OECD DAC BLENDED FINANCE PRINCIPLE 4 GUIDANCE

Revised Note following public consultation

BETTER POLICIES FOR BETTER LIVES

OECD DAC Blended Finance Principle 4: Focus on Effective Partnering for Blended Finance

Guidance Note and Detailed Background Guidance

Background

In 2017, members of the Development Assistance Committee have officially adopted the OECD DAC Blended Finance Principles for Unlocking Commercial Finance for the SDGs. Therein, Principle 4 relates to designing blended finance to ensure effective partnering.

This working document presents the draft Guidance Note on Principle 4 along with the Detailed Background Guidance for consultation purposes, as part of a broader process that will run until end of 2020. This document was developed by an OECD team including Astrid Manroth, Jarrett Dutra and Wiebke Bartz-Zuccala under the oversight of Paul Horrocks and Haje Schütte. This Guidance Note benefited from the Senior Strategic Review of Christian Novak, Professor of Practice at McGill University - Institute for the Study of International Development.

This Guidance Note was developed through a participatory process and has benefited from comprehensive feedback from DAC blended finance actors, multilateral development banks (MDBs), development finance institutions (DFIs) private sector entities, philanthropy and civil society representatives during a workshop on 23 May 2019, as well as bilateral discussions and interviews. A public online consultation process was also conducted to reflect the experience of the broad development finance community, experts, practitioners, civil society organisations (CSOs) and other relevant stakeholders. The online consultation on the Guidance Notes lasted from 15 April until 10 July. This document reflects the comments and feedback received during the consultation process.

As blended finance is still a relatively new tool in the development co-operation toolkit and the blended finance environment is rapidly changing, new practices and approaches can develop quickly. The Detailed Guidance Note will thus updated accordingly in the future. It should be noted that the guide should not be seen as a replacement for effective due diligence, although it should assist in ensuring key elements are identified.

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Introduction

1. **The OECD DAC Blended Finance Principle 4 focuses on effective partnering for blended finance.** Blended finance works if both development and financial objectives can be achieved, with appropriate allocation and sharing of risk between parties, whether commercial or developmental. Development finance should leverage the complementary motivation of commercial actors, while not compromising on the prevailing standards for development finance deployment. In line with OECD implementation guidance, donors should ensure that risks are allocated in a sustainable and balanced manner between development finance providers and commercial partners. In addition, governments should promote standardisation of approaches to promote scaling up and avoid further fragmentation in blended finance approaches.

2. **The need for effective partnerships in blended finance approaches is now more relevant and urgent than ever**, with the **COVID-19 pandemic** causing an unprecedented health, human and economic crisis and reversing progress towards the achievement of the SDGs.

3. Principle 4 tackles issues around a) enabling each party to engage based on their **mandate and obligation**, while respecting each other's mandate, b) allocating **risk** in a **targeted, balanced** and **sustainable manner**, and c) aiming for **scalability**.

1. Principle 4: Focus on Effective Partnering for Blended Finance

1.1. Sub-principle 4A - Engaging each party on the basis of their respective mandate

4. **Amongst blended finance actors, mandates and objectives are not always aligned**. It is therefore incumbent upon the policy makers – donor and partner governments – to facilitate partnering between blended finance actors that enables maximum development impact for the partner country, while respecting each partner's mandate and obligations, in line with the OECD DAC Blended Finance Principles.

5. **Principle 4a) stipulates that each party needs to engage based on their mandate and obligation, while respecting each other's mandate.** In terms of parties involved in blended finance and their objectives, they include:

- Public parties with development impact objectives, seeking concessional financial returns – these are institutions in donor and recipient governments (e.g. development agencies);
- Public parties with commercial financial objectives while also pursuing development impact – these are multilateral development banks (MDBs) and development finance institutions (DFIs), national development banks, and some sovereign wealth funds;
- Public parties with commercial objectives and a commercial mandate, e.g. public pension funds, sovereign wealth funds etc.;
- Private parties with both development impact and financial returns objectives, e.g. impact investors and social enterprises;
- Private parties with commercial financial objectives – including local and foreign companies, commercial banks and local and foreign institutional investors as well as retail investors;
- Philanthropic actors pursuing development impact with concessional returns;
- Civil society organisations (CSOs), looking for market transparency and development impact of blended finance (e.g. NGOs, trade unions, etc); and
- Research centres and academia, contributing to building the evidence base on blended finance.

