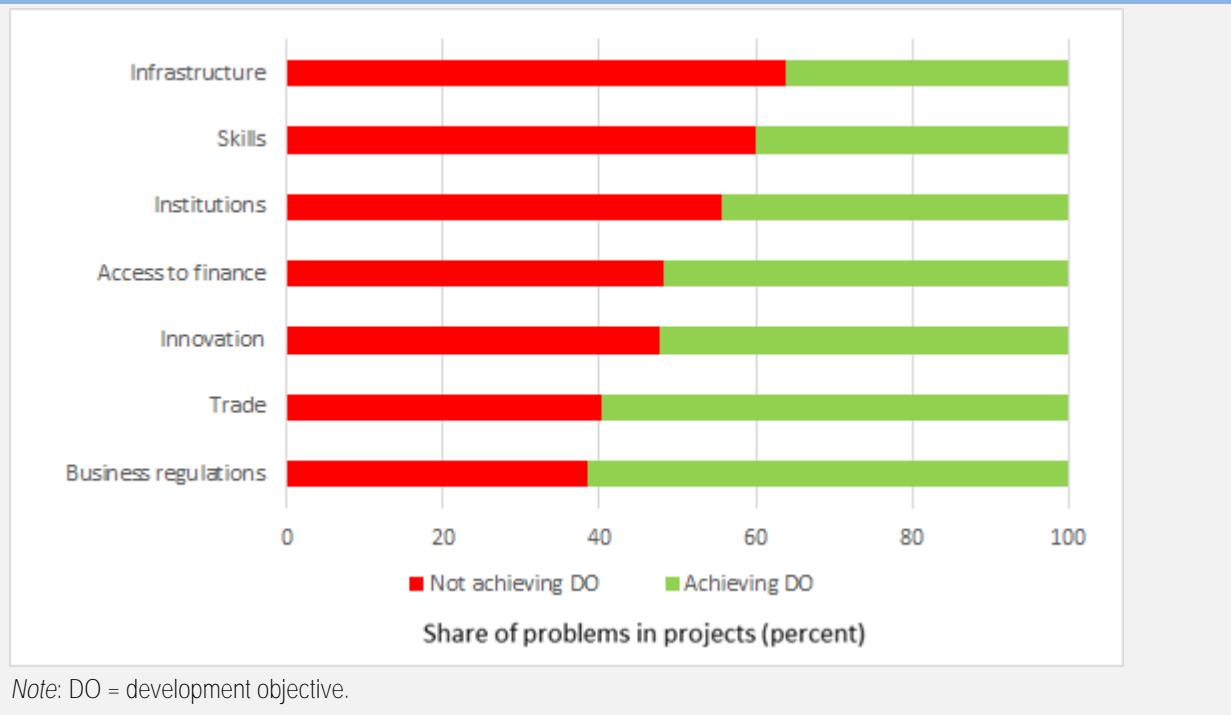
Problems encountered in World Bank investment projects and IFC Advisory Services were mostly in the World Bank Group's control. Two-thirds of problems reported in World Bank and IFC Advisory Services industry-specific projects were under the institutions' control, a quarter of the problems related to the country, and less than 10 percent of problems were because of factors that were external, unexpected, or hard to control (Figure 6.6). The most common issues affecting MIGA's project outcomes were unrealistic expectations (18 percent), environmental and social issues (12 percent), inadequate monitoring and evaluation (M&E) in projects (10 percent), and inadequate technical analysis and foundation, including underwriting quality (10 percent). In IFC investment operations, half of the problems reported were within IFC's direct control. Among World Bank projects, more than 70 percent of problems in investment lending were in the World Bank's control compared with only half of the problems in adjustment operations (figure 6.10). The most common problems in investment lending were implementation capacity, lack of M&E, and overambitious expectations. The main problems in adjustment lending were political economy, implementation capacity, macroeconomic conditions, civil unrest, and overambitious expectations (in this case, only two problems were in the World Bank's control).

Figure 6.6. Share of Implementation Problems by Category and Institution (percent)



Problems in projects do not necessarily lead to failure. Problems occurred in World Bank Group projects with industry-specific competitiveness components whether or not the projects successfully achieved their development objectives. Approximately half of the problems identified occurred in projects that still achieved their development objectives, but some projects managed to achieve their objectives even when faced with multiple problems. For example, 60 percent of problems encountered by business regulation interventions were in projects that achieved their development objectives. However, more than 60 percent of problems identified in infrastructure interventions were in projects that did not achieve their objectives (Figure 6.7).

Figure 6.7. Susceptibility to Implementation Problems in Projects

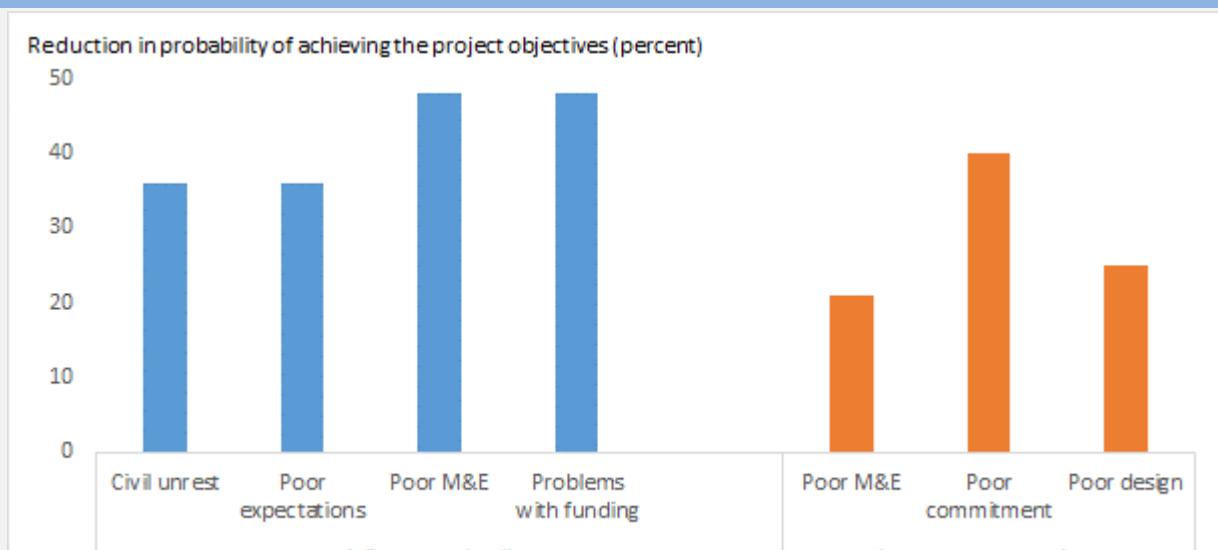


Some problems affect achievement of project objectives more than others do. To understand which factors play a more prominent role in the effectiveness of industry-specific competitiveness projects, the evaluation conducted a series of probit regressions to determine the impact of the most common problems on the probability of achieving the project's development objectives. The analysis showed that in adjustment lending, poor M&E and problems with funding decreased the probability of achieving the development objective by about half. Similarly, civil unrest and overambitious expectations also have a negative impact on the probability of the project achieving its objectives, reducing it by more than one-third. Conversely, for investment operations, poor government commitment seems to have the highest impact, reducing the probability of achieving the project's objectives by 40 percent (Figure 6.8).

Problems in the World Bank Group's control reduce the probability of achieving the development objectives by 25 percent. The evaluation conducted a series of multivariate regressions to control for concurrent factors that the literature identified as affecting project outcomes.<sup>4</sup> These tests showed that, at the aggregate level, problems in the World Bank Group's control are more important than problems related to the client country, and they reduce the probability of achieving the development objective by 25 percent. In examining individual projects, four problems that are mostly in the government's control are associated with a statistically significant decrease in the probability of achieving a project's development objective. M&E reduces the probability of success by 62 percent, funding by 40 percent, client commitment by 41 percent, and

implementation capacity by 26 percent. Finally, the analysis showed that the more problems a project had, the more likely it would fail to achieve its development objectives. Each problem in a project reduced the probability of achieving the development objective by about 9 percent. Therefore, a project is more likely to fail than to achieve its development objectives if more than five problems occur.

Figure 6.8. Factors Affecting the Probability of Achieving Project Objectives



Note: M&E = monitoring and evaluation.

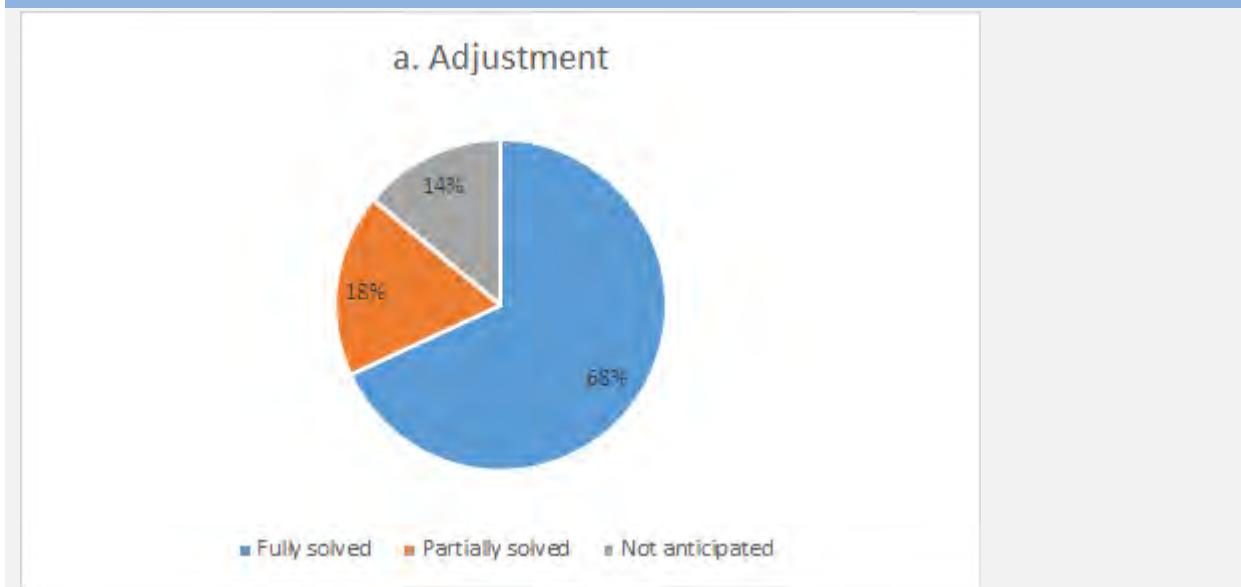
Technical assistance is the most common instrument used to mitigate potential risks to achieving project objectives. Each project identifies potential problems, or risks to achieving development outcomes, at the design stage. The evaluation examined the most common risks, the mitigation measures used, and the impact of these mitigation measures on achieving development outcomes. This review identified 803 projects with risks among the World Bank Group's industry-specific competitiveness projects, for a total of 3,400 risks and more than 3,200 mitigants.<sup>5</sup> The evaluation classified these risks using the same three categories described earlier in this section: those in the World Bank Group's control, those in the government's control, and external factors. Technical assistance is the most common mitigant used (15 percent), followed by stakeholder engagement (11 percent) and monitoring (7 percent). Project documents did not identify any mitigation measures in 7 percent of projects. Technical assistance mostly mitigated the risk of poor implementation capacity in 55 percent of projects. Weak government commitment is often mitigated with stakeholder engagement, and less so with special arrangements or technical assistance.

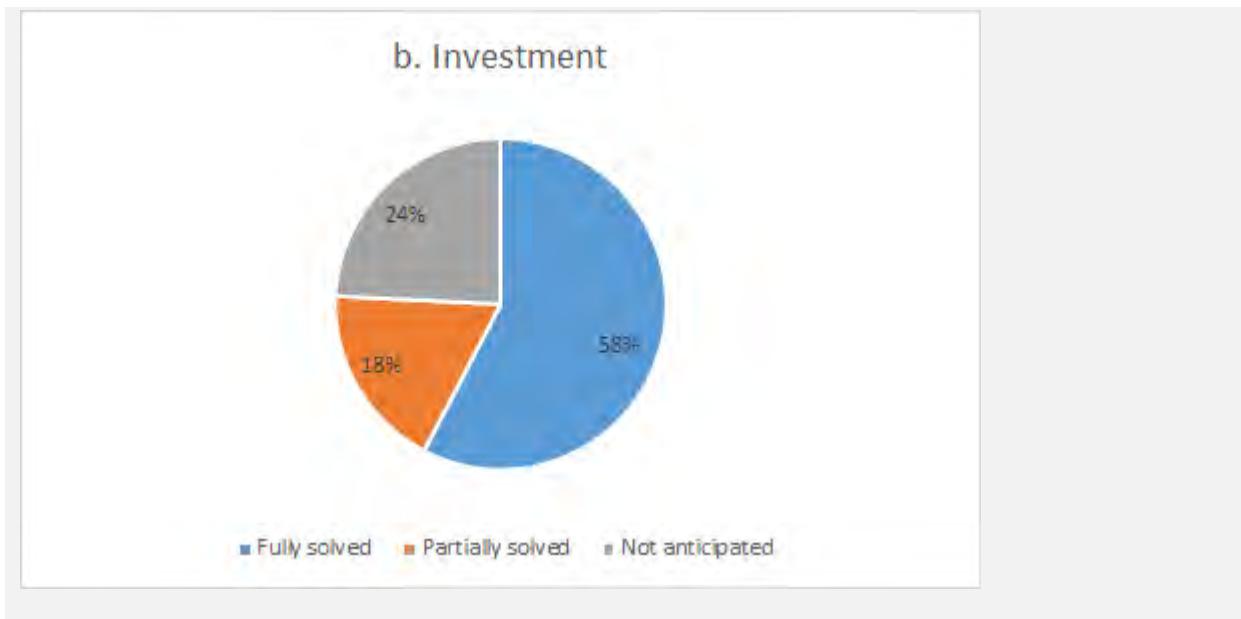
Mitigants were effective in resolving 60 percent of problems. A high share of projects reports risks and mitigants, so exploring whether this contributes to eliminating the risk

and to achieving the project's objectives is important. Overall, risk mitigation instruments fully resolved 60 percent of the problems identified in the industry-specific competitiveness projects. Another 20 percent were only partially resolved — the same type of problem persisted at project completion, even though mitigants were used. The data show that mitigants fully resolved 10 percent fewer problems in investment operations than in adjustment lending (Figure 6.9).

Some mitigants were less effective, especially in investment operations. Investment operations commonly used technical assistance as a risk mitigant; yet doing so is associated with a 13 percent reduction in the probability of resolving the risk. Similarly, using local or expatriate staff and consultants as a mitigant is associated with a 30 percent reduction in the probability of resolving the risk. This suggests that a mitigant used to address a risk might not be broad enough to mitigate all aspects of the risk completely. Although project documents generally identify the right risk category, the mitigants employed can be too narrow and therefore cover only part of the risk. When no mitigants are used, the project's chance of achieving its development objectives is 20 percent lower.

Figure 6.9. Distribution of Problems at Completion, by Intervention Type (percent)





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<sup>1</sup> IEG sent a survey on collaboration to all task team leaders of projects that showed collaboration. The survey asked respondents to identify instances that needed collaboration, establish to what degree collaboration occurred, and identify factors that hindered or fostered collaboration, among other things. The survey questionnaire is in appendix G.

<sup>2</sup> The evaluation reviewed the team composition of all projects in the industry competitiveness portfolio and identified the use of 'outside' experts, where "outside" refers to sector experts mapped to a global practice different from that of the project. Available data allows IEG to perform this analysis for World Bank projects and for two of the four industries (agriculture and information and communication technology) where sector expertise could be mapped. Appendix F details this methodology.

<sup>3</sup> The 180 projects reviewed included 131 World Bank projects, 26 IFC Advisory Services projects, and 23 IFC Investment Services projects. The team excluded any projects with total financing of less than 50 percent of project value. Adjustment projects were included.

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<sup>4</sup> These factors include length of project implementation, project complexity, value of project lending, level of economic development as proxy for institutional development, value of supervision, region, industry, level of project risk, and restructuring of the project.

<sup>5</sup> The portfolio includes only major projects and Development Policy Operations. About one-third of the projects have an ex-post self-evaluation.

## 7. Conclusions and Recommendations

This evaluation assessed the relevance and effectiveness of the World Bank Group's support for industry competitiveness during the past decade, and sought to shed light on the implications of its support on job quantity and quality.

Productivity, competitiveness, and more and better jobs are key to economic development and are at the top of government development agendas. Growth strategies in developing countries increasingly emphasize improving industry competitiveness as a key element. Furthermore, two of the 2015 Sustainable Development Goals aim to achieve higher levels of economic productivity through diversification, technological upgrading, and innovation, emphasizing high-value added and labor-intensive sectors, and inclusive, sustainable industrialization.

Although a strong link exists between national strategies and World Bank Group country partnership strategies (CPSs), translating priorities to operations was weak. In assessing relevance of World Bank Group support, the evaluation showed that the World Bank Group largely supported the countries that most need to improve their competitiveness, and it provided support in areas considered appropriate to help countries improve competitiveness. IEG also found that despite the strong link between national strategies to promote competitiveness and the industry-specific measures in CPSs, industry-specific priorities translated into new projects in only half of the cases.

Industry competitiveness has long been part of the World Bank Group's strategies and operations, and the institution's approach has evolved over time. IEG found that at the corporate level, the strategies do not clearly differentiate between supporting competitiveness at the broad, national level and supporting it at the industry level. However, strategies from the former Private Sector Development Department (now part of the Trade and Competitiveness Global Practice) and specific industry strategies articulate how the World Bank Group seeks to enhance competitiveness through industry-specific interventions. Similarly, IFC recognized the importance of promoting industry competitiveness in its corporate and Regional strategies. MIGA guarantees potentially contribute to improving industry competitiveness through the facilitation of foreign direct investment inflows.

The portfolio of industry competitiveness projects is distributed across global practices. The World Bank Group approved 881 projects that contained some element of industry-specific competitiveness support during 2008–14, for a total estimated value of \$21.6 billion. The World Bank, IFC, and MIGA supported industry competitiveness in different ways that reflect their distinct business models.

## CHAPTER 7

### CONCLUSIONS AND RECOMMENDATIONS

Agriculture projects dominate the industry competitiveness portfolio, which supports the World Bank Group's goal of poverty reduction and job creation, but it not necessarily helps countries with long-term structural transformation. Most World Bank-financed projects with industry competitiveness components were in agriculture, aiming to facilitate the adoption of new and improved inputs and technologies, enhance the capacity of agricultural institutions, and improve agricultural infrastructure. In manufacturing, most of the World Bank Group support was firm-level support provided by IFC and MIGA. Furthermore, most IFC support is in middle-income countries, and IFC's focus on the manufacturing industry has been declining in recent years. Only a small portion of the World Bank's direct support to promote competitiveness was in manufacturing, and it was limited mostly to agribusiness. Economic theory and country experience generally show that development involves structural transformation leading to the movement of production factors from agriculture to manufacturing to services (from low-productivity activities to higher value-added activities).

