



**WORLD BANK GROUP**  
Group Internal Audit

**ASSURANCE  
REVIEW  
REPORT**

**Data Integrity in the Production Process  
of the Doing Business Report**

DECEMBER 8, 2020

REPORT NO. FY21-2-2-2103656

Distribution

**Issued by:** Anke D'Angelo, Vice President and Auditor General, GIAVP *Anke D'Angelo*  
**To:** Carmen Reinhart, Vice President and Chief Economist, DECVP

[Redacted]

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# 1. EXECUTIVE SUMMARY

## Assurance Review Snapshot

Assurance Review Rating	Not Rated							
Issue Ratings	Critical	1	Significant	2	Moderate	1	Minor	0
Management Resolution by	December 15, 2021		VPU/Unit		DECVP			

### 1.1 Background

The Doing Business (DB) Report is one of the flagship reports published by the Bank annually. In 2019, 190 countries were ranked on the ease of doing business in those countries based on 41 specific indicators covering 10 topics<sup>1</sup>. Annually, about 490,000 data points roll up into the scoring of the 41 indicators for the 190 countries. The report is data intensive requiring focused attention on data integrity to maintain the credibility of the report.

The Doing Business team (DECDB), reporting to the Indicators Group (DECIG) within the Development Economics Vice Presidency (DECVP), is responsible for:

- methodology development and updates;
- preparation of the questionnaires;
- identification of and correspondence with the respondents;
- input and processing of the data in the Data Management System (DMS);
- internal reviews within DECVP;
- incorporation of feedback from the Bank Wide Review (BWR<sup>2</sup>); and
- the finalization of the DB report for publication.

DECDB is comprised of about 60 staff and consultants headed by a program manager who reports to the DECIG Director. The roles of the topic leaders, data reviewers and data managers, who report to the program manager, are described in *Appendix 3*. Country

<sup>1</sup> Refer to Appendix 1 for the mapping of indicators to the 10 topics.

<sup>2</sup> DEC management shares the draft DB report, including the data tables, widely within the WBG, requesting feedback. This institutional review process is also known as the Bank Wide Review (BWR).

Management Units help coordinate the interactions with client governments, and the Bank's Practice Groups provide subject matter expertise, when needed.

The life cycle of DB Report production contains the following key steps:

- The production cycle starts with the design of the questionnaires for each of the 10 topics;
- The questionnaires are then sent to respondents across all countries that are ranked in the DB report through the Survey Management System (SMS). The minimum number of respondents required from each country is based on the classification of the countries according to defined criteria;
- The responses are then reviewed and updated in DMS, with the data processing (referred to as data coding by the DB team) being approved by the topic leaders, data reviewers and data managers<sup>3</sup>. This three-layer review is recorded in DMS;
- The approved data in DMS is then downloaded and discussed with DECIG Senior Manager<sup>4</sup> and DECIG Director as part of the review meetings. The three-layer review in DMS and the management level review meetings constitute the DEC internal review (refer to *Appendix 3* for details);
- After the DEC internal review, the data file is downloaded from DMS and shared with the broader Bank management as part of the BWR;
- During the BWR period, the DB team continues with its own final review of the data; incorporates feedback from an external review for the "Paying Taxes" indicator by PricewaterhouseCoopers; analyzes the feedback from the BWR; and if determined appropriate by the DB team, the data is updated in DMS and again goes through the three-layer review; and
- Following the BWR, the final DB Report is published<sup>5</sup>.

(See *Appendix 2* for the detailed data flow for the entire DB Report production life cycle).

In June 2020, the data irregularities in the DB18 and DB20 reports were reported to the current DEC management by members of the DB team. In response, DEC management initiated several actions to address these concerns (see *Appendix 4*).

On August 27, 2020, Bank management publicly announced data irregularities in the DB18 report (published in October 2017) and the DB20 report (published in October 2019). DEC management and the Board requested Group Internal Audit (GIA) to review the processes for

<sup>3</sup> The two Data Managers (G-level staff) split between them the review of the 10 topics in the DB Report.

<sup>4</sup> According to DEC management this role will be performed by the DB Program Manager for future DB report production.

<sup>5</sup> Published data can be revised in subsequent years based on additional information and to correct any errors.

data collection and the controls to safeguard data integrity for the DB Report. The objective of this assurance review was to assess the design adequacy and operating effectiveness of the governance, risk management and controls over data integrity in the end-to-end production process of the DB Report. This assurance review covers the production cycle of DB18-DB21<sup>6</sup>.

The detailed background, objectives, scope, and approach are provided in the Terms of Reference (see *Appendix 5*).

In addition, DEC management conducted a review of data changes in the DB reports from 2016 to 2020 in response to the data irregularities reported by the DB team. The DEC management review report “*Review of Data Irregularities in Doing Business*” was completed in December 2020. As requested by the World Bank Group President’s Office (EXC), GIA conducted an independent verification of DEC management’s review. GIA issued the report on “*Independent Verification of Management Review of Data Irregularities in the Doing Business Reports from 2016 to 2020*” (FY21-2-4-2104615) on December 8, 2020.

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<sup>6</sup> As the production for DB21 is ongoing, the review analysed the process that has been completed as of October 2020.



