Balancing Development Returns and Credit Risks: Evidence from the African Development Bank’s Experience

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Abstract

Recent debates amongst civil society organizations focusing on the governance of multilateral development banks have expressed some concerns regarding institutional capacities to ensure project quality-at-entry in line with key developmental issues. The present paper delves upon the African Development Bank’s (AfDB) “Additionality and Development Outcomes” framework practice in that respect. By reviewing the concepts that underpin the AfDB’s project quality-at-entry framework, the paper brings out the importance of well-aligned appraisal criteria with institutional priorities. The paper’s main contribution is to provide empirical regarding the extent to which key components of project quality-at-entry criteria interrelate and how they balance against credit concerns. Results suggest that at appraisal the AfDB has played an active role in achieving development outcomes, increasing the development focus of portfolio decisions. Also, results highlight that the variables taken into account during appraisal – whether they pertain to development or risk concerns - are rather independent from each other and that no assumption should be made on one variable given information on the others. Finally, findings suggest that both development outcomes and additionality considerations are important for project approval at board level. More specifically, considerations regarding financial additionality matter when it comes to AfDB value-added in a project, and concerns over household benefits, gender & social effects, government revenues and private sector development matter most when it comes to overall development outcomes. While some caveats remain to be addressed, the overall conceptual and institutional framework now in place has laid strong foundations that will help measure how these projects have performed in practice.

Keywords: Multilateral Development Banks, Private Sector Development, African Development Bank, Project Assessment, Additionality, Development Outcomes, Credit Risk

JEL Classification: F5, O17, 022, H43
1. Introduction

Whether as consumers or producers, poor people across the world participate in markets. Making these markets more inclusive is a way to promote shared growth, lead to new and decent jobs, higher returns on goods traded, greater affordability of essential goods and services and reduced exposure to risk (OECD 2006). This principle has led Multilateral Development Banks (MDBs) to include private sector development among their strategic pillars of intervention.

Yet, across developing countries, ample evidence shows that people have been left behind as there was neither equal access to the benefits of growth, nor enough diversity in the economic opportunities it presented. In the case of Africa, acknowledging the high growth experienced in the past decade has not been sufficient and that oftentimes opportunities offered by the private sector have not been adequately redistributed, it has become all the more important for MDBs to make sure that their interventions allow people to contribute to and benefit from private sector led economic growth (World Bank 2009).

In a similar vein, worries have been put forward by various Civil Society Organisations over the “overall approach, [and] norms and procedures within the Private Sector Operations of MDBs [which] allow these institutions to put reduction of poverty, the protection of human rights, and environmental sustainability in developing countries at the core of what they do” (Bretton Wood Project 2010, p. 2).

Concurrently, the debt crisis in Europe and elsewhere in the developed world is putting pressure on donors and other public development agencies and stakeholders to ensure that money is not wasted and produces the highest ‘value-for-money’ ratio (The Economist 2010).

The combination of these factors has put the onus on MDBs to show that their private sector development interventions are both inclusive, have a high value-for-money ratio and are able to yield returns which are commensurate with the underlying project risks. As a result, MDBs started testing their proposed private sector operations for quality-at-entry against development outcomes and additionality benchmarks in addition to typical credit risk assessments.

This paper delves upon the AfDB’s project quality-at-entry framework. Acknowledging that the AfDB has a broad set of tools to help develop the private sector, this paper focuses on one specific instrument, i.e. its portfolio of operations not covered by sovereign guarantees (hereafter “private sector operations” or “PSO”), and on the specific framework put in place to measure its value-added and development outcomes for each operation, namely the “Additionality and Development Outcomes Assessment” tool (ADOA) framework. This paper uses a unique data set, comprising of a total of 121 private sector operations which were assessed by the framework over a period spanning from October 2008 to August 2013. Annex 2 of this paper presents a short comparative note of ex-ante quality-at-entry evaluation frameworks amongst MDBs.

The analysis is relevant for both internal and external stakeholders: it aims to contribute to the process of mainstreaming development results as a key criterion for the selection of new operations, and to
inform future portfolio strategic decisions along the lines of inclusive growth and strong development outcomes. It also aims to explain how the adopted institutional framework has helped align new operations with the organisational mandate of the AfDB and with the concerns of the civil society and donors. To do so, the paper provides empirical evidence regarding the extent to which there are relationships among the key institutional objectives and what the drivers of development outcomes and Additionality are when it comes to project approval.

The remainder of the paper is organized as follows. Section 2 looks at the core concepts of the ADOA framework that aim at gauging AfDB’s contribution to private sector development through private sector development investments. A mapping of all relevant dimensions of the ex-ante framework is presented. Understanding the workings of the framework is a crucial input determining the methodology used for analysis. Section 3 presents an empirical analysis on framework components. More specifically, it looks at (i) what are the trade-offs between framework components (using data on additionality measurement, expected development outcomes and credit risk), (ii) what are the most important elements form project board approval and (iii) of the elements identified in ii, what are their underlying drivers. The last Section concludes, highlighting some caveats and possible areas of improvement to strengthen the drive towards managing for development effectiveness and results.

