

MULTILATERAL DEVELOPMENT BANK BONDS:

A Rewarding Investment for A Better Society

White Paper

30 November 2018



EXECUTIVE SUMMARY

- Solactive and UBS launched the Solactive UBS Global Multilateral Development Bank Index Family, a family of benchmarks targeting the bonds issued by Multilateral Development Banks, such as the Asian Development Bank and the International Bank for Reconstruction & Development. The family focuses on sustainable investing.
- MDBs are created by multiple sovereign governments. They issue bonds in the international capital markets and use the proceeds to finance projects with positive social and economic impact in developing countries. Sovereign governments use subscribed capital to support MDBs' liquidity and credit positions.
- MDB bonds are appealing investments. They have generally high credit ratings, and comparable returns as sovereign bonds. Moreover, MDB bonds are attractive for investors seeking positive social and economic impact through their investments, since holding these instruments aligns investments with long-term sustainability goals.

WHAT IS A MULTILATERAL DEVELOPMENT BANK?

A Multilateral Development Bank (MDB) is an institution created by a group of countries, making it a supranational institution (Table 1). The purpose of such an institution is to provide financial support and technical assistance to developing countries to foster economic infrastructure and social development.

A MDB is not a typical bank since its business model works differently: a MDB provides developing countries with financial support to development projects at reduced costs and favorable terms. A typical set of financial support includes loans, lines of credit, guarantees, grants and/or equities. Loans are the most commonly provided financial aid, followed by guarantees. To finance the lending activities, the MDB raises funds through issuance of bonds in capital markets. Sovereign governments, as shareholders of the MDB, support the MDB using subscribed capital to meet any obligations related to the loans of the MDB. In the following we are using examples of the World Bank Group and the Asian Development Bank to provide a clearer image of MDBs.

Table 1 Major MDBs and The Corresponding Total Assets (as of 31/12/2017)

MDB	Total Asset USD billion
International Bank for Reconstruction & Development / IBRD	406 ¹⁾
International Development Association / IDA	197 ¹⁾
Asian Development Bank / ADB	182
Inter-American Development Bank / IADB	126
International Finance Corporation / IFC	92 ¹⁾
European Bank for Reconstruction and Development / EBRD	67 ²⁾
African Development Bank / AfDB	33

Source: Solactive UBS Global Multilateral Development Bank Bond Index Family; Annual Reports of relevant banks

1) Fiscal Year 2017 ended on 30/06/2017

2) Converted to USD using Exchange Rate as of 31/12/2017



Table 2 Five Institutions, One World Bank Group

Institutions	Commitment
IBRD	International Bank for Reconstruction and Development providing loans, guarantees, risk management products and advisory services to middle-income and creditworthy low-income countries
IDA	International Development Association providing loans and grants on concessional terms for the world's 75 poorest countries and countries at risk of debt distress
IFC	International Finance Corporation providing investment, advice and asset management to private sector
MIGA	Multilateral Investment Guarantee Agency providing political risk insurance guarantees to private sector investors and lenders, to promote foreign direct investment into developing countries
ICSID	International Center for Settlement of Investment Disputes devoted to dispute resolution process of international investment

Source: World Bank Group

THE WORLD BANK GROUP:

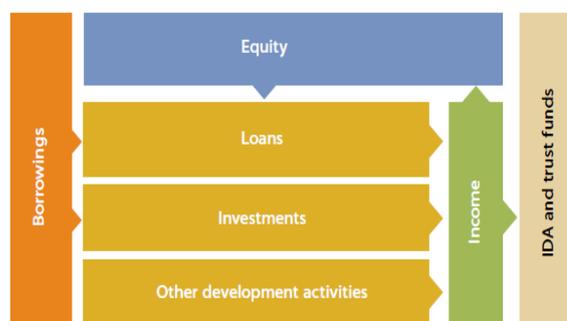
End extreme poverty, promote shared prosperity

The first founded and largest MDB, the World Bank, was created at the Bretton Woods Monetary Conference in 1944 with the objective of helping rebuild countries devastated by World War II. Today's World Bank touches all sectors relevant to ending extreme poverty and supporting economic growth in developing countries. The World Bank Group constitutes five institutions as shown in Table 2. These five institutions collaborate closely for the benefit of its member countries, spanning a range of activities at the regional, country, and sectoral levels and for various themes.