## 1.2 Overall Conclusion

Although the DB team has established processes and controls over time, the absence of a safe speak-up environment to report management override of controls has resulted in data irregularities. Additionally, the underlying internal controls to safeguard the integrity of data throughout the production of the DB Report are insufficient. If the following issues remain unaddressed, data integrity risks might materialize:

- *Workplace Environment:* Pressure from stakeholders as part of the DB report production and publication process has not been effectively managed. DB team members reported undue pressure, both directly and indirectly by Bank management to manipulate data in 2017 during the DB18 production process and in 2019 during the DB20 production process. The lack of a safe speak-up environment within the DB team led to a fear of retaliation for those who would escalate and report pressures to manipulate data. This contributed to the compromise of data integrity in the DB report. *Critical*
- *Roles and Responsibilities:* The definition of roles and responsibilities for consultation, review, approval and clearance of the DB report production and publication beyond the DB team is incomplete. Although the DB team followed the established BWR process, the DB reports were published in the past without fully defined roles and responsibilities, thereby risking the integrity of the published data. *Significant*.
- *Controls over Data Changes:* The controls over data changes in the DB Report production life cycle are not sufficient to preserve data integrity. In addition, access control in DMS is not sufficiently designed to enforce segregation of duties, which has led to some users having excessive access, non-commensurate with their job responsibilities. As a result, such controls might not detect and prevent compromises to data integrity. *Significant*
- *Procedures and Guidance:* Standards and processes to document the inherent judgments involved in the production of the DB Report and to safeguard data integrity are not sufficiently defined to enable consistency. As a result, decisions related to the production of the DB report are sometimes open to judgement rather than being guided by documented procedures and guidance. *Moderate*

Details of the issues with supporting evidence are given in Section 2: Issues and Action Plans.

GIA acknowledges that prior to and during this review, DEC management has started to address the control issues identified in this report.

## 2. ISSUES AND ACTION PLANS

### 2.1 Workplace Environment

#### Issue Rating

Critical

Significant

Moderate

Minor

Pressure from stakeholders as part of the DB report production and publication process has not been effectively managed. The DB team members reported undue pressure, both directly and indirectly by Bank management to manipulate data in 2017 during the DB18 production process and in 2019 during the DB20 production process. The lack of a safe speak-up environment within the DB team led to a fear of retaliation for those who would escalate and report pressures to manipulate data. This contributed to the compromise of data integrity in the DB report.

Out of the 15 staff in the DB team interviewed by GIA, 9 staff indicated that they had been directly or indirectly pressured to manipulate data. Out of the 9 staff who reported being pressured, 8 staff said they manipulated data<sup>7</sup>. At the time, the DB team did not escalate to DEC management and Bank Senior Management, and report pressures encountered as part of the DB18 and DB20 report production to the internal accountability mechanisms of the World Bank Group (WBG), due to fear of retaliation. The DB team eventually reported the internal pressures to the internal accountability mechanisms of the WBG and to one of the DEC Directors during the DB21 production cycle.

In the past, Bank management has not emphasized the importance of data integrity nor explicitly committed to address staff concerns about data manipulation. Frequent personnel changes within DEC management and the absence of a defined roles and responsibilities framework (refer to Issue 2.2) resulted in ambiguity as to whom such pressures should be reported. Further, the lack of comprehensive procedures and guidance (refer to Issue 2.4) has left staff vulnerable to management overrides of the DB methodology.

GIA acknowledges that prior to and during this review, as part of addressing the reported concerns over data irregularities (see *Appendix 4*), DEC management has taken steps to address this issue. This includes ethics training sessions in collaboration with Ethics and Business Conduct (EBC) to explain the resources available to the DB team to report pressures in the future. A new DECIG director was appointed in November 2020 with an explicit mandate to strengthen data integrity.

<sup>7</sup> The same 8 staff reported potential data irregularities to DEC management in June 2020.



## MANAGEMENT ACTION PLAN

DEC management will restore a workplace environment conducive to maintaining data integrity in partnership with the DB team. DEC management will support the DB team to produce the DB data and reports according to their methodology and manage external and internal pressures. DEC management will:

1. Agree with EBC to have annual training at the beginning of each DB cycle, to raise awareness among DECIG staff of the various institutional resources available for reporting conduct that would constitute a violation of the Staff Rules, including pressures to manipulate data.  
Target completion date is March 15, 2021.
2. Develop new and enhance the existing protocols and disseminate these protocols to relevant staff and management to further increase the transparency of the DB report production process and reduce opportunities for undue influence by external and internal stakeholders, while preserving the confidential nature of communications between the DB team and their expert respondents. The protocols include:
  - a. Recirculate any post-BWR changes to the data to the same distribution list for the BWR at least two weeks prior to the publication of the report.  
Target completion date is March 15, 2021.
  - b. Work with ITS to enable stakeholders to download in Excel all the data details shown in the economy page of the website for all economies.  
Target completion date is March 15, 2021.
  - c. Publish the explanations informing the scoring decisions of the different indicators in the economy page of the website.  
Target completion date is December 15, 2021.

Specific action items under issue 2.2 on roles and responsibilities and enhanced controls over data changes under issue 2.3 will also help to strengthen the workplace environment.

**Action owners:** Carmen Reinhart (Vice President and World Bank Group Chief Economist); Norman Loayza (DECIG Director); Valeria Perotti (DECDB Program Manager)

**Target date:** December 15, 2021



## 2.2 Roles and Responsibilities

### Issue Rating

Critical

Significant

Moderate

Minor

The definition of roles and responsibilities for consultation, review, approval and clearance of the DB report production and publication beyond the DB team is incomplete. Although the DB team followed the established BWR process, the DB reports were published in the past without fully defined roles and responsibilities, thereby risking the integrity of the published data.

Following are examples of data changes and updates to the calculation method that were processed without sufficient consultation, review and approval:

- For DB18, DB19 and DB20, 112 changes in total were made to the data after the circulation for BWR. These changes were a result of feedback from the BWR circulation and final review by the DB team. Although most of the changes were reviewed by the DB team (i.e., topic leaders, data reviewers and data managers), all 112 changes were processed without documented DEC management review and approval. Out of the 112 changes, 9<sup>8</sup> (8%) were processed without sufficiently documented rationale for change.
- For DB20, the scoring method for the ‘Protecting Minority Investors’ (PMI) indicator was changed by the then DEC Senior Director in late stages of the production cycle even though the timing of the change did not conform with the practice of advance consultation and dissemination of methodology change. This change altered the scoring for this indicator and the overall ranking of countries. The decision to change the scoring method was not shared with relevant stakeholders outside the DB team, before the changes were applied. Although a protocol to approve and communicate methodology changes was subsequently developed by DEC management, clearly defined roles and responsibilities are necessary to prevent such override of established protocols in the future.

