



# The Potential of Proxy Carbon Pricing in International Development Finance

By Gwynne Taraska and Ori Gutin

May 25, 2016

In December 2015, world leaders adopted the Paris Agreement, which aims to limit global warming and build resilience to the effects of climate change. In order to achieve the agreement's low-carbon vision, participating countries will submit national climate goals every five years; articulate a long-term strategy to decarbonize their economies; and aim to eradicate global greenhouse gas emissions in the second half of this century.<sup>1</sup>

Governments are increasingly placing limits on carbon pollution, either through explicit pricing instruments—such as carbon taxes or emissions trading systems—or through nonmarket regulations that establish an implicit price on carbon.<sup>2</sup> These trends will continue as countries seek to meet the national and collective commitments established in the Paris Agreement.

It is therefore clear that climate change has introduced not only physical risk—through extreme weather, sea-level rise, and other effects of greenhouse gas emissions—but also what is known in financial circles as transition risk.<sup>3</sup> With the continued expansion of government action that explicitly or implicitly prices carbon—and with the continued attitudinal shifts in civil society and among investors to favor clean energy—some projects and technologies will become increasingly costly, while others will become increasingly affordable.<sup>4</sup> Assets will be revalued in the context of the global low-carbon shift.

As the transition risks and opportunities posed by the global response to climate change become better known, the private sector is taking measures to mitigate or capitalize on them. Among these measures is a practice known as shadow carbon pricing—or proxy carbon pricing—which involves assuming a future price on carbon emissions when evaluating the financial viability of potential long-term projects or investments, even in the absence of a current carbon tax or trading system.<sup>5</sup>

Proxy carbon pricing is a practice inspired by fiscal prudence: It helps companies steer capital toward projects that will be profitable in a world with progressively strict carbon limits. Well known in the oil and gas industry, proxy carbon pricing is also gaining traction in other sectors, including the industrial and financial sectors.<sup>6</sup> Major U.S.

companies that report using proxy prices on carbon include Chevron Corporation, ConocoPhillips Company, The Dow Chemical Company, Duke Energy, ExxonMobil Corporation, The Goldman Sachs Group, Inc., and Wells Fargo & Company.<sup>7</sup>

To date, proxy carbon pricing is not widely used in the public sector.<sup>8</sup> But public entities—including multilateral development banks, or MDBs—should be even more motivated than private sector actors to use tools that steer investments toward low-carbon projects. This is because MDBs operate under mandates not only to make fiscally sound investment decisions but also to serve the public interest in developing regions. In the case of climate change, this entails an obligation to mitigate future warming.

---

### Dual motivations for proxy carbon pricing in multilateral development banks

MDBs assist developing countries through loans, grants, and other financial instruments—many of which support infrastructure projects, such as those to improve or establish energy and transportation infrastructure.<sup>9</sup> Although they are not profit-oriented, MDBs do seek to make sound lending decisions in order to sustain their operations. Moreover, they are guided by the objective of fostering economic progress in developing regions.

Fiscal prudence should therefore motivate MDBs to use proxy carbon pricing when evaluating potential long-term investments. Providing loans for projects that become stranded assets in the global low-carbon shift, for example, would harm both the bank and the economic health of the country it aims to assist.

In addition, an obligation to help facilitate global decarbonization should motivate MDBs to use tools such as proxy carbon pricing. Climate change exacerbates poverty and therefore conflicts with their overarching development objective.<sup>10</sup>

In fact, many MDBs have explicitly articulated a mandate to help finance global decarbonization and are displaying notable climate leadership. The European Investment Bank, or EIB, for example, aims to dedicate 35 percent of its lending to low-carbon and climate-resilient development by 2020—up from a floor of 25 percent in 2015—and considers its role as one of the primary climate finance channels to be a core part of its mission.<sup>11</sup> The World Bank Group aims to dedicate 28 percent of its financing to climate projects by 2020 and manages the Carbon Pricing Leadership Coalition, which brings together governments and private sector actors to support the introduction of carbon taxes and emissions trading systems.<sup>12</sup> The World Bank Group also serves as the secretariat and trustee of the Partnership for Market Readiness, which helps countries gain the technical capacity to prepare for and implement carbon pricing instruments.<sup>13</sup>