The largest financing arm of the World Bank Group is the International Bank for Reconstruction and Development (IBRD); it has 189 member countries. IBRD supports the World Bank's mission by providing loans, guarantees,

and advisory services to development-focused projects to developing countries. The lending terms and conditions are customized to the project needs of the borrowing countries. New IBRD lending commitments amounts to USD 22.6 billion for 133 projects in fiscal year 2017¹. Additionally, IBRD offers financial products, such as currency conversions and interest rate swaps, to help borrowers efficiently manage risks related to their currencies, interest rates, commodities, and disasters.

Figure 1 IBRD Business Model



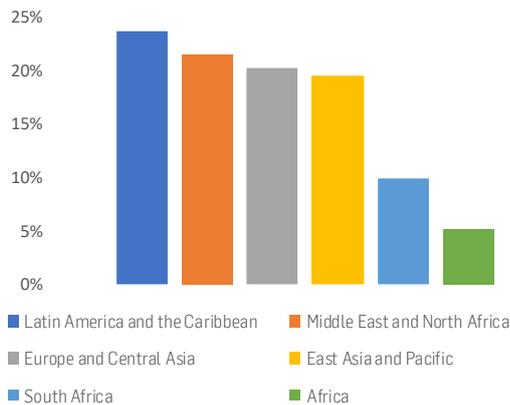
Source: World Bank Group

¹ The Annual Report 2017 of the World Bank Group



The IBRD finances its loans using its own equity and money borrowed through the issuance of bonds. The bonds are issued through global offerings or tailored to the needs of specific markets. In fiscal year 2017, IBRD raised USD 56 billion by bond issuances in 24 currencies².

Figure 2 IBRD Lendings by Region (USD million)



Source: World Bank Group

ASIAN DEVELOPMENT BANK:

Sustainable infrastructure for future needs

The Asian Development Bank (ADB) is another example of a MDB. With the target of fostering economic growth and cooperation, ADB was conceived in the early 1960s with 31 members. Nowadays ADB has grown to encompass 67 members, of which 48 are within Asia and the Pacific. Japan and China are the largest shareholders, with 18% voting rights³. In 2017 the ADB committed USD 20.1 billion, in the forms of loans, grants and investments. To support its lending activities, the ADB raised long-term funds through insurance of bonds, which amounted to USD 19.1 billion in 2017⁴.

WHAT DO MDB BONDS LOOK LIKE?

To meet the development goals, MDBs are important intermediaries between the project funding and the international capital markets — they issue bonds and use the proceeds to finance development activities. The borrowings of MDBs aim at reaching notional targets, attaining the maturities needed for the bank’s borrowing and lending management, and optimizing the funding cost on a sustainable basis. In the following we will cover characteristics of MDBs bonds – credit rating, issuing currency, maturity profiles among other topics.

HIGH CREDIT RATINGS:

A safe investment

None of the major MDBs has ever defaulted on its obligations. Since most MDBs have high credit ratings (Figure 3), MDB bonds can be perceived as high-quality securities. For example, underpinned by IBRD’s strong financial performance, sound capital structure and member countries’ support, IBRD bonds enjoy triple-A ratings.