<sup>8</sup> The 9 changes correspond to the 9 data irregularities reported by members of the DB team to DEC management in June 2020.

## MANAGEMENT ACTION PLAN

DEC management recognizes that, in the past, roles and responsibilities for approval of data revisions and methodology changes beyond the DB team have not always been clearly defined and documented. Regarding the PMI methodology refinement, although technically sound and consistently applied across countries, DEC management recognizes that it was implemented late in the process and without sufficient stakeholder consultations. The defined roles and responsibilities will also help to strengthen the workplace environment. DECIG will:

1. Document procedures for BWR and final clearance of the DB data and disseminate it among relevant stakeholders.  
Target completion date is January 31, 2021.
2. Document the roles and responsibilities of DEC management and Bank Senior Management in the final clearance of the annual DB publication.  
Target completion date is February 28, 2021.
3. Incorporate the new protocol for approving and communicating methodology changes into a Doing Business Manual and Guide (DBMG, see 2.4 below), that will govern processes related to the production of DB reports.  
Target completion date is April 30, 2021.

**Action owners:** Norman Loayza (DECIG Director) and Valeria Perotti (DECDB Program Manager)

**Target date:** April 30, 2021



## 2.3 Controls Over Data Changes

### Issue Rating

Critical

Significant

Moderate

Minor

The controls over data changes in the DB Report production life cycle are not sufficient to preserve data integrity. In addition, access control in DMS is not sufficiently designed to enforce segregation of duties, which has led to some users having excessive access, non-commensurate with their job responsibilities. As a result, such controls do not detect and prevent compromises to data integrity.

#### 2.3.1 Process Controls

A key quality control in the DB Report production is the three-layer review process (refer to *Appendix 3*), which involves checks by the topic leaders, data reviewers and data managers that are recorded in DMS for each country at the indicator level. However, DMS does not enforce this three-layer review, rendering the control dependent on the discipline of the reviewers to complete the review. The compliance rate of the three-layer review has improved over the years (refer to the table below for details) due to management's messaging to document the approvals in DMS.

DB Report	Total Topics/Indicators	Exceptions	Non-Compliance Rate
DB18, pre BWR circulation	2170	801	36.91%
DB19, pre BWR circulation	2211	313	14.16%
DB20, pre BWR circulation	2221	1	0.05%
DB21, pre BWR circulation	2222	0	0.00%
DB18, changes made after BWR circulation <sup>9</sup>	53	6	11.32%
DB19, changes made after BWR circulation	20	0	0.00%
DB20, changes made after BWR circulation <sup>9</sup>	39	4	10.26%

Source: Analysis based on DMS data

Additionally, although the draft DB reports are circulated for BWR, the changes to the data based on BWR feedback are processed without documented managerial review and approval outside the DB team. When BWR feedback is received, the DB team assesses the need to update data based on the feedback received, gathers additional information if necessary, and

<sup>9</sup> Out of the 10 exceptions noted (6 in DB18 and 4 in DB20), 5 correspond to the 4 data irregularities at the country-level reported by members of DB team to DEC management. Remaining 5 data irregularities reported to DEC management did go through the three-layer review.



makes changes where applicable. Such changes, although reviewed by the DB team, are processed without documented evidence of DEC management's review and approval. This renders the control over data change weak and ineffective.

Further, the DB team relies on excel spreadsheets (referred to as master files by the DB team) for data analysis in the final stages of the DB Report production due to the limitations of DMS. This gives rise to a further concern, as the spreadsheet controls around the master file are not sufficient to safeguard data integrity.

For example: (i) formula changes in the master file are not automatically tracked and locked for future changes, exposing the master file to the risk of unauthorized formula changes; and (ii) previous versions of the master file are not locked for edits, increasing the possibility of inadvertent data changes. Versions of the master file are also not declared final and stored in the WBG official records management system. While back-up for network drives, where the master file is stored, is done daily, the backup is retained for only 90 days.

### 2.3.2 System Controls

Although a certain level of segregation of duties exists in role assignments, some business users within DMS are assigned permissions that should be segregated. For example, staff can review the same indicator under different reviewing roles.

In addition, some IT support users are assigned the permissions that enable them to do activities that should be restricted to business users. This increases the risk of inadvertent changes that could go undetected.

Additionally, the system functionality that restricts updates to data ready for the BWR circulation is not stringent enough to provide assurance that subsequent changes can always be detected. The DB team relies on DMS administrators to disable data updates, once the data is ready for BWR. However, 11 users, including analysts and IT support staff, are assigned the permission to remove the restriction for specific countries, enabling staff to make changes to data that has been submitted and reviewed. Further, the effectiveness of this control is limited, since the system neither triggers a notification to DEC management nor creates an audit trail when the restrictions for data changes are removed.

GIA acknowledges that management has already been in communication with Information and Technology Solutions (ITS) to address some of the issues identified above.