2. The concepts of additionality and Development Outcomes

2.1 Development Outcomes

Development outcomes are viewed in line with the Millennium Development Goals: a project has a positive (negative) development outcome if it leads to an increase (reduction) in households’ living standards, either directly or indirectly, relative to the no-project scenario (AfDB 2008, p.2). This definition sets the basis for the counterfactual used to measure the extent to which a project delivers on development.

ADOA breaks down development outcomes in seven categories that include household benefits, infrastructure development, government benefits, effects on macroeconomic resilience, gender and social effects and private sector development (see Annex 1 for details on each category). As in the context of the stakeholder analysis of a qualitative cost-benefit analysis, categories referring to household benefits, government benefits and private sector development are standard areas looked at. Outcomes from infrastructure development regard both households and firms; gender and social effects and environmental effects concern mainly local and national populations (or cross-border in the case of public goods); finally, macroeconomic resilience is most relevant for the governments at large. These four categories are singled out, instead of being included in the discussion of the effects for the three stakeholders, to reflect specific concerns and operational priorities of the AfDB. For example, infrastructure development is one of the AfDB’s operational pillars as defined in the 2008-2012
Medium-Term Strategy, and the institution has an interest in highlighting its area focus and the results achieved.

The categories used in ADOA are aligned with the Evaluation Cooperation Group’s economic performance (comprising household, government, macroeconomic resilience and infrastructure), environmental and social effects and private sector development and have been put together following consultations with other MDBs. In addition, to ensure full harmonization, ADOA also includes a business success category, whose rating is determined by the difference between financial rate of return and cost of capital as a proxy of commercial viability.

Development outcome ratings are a function of both the potential results and the likelihood that these will be delivered, conditional on commercial success. The last qualification is important, and it should be stressed that there is no overlapping between the evaluation of commercial viability performed by the credit department and the assessment of development outcomes. ADOA assumes commercial success as a precondition, and weights the potential results by the remaining uncertainty which is specifically related to the delivery of the development outcomes. For example, commercial success can be guaranteed by the fact that a take-or-pay purchase agreement ensures payments against the production of electricity, but power may fail to deliver the final consumers because the transmission line has not been built. Uncertainty on the construction of the transmission line will negatively affect the development outcomes rating.

In practice, these principles have led to situations where project potential outcomes were improved as they underwent the qualitative cost-benefit analysis. In the case of an agricultural project which involved a public private partnership, AfDB delayed approval of financing due to concerns on the equity of benefit sharing between the host country and the foreign private entrepreneur. The terms of the previously signed concession determined a rate of return on equity which was more than double than the economic internal rate of return for the country. Moreover, the latter was as low as 9 percent. This led to an unsatisfactory preliminary development outcome rating. During due diligence, the AfDB promoted changes to the terms of the concession which included the reduction of the duration of various tax exemptions, and the increase in the share of revenues accruing to the mostly government owned agricultural estate. These changes led to an estimated economic internal rate of return of 12 percent.

In another instance, an extractive industry project was proposed to the AfDB in which the terms of the concession between the host country and a foreign private investor included a reduction in the rate of return of

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2 The Evaluation Cooperation Group was established by the heads of evaluation in MDBs in 1996, with the goal of harmonizing evaluation methodologies and performance indicators. Members include: the African Development Bank, the Asian Development Bank, the European Bank for Reconstruction and Development, the European Investment Bank (since 1998), the Inter-American Development Bank, the International Monetary Fund (since 2001) and the World Bank Group. Observer members are: the Council of Europe Development Bank Ex Post Evaluation, the International Fund for Agricultural Development Office of Evaluation, the Islamic Development Bank Operations Evaluation Office, OECD-DAC Evaluation Network and the United Nations Evaluation Group.
royalties prescribed by the mining code. The share of benefits accruing to the host country was consequently as low as 1 percent. This was the main determinant of a highly unsatisfactory early development outcome rating.

Despite the fact that the project would have promoted the rehabilitation of the local environment damaged by artisanal mining, it is a principle embedded in the ADOA framework that extractive industry projects funded by AfDB should: (i) respect transparency principles aligned with the Extractive Industry Transparency Initiative and, what is more; (ii) ensure an equitable distribution of revenues in line with the best practice showcased by those African countries that have most succeeded in converting their natural resources in economic development. Lacking the possibility to significantly revise the terms of the mining concession, AfDB interrupted the processing of the operation.