Figure 3 Issuer Credit Rating of Major MDBs



Source: FactSet

² The Annual Report 2017 of the World Bank Group

³ The Annual Report 2017 of Asian Development Bank

⁴ The Annual Report 2017 of Asian Development Bank

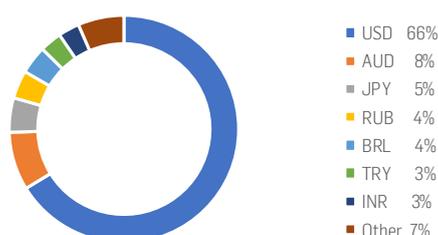


CURRENCY:

Multiple-currency and flexibility

MDBs offer leeway to borrowers to customize the repayment terms. Loans could be on both fixed and variable terms and in multiple currencies. To align the lendings with the borrowings, MDBs issue bonds in multiple currencies and interest rates based on the overall scale. For example, as shown in Figure 4, the dominating currency of the IFC borrowings is US dollar, accounting for 66% of the total capital raised. The remaining was issued in multiple currencies, including Australian dollar, Japanese yen, Russian ruble, Brazilian real and so on.

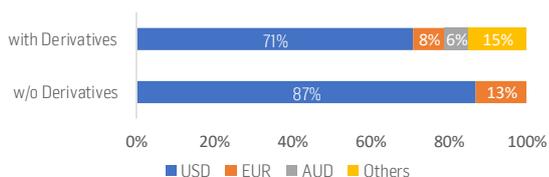
Figure 4 IFC Borrowings in Multiple Currencies



Source: International Finance Corporation

To diversify the funding sources and to minimize the investors' currency risks, derivatives are broadly used by MDBs. Figure 5 shows an example of the IBRD using such instruments. New markets are opened up for international investors by issuance in emerging markets' currencies such as Chinese renminbi. Moreover, the derivatives are used to hedge the investor's risk exposure towards the financing currencies.

Figure 5 IBRD Bonds and the Effects of Derivatives



Source: World Bank Group

MATURITY:

A general medium-term profile

Generally, the borrowing decisions are made by MDBs based on a multiple-year rolling horizon. To be in line with the long-term nature of financings, medium- to long-term MDB bonds dominate the market. In fiscal year 2017, IBRD raised net short-term debt of USD 7 billion, and issued a total of USD 56 billion of medium- and long-term bonds⁵.

As illustrated by Table 3, short-term debts of the IBRD consist mainly of discount notes with a weighted average maturity of 90 days.

Table 3 IBRD's Short-Term Borrowings in Capital Markets

Short-Term Bonds	Balance ¹⁾	Weighted-average Rate ²⁾
Discount Notes	11,758	0.63%
Securities lent or sold under repurchase agreements	204	0.07%
Other short-term borrowings	377	0.62%

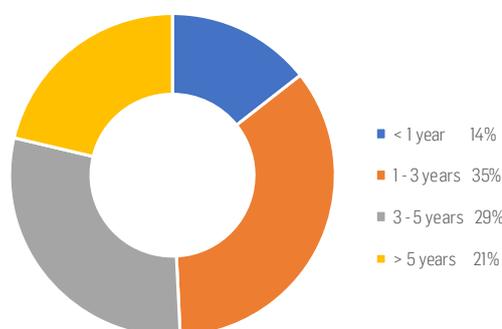
Source: World Bank Group

¹⁾ maximum month-end balance during the fiscal 2017, in millions of U.S. dollars

²⁾ during the fiscal 2017, in %

The average maturity of medium- and long-term borrowings raised by IBRD is 4 years (Figure 6). The IBRD strategically calls its debt to reduce the cost of borrowings; it may also repurchase its debt to meet other operational or strategic needs, such as providing liquidity to its investors.

Figure 6 Maturity of Medium- and Long-Term Bonds



Source: World Bank Group

⁵ The Annual Report 2017 of the World Bank Group



PRODUCT INNOVATIONS:

Green bonds and more

MDB bonds are innovative, demand-driven investment products, giving access to purposeful investments. New products are also developed for investors seeking latest market trends, for example, green bonds, social bonds and some other climate-related, sustainable development solutions. Since 2008, the IBRD issued green bonds worth more than USD 10 billion through 131 transactions in 18 currencies⁶. Similarly, the ADB provides innovative products such as green bonds, guarantees, infrastructure funds, and other credit-enhancement facilities.