Most World Bank Group industry competitiveness projects had successful performance results. Overall project evaluations showed that outcome ratings for World Bank industry competitiveness were lower than the rest of the World Bank portfolio. However, IFC investment projects' success rate was similar to the rest of IFC portfolio, and MIGA projects performed better than rest of the portfolio. About 70 percent of World Bank-supported investment projects in agriculture had satisfactory outcomes—in line with the average for all World Bank investment projects. The development success of IFC Investment Services projects (71 percent) in manufacturing was also in line with the average for the overall IFC portfolio (67 percent). Most of these projects had foreign sponsors and helped firms upgrade their businesses by introducing new equipment, products, systems, or operations. Eighty percent of World Bank ICT projects were successful. In tourism, World Bank and IFC support was modest, and success was uneven.

The analysis suggests that countries in which the World Bank supported industry-specific projects showed improvements in competitiveness, but not in productivity. The evaluation also conducted effectiveness tests using external data on productivity and competitiveness. The findings suggest that the World Bank Group contributed to accelerating competitiveness (measured by expansion and growth in market share) by alleviating constraints through provision of critical inputs or financing, but not by improving productivity. The accelerated expansion is not associated with accelerated productivity, which suggests that World Bank Group support does not focus on industries exhibiting increasing economies of scale. Furthermore, the success of specific interventions does not necessarily translate into increases in productivity, indicating important gaps in understanding the full set of key factors that affect productivity. IEG

did not draw the same conclusion for IFC. Firms receiving IFC support did not show higher productivity and competitiveness compared with other firms except in agribusiness, where IFC-supported firms show a higher level of competitiveness.

The World Bank's positive contribution to export performance (especially in agriculture and manufacturing) is particularly evident when the breadth of World Bank support was wider. In countries the World Bank supported in three or more intervention categories, the analysis showed a positive, significant contribution to industry competitiveness.

The World Bank Group's experience in four countries further shows that the number of areas supported is important to achieving higher competitiveness, and that properly sequencing interventions and implementing them with a long-term vision is necessary. The World Bank Group's experience in both the tea sector in Rwanda and the ICT sector in Mauritius are two examples, and the experience in supporting manufacturing in FYR Macedonia and agriculture in Rwanda and Kazakhstan show the importance of properly sequencing the interventions supporting competitiveness.

About half of the World Bank Group industry competitiveness portfolio referred to jobs, but only a small percentage had job-related outcome indicators. IEG also examined the implications of the World Bank Group's industry-specific competitiveness and productivity support on jobs. Employment is high on the World Bank Group's agenda at the corporate and Regional level. The portfolio shows that about half of the industry-specific competitiveness projects refer to employment, especially IFC Investment Services. The projects expect to create jobs mainly indirectly and do not typically identify who would benefit from job creation. Furthermore, only a small proportion of the portfolio specifically refers to job quantity in results frameworks. Indicators and attention to the quality of working conditions are even less common. A small percentage of projects (5 to 10 percent) mention job quality improvements. Among World Bank Group institutions, IFC focuses the most on job quality through two instruments: a set of performance standards on labor and working conditions, and a partnership with the International Labour Organization aimed at enhancing working conditions in the garments sector (the Better Work Program).

Evidence based on external data seems to suggest an association between supporting industry competitiveness and generating employment, even after accounting for productivity's destructive impact on employment. Countries with three or more World Bank intervention categories show a higher level of employment growth in those industries than comparator countries. Furthermore, World Bank Group industry competitiveness projects show a positive contribution to work quality indicators in both agriculture and manufacturing. Working conditions improve more for women in

## CHAPTER 7

### CONCLUSIONS AND RECOMMENDATIONS

manufacturing except for pay, which also shows a positive increase for women in agriculture.

Collaboration across global practices and institutions does not take place as frequently as it should, according to World Bank staff. Regarding efficiency, IEG found that although country strategies generally consider each World Bank Group institution's positive role in promoting industry competitiveness, most World Bank Group staff does not believe that substantive collaboration takes place at the country strategy level. Given the limits of available data, IEG showed that extensive cross-support expertise on projects is associated with improved development outcomes.

Mitigants are generally effective in resolving project risks, but covering a wider spectrum of aspects associated with the identified risk can enhance the mitigants' effectiveness. The evaluation classified problems and mitigants reported in project documents to better understand the internal factors affecting the outcomes of the World Bank Group projects. Overall, the analysis shows that most problems are under the World Bank Group's control. Only a quarter of the problems are under the client country's control, and less than 10 percent of problems are due to factors that are external, unexpected, or hard to control. The analysis shows that some types of interventions are more susceptible to implementation problems, but others manage to achieve their objectives even when faced with multiple problems. For example, problems encountered in business regulation reforms seemed easier to mitigate than problems identified in infrastructure interventions. The analysis of risk mitigants and their effectiveness showed that 60 percent of projects had fully resolved the problems identified at design through mitigants. Some mitigants were less effective, especially in investment operations. This suggests that a mitigant used to address a risk might be too narrow to completely mitigate all aspects of the risk. Finally, the analysis also showed that the absence of mitigants is associated with a 20 percent lower chance of achieving project objectives.

### Recommendations

#### WORLD BANK GROUP APPROACH TO INDUSTRY COMPETITIVENESS

The World Bank Group has not had a distinct, overarching approach to supporting industry competitiveness in the past decade. Instead, different parts of the World Bank Group, such as Trade and Competitiveness Global Practice (previously part of FPD, PREM, and IFC AS), sought to support industry specific engagements as part of their own strategies or work programs, as did multiple global practices and IFC departments within their domains.

The analysis of support to industry competitiveness at the project level and the national level suggests both the World Bank and IFC had limited success in accelerating improvements in productivity, despite improvements in export performance. Furthermore, the success of specific interventions has not necessarily translated into increased productivity at the industry level, indicating important gaps in understanding the full set of key factors constraining productivity.

Evidence in this evaluation also shows the importance of supporting a combination of complementary factors to successfully promote competitiveness in an industry. Properly identifying and supporting the key elements of the industry's ecosystem is crucial for success, as there may be more than one binding constraint to performance. Case studies also indicate that the support's strength is as strong as the weakest factor in a value chain. This also requires a strategic approach to industry competitiveness. In general, engagements that are broader, longer term, and more strategic have a higher probability of success.

In forming the Global Practice in Trade and Competitiveness, the World Bank Group created a global practice dedicated to supporting competitiveness by providing integrated solutions through joint work across T&C core themes, GPs, CCSAs, IFC and MIGA in support to clients.

**Recommendation 1: The World Bank Group should clarify its approach to industry-level support for competitiveness** – that is, industry-specific measures to strengthen productivity and market performance of private enterprises – and adopt measures to enhance its effectiveness in this area by deepening its knowledge base and ensuring that its support is integrated and programmatic over a medium- to long-term horizon.

Given the multiple points of engagement on competitiveness within the World Bank Group, and that the industry specific competitiveness work is delivered by the Trade and Competitiveness Global Practice and other units across the World Bank Group, Management should better articulate the World Bank Group's approach in industry specific competitiveness work and ensure consistent treatment across the institutions. Such an approach should embrace all aspects of the agenda, from analytical work to operational dimensions, and incorporate a stronger results framework with agreed indicators to stimulate Bank Group-wide learning.

#### INDUSTRY SPECIFIC INTERVENTIONS AND DEINDUSTRIALIZATION

Deindustrialization poses a major concern for developing countries. Reflecting these concerns, the Sustainable Development Goal 9 emphasizes increasing the share of manufacturing in developing countries. In line with these developments, there is an

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increasing demand from governments for the World Bank Group to strengthen such support.

World Bank Group support to manufacturing is mostly within IFC's realm. Most IFC support is in middle-income countries and the level has been declining in recent years. Furthermore, the evaluation findings show that the World Bank Group has been only partially successful in promoting manufacturing competitiveness.

**Recommendation 2: The World Bank Group should reflect in its work the phenomenon of growing deindustrialization across the developing countries by strengthening (in line with the Sustainable Development Goal 9.2) its industry-level support (including through knowledge, policy advice, and financing) to inclusive and sustainable industrialization, taking into account specific country circumstances and, in particular, the challenges faced by low-income countries.**

#### JOBs

Employment is a central aspect of the productivity and competitiveness agenda. The evaluation illustrates the primary and secondary effects of productivity improvements on both quality and quantity of jobs as well as the conceptual and practical challenges in measuring the net impact of interventions on jobs. Yet only a small proportion of the World Bank Group portfolio specifically references jobs in objectives, interventions, or indicators, and even less so it measures implications of productivity on jobs. Similarly, little attention has been paid to understanding long-term impact on employment as well as impact on the quality of jobs. Task team leaders may have found it challenging to identify jobs objectives given the quantitative and qualitative attributes and both conceptual and measurement challenges related to jobs effects of sectoral competitiveness interventions. This is an important agenda that requires progress on issues ranging from research to results framework, to strengthen the employment focus of industry competitiveness work.

To date, there has been some work to deepen the understanding of the job impact of project interventions and there have been pilots across GPs to develop stronger results frameworks, led by the Cross-Cutting Solutions Areas on Jobs.

**Recommendation 3: The World Bank Group should integrate the jobs perspective in its industry-specific support to competitiveness by incorporating jobs effects in objectives, design, and monitoring and evaluation of its interventions.** This perspective can be implemented differently based on the scale and type of support, and should consider positive and negative as well as direct and indirect jobs effects.

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Given the institutional importance and cross-cutting challenge of employment, with multiple World Bank Group units working on jobs, Management should articulate the World Bank Group's approach in this area and ensure its consistency across the World Bank Group.

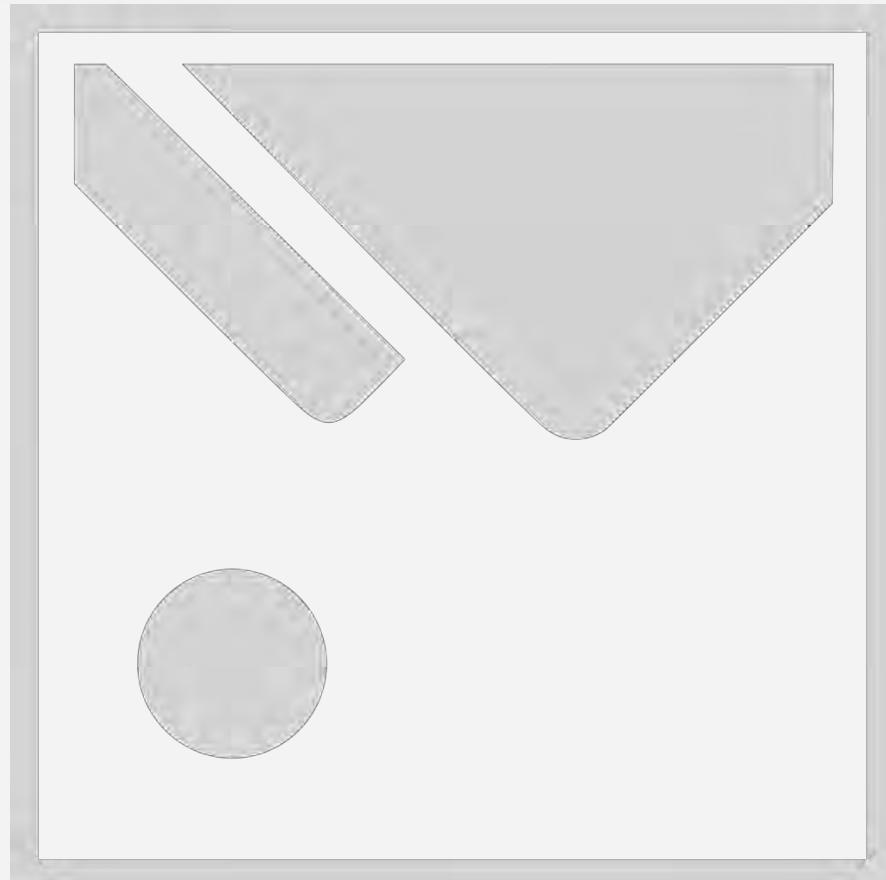


# Appendix A. Global Competitiveness Index Framework

1. The Global Competitiveness Index groups the determinants of competitiveness into 12 pillars: institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness, market size, business sophistication, and innovation. The model assumes that economic development evolves in three sequential stages: factor-driven, in which economies compete on prices, taking advantage of inexpensive factors; efficiency-driven, in which economies adopt efficient production practices to increase productivity; and innovation-driven, in which economies produce innovative products using sophisticated production methods (figure A.1). The International Institute for Management Development classifies determinants of competitiveness into four groups: economic performance, government efficiency, business efficiency, and infrastructure.<sup>1</sup> The Institute for Strategy and Competitiveness identifies endowments, macroeconomic factors, and microeconomic factors as the drivers of competitiveness. Endowments create a foundation for prosperity, but productivity in the use of endowments creates true prosperity. Macroeconomic factors set the potential for high productivity, but are not sufficient in themselves. Productivity ultimately depends on improving the microeconomic capability of firms and the sophistication of local competition.<sup>2</sup>

APPENDIX A  
GLOBAL COMPETITIVENESS INDEX FRAMEWORK

Figure A.1. The Global Competitiveness Index Framework



Source: World Economic Forum.

## Competitiveness Indexes

2. The Global Competitiveness Index (GCI) defines competitiveness as the set of institutions, policies, and factors that determine the level of productivity of an economy (WEF 2013). The GCI was launched in 1979 and covered only 16 countries, but today it includes rankings for more than 130 countries. The GCI uses a wide set of quantitative measures comparable across countries from publicly available data sets and a proprietary survey of business executives. Each country is assigned one stage of development based on gross domestic product per capita and the share of mineral exports out of total exports. The individual quantitative measures are combined in a weighted index, where the weights are estimated in a regression model linking stage of development and income level.

3. The International Institute for Management Development adopts a definition of competitiveness that goes beyond productivity and includes political, cultural, and social dimensions of the environment in which enterprises operate. The institute has

measured competitiveness since 1989 through an index published in the yearly *World Competitiveness Yearbook*. The index measures national competitiveness, and combines quantitative and survey data of more than 300 variables divided into four groups (factors) and 20 subgroups (subfactors). The five factors are economic performance, government efficiency, business efficiency, and infrastructure. The subfactors include domestic economy, international trade, international investment, employment, prices, public finance, fiscal policy, institutional framework, business legislation, societal framework, productivity, labor market, finance, management practices, attitudes and values, basic infrastructure, technological infrastructure, scientific infrastructure, health and environment, and education. Each subgroup is assigned an equal weight in the construction of the overall index, which covers 59 countries. A more recent index, defined here as Porter's Competitiveness Index, was first presented in the World Economic Forum's *Global Competitiveness Report 2008–2009* (Schwab and Porter 2008). This approach classifies countries in stages of development based on the level of manufacturing exports per capita and patents per capita. It also captures countries' endowments that have a direct impact on prosperity, but not on productivity by controlling for natural resources, land area, and market size. According to Porter, the main ingredients of the competitive advantage of nations are availability of resources and skills; information that shapes companies' perceived opportunities and in which directions they deploy their resources and skills; the goals of companies' owners, managers, and individuals; and most important, the pressures on companies to invest and innovate (Porter 1990). The data used come from publicly available sources and firm-level surveys. The variables are grouped into two broad categories: micro and macro. Each category includes two subcategories: company operations and strategy, national business environment, social infrastructure and political institutions, and macroeconomic policies. Each subgroup includes a set of sub-subgroups (17 total). Finally, the groups are aggregated into composite indicators using principal component applied in multiple stages of aggregation.

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## APPENDIX A

### GLOBAL COMPETITIVENESS INDEX FRAMEWORK

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<sup>1</sup> The four groups are subdivided into 20 subgroups that include the domestic economy, international trade, international investment, employment, prices, public finance, fiscal policy, institutional framework, business legislation, societal framework, productivity, labor market, finance, management practices, attitudes and values, basic infrastructure, technological infrastructure, scientific infrastructure, health and environment, and education.

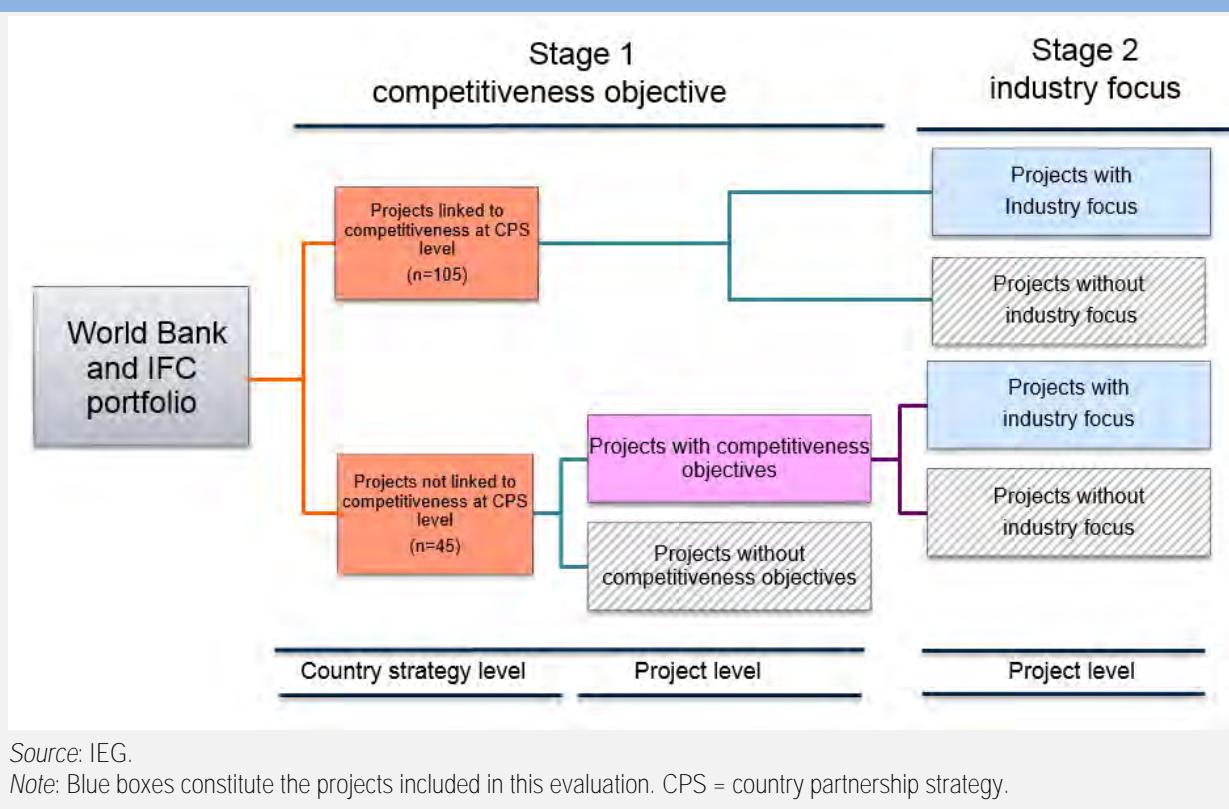
<sup>2</sup> For more information, see the Harvard Business School Institute for Strategy and Competitiveness web page “Drivers of Competitiveness” at <http://www.isc.hbs.edu/competitiveness-economic-development/frameworks-and-key-concepts/pages/drivers-of-competitiveness.aspx>.