6. Each of these parties have their unique objectives and risk-return profiles that lead them to engage in certain sectors, geographies and financial instruments that need to be taken into account when designing blended finance solutions. Consultations for this work highlighted the need for increased support from DAC blended finance actors for blended finance in early stage project development and in high impact areas, such as labour intensive investments in cooperatives, MSMEs and sustainable agricultural development, including in least developed countries (LDCs).

1.2. Sub-principle 4B - Allocating risks in a targeted, balanced and sustainable manner

7. **Principle 4b) addresses allocating risk in a targeted, balanced and sustainable manner.** Blended finance needs to be guided by good practice risk allocation approaches. Risk analysis needs to include a careful assessment of the risks involved in delivering additional development impact with a blended finance operation. In this context, blending can take place at institutional or portfolio level (such as securitisation of MDB assets), at program level (such as a structured investment fund) and project level. Risk allocation methodologies vary between sectors, geographies and levels of blending.

8. The implementation guidance proposes the following approach to risk allocation in blended finance:

I. For blending at the project level and for larger projects and in sectors that allow for a high disaggregation of risk, such as infrastructure projects, **blended concessional finance should cover those risks that the private sector cannot manage** (such as political, regulatory and new technology risk) **and provide risk mitigation in areas where no or limited market solutions are available for de-risking** (through e.g. insurance or guarantees). In these projects, blended finance can also be used to provide viability gap funding to enhance returns for commercial viability while maintaining affordability, while over-subsidisation needs to be avoided and sustainability ensured. In this context, it is important to identify the market failure that blended finance seeks to address.

II. For blending at the program level and in sectors with smaller transaction sizes that require an aggregate approach to financial risk analysis, **benchmarks need to be used to determine the amount of concessional finance required for risk mitigation in a blended finance structure**, such as a structured fund, while ensuring minimum concessionality. Historic or expected losses can serve as a benchmark for e.g. sizing a first loss tranche, while proxies may need to be used on sectors and geographies where limited data is available.

III. **A differentiated risk analysis is required for each blended finance program and project**, taking into account the sector, geography and stage in the project cycle. Factors such as first-time vs repeat transactions, new vs established technologies, new vs established markets and performance track record need to be taken into account when determining the amount of concessional finance required to de-risk investments for the private sector.

IV. **As risk profiles change and decrease during the project lifecycle, markets should be open to adopt new financial instruments that allow improved matching of public and private investors with the respective risk profile**. For infrastructure projects, this implies rethinking the standard project finance structures and exploring alternatives. For blending at the institutional/portfolio level, it means that lower risks during the operating phase and/or in more mature sectors can be transferred to private sector investors, e.g. through securitisation. Similarly, financial risk-return models need to be adjusted to reflect declining risk over the project cycle.

V. Whenever possible**, local partners should be brought into the operating phase of assets created through blended finance**, as these assets can benefit from local currency financing, especially when generating revenues in local currency.[1] In addition, local partners have a better understanding of local risks and can manage a country's political, regulatory and market risks better, which can reduce risk premia. National institutions such as development banks or sovereign wealth funds can play a role in arranging such transactions, while local project development funds

[1] See the OECD DAC Blended Finance Principle 3B: http://www.oecd.org/dac/financing-sustainable-development/blended-finance-principles/principle-3/

can help create a pipeline of bankable projects. To the extent possible, local partner involvement during the construction phase is equally beneficial. Regulations should be revisited to allow for and facilitate the participation of local actors in blended finance. A good example of a local actor's commitment is the Indonesian Financial Services Authority (a government agency which regulates and supervises the financial services sector), which is committed to establishing an effective regulatory environment to encourage the development of sustainable financing for the achievement of the SDGs (IFC, n.d.[1]); (UNESCAP, 2019[2]).