VARIOUS INVESTORS:

Banks take the lead

As a consequence of the diversity and attractiveness of the MDBs bonds, various types of investors are involved. Central Banks and institution investors take the lead in the investing trends: bank treasuries continue to be the largest investors, followed by Central Banks and real money investors such as fund managers, insurance companies, and pension funds.

Indeed, MDB bonds act as a bridge, connecting the development goals of poor countries with private and public investors all over the world.

ARE MDB BONDS APPEALING?

What concerns the investors most is the attractiveness of financial products: is the investment rewarding, financially and socially? To answer this question, we should take a look at the risk profile, the return performance, and the impact achieved by the investments.

MDB BONDS ENJOY HIGH CREDIT RATINGS

According to Moody's, most MDBs have a credit rating of Aaa, especially the large and regional development banks. Generally, MDB bonds enjoy high credit ratings, which are backed by the MDBs' reliable subscribed capital structure, strong financial performance supporting the banks' own fund, highly secured and high-quality loan portfolio.

MDBs' ownership and reliable subscribed capital structure: MDBs are created and backed by the membership of multiple donor countries. For example, the ADB is owned by 67 regional and nonregional members, with subscribed capital amounting to USD 152 billion (as of 31 December, 2017)⁷.

Figure 7 ADB's Regional and Nonregional Members



Source: Asian Development Bank

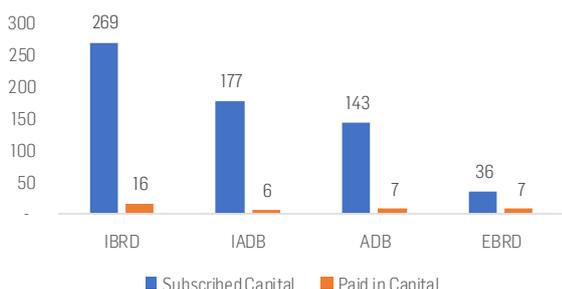
⁶ The Annual Report 2017 of the World Bank Group

⁷ The Asian Development Bank



Sovereign governments support the development of MDBs using subscribed capital, the capital commitment from donor countries can be called when required. As shown in Figure 8, from a large amount of subscribed capital, only a small portion is called by the world's major MDBs, providing buffer for MDB bonds' repayments and liquidity management.

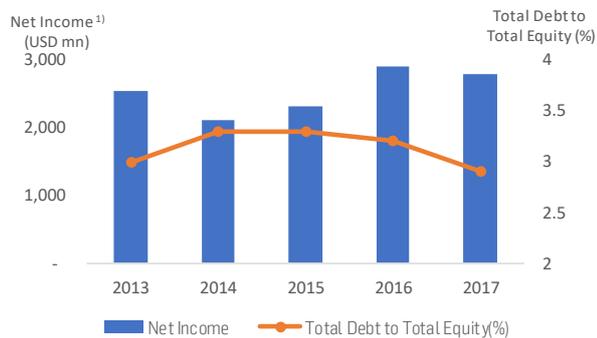
Figure 8 Subscribed Capital and Paid-in Capital (USD million)



Source: World Bank Group, Inter-American Development Bank, Asian Development Bank, European Bank for Reconstruction and Development

MDBs' strong financial performance: Financial performance of major MDBs has been historically good and is a further factor explaining MDB bonds' creditworthiness. As shown in Figure 9, the IADB has recorded a surplus in net income every year. In 2017, the net income was USD 2.79 billion, topping up the bank's own funds and ensuring the improvement of the bank's total debt to total equity ratio⁸.