#### MANAGEMENT ACTION PLAN

DEC management will strengthen the controls over data changes during the production of the DB Report, as well as address concerns about reliability issues in DMS and the use of Excel spreadsheets (master files) to track data changes during the BWR period. The enhanced

controls over data changes will also help to strengthen the workplace environment. DECIG will:

1. Develop monitoring controls to achieve 100% compliance with the three-level review in the DMS for future DB Report cycles.  
Target completion date is March 15, 2020.
2. Integrate the following protocols in the Doing Business Manual and Guide (DBMG, see 2.4 below):
  - a. The data will be considered final when circulated for BWR, and the DB team will only make additional changes to incorporate BWR comments if warranted, or (exceptionally) to correct errors that may be found after circulation for BWR. In addition, all changes made to the data after BWR circulation will be documented with the original source of the request including the classification of the change type to enhance traceability and monitoring of such changes.  
Target completion date is March 15, 2021.
  - b. Besides the current practice that all suggested data revisions received during the BWR process will be verified by the DB team and subjected to three-layer clearance within the team, the data changes will be submitted to the DB program manager and DECIG Director for written approval.  
Target completion date is March 15, 2021.
3. To provide an additional layer of scrutiny outside the DB team, starting with the DB21 report, DECIG management will recirculate any post-BWR changes to the data to the same distribution list for the BWR at least two weeks prior to the publication of the report by March 15, 2020. The DB team will work with ITS staff, who is conducting an on-going capital project to modernize DMS, including updating the formula engine to improve reliability and transparency to DB business users. This will reduce the reliance on separate Excel files to track data changes during the BWR period.  
Target completion date is December 15, 2021.
4. The DB team will put in place more controls to automatically track formula changes in the master file, lock the formulas against further changes, and lock historical versions of the master file against future edits in the network drive. The DB team will archive the BWR version and the publication version of the master file in the WBG official records management systems starting with the DB21 BWR.  
Target completion date is March 15, 2021.
5. DECIG will work with ITS to re-design user roles so that access is commensurate with the business user's job responsibilities. Management has already requested ITS to separate the functions into two roles: (1) one with read-only access to view and download data for launch preparation purposes, and (2) one with permission to unlock

specific economies for the topics to update data after BWR. DEC management has also requested ITS to enable the system to automatically send a notification to DECIG management when an economy is unlocked after BWR.

Target completion date is December 15, 2021.

**Action owners:** Norman Loayza (DECIG Director) and Valeria Perotti (DECDB Program Manager).

**Target date:** December 15, 2021



## 2.4 Procedures and Guidance

### Issue Rating

Critical

Significant

Moderate

Minor

Standards and processes to document the inherent judgments involved in the production of the DB Report and to safeguard data integrity are not sufficiently defined to enable consistency. As a result, decisions relating to the production of the DB report are sometimes open to judgement rather than being guided by documented procedures and guidance. Where some procedures and guidance exist, they have not been effectively communicated to staff and key stakeholders have not been consulted.

Although practices have been established over time by the long-tenured senior DB staff, standards and processes are not comprehensively defined and documented for the following examples:

- (i) suitable public/private mix of respondents;
- (ii) process and required disclosures to be followed when responses cannot be collected;
- (iii) management of potential biases in the data collected and related disclosures;
- (iv) use of IT system flags and alerts, and defining instances where controls are mandated (for example, mandatory justification for changes in data and indicating the type of update as either change or correction);
- (v) process followed post internal reviews (DEC internal review and BWR) such as documentation on the origin of the change request, rationale for the change and classification of the change to enable effective review and monitoring;
- (vi) documentation requirements for data review meetings attended by DEC management, where reforms impacting the score and ranking of the countries are discussed; and
- (vii) guidance on managing personal conflict of interest in consultation with EBC.

The importance of detailed procedures and guidance cannot be underestimated due to the data integrity and key person dependency risks inherent in the production of such a high-profile report.

## MANAGEMENT ACTION PLAN

DEC management will strengthen the procedures and guidance for production of the DB report. Over the years, the DB team has developed rules and practices (for example, the coding rules, data review roles and responsibilities within the DB team and protocols for the data collection mission) to inform the steps of the data collection and report preparation process which will now be consolidated in written documentation. DECIG will:

1. Organize the existing documents and established practices in a comprehensive Doing Business Manual and Guide (DBMG). The DBMG will include processes to shield the team from undue influence from internal and external stakeholders, presenting the available resources to report and address any such instances, as well as the new controls that will be designed and implemented in 2.3 above.
2. Develop a training and communication plan for the DBMG to train current and new staff.
3. Document the rules for interaction with DB contributors as part of the Doing Business Manual and Guide.
4. Develop guidance that will be shared with external and internal stakeholders at the beginning of each DB cycle, to define the rules governing the DB team's interactions with public and private sector experts and highlighting each stakeholder's role in supporting data accuracy and integrity.