### 2.2 Additionality assessment

The ADOA framework considers additionality from all MDBs present in an intervention and makes no attempt to single out the specific role of AfDB. This is the result of a precise choice that acknowledges the complementary role of development finance institutions, which take turns in leading in different transactions and cooperate to avoid duplication of efforts and to achieve optimal risk sharing. The assessment of additionality aims to avoid that MDBs crowd out commercial investors. Their contribution is measured along three dimensions, as follows:

1. **Political risk mitigation**, reflecting MDBs’ contribution to reducing the risks for sponsor and other commercial investors due to governments’ adverse actions against the project, including nationalizations and breach of contracts.
2. **Financial additionality**, measuring MDBs’ contribution to currency matching, maturity matching and resource mobilization, plus any other improvement to commercial viability excluding those captured under political risk mitigation.
3. **Improved development outcomes**, recording MDBs’ contribution to increasing the expected development outcomes, both by fostering developmental components (e.g. by developing linkages with local small and medium enterprises) and by sponsoring mitigating measures which exceed those that would be adopted if MDBs were not in the deal. These improvements are often achieved through the provision of technical assistance grants.

Ultimately, additionality will be a function of the environment in which the project operates. Political risk mitigation and financial additionality are likely to be higher in the case of fragile states where there are generally weak institutions and non-existent capital markets versus for instance South Africa, where institutions are stronger and capital markets more developed.

A case in point is a project undertaken in 2009, jointly with three sister institutions. An international tender to undertake the selection of two operators to develop Greenfield microfinance institutions in a fragile state was launched, and additionality was brought about though MDB active involvement in the
set-up of the project and the provision of long term and medium term funding to a Greenfield microfinance institution in a post conflict. Such financing helped fill in a financing gap that the market could not have filled since post-conflict, banking relationships had become dysfunctional and risks were not well understood. In addition, MDBs provided technical assistance to implement an Environmental and Social Management System that is compliant with their standards. The latter ensures that MDB intervention increased the scope and probability of development outcomes materialization by making sure that adequate capacity building takes place in the client institution.

Collapsing political risk mitigation and financial additionality into a single category which measures the contribution to commercial viability, the ADOA concept of MDB additionality can be represented graphically (Figure 1). The five-point star represents a project which is both developmental and commercially viable without MDBs’ participation. In this case, the B and C arrows represent MDBs’ contribution to increasing development outcomes and commercial viability respectively. Additionality is a function of these two improvements. On the contrary, the triangle represents a project which is not commercially viable without MDBs’ intervention. The A arrow depicts a common case of additionality, which occurs when development institutions increase the project commercial viability, e.g. through the provision of long maturity which are needed to ensure debt coverage.

Figure 1 - MDBs’ additionality in AfDB’s ADOA framework

The internal institutional arrangements for ex-ante assessment frameworks are crucial for the success of the undertaking since they will determine the incentive structure for assessors. Within the AfDB, additionality and development outcomes are looked at independently by a team of development economists working in the Chief Economist complex. This institutional arrangement aims to ensure that approval of the operation is not among the criteria for performance evaluation of the responsible staff.

With this in mind, at the early stage of the project cycle ADOA is one of the main pillars for decision-making. If a project’s rating falls below a certain threshold, whether on additionality or development
outcomes, the project is likely to be dropped. The organizational independence and the implicit proscription influence held in ADOA (through ratings below satisfactory) provides an extra safety net ensuring that the bank is indeed funding projects according to its mandate and strives to mainstream expected value-added into its decision-making process.

2.3 Caveats and Framework Limitations

Past the definitional issues, it is important to note that MDBs face common issues in measuring additionality ex-ante. In order to reflect reality, measurement must go beyond assumptions about the value they bring about, to concrete evidence and results. For instance, in measuring financial additionality using market prices to compare available financing would be a best case solution (see Box 1). Market prices are however not always available or easy to determine in developing countries with restrained markets. In that context, MDBs are to further develop their frameworks in order to capture additionality in practice.

**Box 1: Measuring financial additionality in syndications projects**

| One of the key challenges in gauging financial additionality of syndicated projects is understanding where the project is situated along the liquidity cycle at a given time. Schematically, a situation of high liquidity forces banks to seek assets, which results in lenders taking marginally higher risks. In the project financing world, this induces lower margins and even weaker covenants. Such situations pave the way for less creditworthy entities to enter the market, and financial institutions catering for higher loss provisions and credit losses. Liquidity withdraws from the market as there is increased differentiation between credit risks. Resulting emphasis on high quality risks leads to a shortage of assets, which then imply high liquidity in comparison to assets, and a renewed circle. This cycle implies that additionality can vary according to the timing of the transaction. A case in point is that over 2009, 2010 and for the early part of 2011 many syndicated deals across the world targeted the refinancing of 2008 operations. At the time, the crisis had dried up liquidity across markets. Since then, as liquidity has become relatively more abundant, borrowers have engaged in re-financing. As hinted above, the level of oversubscription (or lack thereof) can be an indication of the liquidity level in the market. At the time the syndication is to be launched, a background research on deals being undertaken concurrently and the levels of subscription could be used as a proxy to gauge MDB additionality. |


A key limitation in claiming potential development outcomes in ex-ante appraisal frameworks is attribution. As currently set up, ex-ante appraisal frameworks across MDBs involve various degrees of certainty. Immediate outcomes such as job creation can safely be attributed to an intervention and thus rewarded through the relevant rating since they can only happen as the investment takes place. For less direct effects, such as secondary job creation it is more difficult, if not impossible, to confidently attribute results to the intervention.

