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EUROSISTEMA

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(Occasional Papers)

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by Raffaele De Marchi and Riccardo Settimo

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# WILL MULTILATERAL DEVELOPMENT BANKS WEATHER THE COVID-19 CRISIS?

by Raffaele De Marchi\* and Riccardo Settimo\*

## Abstract

We assess the impact of the COVID-19 crisis on the financing capacity of the four major multilateral development banks (MDBs) specialized in sovereign lending (IBRD, ADB, IADB, AfDB), based on available capital buffers and while maintaining triple-A ratings. The capacity of MDBs to expand development exposures, on aggregate estimated in the range of \$860-896 billion, would grow to \$985-1,020 billion, benefiting from the capital increases approved recently. Simultaneously, a number of potential factors – such as the foreseeable increase in exposures due to the MDBs’ countercyclical role, the deterioration in the ratings of borrowing and non-borrowing member countries, and the possible weakening of ‘preferred creditor treatment’ (PCT) – could substantially erode this lending capacity, reducing it to \$116-227 billion. Therefore, in the post-pandemic period, it will be crucial to preserve the PCT of MDBs, also in the hypothetical case of debt restructuring episodes. Other policy suggestions go in the direction of reviving balance sheet optimization initiatives, improving harmonization among MDBs’ risk-management procedures and securing credit risk guarantees from highly rated entities.

**JEL Classification:** F34, G24, O19.

**Keywords:** international lending, development banks, rating agencies, preferred creditor treatment, international organizations, COVID-19.

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\* Bank of Italy. Directorate General for Economics, Statistics and Research.



## **1. Introduction and main results\***

The COVID-19 pandemic has induced a global economic shock of unprecedented magnitude, leading to deep recessions in many countries. The impact is likely to affect emerging market and developing economies (EMDEs) disproportionately, given their higher vulnerability. The GDP of these economies is projected to fall by 3.3 per cent in 2020 (IMF WEO, October 2020), the only decline recorded in the last 70 years. It will be critical to strengthen public health care systems, to address the issues relating to informality and poor safety nets and, once the health crisis subsides, to embark on the long needed reforms to return to a strong and sustainable recovery (WB GEP, 2020). The need for substantial countercyclical spending is now added to the already massive requirements for financing the Sustainable Development Goals<sup>1</sup>.

As happened in the immediate aftermath of the Global Financial Crisis (GFC), the role of International Financial Institutions (IFIs) will be key in order to mitigate the consequences of the current crisis, protect the vulnerable, and improve governments' capacity to prevent and cope with similar events in the future. As part of the immediate response to the COVID-19 crisis, lending from Multilateral Development Banks' (MDBs) has been scaled up markedly (see Appendix II).<sup>2</sup> According to the World Bank, demand for financial support will remain significant in the near-term, in line with the experience of previous crises. Indeed, most current projections imply that the financing needs of developing countries arising from the COVID-19 crisis will be both exceptionally high in GDP terms and persistent over the medium term.<sup>3</sup> Countries face strains on their public finances due, on the one hand, to the collapse in activity and related fiscal revenues and, on the other hand, to the surge in expenditures for funding critical responses to the crisis. Further financial market effects aggravating the pressure include exchange rate depreciation and a steep increase in market borrowing costs, as access to alternative financing sources has dried up following heightened risk aversion. Additional requests for support are likely, with a growing recognition that the depth and duration of the crisis will exceed initial expectations.

The four major Multilateral Development Banks (MDBs) considered in this note entered the COVID-19 crisis holding an amount of capital substantially above their triple-A threshold requirements (Chart 1), which implies the existence of a sizeable aggregate additional lending capacity (the so-called spare lending capacity) (see Humphrey 2020). Such an ample lending capacity is also the result of the 2017 capital increase at the Asian Development Bank (ADB), performed through the merger with the Asian development fund. The capital position is likely to strengthen further in the coming years at the IBRD and the AfDB, following the completion of the recently approved capital increases (IBRD in 2018, AfDB in 2019). These relatively favourable financial conditions put MDBs in a position

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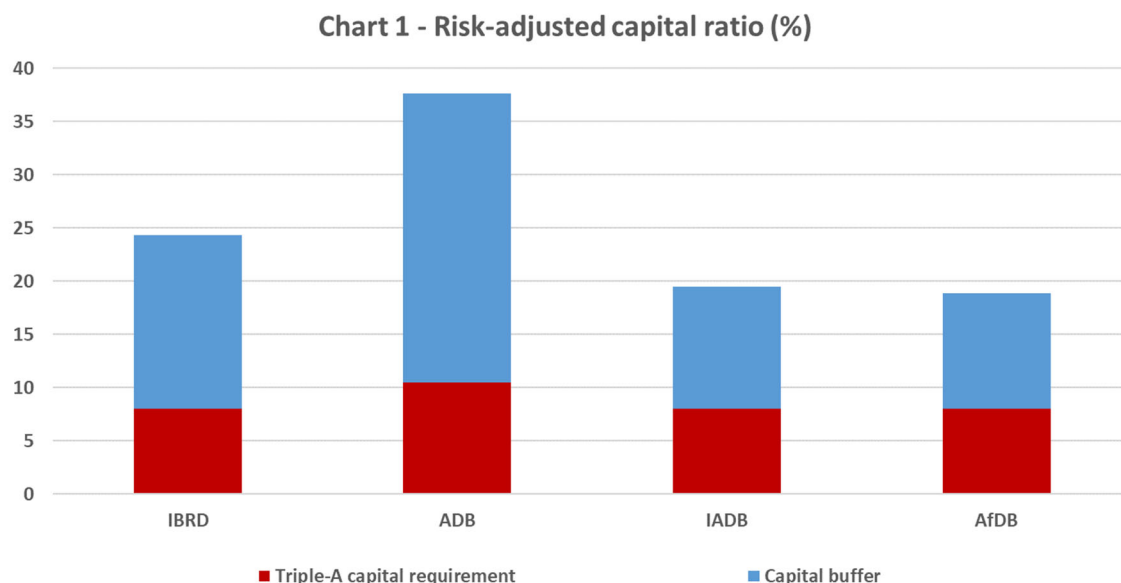
\* We wish to thank Pietro Antonio Catte and Francesco Paternò for their useful comments and suggestions on earlier versions of this paper; any errors and omissions remain our own responsibility. The opinions expressed in this paper are those of the authors and do not necessarily represent the views of the Bank of Italy.

<sup>1</sup> OECD, "Multilateral Development Finance 2020", OECD Publishing, Paris, (2020).

<sup>2</sup> See Duggan et al. (2020) for an evaluation of the adequacy of the crisis response by the World Bank.

<sup>3</sup> "World Bank Group COVID-19 Crisis Response Approach Paper - Saving Lives, Scaling-up Impact and Getting Back on Track", June 2020.

to ramp up development lending quickly in response to the crisis, without endangering triple-A ratings or having to ask for new contributions from shareholders.



Source: Standard and Poor’s for the overall levels (RAC ratio at fiscal year-end 2019); authors’ calculations for the breakdown between Triple-A capital requirement and capital buffer, based on S&P’s rating methodology. The slightly different levels of Triple-A capital requirement are due to differences in the MDBs’ respective amount and composition of eligible callable capital.

At the same time, however, as the effects of the crisis unfold, MDBs’ spare lending capacity is likely to erode quickly because of two parallel developments. On the one hand, MDBs will expand their development related exposures, in line with their countercyclical role and the commitments issued in their announced COVID-19 response packages.<sup>4</sup> On the other hand, the worsening of the outlook for EMDEs could cause a deterioration of their creditworthiness, leading to borrowers’ credit rating downgrades, higher risk capital requirements and further impairment of lending headroom.

The COVID-19 crisis may further reduce MDBs’ spare lending capacity through two additional channels, i.e. through the weakening of two traditional elements of strength of such institutions: the *de facto* Preferred Creditor Treatment (PCT) and the Exceptional Shareholder Support (ESS).

PCT is a key characteristic of MDBs that has enabled them to operate with very low or no arrears/losses throughout their history. Indeed, these institutions are not just ‘banks’ that provide low-cost finance for development-related projects; they also provide their borrower (member) countries with technical assistance, an external anchor to push through development policies and a voice in the international arena. Moreover, as sovereigns expect that supranational institutions will make additional financing available in times of financial stress (when funding from markets and commercial banks usually dry up), they are likely to continue servicing debt owed to MDBs even when defaulting on private debt. As a result, NPLs or arrears on sovereign loans have been

<sup>4</sup> The substantial support packages announced so far by all MDBs also include a reallocation and repurposing of funds; at the same time, though, a significant balance sheet expansion will be necessary, as the full effects of the crisis emerge and since the recovery is projected to be more gradual than initially forecast (IMF June 2020 WEO Update).



historically very low or non-existent, with virtually zero losses; even when countries have temporarily suspended payments to MDBs, they always ended up repaying principal and interest eventually<sup>5</sup>. Given the extreme stress provoked by the COVID-19 crisis and the prospects of a prolonged global recession, there are concrete chances that arrears/losses may start to materialize. Such an occurrence would induce rating agencies to remove the benefits from PCT in MDBs credit rating assessments. The result would be reduced lending headroom for a given rating target (AAA).

Extraordinary shareholder support (ESS) refers to callable capital, i.e. to the portion of capital subscriptions at MDBs that is not 'paid-in' but committed by each shareholder, jointly and severally with the others, only when this is required to prevent a default on a MDB obligation. Since shareholders are not always willing to increase paid-in capital, due to budget constraints, callable capital normally dwarfs paid-in capital, ranging from around 80 per cent (AfDB) to over 96 per cent (IADB) of total subscribed capital. According to the algorithms embedded into rating methodologies, the role of callable capital in expanding MDBs lending capacity is directly related to the creditworthiness of their shareholders, and especially of their strongest non-borrowing member countries. Should a generalized sovereign rating downgrade, triggered by the COVID-19 crisis, also affect the better-rated shareholders, this would impact MDBs' spare lending capacity in a negative way.

In this context, the main goal of this work is to assess how much balance sheet expansion MDBs' capital buffers can support, while maintaining triple-A ratings and taking into account the potential impact of the COVID-19 crisis on these institutions' lending capacity, through the different channels highlighted above. We focus on four major institutions: the International Bank for Reconstruction and Development (IBRD, the non-concessional lending arm of the World Bank Group); the Inter-American Development Bank (IADB); the Asian Development Bank (ADB); and the African Development Bank (AfDB).

These institutions are among the biggest players in the MDB category, holding an aggregate level of total assets of almost \$700 billion (of which \$450 billion of development exposures) and a cumulative equity of around \$140 billion (Table 1). While having a different geographical focus (global or regional), they share a very similar business model, centred on providing, exclusively or predominantly, sovereign lending to emerging and developing countries.<sup>6</sup> They also make available in their financial statements detailed and granular data on the composition of their sovereign exposures, which have been used to perform the analysis presented in this paper.

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<sup>5</sup> While having no legal foundation, PCT has been demonstrated empirically not only by the behavior of borrowers in distress, but also by the Paris Club, that has regularly exempted International Financial Institutions from its restructuring operations.