## Appendix B. Project and Country Case Study Selection Methodology

1. IEG adopted a two-stage approach to identify which projects to include in the scope of this evaluation. The first stage examined the projects' competitiveness focus, and the second stage examined the industry focus. IEG applied this methodology to projects supported by the World Bank and IFC. For MIGA, IEG included in the portfolio all guarantee projects supporting foreign direct investment in the industries focus of this evaluation.
2. In the first stage, IEG examined country strategies approved between 2004 and 2014 to determine if they included competitiveness as a development objective. If the strategies included competitiveness, all projects that were part of this strategic objective were included in the second stage of the portfolio selection, regardless of whether the project documents reported competitiveness as an objective. If the strategies did not include a competitiveness objective, IEG reviewed project documents to determine if any of the projects had objectives to enhance competitiveness or productivity, and if they did, then they were included in the second stage (in which IEG examined the industry focus).
3. In the second stage, IEG reviewed all project documents that passed the screening in the first stage to determine if they had an industry focus (one or more industries). Separately, IEG identified spatial projects (such as special economic zones, growth poles, and clusters) through a word search in project documents and abstracts, and included these projects in the portfolio only if they focused on one or more specific industries. IEG applied this methodology to World Bank and IFC projects. All MIGA projects were included in the portfolio because MIGA projects aim to attract foreign direct investment and therefore enhance the competitiveness of firms in client countries.

APPENDIX B  
PROJECT AND COUNTRY CASE STUDY SELECTION METHODOLOGY

Figure B.1. Steps Followed to Identify the World Bank Group's Industry-Specific Interventions to Support Competitiveness



Source: IEG.

Note: Blue boxes constitute the projects included in this evaluation. CPS = country partnership strategy.

#### Country Case Selection Methodology Used in Evaluation

4. The main objective of the case studies is to shed light on how and why interventions were or were not successful in achieving enhanced competitiveness in the context of different industry and country conditions. Another goal is to illustrate the World Bank Group experience in client countries in which it had many or prolonged engagements in industry competitiveness.

5. To achieve these objectives, IEG purposively selected the case studies in this evaluation by following a three-stage selection process. In the first stage, the team reviewed the industry competitiveness portfolio and categorized each project's interventions, created a list of the most frequent interventions for each industry, and then created intervention distributions for each country. However, this approach examines only one intervention at a time for each country. Therefore, to include combinations of interventions, the team created an index in the second stage (using factor analysis) to rank countries according to their combination of interventions using this model: The index enabled the team to create a short list of potential country cases for each industry. In the third stage, the team reviewed in detail the top 10 countries (those with the highest index value) for each industry and selected one or two countries

according to Regional and income representation and length of engagement of the World Bank Group institutions. This process identified eight countries (table B.1). The team added two countries to this list—Kazakhstan (to benefit from the IEG Kazakhstan country partnership evaluation) and Jamaica (to further explore the job aspect of the information and communication technology support). The team also conducted field visits for FYR Macedonia, Mauritius, Rwanda, and Vietnam.

### **Regression to create index**

$$Y = \alpha_1 DInt_1 + \alpha_2 DInt_2 + \dots + \alpha_{10} DInt_{10} + \beta DReg + \gamma DIncome$$

Where: Y = index; Dint\_i = dummy for intervention I; Dreg= dummy for region; Dincome= dummy for income group

Table B.1. Country Case Studies Selected

Country	Industry	Region
Rwanda	Agriculture: agribusiness	Africa
Brazil	Agriculture	Latin America and the Caribbean
Mauritius	ICT	Africa
Ethiopia	ICT	Africa
Madagascar	Agriculture and tourism	Africa
Philippines	Agribusiness	East Asia and Pacific
Macedonia, FYR	MAG	Europe and Central Asia
Bangladesh	MAG	South Asia
Vietnam	Better Work	East Asia and Pacific
Jamaica <sup>a</sup>	ICT	Latin America and the Caribbean
Kazakhstan <sup>b</sup>	Agribusiness	Europe and Central Asia

Note: ICT = information and communication technology; MAG = manufacturing and agribusiness.

a. IEG added Jamaica to the list to explore the job aspect of the information and communication technology support.

b. IEG added Kazakhstan to the list to benefit from the IEG Kazakhstan country partnership evaluation.

# Appendix C. Portfolio Distribution of World Bank Group Industry Competitiveness Portfolio

Basic statistics of the World Bank Group industry-level competitiveness portfolio.

Table C.1. Competitiveness Projects by Institution

Institution	Frequency	Percent
IFC Advisory Services	190	23.23
IFC Investment Services	165	20.17
MIGA	63	7.15
World Bank Lending	463	56.60
Total	881	100

Source: IEG portfolio

Table C.2. Competitiveness Projects by World Bank Network

Network	Frequency	Percent
Financial and Private Sector Development	32	7.36
Poverty Reduction and Economic Management	102	23.45
Social Development	301	69.20
Total	435	100

Source: IEG portfolio.

Table C.3. Competitiveness Projects by Industry Supported for Each Institution

Industry	Institution (%)			
	IFC AS	IFC IS	MIGA	World Bank Lending
Agriculture	0.09	0.00	0.00	0.72
ICT	0.10	0.22	0.11	0.13
Manufacturing	0.72	0.72	0.81	0.20
Tourism	0.17	0.06	0.08	0.12

Source: IEG portfolio.

Note: ICT = information and communication technology; IFC AS = IFC Advisory Services; IFC IS = IFC Investment Services.

Table C.4. Competitiveness Projects by Region, within Each Institution (percent)

Region	Institution			
	IFC AS	IFC IS	MIGA	World Bank Lending
Africa	20.89	13.94	52.38	43.45
East Asia and Pacific	24.05	17.58	3.17	14.48
Europe and Central Asia	15.19	30.91	11.11	11.26
Latin America and the Caribbean	12.66	21.21	3.17	16.32
Middle East and North Africa	5.06	2.42	22.22	3.91
South Asia	22.15	13.94	7.94	10.57
Total	100.00	100.00	100.00	100.00

Source: IEG portfolio.

Note: IFC AS = IFC Advisory Services; IFC IS = IFC Investment Services.

## PORTFOLIO DISTRIBUTION OF WORLD BANK GROUP INDUSTRY COMPETITIVENESS PORTFOLIO

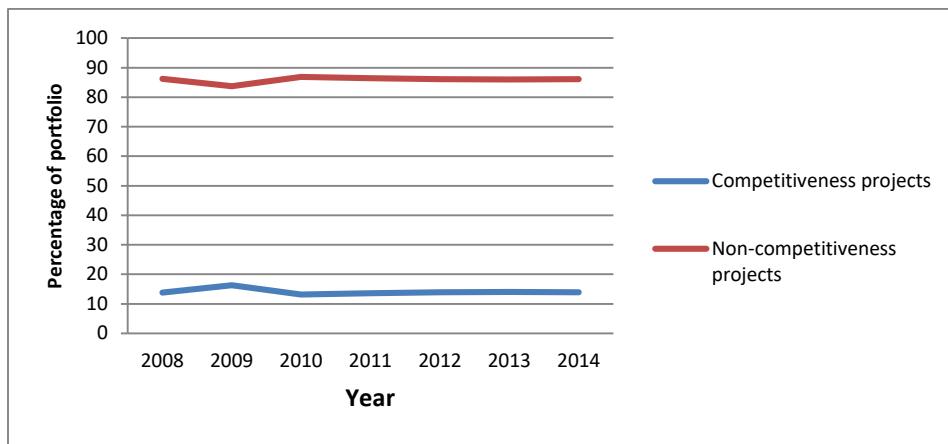
Table C.5. Competitiveness Projects by Country Income in Approval Fiscal Year, within Each Institution (percent)

Income	Institution			
	IFC AS	IFC IS	MIGA	World Bank Lending
Lower	34.39	20.73	41.27	47.82
Lower-middle	51.59	43.29	39.68	35.17
Upper-middle	14.01	35.98	19.05	17.01
Total	100.00	100.00	100.00	100.00

Source: IEG portfolio

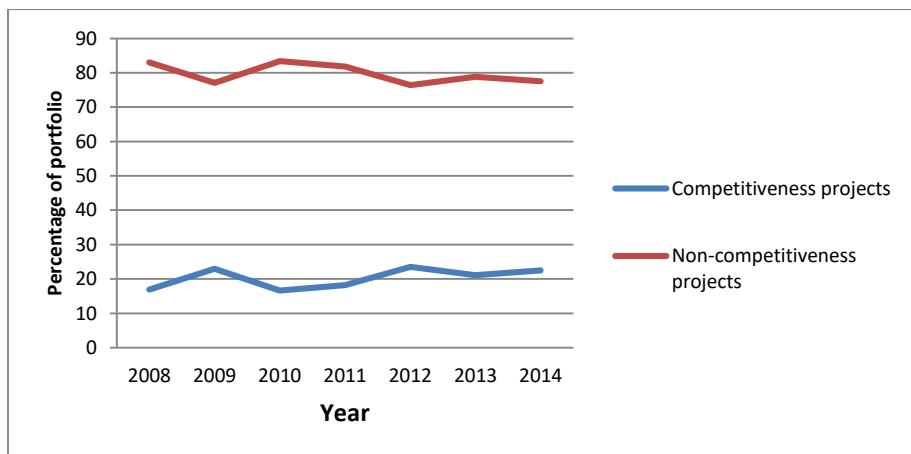
Note: IFC AS = IFC Advisory Services; IFC IS = IFC Investment Services.

Figure C.1. Overall World Bank Group Competitiveness Projects



Source: IEG portfolio.

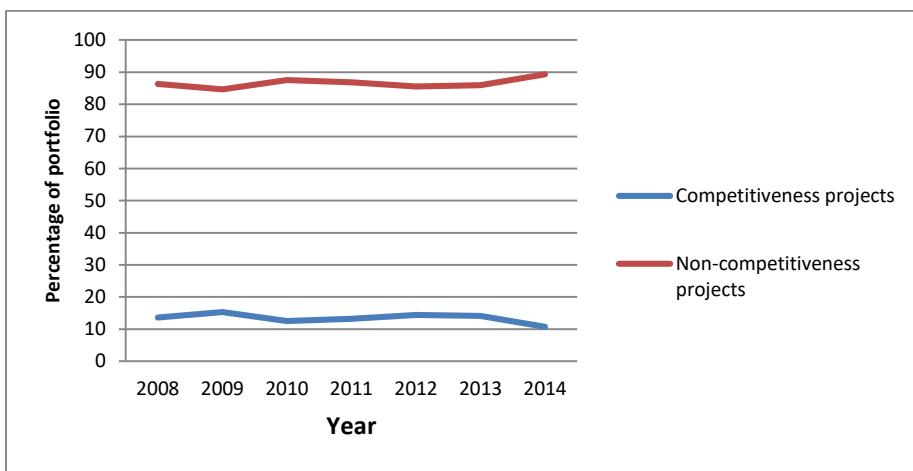
Figure C.2. World Bank Competitiveness Projects



Source: IEG portfolio.

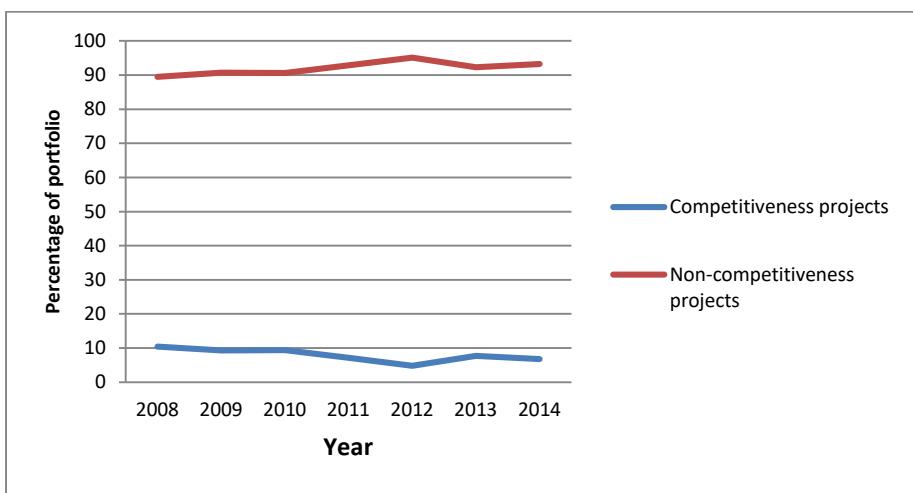
APPENDIX C  
PORTFOLIO DISTRIBUTION OF WORLD BANK GROUP INDUSTRY COMPETITIVENESS PORTFOLIO

Figure C.3. IFC Advisory Services Competitiveness Projects



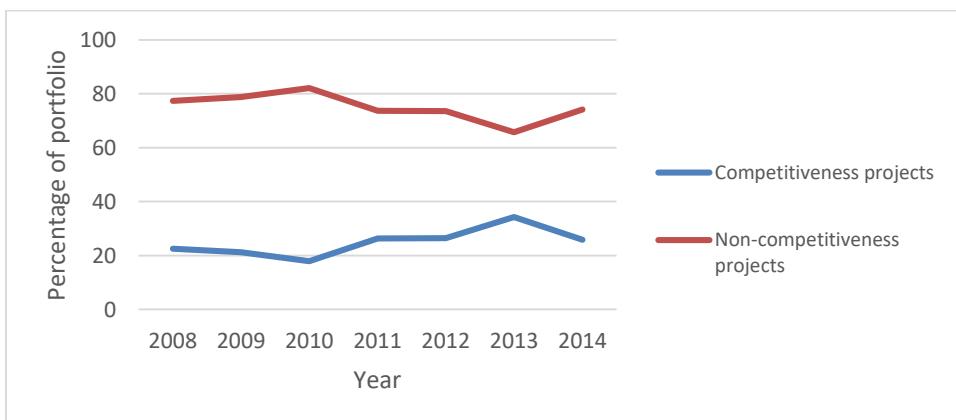
Source: IEG portfolio.

Figure C.4. IFC Investment Services Competitiveness Projects



Source: IEG portfolio.

Figure C.5. MIGA Competitiveness Projects



Source: IEG Portfolio.

## PORTFOLIO DISTRIBUTION OF WORLD BANK GROUP INDUSTRY COMPETITIVENESS PORTFOLIO

## Intervention Categories (review excluded unevaluated MIGA projects)

**Distribution of interventions within the World Bank Group Industry Competitiveness portfolio.**

Table C.6. Intervention Categories within Each Institution (percent)

Intervention category	Institution			
	IFC AS	IFC IS	MIGA	World Bank Lending
Access to finance	5.46	9	5.13	3.56
Business regulations	23.55	0.00	2.56	17.32
Infrastructure	4.78	14.43	25.64	18.96
Innovation	38.23	71.14	41.03	28.20
Institutions	9.56	0.00	0.00	22.14
Skills and training	6.14	1.49	15.38	4.43
Trade	12.29	3.48	10.26	5.39
Total	100	100	100	100

Source: IEG portfolio.

Note: IFC AS = IFC Advisory Services; IFC IS = IFC Investment Services.

Table C.7. Intervention Categories, by Industry (percent)

Intervention category	Industry				
	Agriculture	ICT	Manufacturing	Tourism	Total
Access to finance	40.58	11.59	46.38	1.45	100
Business regulations	40.08	18.14	30.38	11.39	100
Infrastructure	57.45	15.74	16.17	10.64	100
Innovation	39.03	9.48	44.61	6.88	100
Institutions	65.25	6.78	20.76	7.20	100
Skills and training	25.81	20.97	40.32	12.90	100
Trade	33.33	3.03	59.60	4.04	100
Total	45.46	11.59	34.89	8.06	100

Source: IEG portfolio.

Note: ICT = information and communication technology; IFC AS = IFC Advisory Services; IFC IS = IFC Investment Services.

Table C.8. Intervention Categories, by Region (percent)

Intervention category	Region					
	AFR	EAP	ECA	LAC	MNA	SAR
Access to finance	4.34	3.81	6.16	8.52	0	3.11
Business regulations	22.09	11.02	14.22	15.25	11.54	8.29
Infrastructure	17.75	13.98	9.95	10.31	25	18.65
Innovation	27.42	42.37	46.45	38.12	32.69	37.82
Institutions	18.54	17.37	14.22	17.49	15.38	16.58
Skills and training	3.94	2.97	3.79	4.93	7.69	6.22
Trade	5.92	8.47	5.21	5.38	7.69	9.33
Total	100	100	100	100	100	100

Source: IEG portfolio.

Note: AFR = Africa; EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MNA = Middle East and North Africa; SAR = South Asia.

**APPENDIX C**  
**PORTFOLIO DISTRIBUTION OF WORLD BANK GROUP INDUSTRY COMPETITIVENESS PORTFOLIO**

Table C.9. Intervention Categories, by Income Level (percent)

Intervention category	Income in approval fiscal year		
	Lower	Lower-middle	Upper-middle
Access to finance	3.85	5.82	5.15
Business regulations	17.76	12.73	17.28
Infrastructure	18.76	13.45	11.03
Innovation	29.31	41.09	40.44
Institutions	18.76	16.18	15.44
Skills and training	4.52	3.45	5.88
Trade	7.04	7.27	4.78
Total	100	100	100

Source: IEG portfolio.

### Agriculture Competitiveness Projects

#### Distribution of World Bank Group Agriculture Competitiveness portfolio.

Table C.10. Agriculture Competitiveness Projects, by Institution

Institution	Frequency	Percent
IFC Advisory Services	18	5.14
World Bank Lending	332	94.86
Total	350	100

Source: IEG portfolio.

#### Table C.11. Agriculture Competitiveness Projects, by World Bank Network

Network	Frequency	Percent
Financial and Private Sector Development	13	4.09
Poverty Reduction and Economic Management	80	25.16
Social Development Network	225	70.75
Total	318	100

Source: IEG portfolio.

Table C.12. Intervention Categories Supported in World Bank Agriculture Projects, by Network (percent)

Intervention Category	Network			Total
	FPD	PREM	SDN	
Access to finance	7.14	1.92	4.15	3.85
Business regulations	21.43	40.38	9.29	14.74
Infrastructure	14.29	6.73	23.72	20.67
Innovation	21.43	29.81	31.62	31.09
Institutions	14.29	18.27	24.70	23.40
Skills and training	14.29	0.96	1.58	1.76
Trade	7.14	1.92	4.94	4.49
Total	100	100	100	100

Source: IEG portfolio.

Note: FPD = Finance and Private Sector Development; PREM = Poverty Reduction and Economic Management; SDN = Social Development Network.

APPENDIX C  
PORTFOLIO DISTRIBUTION OF WORLD BANK GROUP INDUSTRY COMPETITIVENESS PORTFOLIO

Table C.13. Intervention Categories in Agriculture Projects, by Region (percent)

Intervention Category	Region					
	AFR	EAP	ECA	LAC	MNA	SAR
Access to finance	5.21	2.50	6.58	4.05	0	3.70
Business regulations	19.44	5.00	14.47	18.92	6.45	0
Infrastructure	18.40	25.00	17.11	10.81	38.71	24.69
Innovation	28.47	35.00	34.21	32.43	29.03	34.57
Institutions	21.53	30.00	18.42	27.03	19.35	23.46
Skills and training	2.08	1.25	5.26	1.35	0	3.70
Trade	4.86	1.25	3.95	5.41	6.45	9.88
Total	100	100	100	100	100	100

Source: IEG portfolio.