The underlying issue of attribution is the existence of a counterfactual. In the case of ex-ante frameworks it is difficult to use control groups given the nature of the projects. As such, only a “before
vs. after” comparison becomes possible. In the case of ADOA, the counterfactual is the ‘no project’ scenario. The crucial aspect of ex-ante frameworks is however not necessarily to measure the change in participant’s well-being had the intervention not take place. It is also about setting targets for what an acceptable social benefit should be as the intervention takes place. The use of indicators, benchmarks and baseline data helps project improvements in wellbeing. Monitoring such indicators, would then check whether targets have been achieved. In other words, ex-ante frameworks are not necessarily just about measuring the extent of change, but also about ensuring and guaranteeing that projects comply with quality-at-entry criteria that will bring about positive social benefits and mitigate the negative ones.

3. Ex-ante frameworks in practice: evidence from AfDB’s experience

In the following section, the ADOA model is analyzed through a series of statistical checks to test different relationship hypothesis between criteria used in the AfDB’s ex-ante evaluation framework. When presented at the board, projects have a development outcome rating and an additionality rating given through ADOA, and a credit risk rating given independently by the credit department with a focus on commercial viability. The credit risk rating focuses on the client and is a proxy measure for commercial viability. The first test undertaken regards the relationship between each of the variables. The extent to which these are linked (or not) can shed light onto the type of projects favored. Second, a series of tests are conducted to pick out the importance of each of the variables in terms of decision-making. Finally, the variables are further looked at to understand what their underlying drivers are.

3.1 Project sample and methodology

Our analysis is based on a sample of 121 private sector operations considered by the AfDB between October 2008 and August 2013. Of these, 107 were approved and 14 dropped. This implies that our model will more frequently approve projects than drop them. This is not a limitation since the bank board actually very rarely dismisses submitted projects. However, we have the credit rating of only 109 operations. Most of these projects were dropped before they were even given a credit rating. Projects are usually dropped over the course of appraisal for a variety of reasons that include insufficiency in one of the 3 ratings studied or simply a withdrawal of the project by the sponsor. Therefore our estimates of relationships involving the credit rating must be interpreted with caution and must be taken as new research impetus as more data is availed.

Projects were subjected to independent assessment of additionality, development outcome through the abovementioned ADOA framework. Credit risk is assessed through the independent credit risk department of the AfDB and is not an integral part of the ADOA framework, but is makes up a key item the board looks at for project approval. Development outcomes are rated on a 6-point scale from “1- highly unsatisfactory” to “6- excellent”, with rating from 4 to 6 representing assessment that exceed
the satisfactory threshold. Additionality is rated on a 4-point scale from “1- none” to “4- strongly positive”, with ratings 3 and 4 indicating a more than satisfactory level of additionality, and ratings 1 and 2 indicating that additionality is less than satisfactory. Credit risk is assessed on a scale from 1 to 10, with 1 representing the lowest level of risk exposure, and high risk ratings equal to or exceeding 5. These variables are quantitative representation of qualitative variables.

We first analyze the correlation between development outcomes, additionality and credit risk. Second, we perform simple multivariate analysis of the correlation between project approval and the three ratings, as well as of the relative importance of development outcome and additionality subcategories. For simplicity, all regressions employ linear models.³

3.2 Tradeoffs and relationships amongst additionality, development outcomes and commercial viability

The ex-ante evaluation of additionality and development outcomes has complemented the assessment of commercial risk traditionally conducted in MDBs to minimize capital losses. The idea of a tradeoff between development results and credit prudence is sometimes used to justify operations in low income countries and, even more, in fragile states. Some also argue that accepting higher levels of commercial risk is needed to reach those that are most in need, e.g. through the provision of credit to micro and small enterprises.

The requirement that AfDB operations are characterized by high levels of additionality is likely to have similar implications for the composition of the portfolio, leading to higher shares of interventions in least developed areas and sectors. These expectations (or fears, for someone) are based on the assumption of a positive correlation between credit risk, development outcomes and additionality. In this Section, we focus on the analysis of these relationships with the aim to shed light on the veracity of the abovementioned assumptions and inform future portfolio decisions.