<sup>6</sup> Among other important institutions, the International Finance Corporation (IFC, of the World Bank Group) and the European Bank for Reconstruction and Development (EBRD) focus primarily on lending to the private sector. The European Investment Bank (EIB), while sometimes being described as the largest MDB due to the sheer size of its assets, has a hybrid nature, as it is both an investment bank and a global development bank, with the bulk of its activities on projects that promote balanced development and integration within the EU. The donor-funded institutions such as the International Development Association (IDA, of the World Bank Group), the African Development Fund (AfDB Group) or the Asian Development Fund (ADB Group), providing a mix of grants and concessional loans, are also not included, as our analysis only considers the 'non-concessional' lending windows of the MDBs.

**Table 1. Main balance sheets items (millions of dollars)**

	IBRD	ADB	IADB	AfDB	Total
Total assets	283,031	221,866	136,358	48,734	689,989
<i>Purpose Related Exposures (PRE)</i>	202,216	121,417	97,221	31,384	452,238
<i>Sovereign loans</i>	194,787	114,539	91,164	21,949	422,439
Risk weighted assets	172,698	138,277	172,625	52,613	536,213
Shareholders Equity	42,115	51,918	33,871	10,196	138,100
RAC ratio*(%)	24%	38%	20%	19%	

Source: S&P and MDBs' financial statements. Data as of 31 December 2019 (for IBRD: 30 Jun 2019). \* Risk Adjusted Capital ratio.

In order to strengthen the robustness of our results, the analysis is made using two alternative rating methodologies: the Multilateral Lending Institutions Rating Methodology, recently reviewed by Standard & Poor's (S&P 2018) and the Multilateral Development Bank Credit Rating Methodology applied by the Bank of Canada (Bank of Canada, 2017).<sup>7</sup>

According to our estimates, the pre-crisis capacity of MDBs to provide additional development loans, estimated in the range of \$860-896 billion, would grow to \$985-1,020 billion as a result of the capital increases at IBRD and AfDB. At the same time, though, a number of potential factors – such as the increase in exposures due to MDBs' countercyclical role, the credit rating deterioration of borrowing countries, and the weakening of PCT and ESS – could substantially erode this lending capacity, reducing it to \$116-227 billion, depending on which rating methodology we apply.

The next section provides a description of the hypothetical scenarios that we use to stress test the MDBs' capital buffers and the associated available lending headroom. In section 3, we apply the two rating methodologies (S&P and BoC) to assess how these potential buffers would be eroded under our hypothetical scenarios, thus ultimately testing the capacity of multilateral financial institutions to weather the COVID-19 crisis and continue supporting their developing member countries, while preserving triple-A ratings and avoiding new capital increases. Section 4 concludes and provides some policy suggestions.

<sup>7</sup> A synthetic description of these methodologies can also be found in Settimo (2017 and 2019).

## **2. Description of scenarios**

The starting point of our analysis is an estimate of the current levels of MDBs' excess capital (above triple-A threshold requirements) and associated spare lending capacity. For that purpose, we use data from public financial statements as of the end of fiscal year 2019, for which we have detailed figures on the capital and distribution of sovereign exposures by borrowing country.<sup>8</sup> We then perform two adjustments to produce our final estimate of current capital buffers.

First, we incorporate the expected benefits arising from the latest capital increases approved by the IBRD and the AfDB, which are not yet included in the amount of equity reported in their fiscal year 2019 financial statements.<sup>9</sup> Second, we apply the ratings (and the corresponding risk weights) as of mid-November 2020 to the fiscal year-end 2019 stock of exposures, in order to take into account the impact of the changes that had already occurred in the credit quality of sovereign borrowers, as reflected in the rating actions taken by Standard and Poor's since the onset of the crisis.<sup>10</sup>

The resulting measure of current excess capital (above the minimum level required to maintain a triple-A rating) directly translates into an estimate of spare lending capacity, i.e. the amount of additional loans that the four MDBs could be willing to deploy in order to support their borrowing members in the current exceptional circumstances. We do so by stretching the loan portfolios (under unchanged distribution by borrowing country) to reach the maximum size of exposures that can be supported by the current capitalization levels, without compromising the AAA rating.<sup>11</sup>

The estimated levels of excess capital and spare lending capacity are the reference points to which we apply our scenarios. These scenarios are intended to illustrate the main channels through which the COVID-19 crisis can potentially impact MDB's lending capacity (see Table 2 for a summary of the main features of the various scenarios).

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<sup>8</sup> For the IBRD, we use the breakdown of sovereign exposures at the end of June 2019, as the IBRD fiscal year 2019 ended June 30, 2019. For all the other institutions considered, the balance sheet situation is at December 31, 2019.

<sup>9</sup> In October 2018, the Board of Governors of the IBRD approved a capital increase that will result (over 5 years) in additional subscribed capital of up to \$60.1 billion, with \$7.5 billion of paid-in capital and \$52.6 billion of callable capital. In October 2019, the AfDB's shareholders approved the seventh general capital increase (GCI-VII), effectively increasing the bank's capital base by \$115 billion, of which 6 per cent is paid-in and the remaining is in the form of callable capital.

<sup>10</sup> We use the ratings from Standard and Poor's for homogeneity, as we also use its methodology throughout our analysis. Standard and Poor's has a publicly available, fairly detailed (also in quantitative terms) and more easily replicable methodology for rating supranational institutions. Among the countries that are potential borrowers from the four MDBs considered and rated by S&P, we have found 20 cases of downgrades between the end of February and mid-November, mainly regarding low-income countries. In the case of Argentina, an important borrower for the IADB and (to a lesser extent) for the IBRD, we have kept its rating constant, in order to shield our results from the effects stemming from the high rating volatility (in both directions) experienced by the country during this last year, mainly connected to the default and the dynamics of the ensuing negotiations to restructure its debt.

<sup>11</sup> Our results are not constrained by MDBs' existing internal limits, such as those expressed in terms of minimum equity to loan ratios. For prudential purposes, we apply a buffer (of around 15 per cent) above the strictly minimum amount of capital required by the methodologies used, in order to preserve a margin to deal with the various sources of uncertainty surrounding our estimation procedures.

**Table 2. Scenarios**

	Baseline	Scenario 1	Scenario 2
Exposures' growth due to COVID-19 response	✓	✓	✓
Rating deterioration (of both borrowing and non-borrowing members)		✓	✓
Arrears and PCT weakening			✓

**Baseline.** In the baseline scenario, the stock of lending exposures at fiscal year-end 2023 grows by an aggregated amount of \$171 billion, as a result of the countercyclical response to the crisis. We obtain this number by assuming that the increase in the stock of loans as a share of EMDEs' GDP is equivalent to what was recorded by these institutions in the aftermath of the GFC. In nominal terms, the envisaged expansion in the stock of loans is slightly more than two times the increase observed post-GFC (\$83 billion, from end-2007 to end-2011), reflecting the doubling of EMDEs' GDP during the period.<sup>12</sup> Sovereign ratings are left unchanged at their current levels (mid-November 2020), in order to isolate the effect of the planned lending increases ('exposures' growth channel').

For the sake of simplicity, we make the assumption of an unchanged distribution of exposures by borrowing country. In other words, we assume that the additional lending is provided according to each borrowing country's respective share in total lending at end-2019, without altering the country distribution of exposures. Moreover, recognizing that an expansion in lending would probably also require an increase in liquid assets, we augment the liquidity portfolio by a proportion equal to the percentage increase in the loan portfolio, thus maintaining the same balance sheet composition between liquid assets and development lending assets.

**Scenario 1.** In our first stressed scenario, we assume a widespread deterioration in sovereign credit ratings as a result of the pandemic. This allows us to estimate the erosion of spare lending capacity that would be brought about by an asset quality deterioration (and associated increase in risk weights) and a weakening of ESS, coupled with the projected growth in exposures embedded in the baseline.

While the pandemic has spread globally, S&P believes its impact could be more severe for many lower-rated sovereigns in emerging markets.<sup>13</sup> On the one hand, this is due to greater difficulty in enforcing containment measures and poorer capacity to cope with the health crisis. On the other hand, the effects on these economies could be amplified by more limited fiscal and monetary policy headroom, large capital outflows and, in some cases, commodity price stresses.

<sup>12</sup> The GDP number for both periods is calculated as the three-year average (2006-2008 and 2017-2019) of EMDEs' GDP in current international dollars. Data are from the IMF WEO Database.

<sup>13</sup> S&P, 'Credit FAQ: Sovereign Ratings And The Effects Of The COVID-19 Pandemic' (16 April 2020).

There is, of course, a very high level of uncertainty regarding future economic outcomes and their impact on debt sustainability in developing countries. It is therefore difficult to estimate the potential repercussions on MDBs' loan portfolios, which we try to capture through a simple (severe, while not extreme) scenario of deteriorating sovereign credit ratings.

In our stressed scenario, which is not directly linked to any specific macroeconomic scenario or forecast, we assume a one-notch downgrade for all sovereigns with investment grade rating (BBB- or higher), and a two-notch downgrade for weaker sovereigns (BB+ and below). These downgrades are applied to each country's rating situation as of mid-November 2020.

Our scenario is consistent with the assumption of a shock (such as COVID-19) hitting all countries globally, as well as with the above-mentioned S&P projection that the impact could be more severe for many lower-rated sovereigns in emerging markets. It is also consistent with recent Fitch research, analysing historical data on rating actions and showing that multiple-notch downgrades (and in particular two-notch downgrades, the most common type of multiple-notch downgrades) are more frequent for lower-rated sovereigns below investment grade.<sup>14</sup> Here we do not take into account the potentially positive impact of increased MDBs' lending on the creditworthiness of borrowing countries, as this would imply that these institutions take on a substantially larger role in the financing of EMDEs.<sup>15</sup>

Finally, it is important to note that this scenario also entails a weakening of the exceptional shareholder support (ESS), as it includes a one-notch deterioration of investment grade shareholders.

**Scenario 2.** In this scenario, we add a further channel through which MDB's capital buffers and spare lending capacity could be affected. We assume a weakening of the de facto preferred creditor treatment, due to the emergence of payment arrears leading a portion of sovereign exposures into non-accrual status ('PCT channel'). Both rating methodologies employed in this study recognize substantial benefits linked to PCT, whose size is inversely related to the level of arrears in loan portfolios. In this scenario, the PCT channel is not isolated, but operates on top of the assumptions already captured in scenario 1.

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<sup>14</sup> Fitch, 'Further Multi-Notch Sovereign Downgrades Are Probable in 2020' (6 April 2020).

<sup>15</sup> Dooley and Kharas (2020) elaborate on the potential endogeneity of creditworthiness and conclude in favour of an enhanced role of International financial institutions, to be obtained also through the provision of additional resources by shareholders.

### **3. Results**

This section shows how the current capital buffers would be eroded under the scenarios described previously, and ultimately tests the capacity of multilateral financial institutions to weather the COVID-19 crisis, while preserving their triple-A ratings and avoiding new capital increases. We present our results separately for the two methodologies employed. The aggregate results are presented in Charts 2 and 3, while figures for each specific MDB can be found in Appendix I.