Note: AFR = Africa; EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MNA = Middle East and North Africa; SAR = South Asia.

Table C.14. Intervention Categories in Agriculture Projects, by Income (percent)

Intervention Category	Income in Approval Fiscal Year		
	Lower	Lower-Middle	Upper-Middle
Access to finance	4.69	4.68	2.67
Business regulations	16.88	8.09	18.67
Infrastructure	20.63	19.57	18.67
Innovation	28.44	35.32	30.67
Institutions	21.56	25.11	22.67
Skills and training	2.50	2.13	2.67
Trade	5.31	5.11	4.00
Total	100	100	100

Source: IEG portfolio.

### Manufacturing and Agribusiness Competitiveness Projects

#### Distribution of World Bank Group Manufacturing and Agribusiness Competitiveness portfolio.

Table C.15. Manufacturing and Agribusiness Competitiveness Projects Agribusiness and Manufacturing Flags

Manufacturing Type	Frequency	Percent of Manufacturing Projects
Agribusiness	274	66
Manufacturing (general)	143	34

Source: IEG portfolio.

APPENDIX C  
PORTFOLIO DISTRIBUTION OF WORLD BANK GROUP INDUSTRY COMPETITIVENESS PORTFOLIO

Table C.16. Intervention Categories in Manufacturing and Agribusiness Projects, by World Bank Network (percent)

Intervention Category	FPD	PREM	SDN	Total
Access to finance	2.11	1.33	4.37	3.68
Business regulations	30.53	45.33	10.91	18.10
Infrastructure	8.42	5.33	23.60	19.33
Innovation	25.26	28.67	29.06	28.63
Institutions	15.79	16.00	24.15	22.09
Skills	9.47	2.00	2.32	2.97
Trade	8.42	1.33	5.59	5.21
Total	100	100	100	100

Source: IEG portfolio.

Note: FPD = Finance and Private Sector Development; PREM = Poverty Reduction and Economic Management; SDN = Social Development Network.

Table C.17. Intervention Categories in World Bank Manufacturing and Agribusiness Projects, by Region (percent)

Intervention Category	Region					
	AFR	EAP	ECA	LAC	MNA	SAR
Access to finance	1.96	3.70	9.09	7.69	5.00	4.79
Business regulations	23.53	11.11	22.73	7.69	5.00	15.75
Infrastructure	13.73	7.41	0	11.54	10.00	9.59
Innovation	29.41	29.63	22.73	30.77	30.00	28.77
Institutions	7.84	29.63	18.18	23.08	30.00	19.18
Skills and training	7.84	3.70	9.09	7.69	5.00	6.85
Trade	15.69	14.81	18.18	11.54	15.00	15.07
Total	100	100	100	100	100	100

Source: IEG portfolio.

Note: AFR = Africa; EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MNA = Middle East and North Africa; SAR = South Asia.

Table C.18. Top Countries Receiving IFC Investments in Manufacturing and Agribusiness

Country	Frequency	Percent	Cumulative Percent
China	11	9.24	9.24
Turkey	10	8.40	17.65
India	9	7.56	25.21
Ukraine	8	6.72	31.93
Russian Federation	6	5.04	36.97
Indonesia	5	4.20	41.18
Bosnia and Herzegovina	4	3.36	44.54
Ecuador	4	3.36	47.90
Brazil	3	2.52	50.42
Colombia	3	2.52	52.94
Croatia	3	2.52	55.46

## PORTFOLIO DISTRIBUTION OF WORLD BANK GROUP INDUSTRY COMPETITIVENESS PORTFOLIO

Mexico	3	2.52	57.98
South Africa	3	2.52	60.50
Vietnam	3	2.52	63.03

Source: IEG portfolio.

### Tourism Competitiveness Projects

#### Distribution of World Bank Group Tourism Competitiveness portfolio.

Table C.19. Tourism Competitiveness Projects by Institution

Institution	Frequency	Percent
IFC Advisory Services	56	54.37
IFC Investment Services	10	9.71
MIGA	5	4.85
World Bank Lending	32	31.07
Total	103	100

Table C.20. Tourism Competitiveness Projects by World Bank Network

Network	Frequency	Percent
Financial and Private Sector Development	12	25.53
Poverty Reduction and Economic Management	8	17.02
Social Development Network	27	57.45
Total	47	100

Source: IEG portfolio.

Table C.21. Intervention Categories in Tourism Projects, by Region (percent)

Intervention Category	Region						Total
	AFR	EAP	ECA	LAC	MNA	SAR	
Access to finance	0	5.00	0	0	0	0	0.90
Business regulations	28.57	5.00	25.00	17.86	25.00	38.46	22.52
Infrastructure	23.81	25.00	25.00	17.86	25.00	7.69	20.72
Innovation	19.05	65.00	0	25.00	0	46.15	30.63
Institutions	16.67	0	50.00	25.00	25.00	0	15.32
Skills and training	9.52	0	0	10.71	25.00	0	7.21
Trade	2.38	0	0	3.57	0	7.69	2.70
Total	100	100	100	100	100	100	100

Source: IEG portfolio.

Note: AFR = Africa; EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MNA = Middle East and North Africa; SAR = South Asia.

APPENDIX C  
PORTFOLIO DISTRIBUTION OF WORLD BANK GROUP INDUSTRY COMPETITIVENESS PORTFOLIO

Information and Communication Technology Competitiveness Projects

Table C.22. ICT Competitiveness Projects by Institution

Institution	Frequency	Percent
IFC Advisory Services	19	15.83
IFC Investment Services	36	30.00
MIGA	7	5.83
World Bank Lending	58	48.33
Total	120	100

Source: IEG portfolio.

Table C.23. ICT Competitiveness Projects by World Bank Network

Network	Frequency	Percent
Financial and Private Sector Development	11	20.75
Poverty Reduction and Economic Management	15	28.30
Social Development Network	27	50.94
Total	53	100

Source: IEG portfolio.

Table C.24. Intervention Categories in ICT Projects, by Income Level (percent)

Intervention Category	Income in Approval Fiscal Year			
	Lower	Lower-Middle	Upper-Middle	Total
Access to finance	5.13	6.67	6.98	6.30
Business regulations	25.64	26.67	25.58	25.98
Infrastructure	30.77	11.11	11.63	17.32
Innovation	23.08	33.33	34.88	30.71
Institutions	10.26	13.33	6.98	10.24
Skills and training	5.13	6.67	11.63	7.87
Trade	0	2.22	2.33	1.57
Total	100	100	100	100

Source: IEG portfolio.

# Appendix D. Review of Strategies in Case Studies

Table D.1. Alignment between National and World Bank Group Strategies, by Country Case Country

Country	Sector	National Strategies	CASs	Alignment
Bangladesh	Garment	<ul style="list-style-type: none"> <li>1. Diversification and regional integration</li> <li>2. Labor conditions</li> <li>3. Skills building</li> <li>4. Trade reform: reduced barriers</li> </ul>	<ul style="list-style-type: none"> <li>1. Diversification and regional integration</li> <li>2. Labor conditions</li> <li>3. Skills building</li> <li>4. Trade reform: disseminate relevant work/policy notes</li> </ul>	High
Ethiopia	ICT	<ul style="list-style-type: none"> <li>1. Legal and regulatory framework</li> <li>2. Network expansion</li> <li>3. Integration with other sectors</li> <li>4. Human capital, national education, training, and awareness initiatives</li> <li>5. New technology adoption, innovation, research and development, ICT park, ICT incubator</li> <li>6. Investment and finance</li> <li>7. Link between private, public, and education sectors</li> <li>8. ICT in improving education delivery</li> </ul>	<ul style="list-style-type: none"> <li>1. Legal and regulatory framework</li> <li>2. Network expansion</li> <li>3. Integration with other sectors</li> <li>4. Human capital</li> <li>5. New technology adoption</li> <li>6. Investment and finance</li> </ul>	Modest to substantial
Macedonia, FYR	Manufacturing	<ul style="list-style-type: none"> <li>1. New markets</li> <li>2. High value-added products</li> <li>3. Remove trade barriers</li> <li>4. New technologies, innovation, Tech zones, Clusters, foreign direct investment</li> <li>5. A2F</li> <li>6. SMEs and entrepreneurs</li> </ul>	<ul style="list-style-type: none"> <li>1. New markets</li> <li>2. High value added products</li> <li>3. Remove trade barriers</li> <li>4. New technologies, innovation, foreign direct investment</li> <li>5. SME financing</li> <li>6. SMEs and entrepreneurs</li> </ul>	Substantial

APPENDIX D  
REVIEW OF STRATEGIES IN CASE STUDIES

Rwanda	Agribusiness	<ul style="list-style-type: none"> <li>1. Market orientation</li> <li>2. Research and extension</li> <li>3. Technology, institution, environmental infrastructure</li> <li>4. Credit and marketing system</li> <li>5. Rural feeder roads</li> <li>6. Markets liberalization</li> <li>7. Exports of high value products</li> <li>8. Privatization and expansion of tea and coffee processing, and providing assistance to increase productivity</li> </ul>	<ul style="list-style-type: none"> <li>1. Market-oriented agribusiness</li> <li>2. Value chain support</li> <li>3. Technology, infrastructure, 4. Marketing, intensification, access to finance</li> <li>5. Access to inputs, financing and markets, value chain and links, rural roads and connectivity to markets, private investment</li> <li>6. Markets liberalization</li> <li>7. Exports of high value products</li> <li>8. Privatization and expansion of tea and coffee processing</li> </ul>	High
Mauritius	ICT	<ul style="list-style-type: none"> <li>1. Strong measures on strengthening policy and institution</li> <li>2. Diversification and value chain</li> <li>3. Innovation, technology park</li> <li>4. Skill building</li> <li>5. Connectivity infrastructure, cyber security</li> <li>6. ICT usage, online learning, e-business</li> </ul>	World Bank Group strategies had no clear plans for supporting the ICT sector for enhancing competitiveness	Negligible
Vietnam	Garment	<ul style="list-style-type: none"> <li>1. Moving up value chain</li> <li>2. Scale economy and global integration</li> <li>3. Export diversification</li> <li>4. Supply chain strengthening</li> <li>5. Using new technology</li> </ul>	No specific plans for supporting the ready-made garment industry or for <b>enhancing industry's competitiveness</b>	Negligible

APPENDIX D  
REVIEW OF STRATEGIES IN CASE STUDIES

Philippines	Agribusiness	<ol style="list-style-type: none"> <li>1. Access to finance</li> <li>2. Quality assurance</li> <li>3. Logistics and supply chain</li> <li>4. Support infrastructure and services</li> <li>5. Trade policy reform</li> <li>6. Value chain strengthening</li> <li>7. Research, development, and extension</li> <li>8. Training and capacity building</li> <li>9. Market assistance</li> <li>10. Land titles handling</li> <li>11. Policies and regulations strengthening</li> </ol>	<ol style="list-style-type: none"> <li>1. Access to finance</li> <li>2. Quality assurance</li> <li>3. Logistics and supply chain</li> <li>4. Support infrastructure and services</li> <li>5. Trade policy reform</li> <li>6. Value chain strengthening</li> </ol>	Modest to substantial
Madagascar	Tourism, agriculture, and textiles	No mention about measures to enhance competitiveness	No mention about measures to enhance competitiveness	High
Brazil	Agribusiness (2008–2011)	<ol style="list-style-type: none"> <li>1. Development of agro energy</li> <li>2. Diversifying the export basket of agribusiness products and destination markets</li> <li>3. Sectoral organization of production chains and the use of best practices, value added production and the pursuit of environmental, social, and economic sustainability of agricultural activities</li> <li>4. Research and development</li> <li>5. Policy and information services</li> <li>6. Development of professional and technological education</li> </ol>	<ol style="list-style-type: none"> <li>1. Private participation in agro-energy</li> <li>2. Take Brazilian companies global</li> <li>3. Public-private partnerships and concession, adoption of new technology, intensive use of land, and sustainable use of pasture</li> <li>4. Adoption of new technology</li> <li>3. Linking small farmers in the northeast to markets</li> <li>5. Basic agro-infrastructure</li> <li>6. Support Tier 2 companies and SMEs</li> </ol>	Modest

Source: IEG.

Note: SME = small and medium enterprise.

# Appendix E. Portfolio Effectiveness

Table E.1. Successful Industry-Specific Competitiveness Projects, by Region (percent)

Region	DPLs (n = 120)	Major Investment (n = 54)	IFC IS (n = 36)	IFC AS (n = 45)
Africa	66	50	50	80
Europe and Central Asia	67	83	63	45
Latin America and the Caribbean	93	57	88	57
East Asia and Pacific	87	70	86	63
South Asia	0	100	0	0
Middle East and North Africa	100	100	50	55
Overall	73	64	67	57

Note: DPL = development policy loan; IFC AS = IFC Advisory Services; IFC IS = IFC Investment Services.

Table E.2. Successful Industry-Specific Competitiveness Projects by Income Group (percent)

Income Group	DPLs (n = 120)	Major Investment (n = 54)	IFC IS (n = 36)	IFC AS (n = 45)
Low-income countries	68	73	58	71
Lower-middle-income countries	84	55	72	57
Upper-middle-income countries	82	86	67	

Note: DPL = development policy loan; IFC AS = IFC Advisory Services; IFC IS = IFC Investment Services.

Table E.3. Industry-Specific DPL Intervention Success

Intervention Type	DPL
Access to finance	0.75
Business regulations	0.71
Infrastructure	0.56
Innovation	0.71
Institutions	0.65
Skills	1.00
Trade	0.67

Note: DPL = development policy loan.

Table E.4. Industry-Specific DPL Intervention Success income level

DPL Intervention Type	Low-Income Countries	Lower-Middle-Income Countries	Upper-Middle-Income Countries
Access to finance	0.67	1.00	0.79
Business regulations	0.64	0.89	--
Infrastructure	0.53	1.00	1.00
Innovation	0.68	0.86	1.00
Institutions	0.59	0.83	1.00
Skills	--	--	--
Trade	0.67	--	--

Note: DPL = Development Policy Loan.

# Appendix F. Summary of Literature Review on External Drivers of Export Performance

1. Competitiveness and international demand drive export growth<sup>1</sup> (Ragacs et al. 2011; Jongwanich 2010). Competitiveness is divided into price and nonprice terms.
2. Price competitiveness is a more important determinant of competitiveness in low-skilled production (Algieri 2015). It typically encapsulates the real effective exchange rate (REER) (Sato et al. 2013) and unit labor costs (ULC)<sup>2</sup> (Kordalska and Olczyk 2014). Theory suggests that both lower ULC and lower REER increase export competitiveness. Empirical evidence is mixed regarding ULC (Kordalska and Olczyk, 2014); however, there is stronger evidence that ULC, when measured relative to major trading partners, affects export performance (Gächter et al. 2013). In China, Huanga et al. (2008) find broad evidence of the Kaldor Paradox except for foreign-owned firms, where theorized ULC dynamics hold—highlighting the importance of ULC in labor-intensive mass assembly (Huanga et al. 2008).
3. The link between REER and export performance was weakened in regions (such as developing Asia) that assemble intermediate goods for which value primarily lies in imported inputs (Jongwanich 2010; Gherman et al. 2013). Other studies showed that REER elasticity is highest for primary goods and declines for merchandise and manufacturing exports (Gherman et al. 2013; Jongwanich 2010).
4. Nonprice competitiveness (NPC) captures “everything else,” and the literature gives it more importance. Krugman showed that growing global market share is driven more by expanding a country’s range of exports rather than increasing price competitiveness (Algieri 2015).<sup>3</sup> NPC is also more important in today’s world of vertical specialization of production (Algieri 2015).
5. The domestic setting has an instrumental role in NPC. Domestic competition likely boosts or stimulates export competitiveness (Bournakis 2014). In China, fierce domestic competition is a major determinant of export growth (Huanga et al. 2008). The domestic institutional environment cannot be separated from export competitiveness (Bournakis 2014). Foreign direct investment and technological efficiency, which are key determinants of export competitiveness, require enabling environments and legal safeguards (Jongwanich 2010; Rahmaddi and Ichihashi 2013).
6. The capacity of a country (especially a developing country) to produce goods promptly and cost-efficiently is increasingly important as global production fragments.

This dynamic stresses the importance of supply-side factors for a country's export competitiveness: enabling business environment, adequate infrastructure, efficient trade logistics,<sup>4</sup> and technical and managerial skills (Jongwanich 2010; Ahmed and Ahmed 2013). China's strength in many of these factors was key to its export success (Huanga et al. 2008). Brooks and Ferrarini (2010) find that declining trade costs because of improved supply-side factors explain approximately 75 percent of trade expansion in India and China since 1990. Limão and Venables (2001) estimate that lowering trade costs by 10 percent through infrastructure can increase exports by 20 percent (Henckel and McKibbin 2010).

7. China's export growth also shows the positive influence of strategic and enabling national policies (Huanga et al. 2008). Ying et al. (2014) show that effective implementation of export marketing strategies improves export performance (Ying et al. 2014). Algieri (2015) highlights the role of national strategy and specifically tax incentives in incentivizing collaboration between exporting firms to reduce costs and increase innovation (Algieri 2015).

8. Kaur and Nanda (2011) argue that product quality, not price competitiveness, drives competitiveness with innovation and knowledge spillovers essential to this process (Kaur and Nanda 2011).

9. Bournakis (2014) stresses the importance of coordinating knowledge clusters and networks to create technological spillover effects (Bournakis 2014). Cross-sectoral knowledge spillovers are considered as important as sector-specific research and development: they are evidence of an increasingly complex economy and a source of comparative advantage (Bournakis 2014; Algieri 2015).

10. The literature also argues the important role of economic openness for improving competitiveness in developing countries (Ahmed and Ahmed 2013). This argument emphasizes that productivity increases are driven by importation of inputs instead of by exporting (Habiyaremye and Ziesemer 2012; Rentala et al. 2014). Openness leads to greater factor accumulation and helps transfer factors to sectors that are more productive (Kordalska and Olczyk 2014).

11. A broad consensus exists that foreign direct investment is critical to export competitiveness. It provides innovation, technology, and expertise, and creates links with local firms (Kaur and Nanda 2011; Rahmaddi and Ichihashi 2013). In China, collaboration with foreign investors was key to export growth (Huanga et al. 2008; Zhang 2015). Rahmaddi and Ichihashi (2013) argue that foreign direct investment promotion policies<sup>5</sup> should be disaggregated by sector because the benefits are lower in

## APPENDIX F

### SUMMARY OF LITERATURE REVIEW ON EXTERNAL DRIVERS OF EXPORT PERFORMANCE

natural resource and unskilled industries<sup>6</sup> compared with manufacturing (Rahmaddi and Ichihashi 2013).

12. Exporting is sensitive to financial frictions.<sup>7</sup> Asymmetric information, political risk, macroeconomic volatility, and counterparty risk create financing constraints (Badinger and Url 2013). Export-import banks have a critical role in alleviating financial constraints, particularly during financial crises. Similarly, private export credit insurance has a trade multiplier effect, reduces transaction costs, and is a signal of creditworthiness (Van der Veer 2015). Both public and private guarantees were shown to lead to a more than proportional increase in exports (Van der Veer 2015; Badinger and Url 2013).