**Action owners:** Norman Loayza (DECIG Director) and Valeria Perotti (DECDB Program Manager)

**Target date:** April 30, 2021



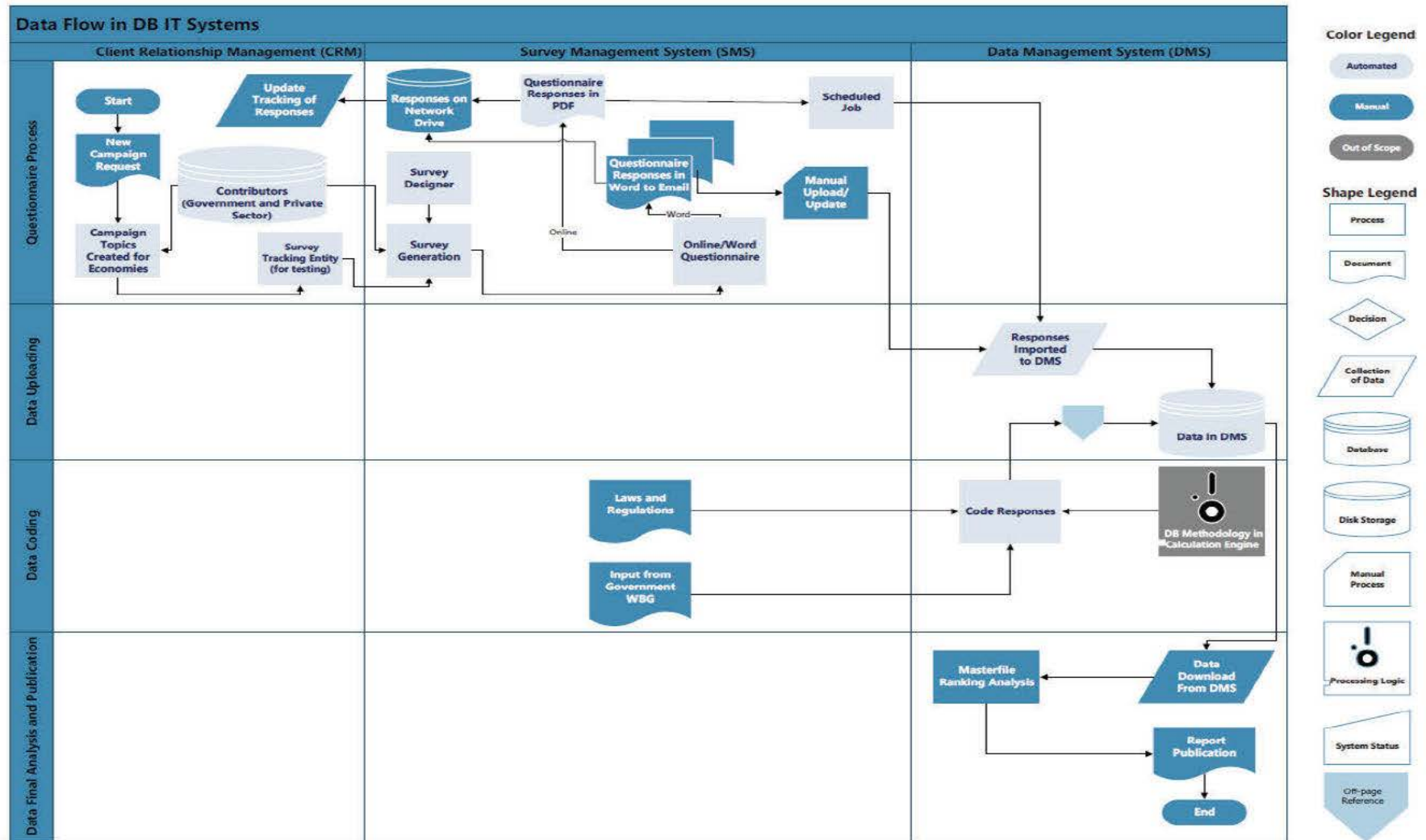
## APPENDIX 1: Mapping of Topics and Indicators

No.	Topic	Indicator
1	Starting a business	Procedures (number) Time (days) Cost (% of income per capita) Minimum capital (% of income per capita)
2	Dealing with construction permits	Procedures (number) Time (days) Cost (% of warehouse value) Building quality control index (0-15)
3	Getting electricity	Procedures (number) Time (days) Cost (% of income per capita) Reliability of supply and transparency of tariffs index (0-8)
4	Registering property	Procedures (number) Time (days) Cost (% of property value) Quality of land administration index (0-30)
5	Getting credit	Strength of legal rights index (0-12) Depth of credit information index (0-8)
6	Protecting minority investors	Extent of disclosure index (0-10) Extent of director liability index (0-10) Ease of shareholder suits index (0-10) Extent of shareholder rights index (0-6) Extent of ownership and control index (0-7) Extent of corporate transparency index (0-7)
7	Paying taxes	Payments (number per year) Time (hours per year) Total tax and contribution rate (% of profit) Postfiling index (0-100)
8	Trading across borders	Time to export: Documentary compliance (hours) Time to export: Border compliance (hours) Cost to export: Documentary compliance (US\$) Cost to export: Border compliance (US\$) Time to import: Documentary compliance (hours) Time to import: Border compliance (hours) Cost to import: Documentary compliance (US\$) Cost to import: Border compliance (US\$)