#### **3.1 Standard and Poor's rating methodology**

According to S&P methodology, at the end of the 2019 fiscal year, the risk-adjusted capital ratio (RAC, ratio of paid-in capital plus reserves to risk-weighted assets) ranged from 19 to 38 per cent for the four MDBs considered (Table 1). This implies a significant amount of capital above the minimum required to maintain the AAA rating.

These strong capitalization levels translate into an aggregate pre-crisis lending capacity of slightly over \$850 billion as of fiscal year-end 2019 (first bar in Chart 2). Factoring in our two adjustments (the positive effects from the full implementation of the latest IBRD and AfDB capital increases, as well as the negative impact stemming from the application of ratings updated as of mid-November 2020<sup>16</sup>), we come up with a potential lending capacity of around \$985 billion (third bar in Chart 2). This figure amounts to about double the current stock of development exposures. Half of this aggregate capacity is held by the IBRD, due to its large size and ample amount of nominal capital, while a third is accounted for by the ADB, reflecting its substantial level of excess capital at the end of 2019.<sup>17</sup>

The projected expansion in exposures envisaged in the baseline scenario would reduce the aggregate spare lending capacity by slightly more than 15 per cent, to around \$800 billion (fourth bar in Chart 2). In this case, the erosion in lending capacity is simply the direct result of a higher volume of loans (+\$171 billion on aggregate), as by assumption, the sovereign ratings and the corresponding risk weights are unchanged at their levels at mid-November 2020. The impact therefore looks manageable and the projected increase in exposures could easily be absorbed by the existing lending capacity.

The widespread deterioration in sovereign ratings assumed in scenario 1 would instead have more substantial ramifications in terms of capital buffers and lending capacity. The increase in risk-weighted assets brought about by the combination of larger stocks of loans and riskier individual exposures pushes down the aggregate spare lending capacity to \$450 billion, cutting it by more than 50 per cent from current levels (fifth bar in Chart 2). This result is primarily a consequence of the increase in the volume of risk-weighted assets, produced by higher risk weights applied to the individual exposures towards borrowing member countries. In some cases, another contributing

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<sup>16</sup> The impact of the rating deteriorations observed since the start of the crisis is actually quite limited. This stems from the fact that the downgrades have so far mainly involved low-income countries that represent a small share of the total loan portfolios for the four MDBs considered. The effects would certainly be much more substantial if the downgrades affected large emerging market borrowing countries (see our stress scenarios below).

<sup>17</sup> For the ADB, the strong capital buffer also originates from the merger of concessional and non-concessional resources implemented in 2017, which resulted in a one-off sizeable equity contribution through the transfer of around \$30 billion of Asian Development Fund assets to the ADB.

factor is the weakening of the ESS, i.e. the reduction in the stock of eligible callable capital, due to the downgrade of some strong, high-rated sovereign shareholders. The erosion in lending capacity in this estimate is somewhat larger than the estimate obtained through an alternative methodology developed by the Bank of Canada (see section 3.2), due to the higher risk weights and the greater responsiveness to credit rating changes envisaged by the S&P methodology.

Finally, our scenario 2 simulates the potential impact of a weakening of the PCT, combined with the foreseen rating deterioration and the projected expansion in exposures. To perform the estimate according to the S&P methodology, we calibrate the increase in sovereign arrears and the associated weakening of the PCT by assuming that all countries eligible for the G20 Debt Service Suspension Initiative (DSSI) would enter into non-accrual status following the accumulation of arrears towards the MDBs we consider in this note.<sup>18</sup>

The DSSI allows a time-bound suspension of debt service payments by the poorest countries that request forbearance. While all bilateral official creditors are participating in this initiative, the MDBs have explicitly stated that their best contribution is to ensure the provision of substantial net positive financial flows to DSSI-eligible countries, through their regular lending activities. This is also because participation in the DSSI could jeopardize their preferred creditor status, with negative consequences for their ratings and for their funding costs, which would ultimately be borne by their borrowing countries. In light of this, we include this scenario mainly in order to examine the potential repercussions of a weakening of the PCT. This scenario can also give us a flavour of the impact on MDBs' lending capacity of an extreme event, such as a generalized insolvency of the LICs, should this be managed through the involvement of MDBs in the restructuring process.<sup>19</sup> G20 countries have recently agreed on a common framework for COVID-19 debt treatment beyond the DSSI, and during the negotiations, some contrasting views emerged regarding the participation of multilateral creditors in debt treatment.

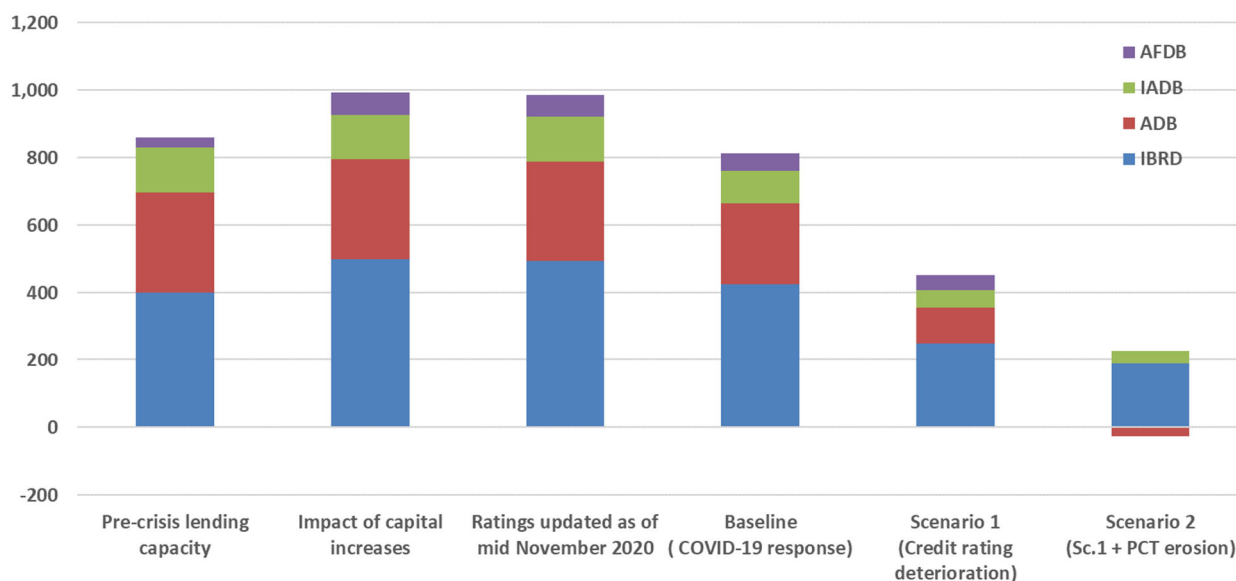
Under scenario 2, the aggregate spare lending capacity would fall by more than 75 per cent, to a level slightly higher than \$200 billion (last bar in Chart 2). Our calculations thus indicate a large overall impact, which seems to justify MDBs' opposition to their participation in G20 debt relief efforts. The impact would be quite heterogeneous at the level of each individual MDB, reflecting the respective weights in total exposures accounted for by DSSI-eligible countries. In some cases (ADB and AfDB), the presence of some very important borrowers in the list of DSSI-eligible countries would lead to a sizeable increase in arrears and a drastic reassessment of the PCT (to the lowest PCT category: 'weak'). According to the S&P methodology, this in itself would be enough to rule out the possibility of maintaining a triple-A rating, regardless of the size of capital buffers.

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<sup>18</sup> S&P methodology recognizes the benefits of PCT on a country-by-country basis, through the application of adjustments to risk weights based on each sovereign borrower's history of arrears. The described scenario is largely consistent with the assumption of an NPL ratio above 3 per cent made in the context of the BoC methodology (see section 3.2). With the exception of the IBRD (where the ratio would go up to 2.2 per cent), for all the MDBs the occurrence of arrears by DSSI-eligible countries would in fact push the NPL ratio to a level well above 3 per cent.

<sup>19</sup> According to rating agencies' methodologies, the impact on capital buffer and lending capacity would depend on the number of countries actually undertaking debt restructuring. At the same time, the MDBs have warned that, irrespective of the rating implications, their participation in debt relief could affect market perceptions of their PCT status and therefore have an impact on their funding costs, even if this impact is difficult to quantify.

**Chart 2 - S&P's Rating methodology**  
**Aggregate lending headroom under triple-A retention hypothesis**  
*(billions of dollars)*



Source: Authors' calculations based on Standard and Poor's rating methodology.

### 3.2 Bank of Canada's rating methodology

Although similar in the way the different rating profiles are structured and assembled, the methodology developed by the Bank of Canada (BoC) for rating multilateral development banks differs from S&P's methodology in a number of important respects. Here we highlight three of them, which can explain some differences in our results. First of all, in order to obtain risk-weighted assets, the BoC applies Basel's simplified vector of risk weights, which is less penalizing for lower rated sovereigns and considerably less diversified with respect to S&P's methodology. This implies slightly higher capital ratios and a lower sensitivity to borrowers' credit rating changes.

Secondly, the BoC's methodology presents a different way to assess the degree of additional support that MDBs can rely on from shareholder countries in exceptional situations. This measures the magnitude, ability and propensity of members to respond to possible capital calls. The assessment of exceptional shareholder support (ESS) is tied to the MDB-specific characteristic known as callable capital, defined as the portion of subscribed capital not yet paid-in.<sup>20</sup> The assessment of ESS is quite crucial for our purposes, as it defines the number of extra rating notches that an MDB can enjoy when moving from the stand-alone to the final rating profile. It is therefore a key determinant of potential lending headroom, given a specified final rating target (triple-A).<sup>21</sup>

<sup>20</sup> Under the BoC's methodology, the 'magnitude' of ESS is measured by the ratio between callable capital and total debt issued, to gauge the size of callable capital against the obligations of the MDB. This is combined with the 'ability' to support, proxied by the weighted average of shareholder ratings and adjusted based on the degree of overlapping between members and borrowers, measured by the correlation between borrowing shares and voting shares.

<sup>21</sup> Rating agencies use a range of ways to include callable capital in the rating estimation. For instance, Moody's estimates the contractual support based on a ratio of debt stock to discounted callable capital, committed only by investment-grade shareholders, while Fitch Ratings only uses callable capital from shareholders rated AA- and above.



A final peculiarity is the way the BoC assesses PCT. Unlike S&P, the BoC methodology does not include a specific adjustment of risk weights for sovereign exposures relating to an MDB's PCT status. Rather, the BoC performs an asset quality assessment using non-performing loans (NPLs), which reflect some of the historical PCT status, since MDBs that have a strong PCT tend to record no arrears or loan losses. Asset quality is estimated through the ratio of NPLs to total loans, and may affect the capital adequacy score very negatively when its three-year average value goes above the 3 per cent threshold.

With the above premises in mind, we replicated our scenario analysis using the BoC methodology.<sup>22</sup> Again, all four MDBs present strong capitalization levels, which translate into an aggregate spare lending capacity of almost \$900 billion as of fiscal year 2019 (first bar in Chart 3), somewhat higher than in S&P's case (as expected). Applying our two adjustments (the positive effects from the full implementation of the latest IBRD and AfDB capital increases, as well as the negative impact stemming from the application of ratings updated as of mid-November 2020), we come up with a potential lending capacity of slightly more than \$1 trillion (third bar in Chart 3).