3.2.1 Development outcomes vs. additionality

Figure 2 shows the correlation between additionality and development outcome ratings, with the size of the circles representing the number of projects with a given rating combination. Results based on 121 observations highlight the existence of a positive and significant relationship between the two ratings, with development outcomes increasing by 0.4 points for each extra point of additionality.

³ Noreen (1988), Mc Fadden (1984), Davidson and MacKinnon (1984) have suggested that OLS estimators significance tests statistics perform better than probit when the sample size is around 100 observations. For this reason, we perform a linear regression of the project approval decision.
This result can be partly explained by the fact that one of the three sub-categories that make up additionality (namely “improved development outcomes”) establishes a direct link between the two rating dimensions (see section 2.2 for details). However, if the improved development outcome subcategory is ignored and a new additionality rating is calculated as the maximum between political risk mitigation and financial risk mitigation, the relationship remains positive and significant (slope: 0.33, p-value: 0.002). This means that the bank’s contribution to higher development outcomes comes also through making otherwise unviable projects (for either financial or political risk reasons) feasible, especially during the period of the recent global financial crisis.

Further analysis looking at the correlation between additionality and development outcomes was undertaken by looking that the relationship between the latter as a category, and the former’s subcategories. Results as presented in table 1 below show that the AfDB tends to be more additional in projects that benefit households, the environment, private sector development, and to some extent gender and social effects. This is an interesting finding to the extent that two of these, namely household benefits and gender and social effects, are the only categories which are directly related to the population or project beneficiaries, when the other categories are one step removed.

Table 1 : Additionality and Development Outcomes categories

<table>
<thead>
<tr>
<th>Additionality</th>
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</thead>
<tbody>
<tr>
<td>Household benefits</td>
<td>0.2001</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>0.0361</td>
</tr>
<tr>
<td>Government</td>
<td>0.0426</td>
</tr>
<tr>
<td>Macro. Resilience</td>
<td>0.0352</td>
</tr>
<tr>
<td>Environmental effects</td>
<td>0.2090</td>
</tr>
<tr>
<td>Gender &amp; Soc. Effects</td>
<td>0.1511</td>
</tr>
<tr>
<td>Private Sector Dvlpt</td>
<td>0.3077</td>
</tr>
</tbody>
</table>
3.2.2 Development outcomes vs. credit risk

The analysis of the relationship between development outcomes and credit risk puts forward the idea that the AfDB tends to enter risky operations when they promise to deliver a premium in terms of outcomes. From an operational point of view, development outcome returns that are commensurate with risk provide grounds to imply that the bank is investing in projects where it is socially desirable. Yet, results based on 109 operations that were assigned a credit risk rating show a positive but non-significant correlation (Figure 3). This finding supports the idea that the two decision factors are somewhat independent, and that it is thus not given that investing in risker sectors will induce higher development outcomes. From a methodological point of view, this may be partly explained by the fact that ADOA assumes that the projects are commercially viable, and somewhat discounts credit riskiness (unless this threatens determinate categories of development outcomes).

Other MDBs, such as the EBRD, have a separate risk rating in addition to credit risk that is given in the course of the ex-ante assessment and which attempts to capture the “likelihood that the impact is not achieved”. Such ratings appear to be correlated with the general risk environment of the country in which the operations are taking place, but are distinct from credit risk ratings (EBRD 2010) to the extent that they do not focus on the obligor, but on aspects which are directly linked to the project’s outcomes.

Going further into the relationship between credit risk and development outcomes, a correspondence analysis was undertaken to understand the relationship between credit ratings and the sub-categories underpinning the development outcomes rating. Results presented in the table below seem to suggest that credit risk is lower in projects driven by the infrastructure sub-category and those driven by macro-economic resilience (i.e. export-oriented). This can be explained by the fact that although risky by
nature, infrastructure projects tend to have a more important layer of guarantees and risk-mitigation measures attached to it (sometimes even sovereign guarantees on purchase agreements in the case of water or electricity projects) which can bring risks down. Similarly, corporate projects with an export component may benefit from the fact that sales are geographically diversified, thus providing a risk mitigation measure.

<table>
<thead>
<tr>
<th>Credit Risk and Development Outcomes categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Risk</td>
</tr>
<tr>
<td>Household</td>
</tr>
<tr>
<td>Infrastructure</td>
</tr>
<tr>
<td>Government revenues</td>
</tr>
<tr>
<td>Macro. Resilience</td>
</tr>
<tr>
<td>Environmental effects</td>
</tr>
<tr>
<td>Gender &amp; Soc. effects</td>
</tr>
<tr>
<td>Private Sector Dvlpt</td>
</tr>
</tbody>
</table>

### 3.2.3 Additionality vs. credit risk

The analysis of the correlation between additionality and credit risk looks into the idea that the AfDB has greater scope for additionality when operating in riskier regions and sectors which are unlikely to attract the interest of private commercial investors. In these settings, crowding out is unlikely. However, results based on 109 operations that were assigned a credit risk rating show a positive but non-significant correlation (Figure 4). The result holds also when the analysis is repeated for the correlation between credit risk and the financial additionality sub-category rating.