Figure 9 IADB: Strong Financial and Adequate Capital Position



Source: Inter-American Development Bank

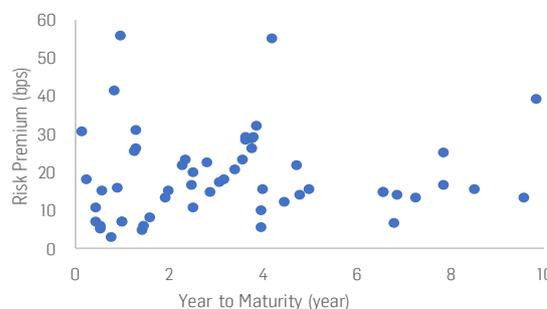
¹ Net Income = Loan Income + Investment Income + Operating Income - Borrowing Expense

MDBs' high-quality and highly-secured loan portfolio: MDBs' high credit standings are underpinned by the highly secured loan portfolios, which are ensured by MDBs' conservative lending policies, strict project selection, and strong collateralization. Generally, a project to be funded will be assessed from an economic, technical, environmental / social and financial perspective, and monitored throughout the lifetime of the loan. What's more, loan portfolio was secured through credit enhancements or recourses to members' guarantees. Concentration risk is also highly monitored: the IBRD sets specific country and sector exposure limits to control for over-concentration.

MDB BONDS' IMPROVED RISK-RETURN EXPECTATION

MDB bonds are appealing substitutes for sovereign bonds, as MDBs are backed by governments and usually issue bonds with a slight premium over the corresponding sovereign bonds. For example, Figure 10 exhibits the risk premium of IBRD bonds over U.S. Treasury rates: the additional yields vary from 3 to 65 bps.

Figure 10 Risk Premium of US Dollar-Denominated World Bank Bonds over US Treasuries (as of 30 April 2018)



Source: FactSet

⁸ The Fiscal Report 2016 of the European Investment Bank



Multilateral Development Bank Bonds: A Rewarding Investment for A Better Society

The Solactive UBS Global Multilateral Development Bank Bond Index Family looks at the MDB bonds as a whole: it is a rule-based, market value weighted index engineered to mirror the performance of the bonds issued by major MDBs. The index family is designed to be a new way of investing, providing financing to the world's key development goals. What's more, it is to serve as a relevant and transparent benchmark for asset managers interested in the MDB sector. As shown by Figure 11 and Table 4, compared with medium-term US Treasury Bonds, MDB bonds enjoy slightly higher returns with less volatility.

Solactive UBS Global Multilateral Development Bank Bond Index Family

- ✓ *Attractive risk-return profile:* comparable returns to conventional highly-rated sovereign bonds, with improved risk profile
- ✓ *Sustainability & impact:* express your view by making investments
- ✓ *Uniqueness:* the first index solution to target multilateral development banks
- ✓ *Broad exposure & cost efficiency:* gain broad exposure to MDB bonds at low fees
- ✓ *Representativeness:* market value weighting scheme ensures the replicate of a macro-consistent, buy-and-hold strategy

As such, incorporating MDB bonds into a portfolio improves the return expectation without compromising the risk standing.

Figure 11 Solactive UBS Global Multilateral Development Bank Bond USD TR Index



Source: Solactive

Table 4 Solactive UBS Global Multilateral Development Bank Bond USD TR Index

Return-risk Profile	
Annualized Return	0.92%
Annualized Volatility	1.82%
Sharpe Ratio	0.50
Maximum Drawdown	-2.92%

Source: Solactive

SOCIAL AND ENVIRONMENTAL IMPACTS

On top of financial returns, social impact is attracting further attention from investors. Social benefits and environmental impact can be achieved through the MDBs' lending activities, which allocate capital to the sectors and regions where support is needed. Generally, the lending terms are highly concessional – MDBs carry no or very low interest charges. In fiscal year 2017, a total of USD 22.6 billion was committed by the IBRD to help in ending extreme poverty and boosting shared prosperity⁹. As indicated by Figure 13, particular emphasis is on environment and natural resource management as well as urban and rural management.