Exactly as under the S&P methodology, the projected expansion in exposures in the baseline scenario reduces aggregate lending capacity by \$171 billion. This would bring spare capacity to around \$850 billion (fourth bar in Chart 3), suggesting once more the existence of considerable headroom to support the planned increase in the stock of loans.

The deterioration in sovereign ratings assumed in scenario 1 would have more sizeable, but still largely manageable effects in terms of capital buffers and lending capacity. The increase in risk-weighted assets brought about by the combination of larger stocks of loans and riskier individual exposures pushes down the aggregate spare lending capacity to around \$590 billion (curtailing it by 42 per cent from current levels, fifth bar in Chart 3). This impact is lower than the one estimated using the S&P methodology (see Section 3.1), reflecting the less pronounced sensitivity to credit rating changes and the lower diversification of risk weights envisaged by the BoC methodology. The weakening of ESS resulting from the assumed one-notch deterioration for the higher-rated shareholders only produces a limited impact on lending capacity, given that all institutions enjoy ample amounts of callable capital.

Finally, our scenario 2 adds the potential impact of a weakening of the PCT, which under the BoC methodology can be simulated through an increase in the NPL ratio to above 3 per cent.<sup>23</sup> Such an occurrence would force MDBs to keep considerably higher capital ratios, if they wished to retain their triple-A rating.<sup>24</sup> As a result, the aggregate lending capacity would fall by almost 90 per cent, to around \$116 billion (last bar in Chart 3), this time to a level lower than under S&P's methodology.

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In the calculation of the risk-adjusted capital, S&P includes the portion of callable capital of member countries rated equal to, or higher than, the intrinsic MDB rating.

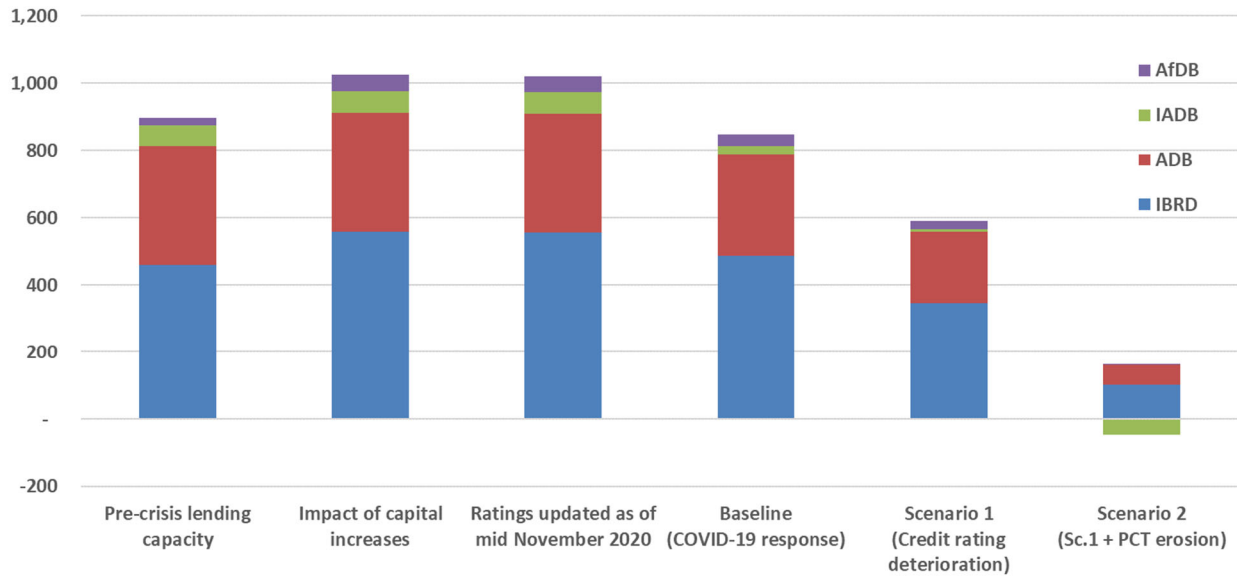
<sup>22</sup> We assume all other rating profiles receive top assessments and do not account for operational risks. In order to compensate for that, we apply a prudent approach by imposing capital adequacy thresholds well above minimum thresholds (one category higher than the minimum required for triple-A).

<sup>23</sup> The assumption of an NPL ratio above 3 per cent is largely consistent with the scenario of an increase in sovereign arrears calibrated in the context of the S&P methodology (Section 3.1).

<sup>24</sup> The minimum capital adequacy ratio (CAR) would escalate by 8 p.p., from 12 to 20 per cent (see charts in the Appendix).

Given its relatively lower starting level of capitalization, the impact would be particularly significant for the IADB, which would be at risk of a downgrade.

**Chart 3 - BoC's Rating methodology**  
**Aggregate lending headroom under triple-A retention hypothesis**  
*(billions of dollars)*



Source: Authors' calculations based on the Bank of Canada's methodology for rating multilateral development banks (2017).

#### **4. Concluding remarks and policy suggestions**

According to our estimates, MDBs entered the COVID-19 crisis with a large aggregate lending headroom in the range of \$985-1,020 billion, taking into account the benefits of the recent capital increases. This is a sizeable amount of firepower that can be deployed to support borrowing member countries, easily absorbing the projected increase in the stock of loans. However, as MDBs expand their development-related credit exposures, in line with their countercyclical role, and as the effects of the crisis unfold putting pressure on sovereign ratings, this spare lending capacity could be eaten away rather quickly. Additional negative effects could come from the weakening of two traditional elements of strength of such institutions: the de facto Preferred Creditor Treatment (PCT) and the Exceptional Shareholder Support (ESS). Should all these factors play a role at the same time, aggregate spare lending capacity could be eroded by 77-89 per cent, to a range of \$116-227 billion.

Moreover, a few factors are likely to limit the potential growth of capital resources in the next years. On the one hand, given the current circumstances, global interest rates are expected to stay very low for a long time, which in turn will squeeze MDBs' margins and the returns on their liquidity investments, weakening their capacity to generate equity internally. The sharp slide in interest rates is one of the main factors that have caused a reduction in IBRD sustainable lending levels relative to the targets underlying the 2018 capital package.

On the other hand, while initiating discussions on the adequacy of MDBs' capital resources in the post COVID-19 would be advisable in principle (some preliminary reflections on this front have been put forward by the new President of the IADB), a significant new injection of fresh resources by shareholders is unlikely to be feasible in the immediate future, given: (i) the recent approval of capital increases at ADB, IBRD and AfDB; ii) the increasing tide of inward-looking policy stances in both advanced and emerging market economies; and (iii) mounting pressures on public budgets.

Therefore, alternative actions need to be taken in order to preserve MDBs' ability to deliver on their development mission throughout the COVID-19 crisis.

One first crucial accomplishment for the next few months will be to ensure that borrowers stay current and avoid the emergence of non-accruals, in order to ward off the possibility that rating assessments discontinue the inclusion of PCT, a key pillar of MDBs' financial strength. To this end it will be important to act pre-emptively together with the international community (for instance within the G20) in order to monitor sovereign debt dynamics, implement in a timely manner all measures needed to ensure debt sustainability and preserve the PCT status of MDBs in case of any debt restructuring.

Secondly, for institutions with capital subscriptions in progress (like IBRD and AfDB), efforts should be guaranteed by shareholders to accelerate the payment of their paid-in portion, so as to allow a rapid and full leverage of the new capital resources (Humphrey and Prizzon, 2020).

At the same time, it would be advisable to revive the spirit of the Action Plan to Optimize Balance Sheets, endorsed by the G20 Leaders at the Summit in Antalya in 2015, with the objective of increasing these institutions' development exposures for given capital resources and whilst preserving triple-A rating levels. The Plan envisaged five lines of action: 1) improve capital efficiency, 2) perform exposure exchanges, 3) leverage concessional window equity, 4) resort to risk transfer instruments for non-sovereign operations, and 5) adopt a set of net income measures.

A number of important results have already been achieved through the implementation of the Action Plan. However, not all MDBs have exploited all the potential advantages stemming from all five lines of action. With regard to capital efficiency, for instance, it must be noted that the persistence of more stringent institutional lending limits than those embedded in the main rating agencies' methodologies – such as IBRD's 20 per cent minimum equity-to-loan ratio – ends up further restraining MDBs' effective lending headroom, preventing the full utilization of the estimated spare lending capacity.<sup>25</sup> On this front, a higher degree of transparency in rating methodologies could ease MDBs' tendency to adopt excessively prudent approaches in their internal financial adequacy frameworks. At the same time, pursuing a minimum degree of harmonization among MDBs' capital frameworks would facilitate the optimization of MDBs' balance sheets with differing degrees of constrained capital space.

Intensifying exposure exchange agreements among MDBs could improve asset diversification, especially for the regional institutions whose lending portfolios are more concentrated. An exposure exchange is a risk management tool in which one MDB transfers the credit risk of a synthetic loan portfolio in exchange for issuing a guarantee for a risk-equivalent synthetic loan portfolio at another MDB; the aggregate credit risk remains unchanged, but the reduction in concentration risk leads to benefits in terms of capital relief and lending capacity. In December 2015, the AfDB, the IADB and the IBRD executed three bilateral exposure exchanges for a total of \$6.5 billion, leading to a material improvement in capital adequacy, especially for the AfDB; additional transactions could be explored, as the ADB has recently approved a new policy allowing the use of this instrument.

Leveraging concessional window equity through the merger with the Asian Development Fund<sup>26</sup> (ADF) has increased ADBs' lending capacity substantially, while leaving the benefits for the poorest members unaltered. A merger between the IBRD and the IDA, if appropriately designed, could mean comparable results on an even larger scale. Finally, net income measures, such as the appropriate design of pricing and graduation policies, the enforcement of expenditure reviews and the reform of transfer policies, could be explored further in order to preserve MDBs' capacity to generate equity internally and therefore strengthen future lending headroom.<sup>27</sup> On a more general level, additional efficiency gains could be obtained through the intensification of cooperation and harmonization among MDBs' management and operational procedures, and the implementation of country platforms, leading these institutions to work increasingly as a system.

Apart from exploiting the remaining MDB balance sheet optimization margins, additional advantages could come from the refinement and improved transparency of the analytical models used by rating agencies to assess these institutions' capital adequacy. The literature on this topic is relatively new. Humphrey (2015) argues that the existing rating methodologies fundamentally underestimate the financial strength of MDBs, restricting their overall capacity to make use of balance sheets to address development needs. Focusing on the Inter-American Development Bank,

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<sup>25</sup> For the sake of simplicity and homogeneity, our estimates are based on current rating methodologies only, and are not constrained by the existing MDBs' specific lending limits.

<sup>26</sup> The Asian Development Fund is the concessional window of the Asian Development Bank Group, providing grants to lower-income Asian developing countries.

<sup>27</sup> One should keep in mind, though, that some levers are likely to have very little margins for manoeuvre. For instance, in the time of COVID-19, the increase in lending spreads is likely to be constrained by the limited fiscal space of borrowing member countries.