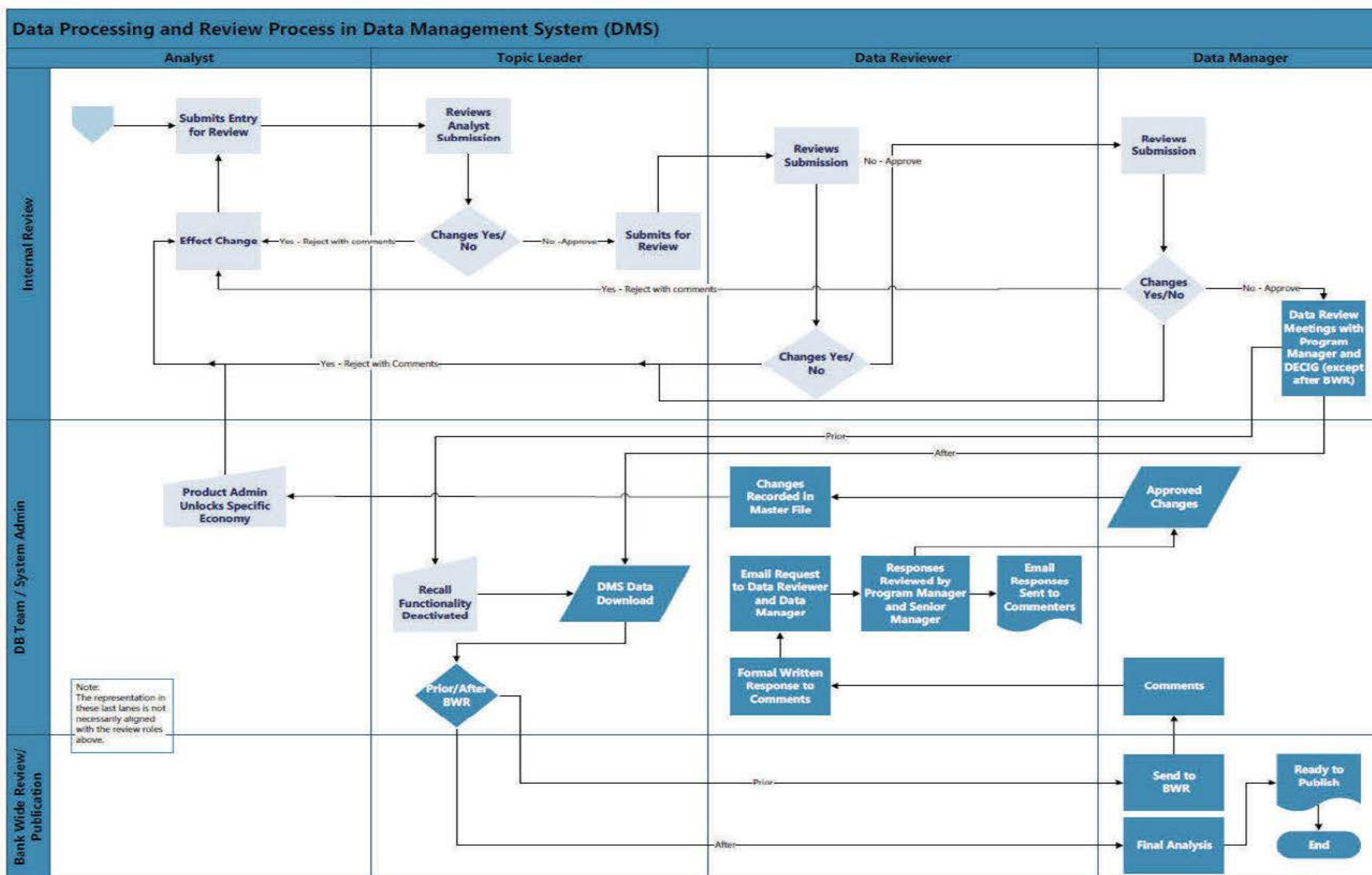


No.	Topic	Indicator
9	Enforcing contracts	Time (days) Cost (% of claim) Quality of the judicial processes index (0-18)
10	Resolving insolvency	Recovery rate (cents on the dollar) Strength of insolvency framework index (0-16)

## APPENDIX 2: Current Data Flow Design



## Report on an Data Integrity in the Production Process of the Doing Business Report



Source: GIA's Analysis based on meetings and interviews with DB team



## APPENDIX 3: DEC Internal Review

The collected and coded<sup>10</sup> DB data is intended to go through a three-layer of internal review by a Topic Leader, Data Reviewer and Data Manager. Their review and approval are recorded within DMS. Subsequently, the DB team discusses the data at separate Data Review meetings for each topic, before the data is circulated for BWR. The data review meetings are attended by DECIG Senior Manager and DEC Director.

### DEC Internal Review Process



### Roles of each of the three data reviewers

Title	Role
<b>Topic Leader</b> First layer of internal review	<ul style="list-style-type: none"> <li>Leads a team of DB data analysts for a topic.</li> <li>Performs data coding for a set of economies.</li> <li>Reviews and approves the coded data by analysts for all 190+ economies under their topic in the Data Management System (DMS)</li> </ul>
<b>Data Reviewer</b> Second layer of internal review	<ul style="list-style-type: none"> <li>Can also be a Topic Leader for a different topic.</li> <li>Plays the role of a peer-reviewer for all 190+ economies of another topic, by reviewing and approving in DMS the coded data which is already reviewed and approved by the respective Topic Leader.</li> </ul>
<b>Data Manager</b> Third layer of internal review	<ul style="list-style-type: none"> <li>Reviews the overall coded data for a set of topics already reviewed and approved by the respective Topic Leaders and Data Reviewers.</li> <li>Performs the final approval in DMS for the coded data for this set of topics for all 190+ economies.</li> <li>Approves by email any changes made to the data after BWR, for the system administrator to unlock the data and for topic team to perform these changes in DMS and resubmit for the same three-layer of internal review process.</li> </ul>

<sup>10</sup> Data Coding: Data is collected from different sources and checked by analysts who are assigned to specific topics for specific economies to come up with the answers and scores that are consistent with DB methodology.



## APPENDIX 4: DEC Management Actions in Response to Reported Concerns over Data Irregularities

Time Period	DEC Management Action
April 2020	Responding to anonymous concerns about DB data integrity raised in the WBG's Employee Engagement Survey, the acting DEC Vice President and Chief Economist emailed the DB team to express management support for their work and commitment to preserving data integrity and asked the team to report any current or past pressures received either internally or externally that could compromise data integrity.
June 2020	DEC management communicated the concerns about data integrity reported by DB team members to Bank Senior Management and the appropriate internal accountability mechanisms of the WBG.
July-September 2020	DEC management worked closely with DB team members to document and develop corrections for the reported data irregularities. This included a review of all data changes implemented after Bank-Wide Review (BWR) in the previous five DB report cycles.
July 2020	DEC management organized a DECIG townhall meeting with the Chief Ethics Officer and other colleagues from the EBC team, to highlight the different venues that staff can use when faced with ethical issues in the workplace, including undue influence from management that could undermine data integrity.
August 2020	DEC management informed the Executive Directors of countries affected by the data irregularities, reported the data irregularities to the World Bank's Board of Executive Directors, and <a href="#">issued a public statement</a> . DEC management also requested GIA to perform an audit of the processes for data collection and review for DB and the controls to safeguard data integrity.
September-October 2020	DEC management organized ethics training sessions with the DB team to raise awareness among DB team members at all levels of seniority and understand that they can use the WBG's internal accountability mechanisms to freely report any concerns about data integrity with no fear of retaliation, regardless of whether these concerns come from internal or external pressures.
November 2020	A new DECIG director was appointed with an explicit mandate to strengthen data integrity.
October-December 2020	DEC management finalized its analysis of the reported data irregularities and required corrections. The review was completed in December 2020.