13. The economic strength of a country's region is increasingly important as international supply chains become more fragmented. Kordalska and Olczyk conclude that the increasing export value of neighboring countries can influence export growth (Kordalska and Olczyk 2014). In Asia, China's rise drove export growth for the region (Huanga et al. 2008). Roberts and Deichman (2009) find that growth spillovers are enhanced when improved transport and telecommunications infrastructure interact with regional trade integration. Regional effects are even more important for landlocked countries (Henckel and McKibbin 2010).

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<sup>1</sup> The elasticity of prices and incomes of foreign trade partners influence the magnitude of change when conditions shift—exchange rate depreciation, for example (Habiyaremye and Ziesemer 2012). Ahmed and Ahmed (2013) show greater income levels of trading partners as a significant determinant of export performance.

<sup>2</sup> The ratio of nominal wage growth over labor productivity

<sup>3</sup> In large economies, 60 percent of export growth is attributable to a wider set of goods, and 40 percent of growth is attributable to larger quantities or higher prices of current exports (Cheptea et al. 2014).

<sup>4</sup> Trade logistics include customs, freight transport, warehousing, payment systems, and so on. These factors are also relative to competitor countries with regard to competitiveness.

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<sup>5</sup> Rahmaddi and Ichihashi (2013) find that good macroeconomic management, prudent fiscal policy, tax reform, openness toward foreign direct investment, financial deregulation, and incentives such as duty-free inputs attract foreign direct investment.

<sup>6</sup> Zhang (2015) argues that foreign direct investment contributes more to capacity than upgrading for labor-intensive production.

<sup>7</sup> Ahmed and Said (2012) argue that corruption does not directly hurt export performance, but indirectly constrains it through the channel of external financing.

# Appendix G. Regression-Results

WB AGRICULTURE: DID

*Note:* Country fixed effects not shown in the table. “After (Dummy)” refers to the time period following the support. Robust standard errors are in parentheses.

VARIABLES	(1) Value added per worker	(2) Export value	(3) Export share	(4) Total Employment	(5) Female Employment
Treated (Dummy)	14,049*** (2,132)	594,556 (394,743)	0.0159 (0.138)	-2,251*** (733.6)	963.3* (554.9)
After (Dummy)	1,694*** (174.1)	267,993*** (53,050)	0.0167 (0.0111)	-181.4*** (37.32)	-29.28* (17.15)
Treated *After (Dummy)	-204.6 (198.9)	562,802*** (163,225)	0.170*** (0.0537)	1,043** (475.5)	-62.26 (144.2)
Population (log)	-6,328*** (910.9)	-1.287e+06*** (287,156)	-0.238*** (0.0740)	1,828*** (309.3)	403.6 (268.0)
Europe & Central Asia	51,774*** (5,930)	5.209e+06*** (802,467)	1.402*** (0.272)	-13,373*** (1,797)	-15,083*** (504.9)
Latin America & Caribbean	42,495*** (4,853)	2.369e+06*** (361,476)	0.507*** (0.102)	-10,244*** (1,639)	-12,755*** (996.1)
Middle East & North Africa	37,056*** (5,365)	9.509e+06*** (2.123e+06)	1.757*** (0.547)	-6,614*** (1,813)	-11,896*** (530.8)
South Asia	13,429*** (2,049)	3.088e+06*** (585,498)	0.0604 (0.0696)	-4,603*** (710.8)	45,832*** (541.5)
Sub-Saharan Africa	13,852*** (2,123)	1.259e+06*** (413,257)	0.217 (0.149)	-3,393*** (734.8)	-14,763*** (1,871)
High income: non-OECD	-43,622*** (5,726)	-1.336e+07*** (2.031e+06)	-3.529*** (0.379)	6,448*** (1,668)	114.2 (1,272)
Low income	-2,090 (3,416)	-6.841e+06*** (1.687e+06)	-1.913*** (0.279)	-4,313*** (650.8)	
Lower middle income	-12,197*** (3,119)	-8.272e+06*** (1.780e+06)	-2.156*** (0.377)	-809.5** (393.3)	-2,389*** (803.4)
Upper middle income	-26,176*** (3,956)	-1.460e+07*** (2.363e+06)	-3.405*** (0.457)	1,087 (903.7)	1,114*** (341.3)
Observations	542	503	516	542	190
R-squared	0.969	0.955	0.969	0.999	1.000
Treated	51	48	48	51	30

\* p < 0.1 \*\* p < 0.05 \*\*\* p < 0.01

APPENDIX G  
REGRESSION RESULTS

WB AGRICULTURE: DID BY BREATH OF SUPPORT ( $\leq 2$ )

VARIABLES	(1) Value added per worker	(2) Export value	(3) Export share	(4) Total Employment	(5) Female Employment
Treated (Dummy)	7,778*** (2,188)	635,004 (394,707)	-0.643*** (0.0961)	1,706*** (141.7)	-182.0 (145.7)
After (Dummy)	1,677*** (173.7)	257,409*** (53,669)	0.0121 (0.0102)	-57.30*** (7.149)	-15.24** (6.244)
Treated *After (Dummy)	225.1 (425.6)	95,964 (114,408)	0.0578 (0.0493)	150.0** (68.83)	32.91* (19.23)
Population (log)	-6,183*** (928.7)	-1.191e+06*** (288,041)	-0.196*** (0.0618)	790.3*** (57.56)	182.2* (96.82)
Europe & Central Asia	54,365*** (5,723)	4.892e+06*** (815,993)	2.527*** (0.221)	-8,213*** (353.7)	-776.1* (410.2)
Latin America & Caribbean	39,421*** (5,175)	2.118e+06*** (357,823)	1.074*** (0.0747)	-4,379*** (326.4)	-373.6* (189.3)
Middle East & North Africa	45,331*** (6,972)	8.801e+06*** (2.130e+06)	1.450*** (0.457)	-2,856*** (437.9)	-494.9* (267.7)
South Asia	-8,644*** (1,451)	865,032*** (250,615)	0.152** (0.0604)	-8,130*** (150.2)	
Sub-Saharan Africa	-1,261 (1,034)	1.071e+06*** (388,477)	2.336*** (0.438)	-7,435*** (101.4)	-9.060 (67.47)
High income: nonOECD	-37,143*** (5,266)	-795,127*** (227,305)	-2.692*** (0.289)	-99.47 (306.4)	563.7 (426.5)
Low income		5.298e+06*** (1.093e+06)			
Lower middle income	18,931*** (3,645)	4.070e+06*** (851,148)	-2.355*** (0.448)	2,533*** (226.7)	73.99 (163.5)
Upper middle income	-22,384*** (2,659)	-2.024e+06*** (620,962)	-1.934*** (0.320)	-2,380*** (162.7)	-228.7*** (61.51)
Observations	477	439	452	477	163
R-squared	0.969	0.956	0.975	0.998	0.996
Treated	16	15	15	16	11

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.

Robust standard errors in parentheses

\*p < 0.1   \*\*p < 0.05   \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	WB AGRICULTURE: DID BY BREATH OF SUPPORT (>=3)				
	(1) Value added per worker	(2) Export value	(3) Export share	(4) Total Employment	(5) Female Employment
Treated (Dummy)	-12,431*** (1,134)	1.474e+07*** (2.425e+06)	0.559*** (0.198)	2,570*** (409.5)	1,409*** (71.48)
After (Dummy)	1,628*** (171.6)	270,007*** (53,839)	0.0146 (0.0111)	-156.9*** (38.44)	-29.52* (16.10)
Treated *After (Dummy)	-420.5*** (154.1)	759,819*** (217,074)	0.218*** (0.0715)	1,478** (696.7)	-101.2 (189.1)
Population (log)	-5,778*** (878.7)	-1.305e+06*** (297,865)	-0.219*** (0.0741)	1,623*** (319.5)	407.5 (251.5)
Europe & Central Asia	72,727*** (9,028)	-1.148e+07*** (1.664e+06)	-6.053*** (0.836)	-15,616*** (3,271)	51,101*** (2,128)
Latin America & Caribbean	64,779*** (7,858)	-9.819e+06*** (1.305e+06)	-6.612*** (1.010)	-13,500*** (2,847)	-2,181** (871.1)
Middle East & North Africa	59,030*** (8,353)	9.001e+06*** (1.817e+06)	-4.242*** (0.420)	-9,754*** (3,028)	-301.4 (1,463)
South Asia	85,059*** (11,802)	3.044e+06 (2.541e+06)	-2.568*** (0.630)	234,494*** (10,219)	55,937*** (2,202)
Sub-Saharan Africa	62,985*** (8,395)	-4.985e+06*** (455,974)	-4.720*** (0.552)	-11,607*** (3,042)	52,404*** (1,604)
High income: nonOECD	-23,739*** (2,235)	-6.118e+06*** (1.346e+06)	-3.739*** (0.351)	3,054*** (621.7)	55,751*** (448.3)
Low income	-11,164*** (1,838)	-2.867e+07*** (4.638e+06)	-4.397*** (0.472)	-1,963*** (412.7)	
Lower middle income	4,912 (3,107)	-1.659e+07*** (2.749e+06)	-4.217*** (0.483)	-3,170*** (994.1)	53,274*** (663.4)
Upper middle income	17,465*** (4,067)	-1.250e+07*** (2.548e+06)	-5.659*** (0.824)	-6,114*** (1,373)	146.9 (491.5)
Observations	511	475	488	511	176
R-squared	0.970	0.957	0.972	0.999	1.000
Treated	35	33	33	35	19

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.

Robust standard errors in parentheses.

\*p < 0.1    \*\*p < 0.05    \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	WB AGRICULTURE: DID EXTERNAL FACTORS	
	(1) Export value	(2) Export share
Treated (Dummy)	585,202** (295,796)	0.231** (0.0954)
After (Dummy)	86,859 (54,997)	-0.00674 (0.0145)
Treated *After (Dummy)	627,444*** (186,130)	0.175*** (0.0570)
Europe & Central Asia	-8.335e+06*** (596,819)	-0.749* (0.421)
Latin America & Caribbean	-7.938e+06*** (666,418)	-0.644* (0.384)
Middle East & North Africa	-6.440e+06*** (751,965)	-0.193 (0.363)
South Asia	-7.342e+06*** (681,885)	-0.918** (0.464)
Sub-Saharan Africa	-7.679e+06*** (510,939)	-0.549 (0.458)
High income: non OECD	-319,955 (264,766)	-0.158** (0.0743)
Lower middle income	-249,860 (488,082)	-0.0827 (0.139)
Upper middle income	-1.008e+06*** (352,966)	-0.303*** (0.106)
CPI	-851.4 (1,658)	-0.000350 (0.000486)
FDI, inflows (% GDP)	-9,537** (4,616)	-0.00139 (0.00155)
Terms of trade	-767.2 (1,407)	0.000484 (0.000426)
Trade (% GDP)	7,267*** (2,565)	0.00172*** (0.000566)
Gross fixed capital (% GDP)	1,358 (5,837)	0.000137 (0.00149)
Rule of law	194,466 (174,881)	0.0731 (0.0703)
Exchange rate	55.00 (74.60)	2.25e-05 (2.02e-05)
Observations	416	417
R-squared	0.952	0.966
Treated	46	46

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

WB AGRICULTURE: DID EXTERNAL FACTORS BY BREATH OF SUPPORT (<=2)

VARIABLES	(1) Export value	(2) Export share
Treated (Dummy)	-410,505* (213,261)	-0.300*** (0.0364)
After (Dummy)	52,823* (31,150)	-0.0106* (0.00587)
Treated *After (Dummy)	129,420 (136,881)	0.0728 (0.0599)
Europe & Central Asia	-756,491*** (268,074)	-0.122** (0.0541)
Latin America & Caribbean	-1.671e+06*** (364,296)	-0.536*** (0.0404)
Middle East & North Africa	284,468 (338,676)	0.0985 (0.0796)
South Asia	457,355* (241,714)	0.205*** (0.0573)
Sub-Saharan Africa	452,137* (235,937)	0.195*** (0.0516)
High income: nonOECD	923,261*** (185,412)	0.329*** (0.0331)
Lower middle income	505,529** (225,695)	0.207*** (0.0576)
Upper middle income	1.489e+06*** (336,872)	0.643*** (0.0314)
CPI	1,982** (986.0)	-8.24e-06 (0.000235)
FDI, inflows (% GDP)	-3,557 (4,139)	0.000233 (0.00135)
Terms of trade	-1,565* (859.1)	-0.000152 (0.000225)
Trade (% GDP)	5,314*** (1,910)	0.00158*** (0.000380)
Gross fixed capital (% GDP)	-11,007** (4,260)	-0.00201** (0.000804)
Rule of law	216,219** (85,077)	0.0160 (0.0208)
Exchange rate	-36.55 (27.51)	1.41e-05* (7.45e-06)
Observations	356	357
R-squared	0.948	0.964
Treated	14	14

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

WB AGRICULTURE: DID EXTERNAL FACTORS BY BREADTH OF SUPPORT ( $\geq 3$ )

VARIABLES	(1) Export value	(2) Export share
Treated (Dummy)	4.163e+06*** (235,165)	1.787*** (0.123)
After (Dummy)	102,600* (53,662)	-0.00211 (0.0150)
Treated *After (Dummy)	806,496*** (238,325)	0.218*** (0.0753)
Europe & Central Asia	-2.494e+06*** (254,159)	-1.258*** (0.125)
Latin America & Caribbean	-2.598e+06*** (251,262)	-1.319*** (0.122)
Middle East & North Africa	-3.098e+06*** (159,209)	-1.464*** (0.103)
South Asia	2.321e+06 (2.532e+06)	0.286 (0.476)
Sub-Saharan Africa	-3.955e+06*** (289,537)	-1.640*** (0.123)
High income: non OECD	209,734 (199,416)	0.0164 (0.0704)
Low income	-2.283e+06** (1.023e+06)	-1.369*** (0.349)
Lower middle income	-2.026e+06*** (705,903)	-1.123*** (0.288)
Upper middle income	1.156e+06* (689,398)	0.284 (0.252)
CPI	-1,093 (1,636)	-0.000463 (0.000480)
FDI, inflows (% GDP)	-9,902** (4,748)	-0.00167 (0.00162)
Terms of trade	-1,415 (1,355)	0.000351 (0.000410)
Trade (% GDP)	6,794*** (2,454)	0.00167*** (0.000557)
Gross fixed capital (% GDP)	1,139 (5,828)	0.000144 (0.00151)
Rule of law	198,966 (184,097)	0.0736 (0.0711)
Exchange rate	49.33 (72.89)	2.21e-05 (1.96e-05)
Observations	391	392
R-squared	0.954	0.968
Treated	32	32

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support. Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	WB AGRIBUSINESS: DID				
	(1) Value added per worker	(2) Export value	(3) Export share	(4) Total Employment	(5) Female Employment
Treated (Dummy)	13,921 (12,742)	5.701e+07*** (1.046e+07)	-1.302*** (0.273)	-174.2 (651.7)	520.5*** (168.5)
After (Dummy)	1,317 (1,302)	346,437*** (90,563)	0.0346** (0.0143)	-16.83 (35.82)	-12.19 (10.29)
Treated *After (Dummy)	-1,895 (1,454)	1.216e+06*** (465,230)	0.132** (0.0582)	-10.51 (91.43)	24.23 (64.89)
Population (log)	19,321 (11,668)	-1.636e+06*** (603,699)	-0.217** (0.0889)	1,274** (554.5)	229.1 (143.3)
Europe & Central Asia	69,144 (44,282)	1.150e+06 (829,068)	-10.31*** (1.659)	-588.0 (1,069)	-1,002*** (276.5)
Latin America & Caribbean	71,148 (49,742)	2.767e+06*** (988,232)	-10.08*** (1.599)	1,306 (1,940)	-703.9 (501.6)
South Asia	-35,565* (18,992)	2.334e+07*** (5.863e+06)	-7.073*** (1.069)	1,374 (1,986)	-684.3 (513.5)
Sub-Saharan Africa	43,541 (28,918)	2.235e+07*** (5.610e+06)	-7.206*** (1.123)	-2,387*** (805.4)	-1,908*** (208.2)
Low income			9.718*** (1.881)		
Lower middle income		1.792e+07*** (4.680e+06)	12.42*** (2.236)		
Upper middle income	17,841*** (2,028)	4.868e+07*** (7.698e+06)	7.325*** (1.157)	-1,392*** (52.28)	-789.8*** (13.52)
Observations	70	294	301	72	72
R-squared	0.983	0.972	0.988	1.000	1.000
Treated	14	31	32	16	16

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	WB AGRIBUSINESS: DID BY BREATH OF SUPPORT (<=2)				
	(1) Value added per worker	(2) Export value	(3) Export share	(4) Total Employment	(5) Female Employment
Treated (Dummy)	27,551 (30,234)	-1.842e+07*** (2.654e+06)	0.187** (0.0876)	2,233 (1,413)	337.7 (358.7)
After (Dummy)	1,322 (1,233)	250,020*** (73,261)	0.0273** (0.0133)	-19.30 (33.77)	-14.28 (9.647)
Treated *After (Dummy)	-1,680 (1,439)	863,312 (527,156)	0.157 (0.105)	-123.6** (54.10)	-71.44*** (13.99)
Population (log)	19,243* (11,080)	-755,210** (365,665)	-0.151** (0.0760)	1,315** (523.1)	263.9* (132.5)
Europe & Central Asia	103,104 (75,980)	-2.617e+07*** (3.712e+06)	-1.622*** (0.444)		
Latin America & Caribbean	131,406 (93,380)	-1.252e+07*** (2.371e+06)	3.731*** (0.491)	-1,005*** (199.7)	-440.0*** (51.49)
South Asia	70,881 (57,207)	-3.273e+07*** (5.077e+06)	-1.701*** (0.448)	-3,951** (1,908)	-651.9 (484.0)
Sub-Saharan Africa	117,654 (91,758)	-3.026e+07*** (4.129e+06)	-2.425*** (0.457)	-4,424** (1,643)	-1,135*** (417.0)
Lower middle income	42,763 (44,294)	-1.839e+07*** (2.725e+06)	3.289*** (0.686)	3,851* (2,077)	651.2 (526.9)
Upper middle income		-2.222e+07*** (4.515e+06)			
Low income			3.091*** (0.633)		
Observations	61	258	265	62	62
R-squared	0.981	0.984	0.988	0.999	1.000
Treated	6	10	11	7	7

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

WB AGRIBUSINESS: DID BY BREATH OF SUPPORT (>=3)