Perraudin et al. (2016) show that the approach adopted by S&P is highly conservative in its treatment of single name concentration risk (SNC) and makes insufficient allowance for the de facto PCT. Settimo (2017 and 2019) extends these results to the seven major MDBs and applies alternative rating methodologies, demonstrating that the impact on their respective lending capacities could be sizeable. The Report by the G20 Eminent Persons Group (EPG), published in October 2018, proposed 'reassessing regulatory capital and other prudential norms for MDBs'; more specifically, it suggested that MDBs 'collectively seek guidance from the Basel Committee and engage credit rating agencies on capital and liquidity requirements, taking into account the MDBs' unique characteristics and default experience'.<sup>28</sup>

One further possibility to strengthen lending capacity would be through securing credit risk guarantees from non-borrowing, higher rated member countries or national development agencies. This would allow increasing development exposures while avoiding (or minimizing) the consumption of capital. There are precedents of transactions where credit risk was assumed by non-borrowing member countries. One example is the risk transfer arrangement signed between the ADB and the Swedish International Development Cooperation Agency (Sida), under which the Sida has guaranteed up to \$155 million of ongoing ADB sovereign loans. This agreement is expected to increase the ADB's lending capacity from its Ordinary Capital Resources by about \$50 million per year from 2016 to 2026, as a result of the improvement in portfolio quality obtained by replacing existing loan exposure with an AAA-rated exposure to Sweden.<sup>29</sup> Similar effects could be achieved through other instruments, such as subordinated debt and credit-linked notes.

The securitization of MDBs' loan portfolios has been discussed as a potential option for enhancing MDBs' balance sheet optimization.<sup>30</sup> A synthetic securitization transaction carried out in 2018 by the AfDB led to a reduction of approximately 70 per cent in the amount of risk-weighted assets relating to an underlying portfolio of \$1 billion of private sector exposures. To our knowledge, no other operations of this kind have been implemented by the major MDBs. For sovereign loans, an important obstacle is their typical pricing structure, as the interest rates applied to them (computed as the MDB's cost of funding plus a fixed spread, with no differentiation according to the risk profile) are usually lower than market rates. In this context, some form of credit enhancement by a highly rated public institution would be required in order to close the gap between the market and book value of the loans securitized, thus attracting private investors and avoiding a balance sheet loss for the MDB.

Given the heterogeneity among MDBs and the limited margins of manoeuvre characterizing most policy options, it is likely that no option by itself will be sufficient. Rather, it will be necessary to act in a parallel manner on all possible policy fronts, both internally at MDBs and externally through the engagement of the development community as a whole. Equally crucial will be acting in close coordination with other key partners, such as the IMF, UN agencies and national development institutions, in order to combine all available operational instruments and innovative approaches to reinforce MDBs' lending capacity throughout the COVID-19 crisis.

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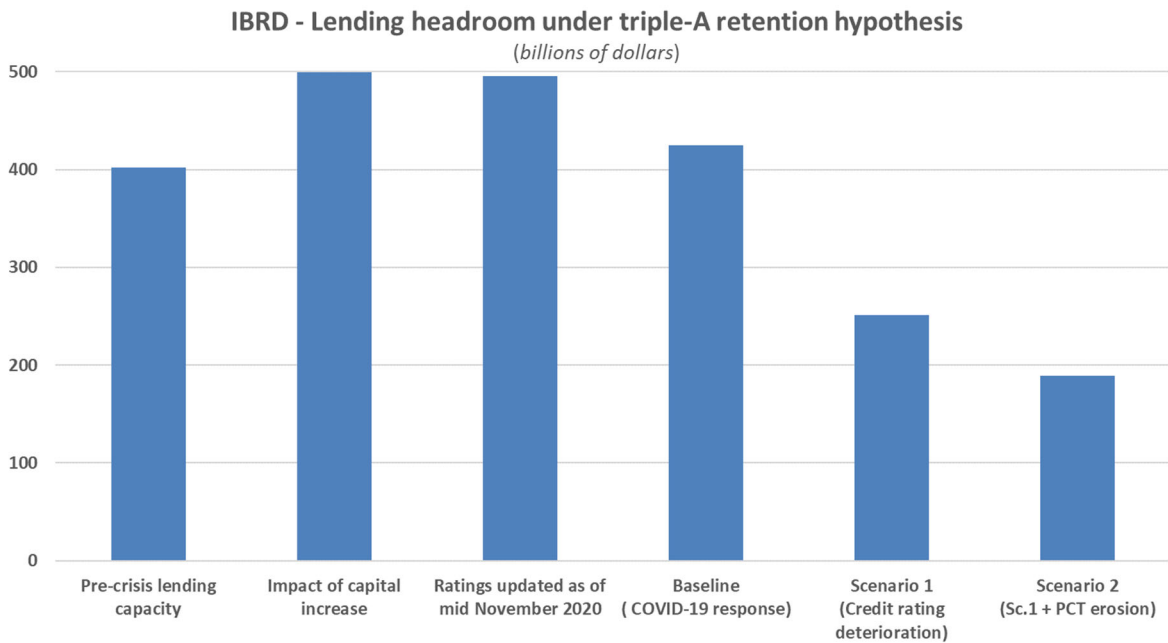
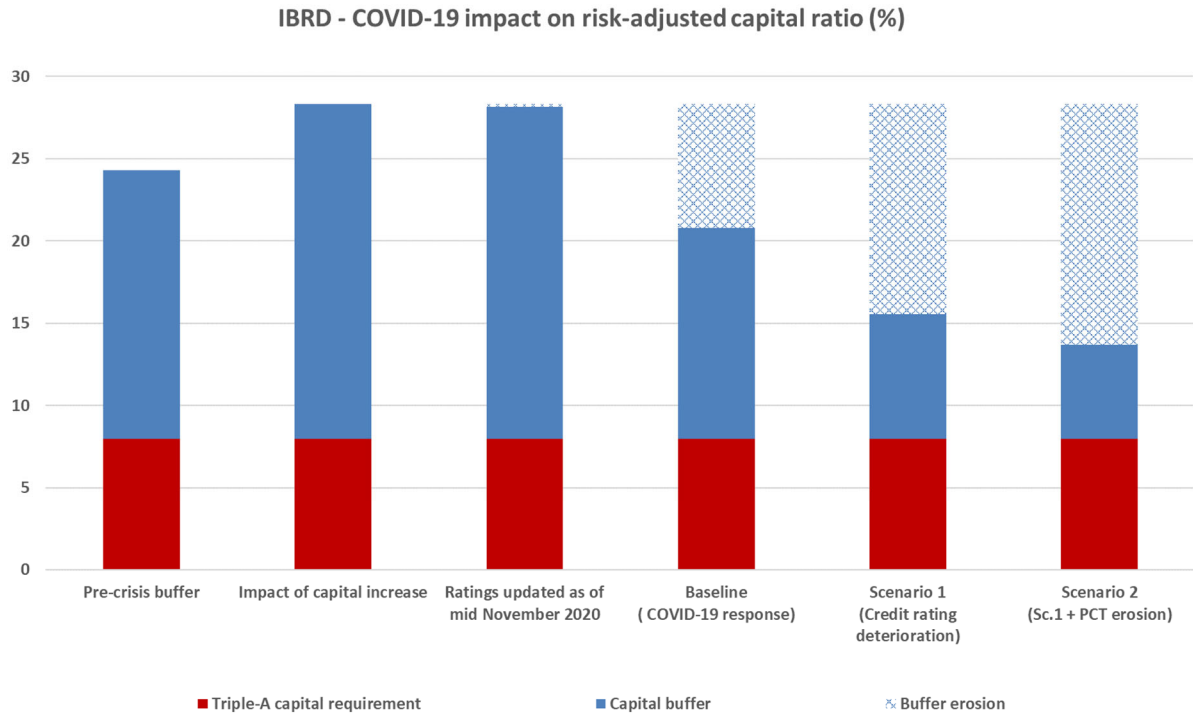
<sup>28</sup> 'Making the Global Financial System Work for All' – Report of the Eminent Persons Group on Global Financial Governance, October 2018.

<sup>29</sup> ADB (2016), 'Sida Sovereign Portfolio Risk Transfer'.

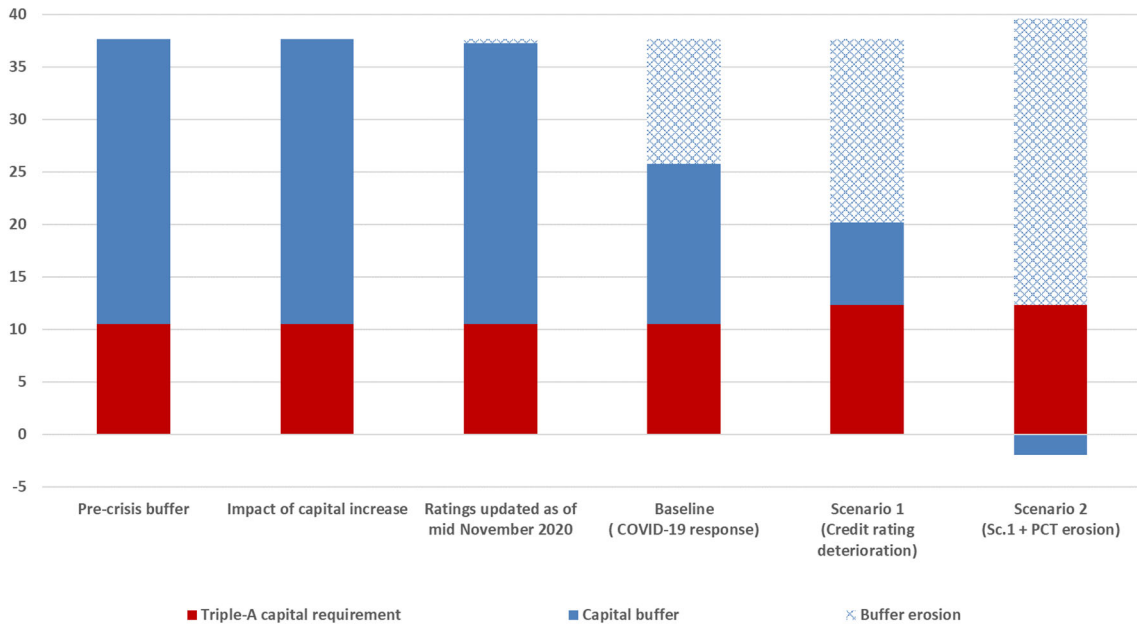
<sup>30</sup> Humphrey (2018).