## APPENDIX 5: Terms of Reference

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### OFFICE MEMORANDUM

**DATE:** October 5, 2020

**TO:** Ms. Carmen Reinhart, Vice President and Chief Economist, DECVP

**FROM:** Anke D'Angelo, Vice President and Auditor General, GIAVP *Yuko Keicho*

**EXTENSION:** 34181

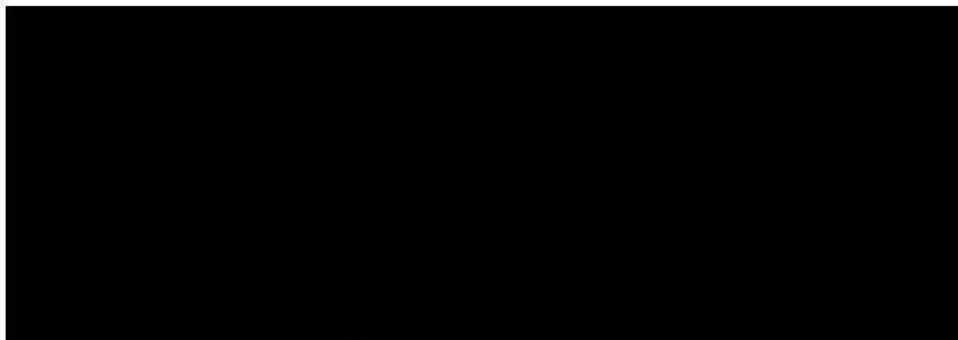
**SUBJECT:** Final Terms of Reference for the Assurance Review of Data Integrity in the  
Production Process of the Doing Business Report

Please find attached our Terms of Reference (TOR) for the above-mentioned assurance review. The review will be conducted by [REDACTED]

The draft TOR dated September 23, 2020 has been finalized taking into consideration your comments, and is replaced by the attached final TOR.

If you have any questions or if we can be of further assistance, please do not hesitate to contact me [REDACTED]

Attachments





# Terms of Reference

## Introduction

The Doing Business (DB) Report is one of the high-priority reports published by the Bank annually. It ranks<sup>1</sup> close to 200 countries on the ease of doing business in those countries based on 41 specific indicators covering 10 topics. The report is used by the public sector to make policy decisions, by the private sector to make investment decisions, and by academia as a reference.

The analysis of the data and the scoring of the indicators are based on a publicly shared methodology and internally developed rules. In addition to DEC's internal review of data, the sub-indicator level data is also shared with the wider Bank staff (Global Practices and Regions) for their review and feedback<sup>2</sup>. The draft report is shared with the President's Office prior to finalization and publication. The process follows the lifecycle illustrated in Figure 1 below, and further details on the DB Report lifecycle are provided in Appendix 3.

Figure 1: High-Level DB Report Lifecycle



The Doing Business team (DECDB), reporting to the Indicators Group (DECIG) within the Development Economics Vice Presidency (DECVP), is responsible for the preparation of the questionnaire, identification of and correspondence with the respondents, input of the data within the system, internal reviews, incorporation of feedback from the Bank Wide

<sup>1</sup> The ranking is calculated by a formula based on 10 specific topics with 41 indicators across the topics. Approximately 550,000 data points roll up into the scoring of the 41 indicators.  
<sup>2</sup> Sharing the sub-indicator level data with other units in the Bank as part of the Bank Wide Review (BWR) is a key step to obtain feedback on the data. The comments and feedback from the BWR are analyzed and, if appropriate, the data is updated by the DB team.

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Assurance Review of Data Integrity in the Production Process of the  
Doing Business Report

Review, and the finalization of the DB report for publication. DECDB is comprised of approximately 60 staff and consultants headed by a program manager who reports to the DECIG senior manager. Country Management Units help coordinate the interactions with client governments, and the Bank's Practice Groups provide subject matter expertise, when needed.

As publicly announced by the Bank on August 27, 2020, management and the Board have requested GIA to review the processes for data collection and the controls to safeguard data integrity for the DB Report.

## Review Objectives

The objective of this assurance review is to assess the design adequacy and operating effectiveness of the governance, risk management and controls over the data integrity in the end-to-end internal Bank production process of the Doing Business Report. Specifically, the review will cover:

1. Data collection processes including questionnaire approval, identification of respondents; and processing of the questionnaire responses and collected data (Phase 1, 2 and 3 of the DB report lifecycle in Figure 1);
2. Processes to review data within DEC and the Bank Wide Review up to the production of the final report (Phase 4, 5 and 6 of the DB report lifecycle in Figure 1); and
3. Manual and automated process controls including IT general controls related to the end-to-end DB report production lifecycle.

## Review Scope

The review will cover the DB reports from 2018 to 2021. As the 2021 production is still ongoing, only design effectiveness will be assessed for the 2021 publication. The review will not (i) assess the technical content of the DB reports; (ii) validate numerical accuracy of DB indicators and corresponding ranking of countries; (iii) assess the DB methodology or (iv) review client governments' interaction with the Bank's DB team.

## Review Approach

The review will involve:

- developing an understanding of processes, key risks and controls over the data integrity in the production of the Doing Business Report; and
- assessing the adequacy and effectiveness of the governance, risk management and control processes that are used to mitigate the identified risks.



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This will be done through sample testing, review of applicable policies, procedures and guidelines, data analytics for testing compliance with existing policies, procedures and guidelines and testing of manual and automated process controls and IT general controls for relevant systems and end-user applications (Survey Management System, Data Management System, Client Relationship Management System and Spreadsheet files used to facilitate final data analysis). GIA will also interview staff and management within DEC and other relevant units.