VARIABLES	(1) Value added per worker	(2) Export value	(3) Export share	(4) Total Employment	(5) Female Employment
Treated (Dummy)	-26,084*** (8,665)	2.767e+07*** (5.457e+06)	1.257*** (0.275)	296.5 (409.0)	586.1*** (103.6)
After (Dummy)	1,322 (1,253)	327,683*** (90,864)	0.0295** (0.0137)	-19.30 (34.31)	-14.28 (9.801)
Treated *After (Dummy)	-2,100 (1,328)	1.396e+06** (636,668)	0.116* (0.0650)	97.91** (45.75)	116.0*** (12.03)
Population (log)	19,243* (11,260)	-1.464e+06** (612,618)	-0.171** (0.0822)	1,315** (531.5)	263.9* (134.6)
Europe & Central Asia	66,789* (36,943)	1.008e+07*** (2.781e+06)	-6.340*** (1.014)	10.50 (1,241)	-828.7** (314.3)
Latin America & Caribbean	62,843 (43,973)	-1.174e+06 (1.490e+06)	-4.729*** (0.667)	7,903*** (616.7)	2,860*** (156.2)
South Asia	71,857 (45,037)	-4.447e+06** (2.084e+06)	-3.373*** (0.427)	2,041 (2,119)	-452.6 (536.9)
Sub-Saharan Africa	13,266 (12,849)	-5.330e+06** (2.203e+06)	-3.477*** (0.477)	-1,450** (606.5)	-1,170*** (153.6)
Low income			3.177*** (0.790)		
Lower middle income	-15,152*** (3,507)	1.719e+07*** (4.565e+06)	5.716*** (1.073)	876.6*** (165.5)	686.6*** (41.93)
Upper middle income		2.022e+07*** (2.774e+06)	3.581*** (0.509)		
Observations	63	276	281	64	64
R-squared	0.982	0.975	0.992	1.000	1.000
Treated	8	21	21	9	9

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	WB AGRIBUSINESS: DID EXTERNAL FACTORS	
	(1) Export value	(2) Export share
Treated (Dummy)	-3.248e+06 (2.186e+06)	-0.163 (0.152)
After (Dummy)	-87,697 (122,168)	-0.0130 (0.0134)
Treated *After (Dummy)	1.256e+06*** (463,049)	0.143** (0.0633)
Europe & Central Asia	-6.558e+06** (3.165e+06)	-2.391*** (0.0824)
Latin America & Caribbean	-9.498e+06*** (1.537e+06)	-2.376*** (0.0516)
South Asia	-9.029e+06*** (1.115e+06)	-2.470*** (0.151)
Sub-Saharan Africa	-6.998e+06** (3.178e+06)	-2.448*** (0.0267)
Low income	-926,747 (1.818e+06)	
Lower middle income	-3.600e+06** (1.434e+06)	-0.143 (0.228)
CPI	7,513 (5,296)	0.000553 (0.000645)
FDI, inflows (% GDP)	-622.6 (8,321)	0.000577 (0.00107)
Terms of trade	-2,285 (2,285)	5.48e-05 (0.000283)
Trade (% GDP)	3,458 (6,835)	-0.000462 (0.00101)
Gross fixed capital (% GDP)	-14,159 (16,153)	-0.00106 (0.00241)
Rule of law	-110,616 (387,749)	0.0168 (0.0427)
Exchange rate	-96.11 (189.6)	1.28e-05 (2.65e-05)
Upper middle income		-0.102 (0.246)
Observations	261	264
R-squared	0.968	0.986
Treated	30	31

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

VARIABLES	WB AGRIBUSINESS: DID EXTERNAL FACTORS BY BREATH OF SUPPORT (<=2)	
	(1) Export value	(2) Export share
Treated (Dummy)	1.109e+07*** (3.014e+06)	4.713*** (0.608)
After (Dummy)	-11,755 (37,225)	-0.00652 (0.00635)
Treated *After (Dummy)	892,553* (534,505)	0.175 (0.116)
Europe & Central Asia	527,167 (901,219)	3.198*** (0.175)
Latin America & Caribbean	575,047 (626,119)	2.663*** (0.0916)
South Asia	1.895e+06 (1.207e+06)	2.518*** (0.215)
Sub-Saharan Africa	293,392 (1.349e+06)	2.495*** (0.235)
Lower middle income	1.126e+07*** (3.178e+06)	4.709*** (0.634)
Upper middle income	2.474e+07*** (3.700e+06)	7.281*** (0.741)
CPI	5,156** (2,319)	0.000457 (0.000411)
FDI, inflows (% GDP)	2,475 (4,359)	0.000709 (0.000897)
Terms of trade	-2,104 (1,644)	-1.57e-05 (0.000289)
Trade (% GDP)	-1,481 (4,164)	-0.000792 (0.000880)
Gross fixed capital (% GDP)	-5,876 (9,565)	-0.000470 (0.00203)
Rule of law	40,367 (118,794)	0.0205 (0.0241)
Exchange rate	-111.5 (93.88)	-6.57e-07 (1.80e-05)
Observations	226	229
R-squared	0.982	0.982
Treated	9	10

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.

Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	WB AGRIBUSINESS: DID EXTERNAL FACTORS BY BREATH OF SUPPORT (>=3)	
	(1) Export value	(2) Export share
Treated (Dummy)	127,666 (736,580)	-0.658** (0.262)
After (Dummy)	-115,295 (119,480)	-0.0170 (0.0131)
Treated *After (Dummy)	1.413e+06** (632,860)	0.113* (0.0636)
Europe & Central Asia	-1.242e+07*** (800,243)	-1.177** (0.484)
Latin America & Caribbean	-1.241e+07*** (457,534)	-1.767*** (0.224)
South Asia	-1.325e+07*** (715,938)	-1.703*** (0.198)
Sub-Saharan Africa	-1.286e+07*** (259,057)	-1.172** (0.465)
Low income	385,097 (307,475)	
Lower middle income	-687,054 (527,796)	-0.571* (0.323)
CPI	9,519* (5,247)	0.000888 (0.000624)
FDI, inflows (% GDP)	3,556 (8,176)	0.00121 (0.000831)
Terms of trade	-3,595 (2,295)	-0.000169 (0.000210)
Trade (% GDP)	7,086 (6,200)	0.000460 (0.000512)
Gross fixed capital (% GDP)	-23,696 (15,439)	-0.00320** (0.00160)
Rule of law	-88,685 (384,805)	0.00147 (0.0365)
Exchange rate	-197.6 (190.5)	-4.24e-06 (2.58e-05)
Upper middle income		0.105 (0.150)
Observations	244	246
R-squared	0.972	0.992
Treated	21	21

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	WB MANUFACTURING (INC. AGRIB.): DID				
	(1) Value added per worker	(2) Export value	(3) Export share	(4) Total Employment	(5) Female Employment
Treated (Dummy)	43,886** (19,787)	3.992e+08*** (4.060e+07)	4.989*** (0.829)	1,094* (639.2)	105.4 (142.3)
After (Dummy)	351.2 (1,283)	2.536e+06** (1.216e+06)	0.0485* (0.0286)	-18.95 (25.80)	-14.24** (6.261)
Treated *After (Dummy)	-2,153 (1,442)	1.413e+07** (6.292e+06)	0.188 (0.129)	174.7 (109.0)	3.204 (48.89)
Population (log)	25,301** (11,810)	-1.758e+07* (1.060e+07)	-0.384 (0.256)	957.1** (380.5)	184.4** (84.83)
Europe & Central Asia	14,521 (12,932)	-7.813e+08*** (6.590e+07)	-9.415*** (1.380)	-1,251 (1,248)	-130.1 (92.25)
Latin America & Caribbean	88,989* (49,127)	-7.687e+08*** (6.156e+07)	-16.86*** (2.986)	6,402*** (543.4)	3,450*** (307.5)
Middle East & North Africa	2,458 (5,873)	-3.430e+08*** (2.489e+07)	-4.862*** (0.714)	-1,308 (1,231)	-36.06 (41.86)
South Asia	98,865* (50,270)	-2.906e+08*** (3.972e+07)	-2.622** (1.188)	1,145 (2,450)	12,116*** (411.3)
Sub-Saharan Africa	23,015 (16,651)	-1.173e+09*** (1.022e+08)	-9.685*** (1.468)	-1,323 (1,371)	-275.9** (119.4)
Lower middle income	184,887** (82,553)	4.442e+08*** (5.710e+07)	5.838*** (1.186)	1,830 (2,658)	-315.3*** (49.38)
Upper middle income	204,258** (89,444)	8.212e+08*** (8.445e+07)	12.10*** (2.298)	2,757 (2,879)	
Low income					-11,604*** (129.4)
Observations	98	366	371	102	101
R-squared	0.974	0.989	0.971	1.000	1.000
Treated	18	38	39	21	21

*Note:* Country fixed effects not shown in the table. “After (Dummy)” refers to the time period following the support.

Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

WB MANUFACTURING (INC. AGRIB.): DID BY BREATH OF SUPPORT (<=2)

VARIABLES	(1) Value added per worker	(2) Export value	(3) Export share	(4) Total Employment	(5) Female Employment
Treated (Dummy)	-66,148** (28,288)	1.351e+07 (8.207e+06)	0.150*** (0.0555)	2,607** (1,041)	1,993*** (5.300)
After (Dummy)	343.7 (1,229)	804,006* (417,734)	0.0110*** (0.00287)	-18.18 (24.64)	-16.61*** (5.754)
Treated *After (Dummy)	-2,351 (1,460)	563,486 (996,412)	0.00489 (0.0207)	195.1 (151.3)	-59.77*** (10.32)
Population (log)	25,412** (11,363)	-1.928e+06 (2.346e+06)	-0.0475*** (0.0174)	945.6** (363.9)	219.8*** (76.70)
Europe & Central Asia	46,660* (24,741)	-5.773e+07*** (8.821e+06)	0.200*** (0.0729)	-2,762* (1,490)	-90.96 (83.21)
Latin America & Caribbean	72,877* (36,488)	-5.157e+07*** (5.667e+06)	0.147*** (0.0458)	-3,609*** (1,033)	-2,430*** (6.914)
Middle East & North Africa	-14,062*** (5,153)	-5.210e+07*** (5.711e+06)	0.301*** (0.103)	-5,923*** (300.3)	-4,228*** (92.09)
South Asia	82,764** (37,607)	-5.187e+07*** (5.892e+06)	0.559*** (0.139)		-1,463*** (448.8)
Sub-Saharan Africa	-11,786* (6,625)	-2.189e+06 (5.153e+06)	0.116*** (0.0409)	-1,587 (2,164)	-2,054*** (231.4)
Lower middle income	-2,861 (4,143)	5.710e+07*** (1.156e+07)	-0.0145** (0.00661)	5,019*** (268.0)	1,492*** (168.1)
Upper middle income		6.338e+07*** (1.226e+07)	-0.0928*** (0.0338)		
Observations	88	325	330	91	90
R-squared	0.972	0.987	0.990	0.999	1.000
Treated	9	14	15	11	11

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

WB MANUFACTURING (INC. AGRIB.): DID BY BREATH OF SUPPORT ( $\geq 3$ )

VARIABLES	(1) Value added per worker	(2) Export value	(3) Export share	(4) Total Employment	(5) Female Employment
Treated (Dummy)	5,211 (3,594)	-3.546e+07* (1.975e+07)	5.840*** (1.247)	4,674*** (346.4)	-126.5*** (24.31)
After (Dummy)	355.3 (1,236)	2.857e+06** (1.344e+06)	0.0523* (0.0313)	-23.73 (24.46)	-16.85*** (5.772)
Treated *After (Dummy)	-1,769 (1,244)	2.386e+07** (1.019e+07)	0.331 (0.221)	132.7*** (30.40)	122.9*** (6.617)
Population (log)	25,239** (11,471)	-2.048e+07* (1.182e+07)	-0.418 (0.281)	1,028*** (364.6)	223.3*** (77.12)
Europe & Central Asia	14,453 (12,561)	-1.234e+09*** (1.249e+08)	-8.657*** (1.181)	111.9 (394.2)	-1,527*** (253.0)
Latin America & Caribbean	-65,024** (25,901)	-1.232e+09*** (1.256e+08)	-17.11*** (3.087)	3,967*** (364.1)	2,166*** (5.611)
Middle East & North Africa	-36,145*** (9,998)	-1.220e+09*** (1.196e+08)	-1.839 (1.684)	3,520*** (780.4)	-2,032*** (144.1)
South Asia	-138,288** (55,569)	1.619e+08* (9.166e+07)	-3.266*** (0.857)	38,830*** (1,770)	10,488*** (204.6)
Sub-Saharan Africa	-15,644*** (756.2)	1.495e+08* (8.444e+07)	-9.014*** (1.236)	-819.4*** (229.6)	-1,958*** (172.6)
Lower middle income	19,237** (8,980)	1.338e+09*** (1.796e+08)	4.289*** (0.590)		-41.62 (60.61)
Upper middle income		1.280e+09*** (1.482e+08)	11.51*** (1.984)	4,431*** (748.0)	
Low income				-38,424*** (767.8)	
Observations	87	340	343	89	88
R-squared	0.973	0.990	0.972	1.000	1.000
Treated	9	24	24	10	10

*Note:* Country fixed effects not shown in the table. “After (Dummy)” refers to the time period following the support.

Robust standard errors in parentheses.

\* $p < 0.1$  \*\* $p < 0.05$  \*\*\* $p < 0.01$

APPENDIX G  
REGRESSION RESULTS

VARIABLES	WB MANUFACTURING (INC. AGRIB.): DID EXTERNAL FACTORS	
	(1) Export value	(2) Export share
Treated (Dummy)	-2.901e+07 (3.145e+07)	0.0544 (0.141)
After (Dummy)	1.458e+06 (1.738e+06)	0.0428 (0.0374)
Treated *After (Dummy)	1.524e+07** (7.117e+06)	0.227 (0.158)
Europe & Central Asia	-1.462e+06 (3.066e+07)	0.556 (0.584)
Latin America & Caribbean	-1.914e+07 (1.412e+07)	1.095 (1.103)
Middle East & North Africa	-2.301e+07** (1.159e+07)	0.673 (0.574)
South Asia	-2.545e+07** (1.143e+07)	0.642 (0.708)
Sub-Saharan Africa	3.077e+07 (6.803e+07)	0.623 (0.681)
Lower middle income	-2.037e+07 (3.652e+07)	0.0136 (0.132)
Upper middle income	-3.734e+07 (6.695e+07)	0.243 (0.253)
CPI	-45,214 (70,779)	-0.00183 (0.00153)
FDI, inflows (% GDP)	-302,699** (147,286)	-0.00424 (0.00333)
Terms of trade	-21,790 (20,972)	-0.000142 (0.000410)
Trade (% GDP)	-35,779 (115,278)	-0.00285 (0.00280)
Gross fixed capital (% GDP)	395,617 (345,277)	0.00997 (0.00858)
Rule of law	-9.207e+06* (4.700e+06)	-0.0828 (0.0817)
Exchange rate	1,641 (1,935)	6.42e-05 (3.95e-05)
Observations	312	313
R-squared	0.989	0.971
Treated	37	38

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

WB MANUFACTURING (INC. AGRIB.): DID EXTERNAL FACTORS BY BREATH OF SUPPORT (<=2)

VARIABLES	(1) Export value	(2) Export share
Treated (Dummy)	3.985e+07*** (1.039e+07)	0.341*** (0.0349)
After (Dummy)	451,146* (265,822)	0.00400** (0.00191)
Treated *After (Dummy)	423,480 (1.037e+06)	0.00727 (0.0238)
Europe & Central Asia	1.588e+07*** (3.495e+06)	0.0460*** (0.0105)
Latin America & Caribbean	-2.536e+07*** (2.869e+06)	-0.446*** (0.0583)
Middle East & North Africa	-1.756e+07*** (5.810e+06)	-0.619*** (0.0714)
South Asia	-2.096e+07*** (5.612e+06)	-0.422*** (0.0387)
Sub-Saharan Africa	-3.961e+07*** (1.034e+07)	-0.349*** (0.0313)
Lower middle income	1.873e+07*** (5.550e+06)	0.357*** (0.0336)
Upper middle income	-1.807e+06 (1.608e+06)	-0.0554** (0.0267)
CPI	5,537 (11,751)	-8.79e-05 (7.29e-05)
FDI, inflows (% GDP)	-58,057* (34,625)	-0.000398* (0.000233)
Terms of trade	-8,754 (7,535)	7.33e-05 (8.06e-05)
Trade (% GDP)	56,443* (29,327)	0.000499* (0.000279)
Gross fixed capital (% GDP)	21,777 (44,183)	6.11e-05 (0.000390)
Rule of law	-283,343 (812,106)	0.0118 (0.00719)
Exchange rate	-372.2 (451.1)	2.99e-06 (2.96e-06)
Observations	272	273
R-squared	0.988	0.992
Treated	13	14

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

WB MANUFACTURING (INC. AGRIB.): DID EXTERNAL FACTORS BY BREATH OF SUPPORT (>=3)

VARIABLES	(1) Export value	(2) Export share
Treated (Dummy)	-1.118e+07 (1.659e+07)	-0.479 (0.406)
After (Dummy)	1.562e+06 (1.723e+06)	0.0461 (0.0383)
Treated *After (Dummy)	2.513e+07** (1.125e+07)	0.372 (0.251)
Europe & Central Asia	-7.436e+06 (2.472e+07)	0.318 (0.382)
Latin America & Caribbean	677,731 (2.957e+07)	0.653 (0.625)
Middle East & North Africa	-8.226e+06 (1.964e+07)	0.161 (0.276)
South Asia	-1.124e+07 (1.743e+07)	0.0895 (0.235)
Sub-Saharan Africa	-27,905 (2.919e+07)	0.613 (0.597)
Lower middle income	-5.689e+06 (2.064e+07)	-0.558 (0.477)
Upper middle income	-1.055e+06 (2.316e+07)	-0.571 (0.500)
CPI	-44,651 (70,010)	-0.00187 (0.00156)
FDI, inflows (% GDP)	-280,530* (146,981)	-0.00388 (0.00331)
Terms of trade	-24,427 (23,288)	-0.000155 (0.000408)
Trade (% GDP)	-71,865 (126,813)	-0.00366 (0.00310)
Gross fixed capital (% GDP)	430,072 (356,153)	0.0106 (0.00890)
Rule of law	-7.713e+06 (4.723e+06)	-0.0622 (0.0744)
Exchange rate	1,316 (1,830)	6.20e-05 (3.77e-05)
Observations	288	288
R-squared	0.990	0.972
Treated	24	24

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	WB TELECOM&IT: DID		
	(1) Mobile cellular subscription	(2) Export value	(3) Export share
Treated (Dummy)	-36.03 (76.62)	2.124e+07** (9.144e+06)	0.621* (0.331)
After (Dummy)	48.17*** (4.003)	580,303* (331,435)	0.0153 (0.0111)
Treated *After (Dummy)	14.14*** (5.275)	897,543 (584,339)	0.0124 (0.0133)
Population (log)	-2.174 (23.37)	-4.152e+06** (1.873e+06)	-0.115* (0.0680)
Europe & Central Asia	-39.10 (73.67)	5.499e+06*** (1.705e+06)	0.226** (0.106)
Latin America & Caribbean	-40.49 (37.30)	9.133e+07*** (6.726e+06)	3.827*** (0.176)
Middle East & North Africa	-55.01 (90.53)		
South Asia	16.28 (111.4)	3.873e+07** (1.522e+07)	1.198** (0.559)
Sub-Saharan Africa	-49.71 (125.1)	-369,842 (416,110)	-0.0416** (0.0177)
Low income	-42.96 (175.1)		
Lower middle income	19.32 (171.4)	9.128e+06** (3.686e+06)	0.284** (0.133)
Upper middle income	63.05 (132.4)	1.983e+06*** (528,545)	0.0855*** (0.0209)
Observations	279	215	215
R-squared	0.845	0.989	0.995
Treated	26	23	23