Although financial additionality is seen as the main driver of the additionality rating altogether (see also section 3.4.2 below for a more detailed analysis), and is thought to be closely linked to the credit environment, it should be born in mind that (i) there are other drivers of additionality which are unrelated to the credit environment such as improved development outcomes, and (ii) credit risk is not only a function of the environment in which the firm operations, but also of the internal structure of the firm (strength of management, corporate practices etc.). A substantial part of credit risk analysis has a focus on the client, or obligor, contrary to financial Additionality which puts emphasis on the overall environment in which the client is seeking financing. The readiness of the client to receive the funding and pay back is not necessarily linked to the exogenous environment which would justify MDB intervention. Banks may for instance be unwilling to lend long term, which gives scope for MDB additionality and at the same time the business plan of the client may present risks that loans are not paid back. Both elements are unrelated on paper and thus assessed separately.
3.3. Which matters most for approval: development outcomes, additionality or credit risk?

To verify the relative importance of development outcome, additionality and credit risk rating on the decision to approve a project, we perform multivariate analysis. Results based on 109 observations with availability of the three ratings show that the three dimensions have similar importance. We build a simple model as follows:

\[ \text{Accepted}_i = \beta_0 + \beta_1 \text{Development Outcomes}_i + \beta_2 \text{Additionality}_i + \beta_3 \text{Credit Risk}_i + u_i \]

This linear regression model shows that one more point in either the development outcome or additionality ratings increases the probability of approval by approximately 8 percentage points. One more point in the credit risk rating decreases the probability of approval by 4 percentage points (Table 3). As credit risk is rated on a wider scale (from 1 to 10 relative to 1 to 4 for additionality and 1 to 6 for development outcomes), the relative effects have comparable magnitudes. Results are robust to the adoption of a nonlinear model (probit).
The magnitude of the coefficients may be nuanced by the fact that all projects brought to the board already meet a minimum level of development outcomes, additionality and commercial viability. When projects are first considered for financing and before ratings are given, operations officers filter out those which at first glance will not be likely to score high along any of the three dimensions.

### 3.4. What are the underlying drivers of category ratings?

Having seen the relative importance of development outcome, additionality and credit risk ratings on the decision to approve a project, we saw that two of the ADOA components (additionality and development outcomes) mattered for the board. With this in mind, the present section looks at what are their underlying drivers.

#### 3.4.1 Drivers of Development Outcomes

In order to understand the drivers of development outcomes, all sub-category ratings were regressed against the category’s overall rating (see section 2.1 and annex 1 for a description of sub-categories) using a similar model as in section 3.3:

\[
Development\_outcomes_i = \beta_0 + \beta_1 Household_i + \beta_2 Infrastructure_i + \beta_3 Government_i + \beta_4 Macro\_Resilience_i + \beta_5 Environmental_i + \beta_6 Gender\&Social_i + \beta_7 Private\_Sector_i + u_i
\]

Results show that all categories significantly contribute to the overall rating, but the largest effects are due to household benefits, government, gender and social, and private sector development as shown in table 4.

### Table 2: Regression results for project drivers of approval

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.056</td>
<td>(0.176)</td>
</tr>
<tr>
<td>Dev. Out.</td>
<td>0.080**</td>
<td>(0.038)</td>
</tr>
<tr>
<td>Addi.</td>
<td>0.086*</td>
<td>(0.047)</td>
</tr>
<tr>
<td>Credit Risk</td>
<td>-0.042**</td>
<td>(0.016)</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.207</td>
<td></td>
</tr>
<tr>
<td>Nb. Obs.</td>
<td>109</td>
<td></td>
</tr>
</tbody>
</table>

Standard Errors are reported in parenthesis, *, **, *** indicates significance at the 90%, 95% and 99% levels respectively.
The results can to some extent be explained by the preponderance of projects in financial institutions (about 55% of the sample), which tend to favor government revenue and private sector development. At the same time, categories such as household benefits and infrastructure are inversely correlated (because infrastructure projects tend to create little direct employment).