To accelerate the global pivot to clean energy—and to avoid stranded assets, which would be a financial burden on both banks and local economies—MDBs should adopt a proxy price on carbon when assessing the financial viability of potential projects. Proxy carbon pricing is particularly relevant in infrastructure decisions, which will have a major effect on whether the Paris Agreement’s low-carbon vision is achieved. Infrastructure projects can have decades-long lifespans and therefore long-term climate implications.<sup>14</sup>

---

## Initial use of proxy carbon pricing in multilateral development banks

There are signs that the practice of proxy carbon pricing may be gaining traction in the MDB community. Several MDBs apply—or are taking initial steps to apply—proxy carbon prices that are comparable to the social cost of carbon that the U.S. government uses to evaluate potential rulemakings.<sup>15</sup> The social cost of carbon refers to the amount of financial damage to society that is caused by each ton of greenhouse gas pollution.

The European Investment Bank was the first MDB to use proxy carbon prices in evaluating potential projects.<sup>16</sup> Its range is from 10 euros to 40 euros per ton of greenhouse gas pollution in 2010 and increases through 2050—in which the high estimate reaches 120 euros per ton. These figures are in 2006 prices.<sup>17</sup>

The World Bank Group issued guidance in 2014 that recommends a range of social values of carbon for use in the economic analysis of projects.<sup>18</sup> Its central estimate is \$30 per ton in 2015 and reaches \$80 per ton in 2050. By June 2018, the World Bank Group will review this guidance.<sup>19</sup>

The European Bank for Reconstruction and Development, or EBRD, uses a range of proxy carbon prices to assess some of its potential projects, particularly high-carbon projects.<sup>20</sup> To evaluate proposals for coal-fired power plants, for example, the EBRD applies a proxy carbon price that was set at 35 euros per ton in 2014 and increases over time.<sup>21</sup>

There is scant evidence of proxy carbon pricing in other MDBs, although absence should not be mistaken for indifference to the effects of climate change. The Asian Development Bank, for example, aims to double its annual climate investments to \$6 billion by 2020, which would account for 30 percent of its total spending.<sup>22</sup> Similarly, the Inter-American Development Bank aims to double its climate finance to reach 25 percent to 30 percent of its spending by 2020.<sup>23</sup> The African Development Bank, for its part, aims to triple its climate finance to reach \$5 billion per year by 2020.<sup>24</sup> Meanwhile, the Islamic Development Bank signed an agreement with the U.N. Environment Programme in 2016 to support implementation of the Paris Agreement and the “2030 Agenda for Sustainable Development,” for which it has pledged more than \$150 billion over time.<sup>25</sup>

Importantly, MDBs have also been working collaboratively to harmonize climate finance strategies. In 2012, the six largest MDBs released the first “Joint Report on Climate Finance,” which established a shared understanding of the meaning of climate finance in order to improve transparency and facilitate tracking.<sup>26</sup> They also have outlined common principles for greenhouse gas accounting during project appraisal.<sup>27</sup> In 2015, the MDBs partnered with the International Development Finance Club—a collection of 19 international development banks—to set up a pilot to establish shared so-called greening practices, which may include integration of “a carbon price into the economic assessment of investments.”<sup>28</sup>

As the banks seek to further develop best practices related to climate finance, there is an opportunity for them to establish proxy carbon pricing as a more consistently and broadly used tool to drive low-carbon investment—both among the established MDB community and among new banks, such as the Asian Infrastructure Investment Bank. The proxy carbon price that these banks choose should be sufficiently high to affect investment decisions; should represent a range given the uncertain severity of climate effects; and should increase over time.

---

## The promise and limits of proxy carbon pricing in development finance

Proxy carbon pricing alone cannot guarantee that infrastructure and other funding decisions will be climate-compatible. It is possible for a potential project to be deemed financially viable in the context of a future with increasingly strict carbon limits even if the project has a high carbon footprint. For example, potential projects involving inexpensive, locally sourced lignite coal may require a much higher carbon price than other fossil fuels in order to dissuade investment.<sup>29</sup>

But proxy carbon pricing is promising and has unique benefits as one in a set of complementary tools that may be jointly sufficient to guarantee climate-compatible investments. These tools may include climate investment targets; exclusion lists; limits on portfolio-wide emissions; emissions performance standards for projects; and greenhouse gas footprint analyses.<sup>30</sup>

It is worth noting that proxy carbon pricing not only steers investments away from high-carbon projects but also helps renewable energy projects meet the minimum rate of return required for a project to proceed; an emissions performance standard alone would not make this possible. Moreover, given that high-carbon projects drive climate change cumulatively, rather than on an individual basis, a carbon footprint analysis of a single project may be insufficient to redirect investment toward lower carbon alternatives.<sup>31</sup>

In the Paris Agreement, countries pledged to make “finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.”<sup>32</sup> Encouraging the international finance institutions of which they are members to adopt proxy carbon pricing and complementary tools to drive low-carbon investment would be a step toward meeting this pledge.