*Note:* Country fixed effects not shown in the table. “After (Dummy)” refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

WB TELECOM&IT: DID BY BREATH OF SUPPORT (<=2)

VARIABLES	(1) Mobile cellular subscription	(2) Export value	(3) Export share
Treated (Dummy)	-32.86 (25.50)	-6.296e+06*** (382,907)	-0.406*** (0.0137)
After (Dummy)	46.85*** (4.069)	539,129 (345,857)	0.0156 (0.0113)
Treated *After (Dummy)	23.36*** (6.655)	506,647 (380,065)	0.0377* (0.0202)
Population (log)	9.554 (24.68)	-3.735e+06* (2.003e+06)	-0.119* (0.0686)
Europe & Central Asia	-17.55 (77.00)	-2.754e+07*** (6.741e+06)	-1.302*** (0.228)
Latin America & Caribbean	-33.34 (67.59)	-1.136e+06 (920,676)	-0.0812*** (0.0310)
Middle East & North Africa	-25.10 (59.81)		
South Asia	-4.953 (8.072)	-3.420e+07*** (1.013e+07)	-1.524*** (0.347)
Sub-Saharan Africa	-78.76 (98.24)	-2.612e+07*** (9.262e+06)	-1.073*** (0.317)
Lower middle income	-52.04* (29.04)	-7.441e+06 (7.443e+06)	-0.0429 (0.256)
Upper middle income	-34.09 (42.58)	-2.920e+07** (1.219e+07)	-1.125*** (0.418)
Observations	256	194	194
R-squared	0.840	0.963	0.980
Treated	14	12	12

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	WB TELECOM&IT: DID BY BREATH OF SUPPORT (>=3)		
	(1) Mobile cellular subscription	(2) Export value	(3) Export share
Treated (Dummy)	-132.3 (184.4)	-3.202e+07*** (5.145e+06)	-1.323*** (0.121)
After (Dummy)	46.62*** (4.050)	555,738 (357,041)	0.00757 (0.0108)
Treated *After (Dummy)	5.633 (6.692)	1.248e+06 (1.032e+06)	-0.0136 (0.00941)
Population (log)	11.62 (24.63)	-3.903e+06* (2.215e+06)	-0.0374 (0.0585)
Europe & Central Asia	127.5 (271.0)	-3.946e+06 (3.222e+06)	-0.125 (0.0937)
Latin America & Caribbean	203.6 (394.6)	-4.748e+07*** (1.381e+07)	-1.491*** (0.355)
Middle East & North Africa	224.4 (476.5)		
South Asia	227.9 (416.4)	4.591e+06** (2.141e+06)	-0.0465 (0.0441)
Sub-Saharan Africa	193.5 (387.9)	-4.668e+07*** (1.336e+07)	-1.483*** (0.343)
Lower middle income	155.1 (199.9)	-5.550e+07*** (1.777e+07)	-1.480*** (0.450)
Upper middle income	52.37* (29.73)	-5.788e+07*** (1.982e+07)	-1.582*** (0.514)
North America		-1.061e+08*** (3.405e+07)	-3.082*** (0.881)
Observations	255	194	194
R-squared	0.837	0.989	0.996
Treated	12	11	11

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	WB TELECOM&IT: DID EXTERNAL FACTORS	
	(1) Export value	(2) Export share
Treated (Dummy)	-1.295e+07*** (766,947)	-0.705*** (0.0190)
After (Dummy)	127,543 (240,053)	-0.00834 (0.00650)
Treated *After (Dummy)	1.168e+06 (770,584)	0.0138 (0.0186)
Europe & Central Asia	-1.039e+07*** (751,500)	-0.662*** (0.0157)
Latin America & Caribbean	4.858e+06*** (1.847e+06)	0.134** (0.0591)
South Asia	-3.986e+07*** (2.759e+06)	-2.134*** (0.0853)
Sub-Saharan Africa	-2.592e+07*** (1.863e+06)	-1.423*** (0.0593)
Lower middle income	-1.985e+07*** (3.380e+06)	-0.852*** (0.106)
Upper middle income	-3.167e+07*** (3.665e+06)	-1.525*** (0.113)
CPI	6,149 (6,488)	0.000350 (0.000237)
FDI, inflows (% GDP)	-15,546 (49,151)	-0.00234 (0.00155)
Terms of trade	-11,117** (5,427)	-0.000203 (0.000162)
Trade (% GDP)	58,322*** (21,372)	0.00140** (0.000692)
Gross fixed capital (% GDP)	-96,720* (50,344)	-0.000443 (0.00140)
Rule of law	-1.173e+06* (671,149)	-0.0406 (0.0261)
Exchange rate	-487.5* (253.5)	-1.28e-05 (9.21e-06)
Observations	195	195
R-squared	0.991	0.996
Treated	23	23

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.

Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

WB TELECOM&IT: DID EXTERNAL FACTORS BY BREATH OF SUPPORT (<=2)

VARIABLES	(1) Export value	(2) Export share
Treated (Dummy)	3.559e+06** (1.650e+06)	0.0665 (0.0558)
After (Dummy)	-51,805 (192,577)	-0.00693 (0.00646)
Treated *After (Dummy)	531,833 (554,615)	0.0444 (0.0287)
Europe & Central Asia	-6.421e+06** (2.668e+06)	-0.141 (0.0879)
Latin America & Caribbean	4.922e+06 (4.108e+06)	0.181 (0.157)
Middle East & North Africa	-6.929e+06* (4.151e+06)	-0.0881 (0.137)
South Asia	-2.535e+06* (1.312e+06)	-0.0766* (0.0446)
Sub-Saharan Africa	-5.304e+06** (2.241e+06)	-0.133* (0.0700)
Lower middle income	-3.018e+06* (1.683e+06)	-0.0897 (0.0553)
Upper middle income	1.565e+06 (2.119e+06)	0.0146 (0.0769)
CPI	9,705 (6,205)	0.000342 (0.000240)
FDI, inflows (% GDP)	-42,844 (45,400)	-0.00200 (0.00147)
Terms of trade	-10,666* (5,653)	-0.000233 (0.000194)
Trade (% GDP)	56,771** (22,119)	0.00145** (0.000700)
Gross fixed capital (% GDP)	-67,290 (42,834)	-0.000932 (0.00142)
Rule of law	-1.211e+06* (689,386)	-0.0399 (0.0272)
Exchange rate	-505.2** (253.6)	-1.36e-05 (9.26e-06)
Observations	176	176
R-squared	0.972	0.983
Treated	12	12

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

WB TELECOM&IT: DID EXTERNAL FACTORS BY BREATH OF SUPPORT ( $\geq 3$ )

VARIABLES	(1) Export value	(2) Export share
Treated (Dummy)	-1.145e+07*** (4.084e+06)	-0.216* (0.129)
After (Dummy)	104,408 (249,969)	-0.00915 (0.00660)
Treated *After (Dummy)	1.704e+06 (1.298e+06)	-0.0161 (0.0146)
Europe & Central Asia	1.088e+07*** (4.152e+06)	0.247* (0.144)
Latin America & Caribbean	6.488e+06** (3.020e+06)	0.209* (0.109)
Middle East & North Africa	1.246e+06 (2.006e+06)	0.0894 (0.0686)
South Asia	1.262e+07*** (4.534e+06)	0.273* (0.153)
Sub-Saharan Africa	-5.853e+06** (2.312e+06)	-0.103 (0.0709)
Lower middle income	966,068 (1.380e+06)	0.0215 (0.0201)
Upper middle income	6.023e+06** (2.405e+06)	0.108* (0.0606)
CPI	7,718 (6,531)	0.000418* (0.000229)
FDI, inflows (% GDP)	-8,951 (48,603)	-0.00113 (0.00126)
Terms of trade	-12,606* (6,756)	-7.22e-05 (0.000161)
Trade (% GDP)	62,615*** (23,853)	0.00132* (0.000796)
Gross fixed capital (% GDP)	-103,739** (50,297)	-0.000826 (0.00132)
Rule of law	-1.421e+06** (704,767)	-0.0559** (0.0247)
Exchange rate	-555.5** (256.0)	-1.60e-05* (9.07e-06)
Observations	176	176
R-squared	0.992	0.996
Treated	11	11

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	WB TOURISM: DID			
	(1) Value added per worker	(2) Visitor Exports	(3) Visitor Exports share	(4) Total Employment
Treated (Dummy)	20,384*** (5,861)	31.33*** (5.814)	1.575*** (0.200)	10,351*** (922.0)
After (Dummy)	1,158*** (168.3)	0.501*** (0.141)	-0.0254*** (0.00651)	9.614 (12.75)
Treated *After (Dummy)	1,106*** (380.1)	0.670 (0.497)	0.00629 (0.0197)	153.8 (99.27)
Population (log)	-5,432*** (998.9)	-1.089 (0.874)	0.126*** (0.0335)	-14.57 (121.8)
Europe & Central Asia	-29,899*** (8,157)	-17.77*** (3.051)	-1.869*** (0.0642)	-9,947*** (630.6)
Latin America & Caribbean	-40,113*** (9,571)	-30.81*** (5.369)	-1.677*** (0.177)	-10,363*** (889.6)
Middle East & North Africa	-2,143 (2,684)	-17.82*** (3.791)	-1.036*** (0.0999)	-9,127*** (703.3)
Sub-Saharan Africa	-8,627** (3,818)	-29.05*** (4.347)	-1.851*** (0.133)	-10,248*** (754.6)
High income: nonOECD	-48,171*** (8,978)	-69.80*** (8.970)	-4.333*** (0.301)	-13,188*** (1,254)
Low income	-91,953*** (12,220)	-63.01*** (4.659)	-5.490*** (0.0792)	-12,114*** (632.4)
Lower middle income	-84,539*** (11,443)	-65.52*** (5.011)	-5.426*** (0.107)	-12,826*** (673.5)
Upper middle income	-72,215*** (11,170)	-40.23*** (3.967)	-3.146*** (0.0874)	-2,646*** (255.7)
Observations	310	316	316	316
R-squared	0.995	0.983	0.995	0.994
Treated	28	29	29	29

*Note:* Country fixed effects not shown in the table. “After (Dummy)” refers to the time period following the support. Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

WB TOURISM: DID BY BREATH OF SUPPORT (<=2)

VARIABLES	(1) Value added per worker	(2) Visitor Exports	(3) Visitor Exports share	(4) Total Employment
Treated (Dummy)	-50,358*** (1,640)	-7.308*** (2.132)	-1.126*** (0.0995)	-208.3*** (46.95)
After (Dummy)	1,099*** (161.4)	0.446*** (0.130)	-0.0241*** (0.00640)	-2.094 (3.191)
Treated *After (Dummy)	2,288*** (697.4)	0.0590 (0.270)	-0.00950 (0.0344)	-7.965 (11.28)
Population (log)	-4,863*** (874.2)	-0.544 (0.705)	0.113*** (0.0322)	100.6*** (16.01)
Europe & Central Asia	33,211*** (1,020)	-9.551** (4.180)	-0.223 (0.189)	-168.9* (91.54)
Latin America & Caribbean	58,563*** (2,879)	-8.187* (4.765)	0.0482 (0.218)	-25.44 (105.5)
Middle East & North Africa	17,947*** (2,508)	-17.92*** (5.415)	-0.596** (0.247)	180.3 (120.4)
Sub-Saharan Africa	18,594*** (3,049)	-19.64*** (5.058)	-0.860*** (0.229)	32.30 (112.5)
High income: nonOECD	5,225*** (1,580)	-16.30*** (1.824)	-1.141*** (0.0872)	93.17*** (32.60)
Lower middle income	-44,538*** (1,306)	-6.981*** (2.349)	-1.171*** (0.107)	-347.8*** (52.30)
Upper middle income	-15,678*** (1,682)	-10.22*** (2.011)	-0.482*** (0.0911)	124.7*** (44.45)
Observations	279	285	285	285
R-squared	0.995	0.987	0.994	0.998
Treated	12	13	13	13

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

WB TOURISM: DID BY BREATH OF SUPPORT ( $\geq 3$ )

VARIABLES	(1)	(2)	(3)	(4)
	Value added per worker	Visitor Exports	Visitor Exports share	Total Employment
Treated (Dummy)	-2,836*** (386.7)	16.89*** (2.781)	1.507*** (0.0560)	8,429*** (582.9)
After (Dummy)	996.4*** (159.7)	0.539*** (0.153)	-0.0242*** (0.00653)	19.61 (17.82)
Treated *After (Dummy)	182.0 (244.0)	1.147 (0.826)	0.0182 (0.0214)	279.3* (168.7)
Population (log)	-3,863*** (811.8)	-1.467 (1.063)	0.114*** (0.0347)	-112.9 (172.6)
Europe & Central Asia	-6,639* (3,608)	-33.81*** (5.374)	-1.987*** (0.171)	-12,285*** (932.2)
Latin America & Caribbean	-25,312*** (7,761)	-64.33*** (11.46)	-3.586*** (0.338)	-21,608*** (2,002)
Middle East & North Africa	-394.7 (1,330)	-4.979** (2.481)	0.0831 (0.116)	-2,664*** (381.3)
Sub-Saharan Africa	-5,352** (2,299)	-28.68*** (3.986)	-1.971*** (0.112)	-11,748*** (737.5)
Low income	-30,619*** (428.1)	-65.19*** (4.953)	-5.426*** (0.104)	-11,086*** (694.1)
Lower middle income	-24,767*** (884.0)	-68.01*** (5.615)	-5.372*** (0.139)	-11,877*** (798.1)
Upper middle income	-15,216*** (1,863)	-41.02*** (4.103)	-3.171*** (0.0893)	-2,852*** (362.4)
Observations	287	292	292	292
R-squared	0.996	0.983	0.996	0.995
Treated	16	16	16	16

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

WB TOURISM: DID EXTERNAL FACTORS

VARIABLES	(1) Visitor Exports	(2) Visitor Exports share
Treated (Dummy)	-25.15*** (5.638)	-1.468*** (0.292)
After (Dummy)	0.448* (0.252)	0.00533 (0.00988)
Treated *After (Dummy)	1.143 (0.787)	0.00608 (0.0276)
Europe & Central Asia	8.365 (6.611)	-0.0681 (0.330)
Latin America & Caribbean	16.84 (11.27)	-0.208 (0.552)
Middle East & North Africa	27.12** (11.82)	0.722 (0.586)
Sub-Saharan Africa	16.65 (11.57)	-0.225 (0.580)
High income: nonOECD	16.15*** (5.321)	0.676** (0.269)
Lower middle income	-1.117* (0.667)	-0.0371 (0.0334)
Upper middle income	7.591 (5.241)	-0.201 (0.256)
CPI	-0.00412 (0.00719)	-0.000624** (0.000294)
FDI, inflows (% GDP)	-0.0193 (0.0154)	-0.000213 (0.000743)
Terms of trade	-0.00852 (0.00828)	0.000409** (0.000202)
Trade (% GDP)	-0.00288 (0.00990)	-0.000121 (0.000553)
Gross fixed capital (% GDP)	0.0476 (0.0354)	0.00118 (0.00112)
Rule of law	0.157 (0.446)	-0.00963 (0.0293)
Exchange rate	-0.000306 (0.000200)	8.22e-06 (9.44e-06)
Observations	273	273
R-squared	0.979	0.995
Treated	28	28

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

**WB TOURISM: DID EXTERNAL FACTORS BY BREATH OF SUPPORT (<=2)**

VARIABLES	(1) Visitor Exports	(2) Visitor Exports share
Treated (Dummy)	2.588 (1.765)	-0.0707 (0.132)
After (Dummy)	0.354* (0.190)	0.0101 (0.00960)
Treated *After (Dummy)	0.263 (0.436)	-0.0157 (0.0579)
Europe & Central Asia	-18.67*** (3.440)	-1.420*** (0.209)
Latin America & Caribbean	-13.55*** (3.835)	-1.638*** (0.189)
Middle East & North Africa	-12.81*** (4.534)	-1.534*** (0.230)
Sub-Saharan Africa	-16.94*** (3.603)	-1.610*** (0.188)
High income: nonOECD	4.482** (2.157)	0.141 (0.160)
Lower middle income	-2.774 (2.068)	0.0900 (0.131)
Upper middle income	-0.407 (0.676)	-0.0558 (0.0676)
CPI	0.000716 (0.00413)	-0.000690** (0.000289)
FDI, inflows (% GDP)	-0.00225 (0.00880)	0.000478 (0.000888)
Terms of trade	0.000590 (0.00195)	0.000557*** (0.000182)
Trade (% GDP)	-0.00502 (0.00984)	-0.000386 (0.000553)
Gross fixed capital (% GDP)	-0.00126 (0.0143)	-7.90e-05 (0.00146)
Rule of law	0.495 (0.333)	0.0376 (0.0296)
Exchange rate	-0.000194 (0.000129)	1.05e-05 (8.53e-06)
Observations	244	244
R-squared	0.980	0.989
Treated	12	12

*Note:* Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	WB TOURISM: DID EXTERNAL FACTORS BY BREATH OF SUPPORT (>=3)	
	(1) Visitor Exports	(2) Visitor Exports share
Treated (Dummy)	18.49*** (2.902)	1.972*** (0.0726)
After (Dummy)	0.520* (0.292)	0.00977 (0.0103)
Treated *After (Dummy)	1.526 (1.095)	0.0174 (0.0269)
Europe & Central Asia	-28.47*** (2.857)	-2.632*** (0.0687)
Latin America & Caribbean	-42.32*** (5.489)	-4.000*** (0.144)
Middle East & North Africa	-20.04*** (3.011)	-1.646*** (0.0864)
Sub-Saharan Africa	-30.81*** (2.918)	-2.652*** (0.0852)
Low income	-32.10*** (4.294)	-3.563*** (0.145)
Lower middle income	-33.89*** (4.114)	-3.662*** (0.129)
Upper middle income	-15.17*** (2.106)	-1.646*** (0.0953)
CPI	-0.00523 (0.00830)	-0.000783*** (0.000297)
FDI, inflows (% GDP)	0.0104 (0.0177)	0.000608 (0.000949)
Terms of trade	-0.0125 (0.0110)	0.000287 (0.000204)
Trade (% GDP)	-0.00153 (0.00998)	-3.46e-05 (0.000548)
Gross fixed capital (% GDP)	0.0413 (0.0357)	0.00143 (0.000989)
Rule of law	0.422 (0.565)	-0.00575 (0.0300)
Exchange rate	-0.000311 (0.000210)	9.67e-06 (9.86e-06)
Observations	254	254
R-squared	0.979	0.996
Treated	16	16