⁹ The Annual Report 2017 of the World Bank Group

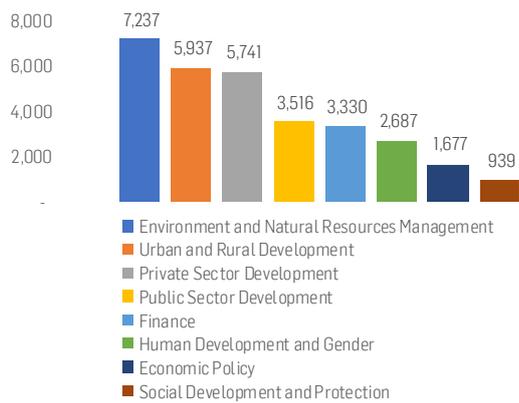


Figure 12 World Bank's Commitments to End Extreme Poverty and Boost Shared Prosperity (USD billion)



Source: World Bank Group

Figure 13 IBRD Lendings in 2017 by Theme (USD million)



Source: World Bank Group

Evidence of progress and development is tangible. The World Bank Group Corporate Scorecards¹⁰ highlight the development strides made in recent years. Notably extreme poverty¹¹ has continued to fall, moving towards the 2030 target of 3% (Figure 14).

Figure 14 Monitoring the Sustainable Development: Extreme Poverty Ratio



Source: World Bank Group

Other examples of environmental and social impact achieved by MDB financing are:

- The Green Energy Corridor and Grid Strengthening Project: funded by the ADB for USD 500 million, the project targets to facilitate the transfer of power from the renewable energy rich areas to other parts of the country.
- The Productive Safety Nets Program: financed by the IDA, the program reduced the number of people needing humanitarian assistance by 8 million. Cash transfers are provided to 318 food-insecure districts.

FINAL THOUGHTS

All around the globe, a growing number of individual and institutional investors are seeking stable financial returns, while simultaneously achieving a positive social and/or environmental impact. This paper about the business model of major MDBs and the characteristics of their bonds is a step forward to promote the field of sustainability investing. This paper also showcases that MDB bonds are appealing investments with improved risk-return profiles and positive sustainability impacts. They are to the mutual benefits of the banks, its investors and the society.

¹⁰ World Bank Group Corporate Scorecards provide an overview of the results and performance indicators: <https://scorecard.worldbank.org/>

¹¹ Defined by the United Nations and the World Bank Group, extreme poverty refers to living on less than USD 1.9 a day (in 2017 prices)



CONTACT

SOLACTIVE AG
German Index Engineering
Guiollettstr. 54
60325 Frankfurt am Main
www.solactive.com

Timo Pfeiffer, Head of Research & Business Development
+49 (69) 719 160 320
timo.pfeiffer@solactive.com

Yayin Su, Quantitative Research Analyst
+49 (69) 719 160 315
yayin.su@solactive.com

Fabian Colin, Head of Sales
+49 (69) 719 160 220
fabian.colin@solactive.com

Follow us on



Disclaimer

Solactive AG does not offer any explicit or implicit guarantee or assurance either with regard to the results of using an Index and/or the concepts presented in this paper or in any other respect. There is no obligation for Solactive AG - irrespective of possible obligations to issuers - to advise third parties, including investors and/or financial intermediaries, of any errors in an Index. This publication by Solactive AG is no recommendation for capital investment and does not contain any assurance or opinion of Solactive AG regarding a possible investment in a financial instrument based on any Index or the Index concept contained herein. The information in this document does not constitute tax, legal or investment advice and is not intended as a recommendation for buying or selling securities. The information and opinions contained in this document have been obtained from public sources believed to be reliable, but no representation or warranty, express or implied, is made that such information is accurate or complete and it should not be relied upon as such. Solactive AG and all other companies mentioned in this document will not be responsible for the consequences of reliance upon any opinion or statement contained herein or for any omission.

All numbers are calculated by Solactive as of June 2018.