*Gwynne Taraska is the Associate Director of Energy Policy at the Center for American Progress. Ori Gutin is a former intern with the Energy Policy team at the Center.*

For discussions on the practice of shadow carbon pricing, the authors thank Tom Kerr, Marcene D. Broadwater, and Shari Friedman at the International Finance Corporation. The views in this brief do not necessarily reflect the views of those who are acknowledged. All errors are the responsibility of the authors.

## Endnotes

- 1 U.N. Framework Convention on Climate Change, "Adoption of the Paris Agreement" (2015), available at <http://unfccc.int/resource/docs/2015/cop21/eng/09r01.pdf>.
- 2 Alexandre Kossoy and others, "State and Trends of Carbon Pricing 2015 (English)" (Washington: World Bank Group, 2015), available at <http://www.worldbank.org/content/dam/Worldbank/document/Climate/State-and-Trend-Report-2015.pdf>.
- 3 See, for example, Mark Carney, "Breaking the tragedy of the horizon – climate change and financial stability – speech by Mark Carney," Bank of England, September 29, 2015, available at <http://www.bankofengland.co.uk/publications/Pages/speeches/2015/844.aspx>; see also, Bank of England Prudential Regulation Authority, "The impact of climate change on the UK insurance sector: A Climate Change Adaptation Report by the Prudential Regulation Authority" (2015), available at <http://www.bankofengland.co.uk/prad/Documents/supervision/activities/pradefra0915.pdf>.
- 4 Carney, "Breaking the tragedy of the horizon – climate change and financial stability – speech by Mark Carney."
- 5 United Nations Global Compact and others, "Executive Guide to Carbon Pricing Leadership: A Caring for Climate Report" (2015), available at [https://www.unglobalcompact.org/docs/issues\\_doc/Environment/climate/CarbonPricingExecutiveGuide.pdf](https://www.unglobalcompact.org/docs/issues_doc/Environment/climate/CarbonPricingExecutiveGuide.pdf).
- 6 Sustainable Prosperity, "Shadow Carbon Pricing in the Canadian Energy Sector" (2013), available at <http://www.sustainableprosperity.ca/sites/default/files/publications/files/Shadow%20Carbon%20Pricing%20in%20the%20Canadian%20Energy%20Sector.pdf>.
- 7 CDP, "Putting a price on risk: Carbon pricing in the corporate world" (2015), available at <https://www.cdp.net/CDPResults/carbon-pricing-in-the-corporate-world.pdf>.
- 8 The Center for American Progress has recently argued that the federal government should proxy price carbon in decisions on infrastructure permitting; for more information, see, Alison Cassidy and Gwynne Taraska, "Proxy Carbon Pricing: A Tool for Fiscally Rational and Climate-Compatible Governance" (Washington: Center for American Progress, 2016), available at <https://www.americanprogress.org/issues/green/report/2016/04/18/135580/proxy-carbon-pricing/>.
- 9 Forty percent of the climate finance of the world's six large multilateral development banks went toward projects that involve infrastructure in 2014; see World Bank Group, "Multilateral Development Banks Provided \$28 billion in Climate Finance in 2014," Press release, June 16, 2015, available at <http://www.worldbank.org/en/news/press-release/2015/06/16/mdbs-provided-28-billion-climate-finance-2014>.
- 10 It is notable that the effects of climate change have the potential to drive more than 100 million people into extreme poverty by 2030; Stephane Hallegatte and others, "Shock Waves: Managing the Impacts of Climate Change on Poverty" (Washington: World Bank Group, 2016), available at <https://openknowledge.worldbank.org/bitstream/handle/10986/22787/9781464806735.pdf>.
- 11 European Investment Bank, "EIB sets new 35% target for climate lending in developing countries," Press release, October 9, 2015, available at <http://www.eib.org/infocentre/press/releases/all/2015/2015-223-eib-sets-new-35pct-target-for-climate-lending-in-developing-countries.htm>; European Investment Bank, "EIB Climate Strategy: Mobilising finance for the transition to a low-carbon and climate-resilient economy" (2015), available at [http://www.eib.org/attachments/strategies/eib\\_climate\\_strategy\\_en.pdf](http://www.eib.org/attachments/strategies/eib_climate_strategy_en.pdf).