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	IFC AGRIBUSINESS: DID	
	(1) Cost of \$1 of Net Sales	(2) Net Sales
Treated (Dummy)	0.0253 (0.0220)	28497 (20545)
After (Dummy)	0.0155 (0.0178)	13151 (20750)
Treated *After (Dummy)	-0.0321 (0.0322)	22943 (44758)
Total Assets (log)	0.00588 (0.0121)	103039*** (24083)
Europe & Central Asia	-0.0498* (0.0272)	174.7 (31444)
Latin America & Caribbean	-0.0763*** (0.0282)	-68983** (28810)
Middle East & North Africa	-0.0968*** (0.0321)	-135677*** (23773)
South Asia	0.0159 (0.0366)	-36950 (44717)
Sub-Saharan Africa	-0.0628 (0.0442)	-74364 (46561)
High income: nonOECD	0.791*** (0.163)	-1.047e+06*** (306102)
Low income	0.681*** (0.155)	-1.022e+06*** (311133)
Lower middle income	0.631*** (0.155)	-1.003e+06*** (305537)
Upper middle income	0.681*** (0.160)	-999018*** (307398)
Observations	348	333
R-squared	0.965	0.719
Treated	34	34

*Note:* Country fixed effects not shown in the table. “After (Dummy)” refers to the time period following the support. Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	IFC MANUFACTURING (INC. AGRIB.): DID	
	(1) Cost of \$1 of Net Sales	(2) Net Sales
Treated (Dummy)	0.100*** (0.0252)	32617 (46655)
After (Dummy)	0.00232 (0.0210)	-5641 (30074)
Treated *After (Dummy)	-0.0255 (0.0338)	7609 (63720)
Total Assets (log)	0.00660 (0.00516)	157193*** (26215)
Europe & Central Asia	-0.0317 (0.0237)	24097 (63393)
Latin America & Caribbean	-0.0228 (0.0252)	-114117** (50719)
Middle East & North Africa	-0.209** (0.0875)	15928 (114710)
South Asia	-0.0160 (0.0339)	-23684 (48749)
Sub-Saharan Africa	0.0158 (0.0405)	169877** (75429)
High income: nonOECD	0.621*** (0.0735)	-1.652e+06*** (349450)
Low income	0.586*** (0.0725)	-1.697e+06*** (321094)
Lower middle income	0.543*** (0.0648)	-1.579e+06*** (321212)
Upper middle income	0.558*** (0.0665)	-1.664e+06*** (344479)
Observations	737	704
R-squared	0.872	0.443
Treated	71	71

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support. Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

IFC MANUFACTURING (EXC. AGRIB.): DID

VARIABLES	(1) Cost of \$1 of Net Sales	(2) Net Sales
Treated (Dummy)	0.192*** (0.0448)	133953 (88768)
After (Dummy)	0.0345 (0.0322)	-38250 (33506)
Treated *After (Dummy)	-0.0784 (0.0607)	25287 (107228)
Total Assets (log)	0.0107 (0.00905)	183388*** (44891)
Europe & Central Asia	0.0840** (0.0378)	36919 (48981)
Latin America & Caribbean	-0.0352 (0.0466)	1066 (76290)
Middle East & North Africa	0.344*** (0.0815)	452689*** (157328)
South Asia	0.0308 (0.0667)	27809 (53000)
Sub-Saharan Africa	0.0275 (0.0832)	408003** (189039)
High income: nonOECD	0.195 (0.134)	-1.951e+06*** (578320)
Low income	0.572*** (0.133)	-2.039e+06*** (553592)
Lower middle income	0.329*** (0.109)	-2.015e+06*** (538735)
Upper middle income	0.417*** (0.116)	-2.070e+06*** (594814)
Observations	350	330
R-squared	0.846	0.611
Treated	35	35

*Note:* Country fixed effects not shown in the table. “After (Dummy)” refers to the time period following the support. Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	ORBIS AGRIBUSINESS: DID	
	(1) Cost of \$1 of Net Sales	(2) Net Sales
Treated (Dummy)	-0.0144 (0.0408)	3497 (37069)
After (Dummy)	-0.0506 (0.0493)	2702 (54589)
Treated *After (Dummy)	0.0243 (0.0685)	50360 (77275)
Total Assets (log)	0.0326*** (0.00887)	46307*** (10211)
Europe & Central Asia	0.0889** (0.0392)	-111735*** (33687)
Latin America & Caribbean	0.0467 (0.0470)	-22890 (44098)
Middle East & North Africa	-0.100 (0.0621)	163282 (112639)
South Asia	-0.111 (0.0888)	5404 (63563)
Sub-Saharan Africa	-0.209*** (0.0667)	-40140 (34707)
Lower middle income	0.382*** (0.0983)	-369413*** (113010)
Upper middle income	0.338*** (0.100)	-351499*** (118833)
Observations	90	95
R-squared	0.968	0.696
Treated	16	16

Note: Country fixed effects not shown in the table. "After (Dummy)" refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

ORBIS MANUFACTURING (INC. AGRIB.): DID

VARIABLES	(1)	(2)
	Cost of \$1 of Net Sales	Net Sales
Treated (Dummy)	0.0409 (0.0330)	-955817*** (194903)
After (Dummy)	-0.0500* (0.0261)	94993 (310883)
Treated *After (Dummy)	0.0280 (0.0473)	-122276 (349234)
Total Assets (log)	0.0333*** (0.00361)	270290*** (43990)
Europe & Central Asia	0.00682 (0.0276)	-298151 (199516)
Latin America & Caribbean	-0.121*** (0.0342)	358633 (307336)
Middle East & North Africa	-0.103** (0.0445)	5027 (285099)
South Asia	-0.0543 (0.0389)	-228635 (158139)
Sub-Saharan Africa	-0.132** (0.0528)	-429166* (241074)
Lower middle income	0.375*** (0.0478)	-2.514e+06*** (478835)
Upper middle income	0.350*** (0.0493)	-2.001e+06*** (493130)
Observations	265	298
R-squared	0.953	0.446
Treated	42	42

*Note:* Country fixed effects not shown in the table. “After (Dummy)” refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

APPENDIX G  
REGRESSION RESULTS

VARIABLES	ORBIS MANUFACTURING (EXC. AGRIB.): DID	
	(1) Cost of \$1 of Net Sales	(2) Net Sales
Treated (Dummy)	0.0904* (0.0487)	-1.564e+06*** (425711)
After (Dummy)	-0.0174 (0.0257)	-135114 (544946)
Treated *After (Dummy)	-0.000225 (0.0623)	106956 (632121)
Total Assets (log)	0.0384*** (0.00375)	402579*** (90142)
Europe & Central Asia	-0.0390 (0.0396)	-804628* (457554)
Latin America & Caribbean	-0.195*** (0.0420)	1.126e+06 (848880)
South Asia	0.00700 (0.0604)	-393331 (254103)
Sub-Saharan Africa	-0.0809 (0.0712)	-1.157e+06** (576730)
Lower middle income	0.214*** (0.0722)	-3.927e+06*** (1.089e+06)
Upper middle income	0.274*** (0.0502)	-3.011e+06*** (861050)
Observations	166	193
R-squared	0.954	0.431
Treated	26	26

*Note:* Country fixed effects not shown in the table. “After (Dummy)” refers to the time period following the support.  
Robust standard errors in parentheses.

\*p < 0.1 \*\*p < 0.05 \*\*\*p < 0.01

# Appendix H. Measurement of Indirect Job Effect

## Employment Multiplier

1. Employment multipliers are based on (domestic) output multipliers. Therefore, the concept of the output multipliers must be understood first, before analyzing employment multipliers.
2. Output multipliers measure the increase in output of the whole economy (in monetary units) because of an exogenous increase in final demand in a specific sector. The multiplier consists of two parts: the direct (multiplier) effect and the indirect (multiplier) effect. Direct effects are equal to the increase in output within the sector in which the increase in final demand occurs, and indirect effects are equal to the increase in output in supplying sectors. For example, if an increase in final demand in manufacturing is observed, then manufacturing output has to increase to meet the increase in final demand and, most likely, more manufacturing inputs will also be used in the production process (as a result, the increase in output in manufacturing will be larger than the change in final demand). This increase in manufacturing output is defined as the direct effect. Conversely, changes in output in supplying sectors, such as information and communication technology (ICT) services, energy, and so on, are regarded as indirect effects.
3. Output multipliers are then used for computing employment multipliers by multiplying output multipliers with employment shares ( $\frac{\text{Employment}_i}{\text{Output}_i}$  where i represents a specific sector of an economy), and direct and indirect employment effects of an increase in final demand can be analyzed. Similar to the output multiplier, the direct employment effect measures the increase in employment in the sector where the increase in final demand occurs, while indirect employment effects are defined as the increase in employment in the supplying sectors.

## Moretti's Approach

4. Although the approach developed in earlier focuses on the short-term effects caused by an increase in final demand, Moretti (2010) focuses on long-term effects from a general equilibrium perspective, where he distinguishes between nontradable and tradable goods. Similarly, the team estimated the effects of a change in employment in a specific sector on employment in linked sectors. Equation F.1 shows the regression equation.

$$\Delta N_{ct}^{tot} = \alpha + \beta \Delta N_{ct}^j + \gamma_1 d_t + \gamma_2 \text{size} + \gamma_3 \text{inc} + \varepsilon_{ct} \quad (\text{F.1})$$

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6. where  $\Delta N_{ct}^{tot}$  is the change over time in log numbers in country  $c$  for the total economy<sub>i</sub> (leaving out the independent variable Sector<sub>j</sub>),  $\Delta N_{ct}^j$  is the change over time in log numbers for Sector<sub>j</sub> in the same country, and  $d_t$  is an indicator for the time period. Furthermore, size is a dummy variable for country size, and inc is a dummy for the income level.

5. Because log changes are used for the dependent and independent variable, employment elasticities are estimated. This implies that the coefficient  $\beta$  in equation (1) must be interpreted in the following way: an increase in employment of 1 percent in Sector<sub>j</sub> (the independent variable) leads to a change of employment of  $\beta$  percent in the rest of the economy. For example, if  $\beta$  is equal to 0.1, then a change in employment in Sector<sub>j</sub> of 1 percent leads to an increase in employment in the rest of the economy by 0.1 percent. This increase in employment in the rest of the economy represents the indirect employment effect. The direct employment effect is not computed in this setting because it would imply a regression of employment numbers in Sector<sub>j</sub> on its own employment. Furthermore, because the sample size is restricted, only one regression is run for each sector on the full sample with the inclusion of country size and income level dummy variables.

### Assessment of the Two Approaches

6. Both approaches are useful in calculating indirect employment effects, but they also show some weaknesses. The multiplier models the effects of an increase in demand on employment and is therefore of a dynamic nature. However, Moretti (2010) argues that the multiplier doesn't account for equilibrium forces. The multiplier, as well as possible supply constraints, neglect changes in product prices and wages caused by an increase in demand and substitution effects. Moreover, production technology is assumed to be fixed, and productivity increases are assumed away. These are very strict assumptions, especially if an economy is producing near or at full capacity. In such an environment, the multiplier might overestimate the effects of a final demand expansion. Conversely, feedback effects of an increase in final demand on disposable income, leading to positive second round effects, are also omitted in the approach.

7. Furthermore, only domestic multipliers are examined because of data limitations for certain countries. Therefore, an implicit assumption is made that an increase in final demand will be satisfied by domestic and foreign inputs in the same proportions as past outputs. Additional sensitive assumptions of input-output models are summarized in Bess and Ambargis (2011) and van der Burg (1996), implying that for production patterns, employment-output ratios are also fixed. Therefore, the possibility of an expansion of hours worked per employee is excluded, while keeping employment numbers constant. Furthermore, industry homogeneity is also assumed, meaning that

production processes are modeled to be equal across a sector. However, if the production process of a firm affected by an output expansion differs from the average, the multiplier will differ from the estimate. The critical assumptions of industry homogeneity and fixed employment-output ratios must be considered when interpreting the results.

8. Given the assumptions described in the previous paragraph, only small, short-term increases in demand should be analyzed when using the multiplier approach. The estimation technique suggested by Moretti (2010) then covers long-term considerations. However, Moretti's approach also makes some strict assumptions. Like the multiplier, it might fail to deliver reliable results if the state or regime of the economy changes. Furthermore, because no reliable data for the shift-share instrument exists at a global level, there is no capability to control for exogenous shifts in labor demand.

### Data Sources

9. The team used the following data sources:

- a. Input-output tables from the World Input-Output Database (WIOD) as the main data source (Timmer et al. 2015)
- b. Input-output tables from the Organisation for Economic Co-operation and Development (OECD)
- c. Input-output tables for Mauritius (from Statistics Mauritius)
- d. Employment data for the WIOD tables (obtained from the socioeconomic accounts provided by WIOD)
- e. Employment data from the International Labour Organization's (ILO) Laborsta (for the OECD input-output tables and the input-output tables for Mauritius).

### Country Coverage

10. The team used WIOD's tables as the main data source (Timmer et al. 2015), which represent intercountry input-output tables for 40 countries and the surrogate country "Rest of the World." Data were available for the 40 countries from 1995 to 2011 on a yearly basis. OECD's input-output data extended the list of countries where possible. Because of country overlap in the databases and limitations concerning employment data for the OECD database, the team could add only seven more countries: New Zealand, Norway, Switzerland, Argentina, Croatia, Saudi Arabia, and Thailand, for which data are available for 1995, 2000, 2005, 2008, 2009, 2010, and 2011. The team also used input-output tables for Mauritius from Statistics Mauritius, for which data are available for 2002 and 2007.

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11. Employment data were from the socioeconomic accounts for the WIOD countries. For the countries covered by the OECD database and Mauritius, the team used employment data provided by ILO's Laborsta.

Table H.1. Countries and Economies with Available Data

Argentina	Japan
Australia	Korea, Rep.
Austria	Lithuania
Belgium	Luxembourg
Bulgaria	Latvia
Brazil	Mexico
Canada	Malta
Switzerland	Mauritius
China Version 1	Netherlands
Cyprus	Norway
Czech Republic	New Zealand
Denmark	Poland
Spain	Portugal
Estonia	Romania
Finland	Russian Federation
France	Saudi Arabia
United Kingdom	Slovak Republic
Greece	Slovenia
Croatia	Sweden
Hungary	Thailand
Indonesia	Turkey
India	Taiwan, China
Ireland	United States
Italy	Germany

Sector Coverage

12. The team's analysis focuses on six sectors, plus a sector called "Rest" which includes all other sectors. The classification follows the UN International Standard

Industrial Classification (ISIC) of All Economic Activities, Revision 3 classification. The six sectors in the analysis are:

- Agriculture (AtB): covers agriculture, hunting, forestry, and fishing
- Agrobusiness (15t16): includes food, beverages, and tobacco (the team excluded tobacco from the sector and added it to the Rest sector for consistency of the input-output tables).
- Manufacturing: manufacturing includes sectors 17t18, 19, 20, 21t22, 23, 24, 25, 26, 27t28, 29, 34t35, and 36t37
- Textiles and textile products: corresponds to sector 17t19 (therefore, textiles and textile products were included in manufacturing, but also analyzed on its own)
- ICT: defined as sectors 30t33, 64, and 72
- Tourism: comprises H and 63.

13. The sector classification for Mauritius differs from the other countries because the Mauritian input-output tables follow the Central Product Classification (CPC) classification. The sector classification of Mauritius is as follows:

- f. Agriculture: 0
- g. Agribusiness: 2 (except 26t29)
- h. Manufacturing: 3 and 4
- i. Textiles and textile products: 26t29
- j. ICT: 84
- k. Tourism: 96.

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# Appendix I. Methodology Used to Identify the Level of Collaboration in Industry Competitiveness Portfolio

1. For World Bank projects, two key data sets were extracted from the institution's data warehouse: staff time recording system and human resources data from HR Analytics. Staff time records were used to understand how much time staff charge to individual projects. The data set consisted of both time in hours spent on projects and actuals (or amounts). Human resources data captured staff details, such as title, grade level, and location, along with affiliation details, such as staff global practice and division. Because downloading the entire data set of human resources data would be too taxing on the system, the data set exported included snapshots for staff for fiscal years 2004, 2006, 2011, and 2015. The two data sets were combined, and the resulting master data set was subset such that only staff from grade level F through I remained in the data set. Although consultants have an important role in the design and implementation of World Bank lending projects, consultant details are not available in the human resources data set and therefore were excluded from the analysis.
2. To identify the type of expertise that resides within projects, IEG developed a methodology that mapped staff expertise against project details (such as global practice) and details revealed through the evaluation's portfolio review (such as project industries and interventions). Using this methodology, IEG developed two sets of dummy variables that would enable the desired analysis. The first set of dummy variables was described as match variables, in which at least one of the following details match the project's industry or interventions as identified through portfolio review: staff title, staff division, or staff global practice. For example, if a project was coded as agriculture, a match would be established if at least one staff from grade F through I had the word 'agriculture' in the title, division, or global practice of affiliation (for example, title as Lead Agriculture Economist or division as Agriculture and Rural). The second set of dummy variables was described as collaboration dummies, in which collaboration was determined as "needed" if a project was coded with a certain intervention in portfolio review, and such intervention was "outside" of the project's overall global practice. For example, a project coded through portfolio review as containing an infrastructure intervention is mapped to Agriculture Global Practice. In cases where collaboration is 'needed' and 'present', projects were coded as 0, otherwise, they were coded as 1, where 'present' was defined as having at least one staff with the relevant expertise found in either the title, division, or global practice (for example, where title is Senior Infrastructure Specialist). Regarding data availability,

IEG could not map such expertise across all relevant variables; for example, there was enough information to create a match or dummy for agriculture and information and communication technology expertise, but not for tourism or manufacturing. Trade and competitiveness expertise was matched against the entire portfolio to understand the use of trade and competitiveness staff outside of the Trade and Competitiveness Global Practice portfolio.

3. Staff intensity: As weeks and actual charges per staff were available, IEG could determine the percentage of the projects' total time that the expert devoted to the project. To determine maximum staff time spent in a project, IEG identified the staff with the maximum amount of time spent in a project, then measured all other staff relative to this maximum staff amount of time spent. The categories are assigned on the basis of project duration. The category low is assigned when the level of cross-support is lower or equal to 25 percent of the total project time duration; the category medium when the level of cross-support is higher than 25 percent or lower than 50 percent; and the category high when the level of cross-support is 51 percent or higher.

# Appendix J. Implementation Problems

Figure J. Distribution of Implementation Problems at Completion, by Institution

<b>Order</b>	<b>Problems</b>	<b>World Bank and IFC AS</b>	<b>IFC IS</b>	<b>Total</b>
1	implementation	44		44
2	capacity	39	4	43
3	expectations	34	2	36
4	M&E	31	1	32
5	political economy	29		29
6	commitment	27	1	28
7	funding	24	2	26
8	macro environment	20	4	24
9	civil unrest	17	1	18
10	design	16		16
11	sustainability	16		16
12	procurement	15		15
13	technical foundation	15	1	16
14	economic shock	14	7	21
15	fiduciary	14		14
16	E&S	12	4	16
17	enabling environment	11	1	12
18	new government	11		11
19	donor overlap	10		10
20	team skills	10		10
21	stakeholder involvement	7		7
22	risk assessment	5	1	6
23	corruption	4		4
24	enviroment shock	4	1	5
25	strategic alignmnt	4		4
26	IS-AS mix	1		1
27	client integrity	1		1
28	external demand	1	1	2
29	corporate risk		4	4
30	market concentration		4	4
31	technological change		1	1
<b>Total</b>		<b>436</b>	<b>40</b>	<b>476</b>

Source: IEG portfolio.

Note: E&S = environmental and social; IFC AS = IFC Advisory Services; IFC IS = IFC Investment Services; M&E = monitoring and evaluation.

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