## Appendix I – Charts on individual MDBs

### Standard & Poor’s methodology

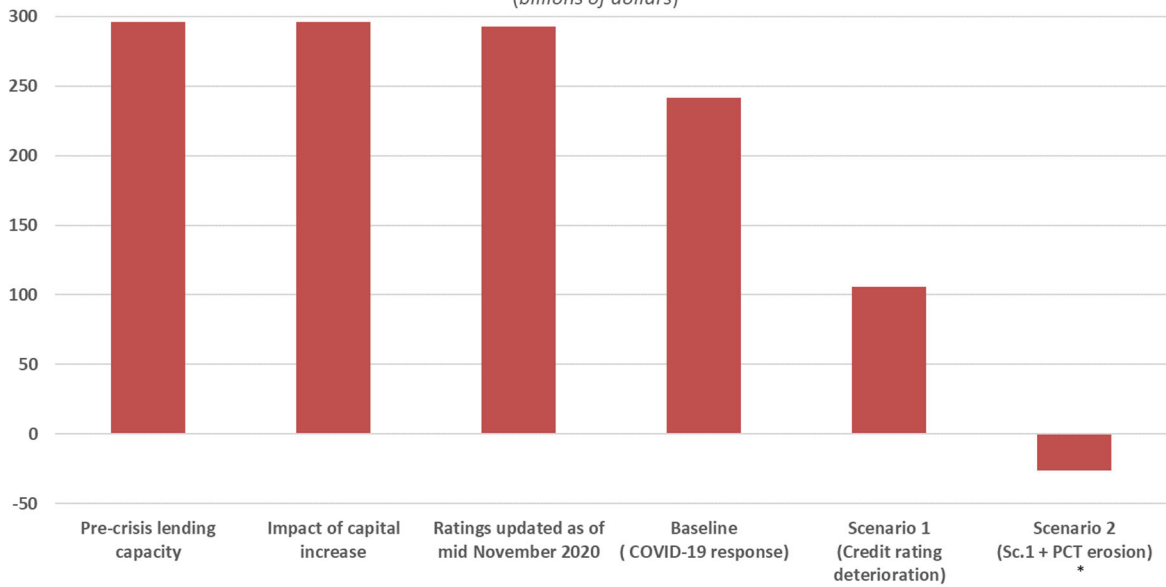


ADB - COVID-19 impact on risk-adjusted capital ratio (%)



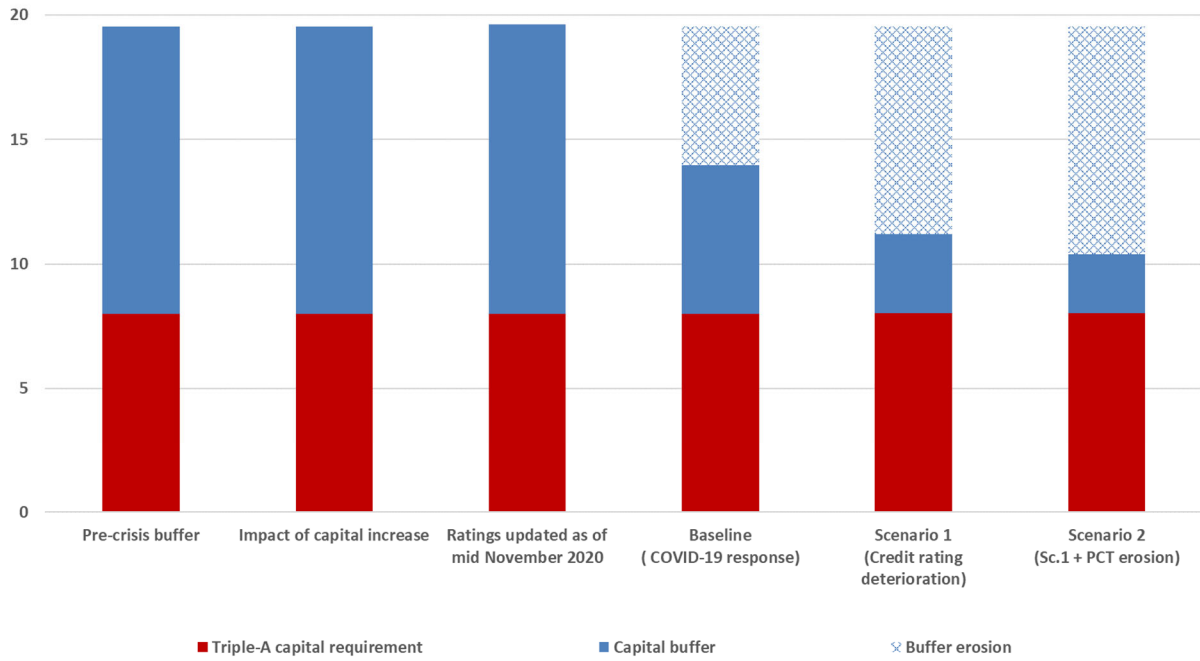
ADB - Lending headroom under triple-A retention hypothesis

(billions of dollars)



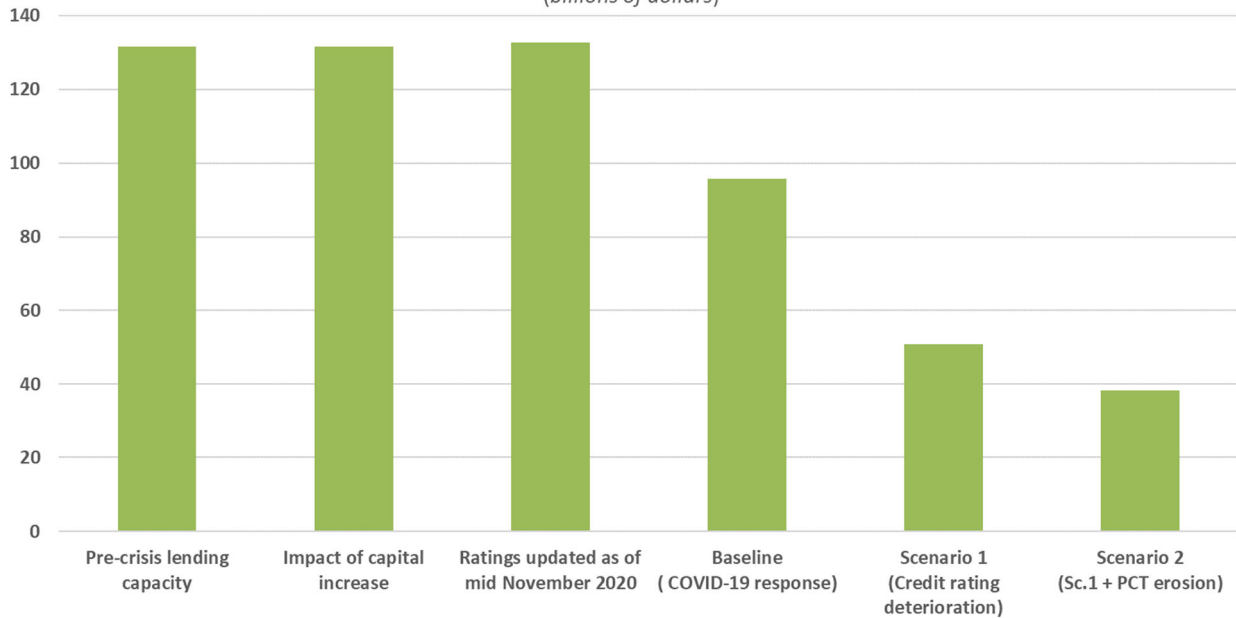
\* Triple-A rating ruled out by a “weak” PCT category.

### IADB - COVID-19 impact on risk-adjusted capital ratio (%)



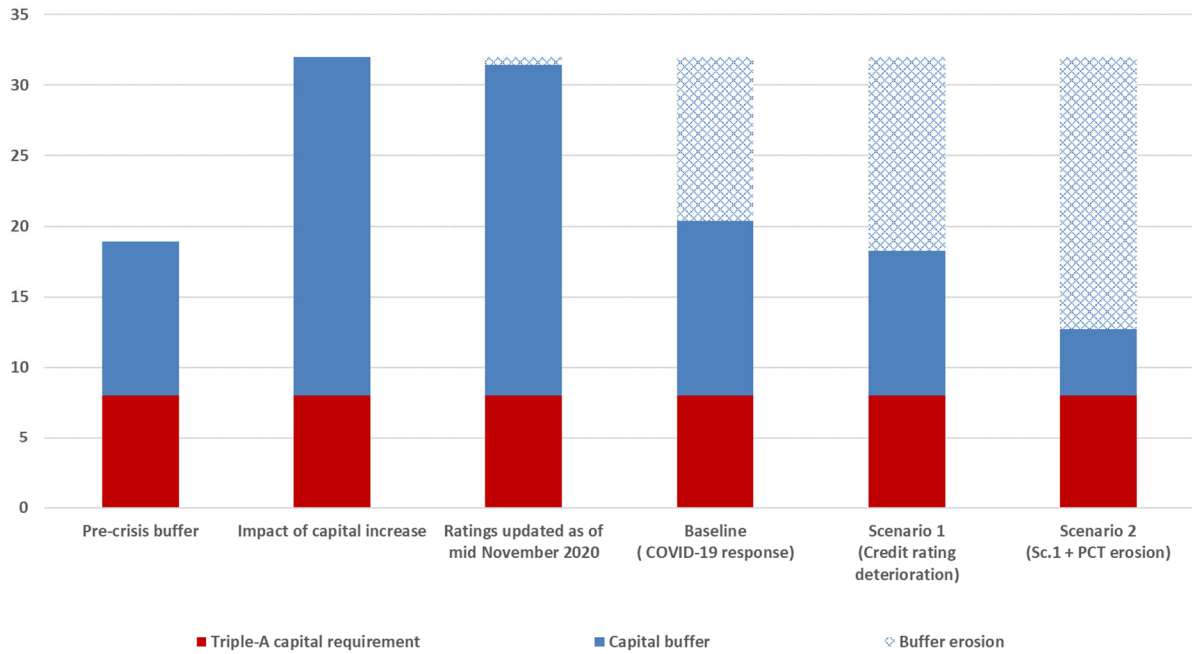
### IADB - Lending headroom under triple-A retention hypothesis

(billions of dollars)