- 12 World Bank Group, "World Bank Group Climate Change Action Plan" (2016), available at <http://pubdocs.worldbank.org/pubdocs/publicdoc/2016/4/677331460056382875/WBG-Climate-Change-Action-Plan-public-version.pdf>; Carbon Pricing Leadership, "Leadership Coalition," available at <http://www.carbonpricingleadership.org/leadership-coalition/> (last accessed May 2016).
- 13 Partnership for Market Readiness, "Supporting Action for Climate Change Mitigation," available at <https://www.thepmr.org/content/supporting-action-climate-change-mitigation> (last accessed May 2016).
- 14 See, for example, James Rydge, Michael Jacobs, and Ilmi Granoff, "Ensuring new infrastructure is climate-smart" (Washington: The New Climate Economy, 2015), available at <http://2015.newclimateeconomy.report/wp-content/uploads/2015/10/Ensuring-infrastructure-is-climate-smart.pdf>.
- 15 See, for example, the middle estimates in use by the European Investment Bank XX CORRECT? XX and the World Bank Group as compared to the U.S. social cost of carbon with the 3 percent discount rate; U.S. Environmental Protection Agency, "The Social Cost of Carbon," available at <http://www3.epa.gov/climatechange/EPAactivities/economics/sc.html> (last accessed May 2016).
- 16 European Investment Bank, "EIB Climate Strategy."
- 17 European Investment Bank, "The Economic Appraisal of Investment Projects at the EIB" (2013), available at [http://www.eib.org/attachments/thematic/economic\\_appraisal\\_of\\_investment\\_projects\\_en.pdf](http://www.eib.org/attachments/thematic/economic_appraisal_of_investment_projects_en.pdf); The range was recently extended through 2050; Ben Garside, "EIB proposes to extend shadow CO2 price to 2050, keep climate spending ratio," Carbon Pulse, August 17, 2015, available at <http://carbon-pulse.com/7699/>.
- 18 Jim Yong Kim, "Speech by World Bank Group President Jim Yong Kim: 'Sending a Signal from Paris: Transforming the Economy to Achieve Zero Net Emissions,'" World Bank Group, December 8, 2014, available at <http://www.worldbank.org/en/news/speech/2014/12/08/transforming-the-economy-to-achieve-zero-net-emissions>; see also, Marianne Fay and others, "Decarbonizing Development: Three Steps to a Zero-Carbon Future" (Washington: World Bank Group, 2015), available at <http://www.worldbank.org/content/dam/Worldbank/document/Climate/dd/decarbonizing-development-report.pdf>.
- 19 World Bank Group, "World Bank Group Climate Change Action Plan."
- 20 Adarsh Varma and others, "European and International Financial Institutions: Climate related standards and measures for assessing investments in infrastructure projects" (London: Ricardo-AREA, 2013), available at [http://ec.europa.eu/clima/events/docs/0072/study\\_standards\\_mesures\\_en.pdf](http://ec.europa.eu/clima/events/docs/0072/study_standards_mesures_en.pdf).
- 21 European Bank for Reconstruction and Development, "Methodology for the assessment of coal fired generation projects" (2014), available at <http://www.ebrd.com/downloads/policies/sector/coal-methodology.pdf>.
- 22 Asian Development Bank, "ADB to Double Annual Climate Financing to \$6 Billion for Asia-Pacific by 2020," Press release, September 25, 2015, available at <http://www.adb.org/news/adb-double-annual-climate-financing-6-billion-asia-pacific-2020>.
- 23 Inter-American Development Bank, "IDB aims to double financing for climate change," Press release, October 8, 2015, available at <http://www.iadb.org/en/news/news-releases/2015-10-08/double-financing-for-climate-change,11272.html>.
- 24 African Development Bank Group, "African Development Bank to triple Annual Climate Financing to nearly \$5 billion by 2020," September 10, 2015, available at <http://www.afdb.org/en/news-and-events/article/african-development-bank-to-triple-annual-climate-financing-to-nearly-5-billion-by-2020-14798/>.
- 25 United Nations Environment Programme, "1 – UNEP and Islamic Development Bank Sign Agreement on Environmental Conservation," January 20, 2016, <http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=26862&ArticleID=35842&l=en>.