It is also interesting to note that three out of the four most prominent drivers (household benefits, government and private sector development) are categories which are present in typical stakeholder investigations of a cost-benefit-analysis rather than categories which reflect specific concerns and operational priorities of the AfDB (see section 2.1). They cut across all sectors of operation, and are less likely to be biased by the nature of the project (e.g. an infrastructure project is likely to score high on infrastructure as it is the purpose of the project, vs. in the case of a project in financial institutions). As for gender and social effects, it prominence suggests that this category weights in particularly strongly, especially as the project sample does not include any project with is specifically targeting outcomes related to it.

\[3.4.2\text{ Drivers of Additionality?}\]

Using a similar analysis as above, results clearly highlight that financial additionality is the main driver of the overall additionality score.

\[
\text{Additionality}_i = \beta_0 + \beta_1\text{Financial additionality}_i + \beta_2\text{Political risk mitigation}_i + \beta_3\text{Improve outcomes}_i + u_i
\]

Although unsurprising, these results can be explained by the fact that the AfDB is yet to development specific political risk mitigation tools to accompany projects. Also, results can be informed by the fact

\[\text{Note that Business success was excluded from the analysis due to many missing values.}\]
that there tends to be a link between the state of the country (fragile, low-income, middle income) and political risk mitigation. Considering that the sample has little projects in fragile or post-conflict states, political risk mitigation is unlikely to be high.

With regards to improved development outcomes, the results suggest that the ADOA tool still has room in order to be used as an advisory function as opposed to an internal rating agency.

Table 4: Regression results for the drivers of additionality

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
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<tr>
<td>Constant</td>
<td>0.638</td>
<td>(0.160)</td>
</tr>
<tr>
<td>Political risk mitigation</td>
<td>-0.005</td>
<td>(0.055)</td>
</tr>
<tr>
<td>Financial additionality</td>
<td>0.716***</td>
<td>(0.044)</td>
</tr>
<tr>
<td>Improved Development Outcomes</td>
<td>0.152***</td>
<td>(0.034)</td>
</tr>
</tbody>
</table>

R-squared 0.824
Nb. Obs. 120

Standard Errors are reported in parenthesis, *,**,** indicates significance at the 90%, 95% and 99% levels respectively

4. Conclusions

This paper reviewed the AfDB’s ex-ante quality-at-entry assessment framework. In the emerging “inclusive growth” agenda pushed by MDBs, strong ex-ante assessments that will help the AfDB and other MDBs best keep a strong development focus of portfolio decisions and strengthened the drive to manage for development effectiveness are essential.

Overall, the introduction of an independent “Additionality and Development Outcome Assessment” to support the approval of all new private sector operations has increased the development focus of portfolio decisions along the lines drawn by institutional mandates.

With this in mind, the analysis showed evidence of the importance of additionality in the project selection process. This puts the onus on MDBs to strengthen even further their efforts in measuring additionality. Analysis also highlighted the importance of improved development outcomes as a key feature of value-addition, although it appears to be somewhat underused. With regards to development outcomes, results highlight the importance of benefits accruing directly to households as a driver of positive externalities, but also as a feature under which projects tend to be more additional.

As regards to associations between the framework’s variables, there is only evidence of a relationship between development outcomes and additionality. This suggests that the AfDB’s contribution to higher development outcomes comes to some extent through making otherwise unviable projects feasible. Conversely, the lack of significant relationship between development outcomes and credit risk suggests that it is not given that investing in riskier sectors will induce higher development outcomes. However, these results should be read with caution to as they are based on the relatively small and unbalanced
sample. Against this background, more scrutiny must be put on these relationships as we get information on other projects.

The paper also finds that both additionality and development outcomes raise the probability of project approval. With regards to the former, financial additionality considerations are the underpinning drivers to the rating. This is partly due to the fact that the political risk mitigations tools at the AfDB’s disposal are not very developed. With regards to the latter, while all categories contribute to the overall rating, household benefits, government, gender and social effects and private sector development come out stronger. These also happen to be cross-cutting considerations which are relevant no matter the project type.

These findings also highlight the methodological difficulties related to such qualitative analysis. While it is important to check on framework consistency, or for any design flaws they may carry but undertaking such analysis, the findings of this paper are a caution against quick inferences that can be made by simply looking at aggregated project ratings. This is important as MDB’s roll out ex-ante frameworks and ought to report back to their shareholders.

Finally, some caveats to conclusions should be kept in mind while deciding the way forward. First, it should be noted that the assessment is currently limited to operations which are not covered by sovereign guarantee. These are only one of the actions taken by the AfDB to foster private sector development with the aim to promote more generally economic development. A systematic approach which leads to the selection of complementary private sector operations and regulatory and policy reforms is still missing.

Second, it must be underlined that development outcomes are measured at the project level, and there is no attempt to assess the impact in terms living standards. This is due to the strategic choice to contain the amount of resources dedicated to the collection of baseline data and to the measurement of results during the execution of the project.

Third, ex-ante assessments are a dynamic exercise which must be informed by the lessons learned by tracking outcomes during project implementation. For this reason, MDBs are increasingly engaged in monitoring of private sector operations which includes development outcomes. However, the data presented in this paper refers to a period in which AfDB had yet to set up an independent monitoring of development outcomes, including extracting lessons for future ratings.
References


Bretton Wood Project NGO Consortium (2010). Bottom lines, better lives? Rethinking multilateral financing to the private sector in developing countries.