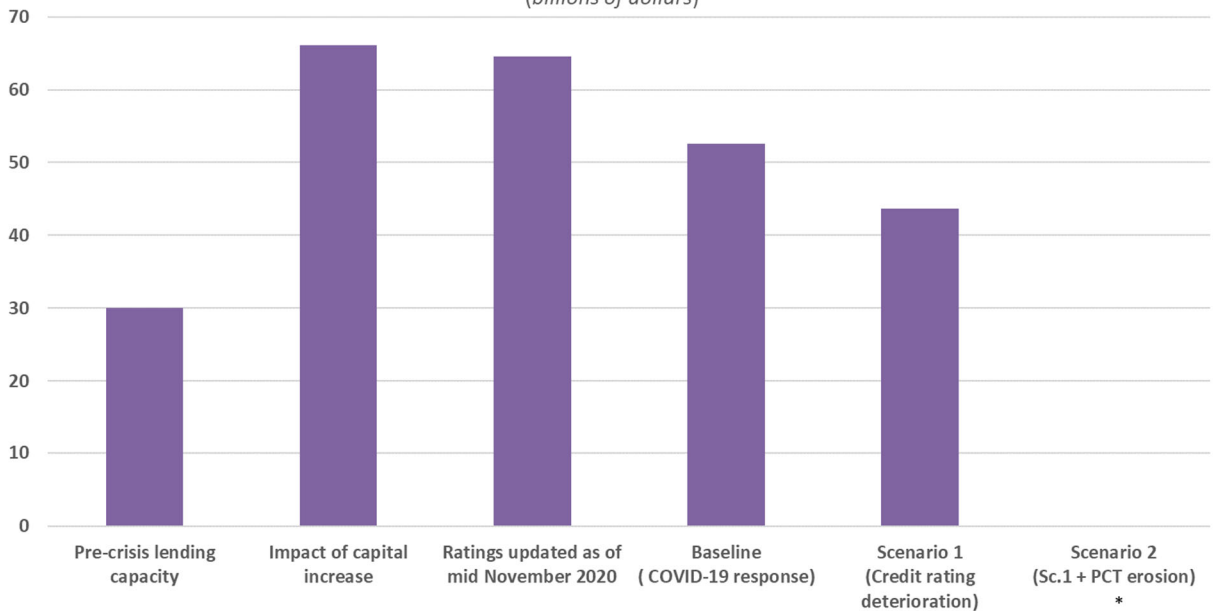


### AfDB - COVID-19 impact on risk-adjusted capital ratio (%)



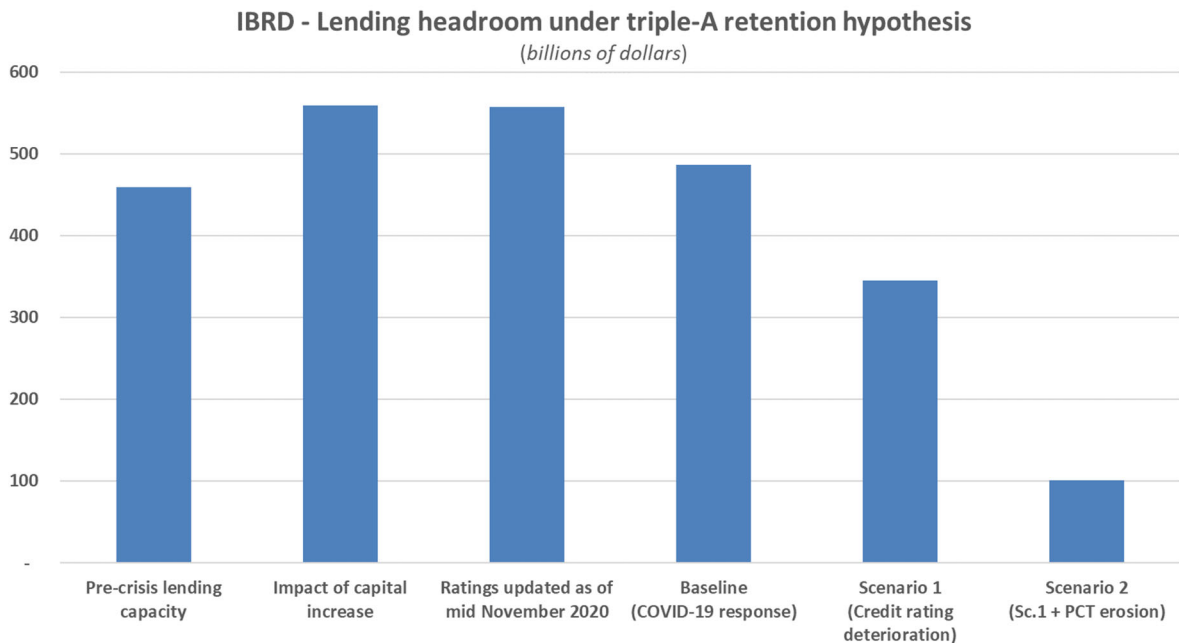
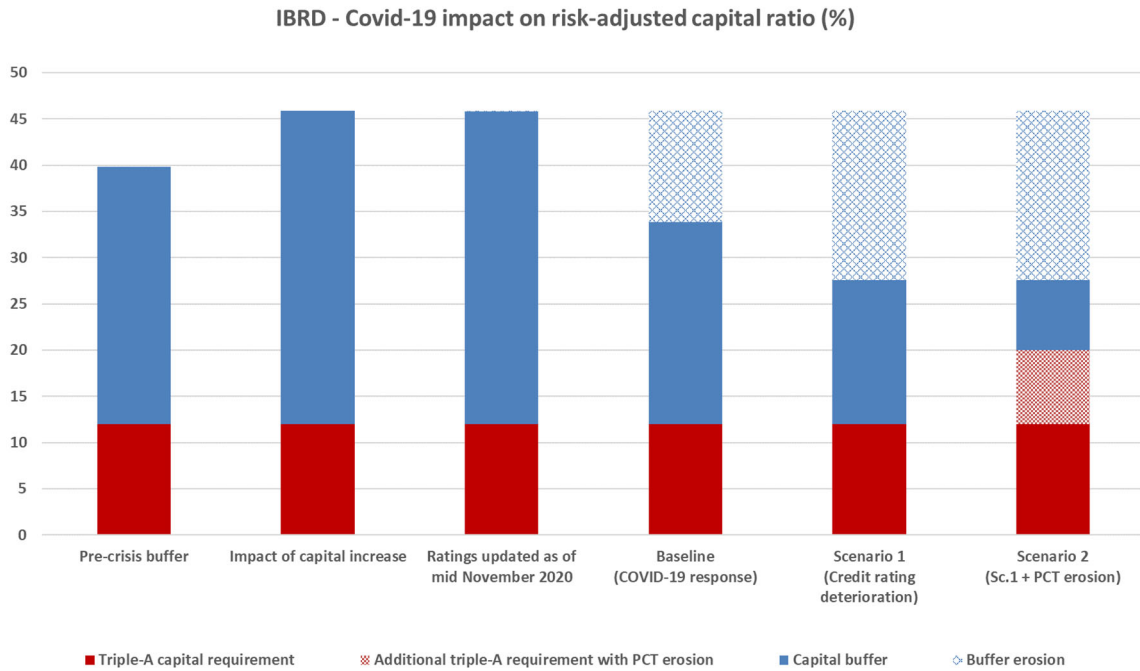
### AfDB - Lending headroom under triple-A retention hypothesis

(billions of dollars)

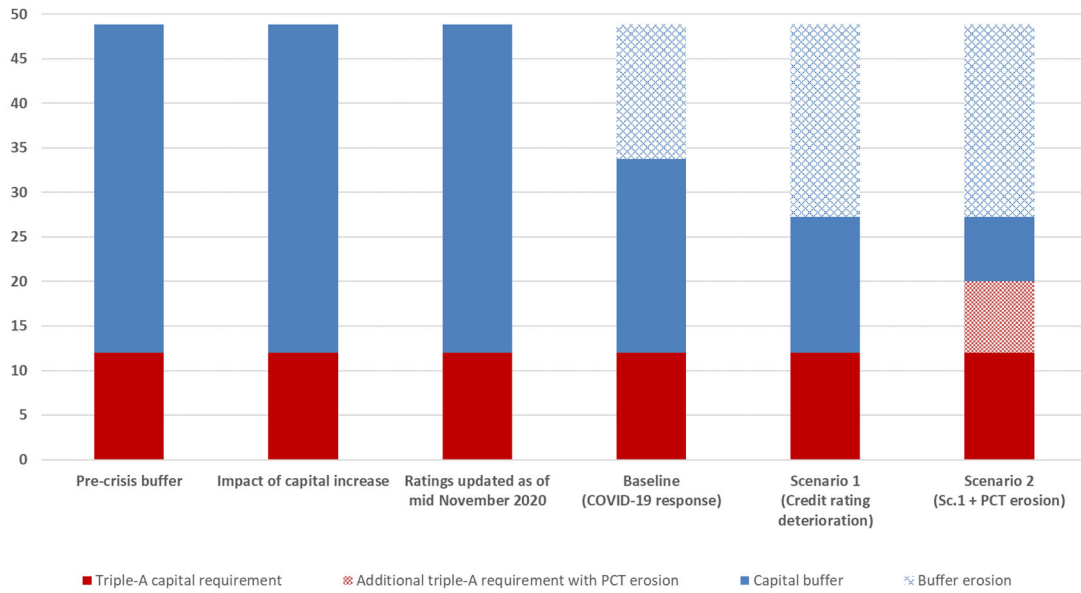


\* Triple-A rating ruled out by a “weak” PCT category.

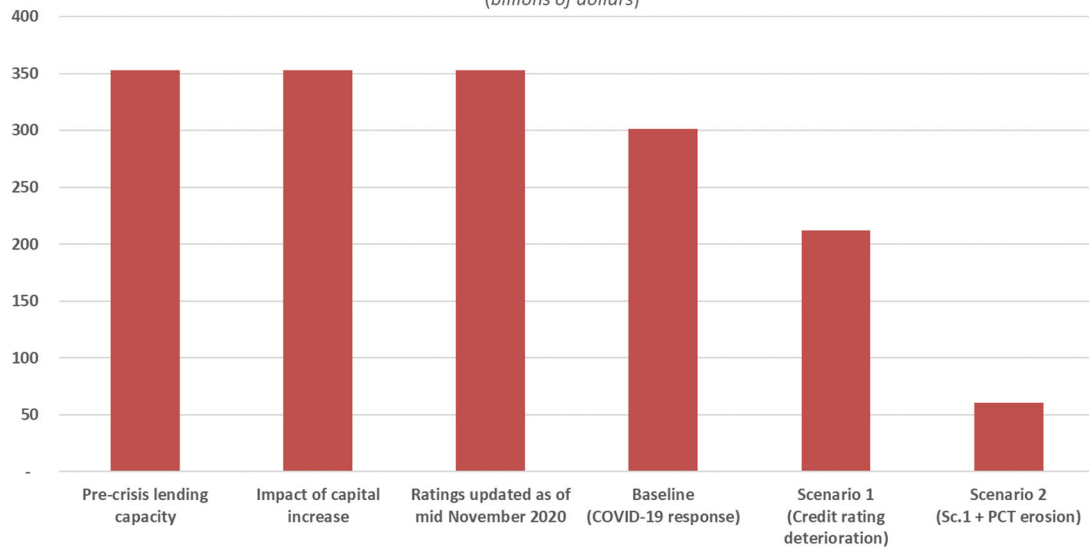
## Bank of Canada methodology



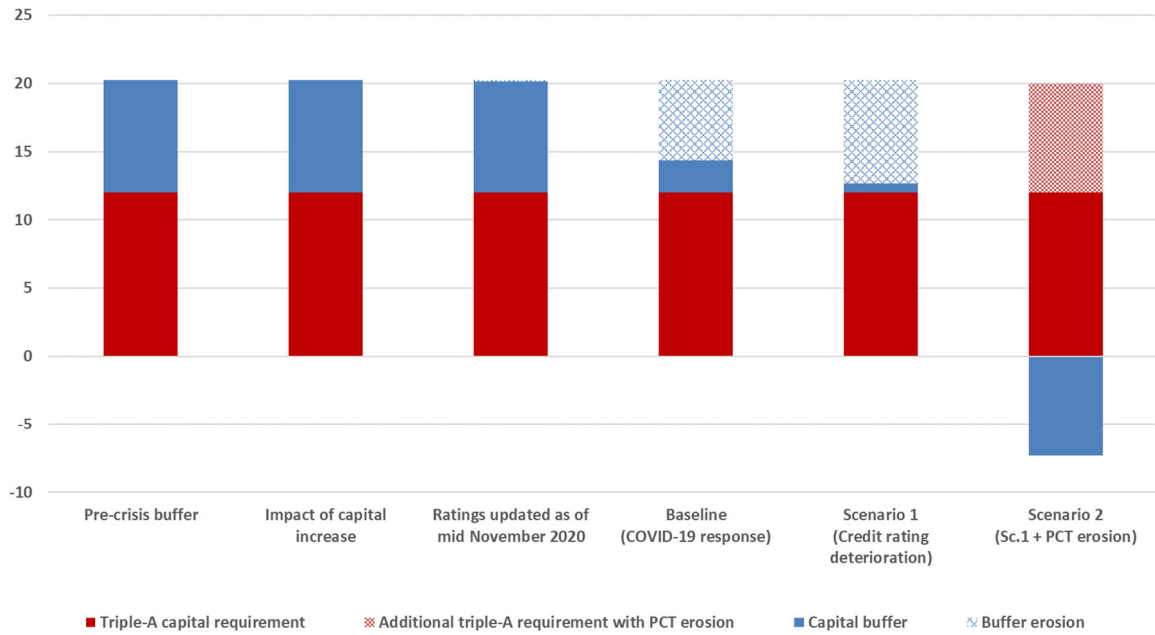
**ADB - COVID-19 impact on risk-adjusted capital ratio (%)**