## Administration and Reporting



Issues raised during the review will be discussed with operating management during fieldwork. Our issue rating criteria will be used in assessing the issues, with each issue rated *Critical*, *Significant*, *Moderate* or *Minor*. A table detailing the issue rating criteria is attached (see Appendix 1). An 'Issue and Action Plans' summary will be provided to the operating management, and the final version will be sent to relevant Vice Presidents upon completion of the review.

GIA will follow up with management on the implementation progress of the agreed actions as and when they become due. Open and overdue issues, as well as *Critical* and *Significant* rated issues raised, and actioned, are reported by GIA to the Board, in a Quarterly Results Report.

The draft and final reports identifying key issues will be addressed to the relevant Vice Presidents and copied to key relevant client managers and staff, and relevant stakeholders (see Appendix 2).

All GIA assurance reports are available to the Board, Senior Management, and WBG Vice Presidents and Directors on GIA's internal website. The above-mentioned selected audience can, in turn, share those reports with their WBG staff on a need to know basis.

Target reporting dates are November 20, 2020 for the draft report and December 11, 2020 for the final report.



DocuSign Envelope ID: 55915C44-E873-4C1D-80C3-1C422282252B

Assurance Review of Data Integrity in the Production Process of the  
Doing Business Report

# Appendix 1: Rating Definitions

## Issue Ratings

**Minor**      The issue:

- Needs to be addressed to improve overall control environment
- Has low likelihood to constrain the ability to achieve operational objectives of the unit, function, process, or system under review, and/or
- Cause financial or reputational damage to the WBG institution(s), which not considered to be material.

**Moderate**      The issue:

- Requires management attention
- Is likely to constrain the ability to achieve operational objectives of the unit, function, process, or system under review, and/or
- Cause some financial or reputational damage to the WBG institution(s).

**Significant**      The issue:

- Requires senior management attention
- Is highly likely to constrain the ability to achieve strategic or operational objectives of the audited unit, function, process, or system, and/or
- Cause significant financial or reputational damage to the WBG institution(s).

**Critical**      The issue:

- Requires urgent senior management attention
- Is extremely likely to constrain the ability to achieve strategic or operational objectives of the audited unit, function, process, or system, and/or
- Cause severe financial or reputational damage to the WBG institution(s).

  
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Assurance Review of Data Integrity in the Production Process of the  
Doing Business Report

## Appendix 2: Reports Distribution

The draft and final reports identifying key issues will be addressed to the relevant Vice President and copied to key relevant client managers and staff, and the following:

Unit	Title	Draft	Final
EXC	President	✓	✓
EXC	Chief of Staff	✓	✓
MDOPS	WB Managing Director, Operations	✓	✓
MDOPS	Director, Strategy and Operations	✓	✓
MDDPP	Managing Director	✓	✓
MDDPP	Director, Strategy and Operations	✓	✓
MDCFO	Managing Director and WBG Chief Financial Officer		✓
MDCFO	Senior Adviser		✓
MDCAO	Managing Director and WBG Chief Administrative Officer		✓
MDCAO	Head of Office		✓
CROVP	Vice President and WBG Chief Risk Officer		✓
CROOR	Director		✓
WFAVP	Vice President and WBG Controller		✓
WFARC	Lead Risk and Controls Officer		✓
ITSCB	ITS Focal Point	✓	✓
HRDSI	Senior Adviser		✓
OPSVP	Vice President	✓	✓
OPSPF	Director	✓	✓
OPSPF	Manager, Operations	✓	✓
IEGDG	Director Strategy and Operations	✓	✓
INTPC	Director Strategy and Operations		✓
	External Auditor		✓
	Key Client Management and Staff	✓	✓

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Assurance Review of Data Integrity in the Production Process of the  
Doing Business Report

## Appendix 3: Doing Business Report Lifecycle



*Source: GIA's collected documents and walkthrough meetings with the Doing Business team.*

### 1. Questionnaire Preparation

Designed by DECDB team and peer-reviewed by experts within and outside WBG; those are selected based on the work they do on the broader thematic area covered by each indicator.

### 2. Data Collection

Four main sources: relevant laws and regulations, DB respondents, governments, and WBG regional staff. Data is collected by the DB team through communication with both private sector practitioners and government officials, responses to questionnaires, country visits by the team, etc.

### 3. Processing of Collected Data

- **Data Coding:** Data is collected from different sources and checked by analysts to come up with the final scores that are consistent with the DB methodology.
- **Reform Update Memo:** The DB team shares with governments, through the WBG Board and regional CMUs, reforms identified. Government and WBG staff can alert the DB team about additional regulatory reforms.



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Assurance Review of Data Integrity in the Production Process of the  
Doing Business Report

**WORLD BANK GROUP**  
 Group Internal Audit
**4. DEC Internal Reviews (3-level review and management review meetings)**

- Data collected and coded by analysts through the Data Management System (DMS) undergoes three levels of reviews:
  1. Topic Leader review (there are 11 topics/leaders)
  2. Data review from another topic team (peer reviewer)
  3. Data Manager review (currently two data managers); final layer of review
- If the reviewer rejects the data coding, a comment for rejection must be provided.
- A final data review is conducted by the DECDB program manager and DECIG senior manager. This review is not recorded in DMS.

**5. Bank Wide Review (BWR)**

- Colleagues throughout WBG can provide comments during a BWR period of two weeks on DB methodologies, draft report content and data tables.
- If a change is triggered for a specific country, data manager reviews the suggested change and approves the unlocking of DMS for the involved indicator and the country. Analyst inputs the change, and the 3-level of reviews is repeated.

**6. Production of Final Report**

- The draft report is prepared and cleared with DECIG senior manager and DEC senior management (DEC Director and/or Chief Economist & Vice President); Clearances are not recorded in DMS.
- A final draft of the report is shared with the President's office. A few days prior to the publication, the report is shared under embargo with WBG Senior Management, Country Directors and the Board.
- The DB data function team performs another round of data checking in the final version before publication. This year DECVP will provide clearance before sending the final report for publication.