Annex 1: AfDB’s ADOA categorization for Development Outcomes

- **Household benefits**, captures the effects on households’ budget constraints. These include job creation, increase in current wages, and variations in prices for commodities and services. Availability of new goods is also looked at in this category.

- **Infrastructure development**, measures variation in access and prices for infrastructure services such as power, water supply, transportation and telecommunication.

- **Government benefits**, records the change in tax and other revenues, and the quality of the deal from concessional agreements including those for extraction of natural resources.

- **Macroeconomic resilience**, captures the contribution to foreign exchange reserves, sector diversification and regional integration.

- **Gender and social effects**, measures the effects on gender balance (e.g. through female employment or credit to female borrowers) and the project’s social outcomes, ranging from the contribution to human capital, public health, poverty reduction. Negative social effects such as population displacement or increased incidence of sexually transmitted diseases, and the related mitigating measures, are also addressed.

- **Environmental effects**, records the variation in environmental quality relative to the counterfactual no-project scenario, and the impact on climate change as measured by the variation in greenhouse gas emissions.

- **Private sector development**: captures the contribution to the development of local enterprises as measured by upward business linkages and transfer of management capacity, the alleviation of credit constraints through the development of the financial markets, and the project’s demonstration effects defined as likelihood of replication without support from MDBs. Improvements to corporate governance and institutional capacity building are also captured.
Annex 2: Evaluation of additionality and development outcome in other MDBs

The underpinning concepts of ADOA-like frameworks were first developed at the end of the 1990s but ex-ante appraisal frameworks came into light from 2004 onwards. Today, cognisant of the differences across frameworks, MDBs are working together to better streamline definitions of concepts and of indicators used to measure them for better reporting on development effectiveness (COMPAS 2009).

Concepts of additionality have been developed with a relative uniformity across institutions. In the European Bank for Reconstruction and Development (EBRD), additionality assessment is based on a combination of the three core dimensions which overlap with those developed by the AfDB. Financial additionality is seen as the provision of financing at reasonable terms (in particular appropriately priced with reference to market prices if available or otherwise not offered from private sources). The essence being that MDB financing ought not to crowd out private financiers. Improved development outcomes are defined as structuring conditionalities, in particular to deliver transition impact as per the EBRD mandate. In a similar vein, the Inter-American Development Bank (IADB) looks at financial additionality in the same terms as the AfDB, and non-financial additionality based on the contribution to improving development outcomes. One divergent element in additionality is political risk mitigation. Although present to some extent in the International Financial Institution’s (IFC) understanding of additionality, it is not clearly articulated in other MDBs.

With regards to development outcomes, MDBs have by now well established frameworks (COMPAS 2009). In the Asian Development Bank (AsDB) (Grettve, 2007), all private sector approval documents include development indicators starting from 2005. Staff in the Private Sector Operations Department articulates the indicators and develops monitoring reports that take into account different characteristics of private and public sector operations.

At the EBRD, the Transition Impact Monitoring System (TIMS) provides regular institutional reporting concerning the quality of projects, covering both quality-at-entry and quality-during-implementation. EBRD projects are required to meet minimum standards of transition impact potential before they can be approved by the Board at the entry stage, and there is an additional requirement that the portfolio of projects must maintain a minimum standard of transition performance during the implementation stage (EBRD, 2010). The TIMS system also records assessments of risks to transition in each project, and how these risks change over the project’s life. This framework contrast with the others to the extent that it does not focus on outcomes, but mostly on process changes, attempting to capture systemic in addition to direct outcomes as per its institutional mandate. The main drawback of the framework is that it makes the aggregation of results methodologically challenging due to their intangible nature (EBRD, 2010).
In the IADB\(^5\) a development effectiveness framework for non-sovereign guaranteed operations was introduced in 2008, which includes a Development Effectiveness Matrix (DEM). Throughout the project cycle, the development effectiveness of a project is estimated, monitored, and evaluated with the DEM tool. This framework is expected to make the institution’s development effectiveness framework consistent with the Evaluation Cooperation Groups ‘good practice standards’ through the entire project cycle, enhance the evaluability of projects, and harmonize the IADB’s practice with that of other MDBs that use a similar approach for both ex-ante and ex-post analysis.

Last but not least, the IFC\(^6\) established the Development Outcome Tracking System (DOTS) in 2005 to track the development results of all active operations continuously throughout their project lives. At every step in new business development, project implementation, and supervision, project teams are required to use DOTS to articulate expectations, identify indicators and benchmarks, monitor progress, and rate the project’s development outcome when appropriate.

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\(^5\) Authors information from the IADB.

\(^6\) [http://www.ifc.org/DOTS](http://www.ifc.org/DOTS) {08/02/2011}
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