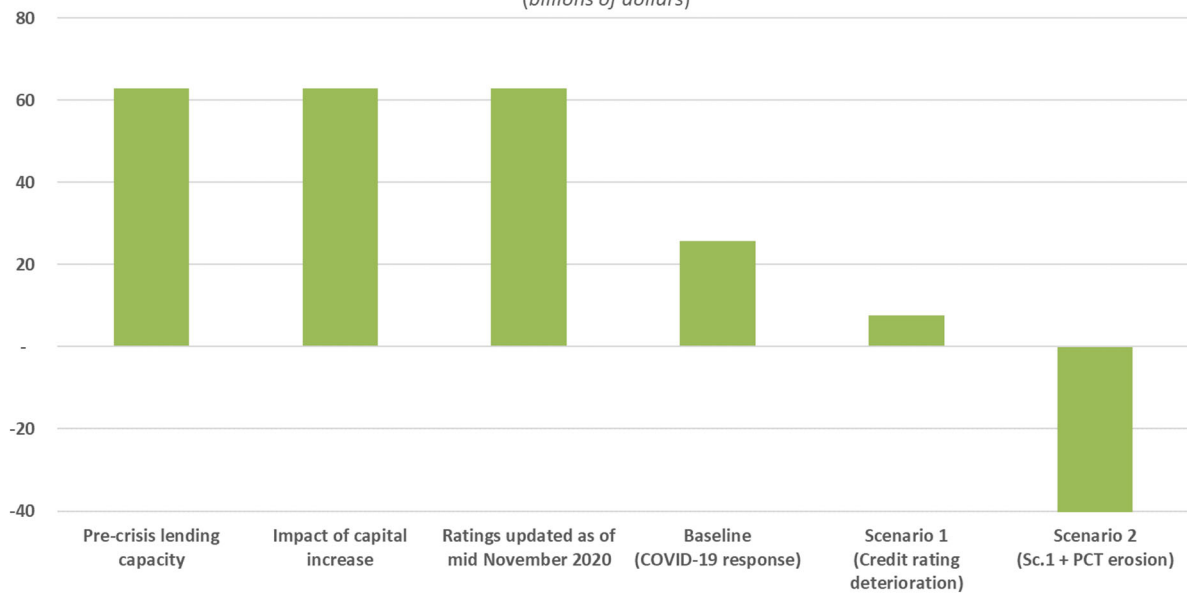
**ADB - Lending headroom under triple-A retention hypothesis**  
(billions of dollars)



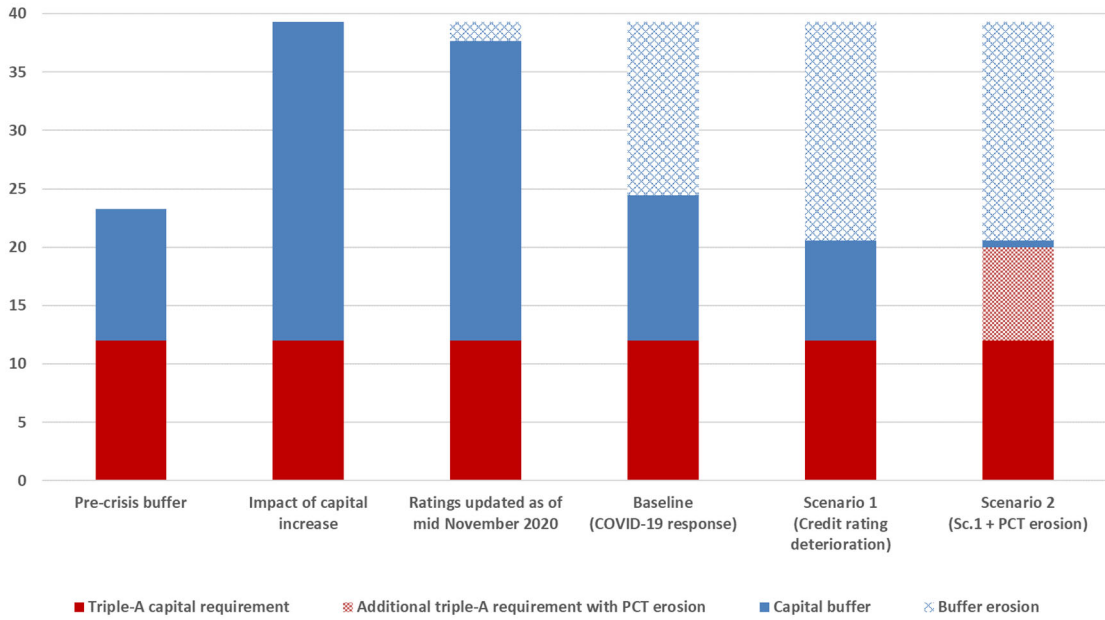
### IADB - COVID-19 impact on risk-adjusted capital ratio (%)



### IADB - Lending headroom under triple-A retention hypothesis (billions of dollars)

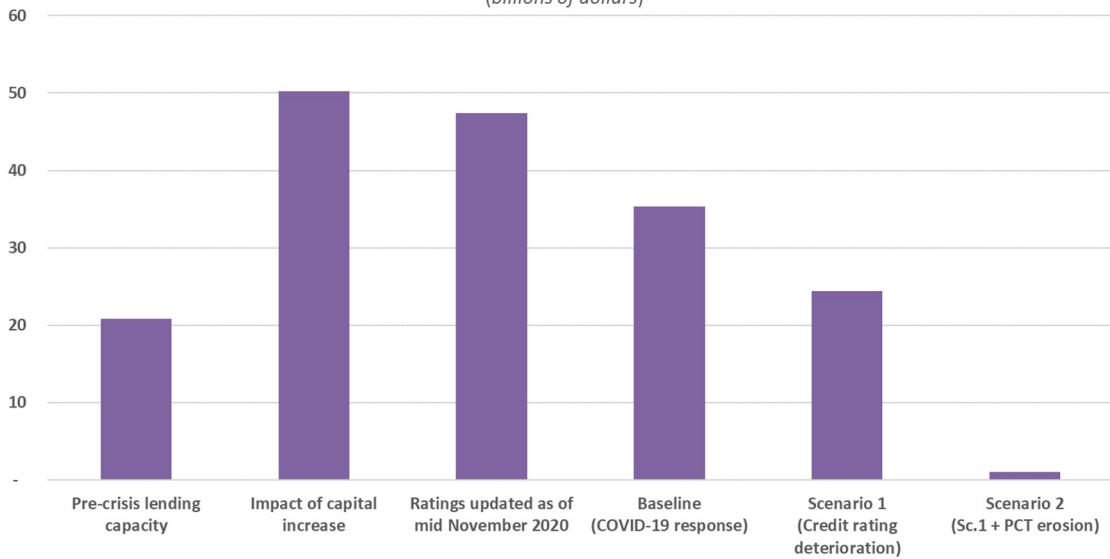


AfDB - COVID-19 impact on risk-adjusted capital ratio (%)



AfDB - Lending headroom under triple-A retention hypothesis

(billions of dollars)



## **Appendix II – MDBs’ immediate response to COVID-19**

In the weeks following the declaration of the pandemic, the main Multilateral Development Banks (MDBs) considered in this note announced support packages amounting to a total of around \$200 billion of financing for emerging and low-income countries, with the largest share provided by the World Bank Group. These packages include targeted investment programmes in the health sector, aid to the poorest through safety nets and cash transfer programmes, emergency fiscal support, and support to companies and financial institutions through trade finance, liquidity and working capital programmes.

The **World Bank Group (WBG)** has announced \$160 billion in financial support in the period until June 2021 (rising to \$330-350 billion up to end-June 2023), to help countries respond to the consequences of the pandemic and bolster economic recovery. The **IBRD** should provide around a third of these resources (\$50 billion until June 2021 and \$100 billion by the fiscal year 2023). As a comparison, WBG’s average annual commitments during the five years period 2015-2019 were \$63 billion (\$62.3 billion in 2019), and a total of \$132 billion was cumulatively committed by the same group in 2009 and 2010 to support emerging and developing countries in dealing with the repercussions of the global financial crisis. The capacity of the IBRD to accommodate a surge in its financing operations is backed by the resources secured through the 2018 capital increase, which were intended to underpin a robust growth plan trajectory.

The **Asian Development Bank (ADB)** is implementing a \$20 billion comprehensive response, including \$13.5 billion of new fresh resources, in addition to an initial \$6.5 billion package that was mainly based on reallocations within existing programmes. The bulk of the assistance is being delivered through a newly established type of fast disbursing policy-based loans aimed at providing budget support.

The **Inter-American Development Bank (IADB)** has expanded the originally agreed size of its 2020 lending programme, complemented by additional resources mobilized by reprogramming the existing portfolio of health projects and redirections from undisbursed loan balances in other sectors. As in the case of the ADB, the increase in the level of disbursements for the year 2020 (estimated at slightly over \$15 billion) is related in large part to a higher share of policy-based loans, with the aim of better tailoring the support provided to the current financing needs of borrowing countries.

The **African Development Bank Group** has announced a dedicated \$10 billion ‘COVID-19 Rapid Response Facility’ (CRF) to help Regional Member Countries and their private sector enterprises respond to the COVID-19 crisis, representing around 70 per cent of its total 2020 available resources. The African Development Bank (AfDB) should deploy \$7 billion as part of the CRF (out of a total of \$9 billion for the full year 2020), mainly focused on budget support financing.

The figures published by each MDB are not easily comparable, as lending horizons vary and each package includes a different mix of instruments. Moreover, the packages mainly refer to commitments (i.e. approved loans in a given period), while the actual disbursements of funds can vary depending on the type of instruments used. It must also be noted that these support packages are financed by both new additional resources and a repurposing of existing programmes/funds that were already planned before the outbreak of the COVID-19 emergency. For these reasons, the information included in the announced packages does not allow to estimate the (fiscal year-end 2023) stock of lending exposures needed to perform our analysis, for which we rely on the assumptions made in our baseline scenario described in the main text.

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