- 26 For example, finance is considered climate finance not based on its origin or its results, but because of the activity it supports, among other considerations; European Investment Bank, “Joint MDB Report on Mitigation Finance 2011” (2012), available at [http://www.eib.org/attachments/documents/joint\\_mdb\\_report\\_on\\_mitigation\\_finance\\_2011.pdf](http://www.eib.org/attachments/documents/joint_mdb_report_on_mitigation_finance_2011.pdf); Through these annual joint reports, the Multilateral Development Banks announced investments of over \$100 billion in climate finance from 2011 to 2014.
- 27 World Bank Group, “International Financial Institution Framework for a Harmonised Approach to Greenhouse Gas Accounting” (2015), available at [http://www.worldbank.org/content/dam/Worldbank/document/IFI\\_Framework\\_for\\_Harmonized\\_Approach%20to\\_Greenhouse\\_Gas\\_Accounting.pdf](http://www.worldbank.org/content/dam/Worldbank/document/IFI_Framework_for_Harmonized_Approach%20to_Greenhouse_Gas_Accounting.pdf).
- 28 France Diplomatie, “Development banks adopt common standards to move climate finance forward,” March 31, 2015, available at <http://www.diplomatie.gouv.fr/en/french-foreign-policy/climate/events/article/development-banks-adopt-common>.
- 29 Matthias von Bechtolsheim and Michael Kruse, “The future of lignite power: A viewpoint on the ‘Energiewende’ and its impact on lignite power” (Boston: Arthur D. Little, 2015), available at [http://www.adlittle.de/uploads/tx\\_ext-thoughtleadership/ADL\\_FutureOfLignitePower\\_01.pdf](http://www.adlittle.de/uploads/tx_ext-thoughtleadership/ADL_FutureOfLignitePower_01.pdf).
- 30 For an overview of tools that can help drive low-carbon investments, see Ian Cochran, Claire Eschaliér, and Mariana Deheza, “Mainstreaming Low-Carbon Climate-Resilient growth pathways into investment decision-making – lessons from development financial institutions on approaches and tools” (Association pour la Promotion de la Recherche sur l’Économie du Climat, 2015), available at [http://www.i4ce.org/wp-core/wp-content/uploads/2015/09/2015.07.03\\_mainstreaming\\_lccr\\_background\\_paper\\_v9.pdf](http://www.i4ce.org/wp-core/wp-content/uploads/2015/09/2015.07.03_mainstreaming_lccr_background_paper_v9.pdf); see also, Niklas Höhne and others, “Developing 2°C-Compatible Investment Criteria” (Cologne, Germany: NewClimate Institute, 2015), available at <https://germanwatch.org/en/download/13444.pdf>; Ian Cochran and others, “Public Financial Institutions and the Low-Carbon Transition: Five Case Studies on Low-Carbon Infrastructure and Project Investment” (Washington: Organisation for Economic Co-operation and Development, 2014), available at [www.oecd-ilibrary.org/docserver/download/5jxt3rhpgn9t.pdf](http://www.oecd-ilibrary.org/docserver/download/5jxt3rhpgn9t.pdf).
- 31 World Bank Group, Inter-American Development Bank, European Investment Bank, Asian Development Bank, European Bank for Reconstruction and Development, African Development Bank, and other banks have signed the “Principles for Mainstreaming Climate Action within Financial Institutions,” which highlights the need to “be transparent and report, wherever possible, the climate footprint of the institutions’ own investment portfolio, and how the institution is addressing climate risk.”; World Bank Group, “Mainstreaming Climate Action Within Financial Institutions: Five Voluntary Principles,” available at <http://www.worldbank.org/content/dam/Worldbank/document/Climate/5Principles.pdf> (last accessed May 2016).
- 32 U.N. Framework Convention on Climate Change, “Adoption of the Paris Agreement.”