9. Ongoing challenges to balanced and sustainable risk allocation in blended finance include the **use of different risk models by different actors** and the absence of analytical approaches towards the assessment and subsequent mitigation of risks associated with delivering development impact. In addition, public and private actors have varying capacity in risk assessment and management, as well as different interests potentially complicating the risk allocation negotiation. **Targeted dialogue and capacity building in risk assessment** is recommended for DAC blended finance actors so that they can ensure balanced, efficient and sustainable risk allocation in blended finance structures with the objective to avoid allocation bias and undue subsidies to the private sector. This will also help DAC blended finance actors, in particular donor governments, to develop enabling policy frameworks for blended finance that help maximise development impact.

1.3. Sub-principle 4C – Aiming for Scalability

10. Principle 4C refers to aiming for scalability of blended finance approaches, as a sine qua non condition to meeting the SDG investment requirements by unlocking private investment at unprecedented scale. The track record to date is mixed for the following reasons:

a) Private sector mobilisation through blended finance structures remains significantly below the SDG investment needs;

b) A high degree of fragmentation exists in blended finance instruments through several parallel and similar instruments in the same sector, often created through bilateral arrangements of concessional sources of finance; this is inefficient from the perspective of set-up costs, confusing to private investors and sub-optimal as e.g. numerous small- to medium-sized funds cannot achieve the scale and diversification sought by private investors. In this context, OECD data shows that between [2006-2016], 186 new blended finance facilities were created;

c) Incentives for MDBs/DFIs as arrangers of blended finance structures to collaborate and maximise private sector mobilisation are mixed, as the prevalent metric used for their evaluation remains their own account financing volume;

d) Enabling conditions vary between market participants – for example, while MDBs/DFIs have access to performance data from their own loans and investments over several years, this data is currently not available to private investors, thereby limiting their ability to assess risks in countries with high SDG investment needs.

11. Donor governments with concessional finance for blending can play an important role in setting the right incentives to enable scale. In aiming for scalability of blended finance approaches, **a clear, long-term vision to reach scale** is necessary, including on the expected development impact resulting from scaling up the project or approach. **Better enabling conditions**, **more collaboration** and **new approaches to financing instruments** are therefore needed if blended finance is to achieve its potential to mobilise private investment for the SDGs at transformative scale. For the blended finance market to grow at scale, **enhanced co-ordination** among all different actors is also needed, for instance through multi-stakeholder initiatives such as the Tri Hita Karana (THK) Roadmap for Blended Finance.

Detailed Background Guidance on Principle 4

1. Introduction

12. **Blended finance is the strategic use of development finance for the mobilisation of additional finance towards sustainable development in developing countries**. In this definition, additional finance mainly refers to commercial finance that is currently not deployed for development. In the OECD definition, commercial finance includes both public and private sources – for example investment by publicly or privately owned pension funds, insurance companies, banks and businesses as long as their motivation is commercial. A particular focus is on mobilising commercial investment from the private sector to close the USD 2.5 trillion annual financing gap for the Sustainable Development Goals (SDGs) (UNCTAD, 2014[3]). In 2017, the OECD DAC adopted Blended Finance Principles for Unlocking Commercial Finance for the Sustainable Development Goals as a policy tool for all DAC donors. They build upon already established commitments on ODA targets, leaving no one behind, development effectiveness, and aid untying.

13. **Blended finance is expected to achieve additionality, both financial and developmental.** The OECD definition requires that blended finance mobilises additional finance (financial additionality), and that the mobilised funds are used for sustainable development (development additionality).[2] In other words, blended finance is the financial approach to deliver additional development impact through the mobilisation of commercial finance that would otherwise not be forthcoming.

14. **The economic rationale for development additionality through blended finance arises from situations of market failure** requiring concessional public finance interventions to unlock commercial and private finance to deliver development impact, to the extent that public goods or goods and services with positive externalities are not provided through public investment. Box 1 provides examples of such market failure that blended finance can help address.

Box 1. Economic rationale for blended finance interventions

Blended finance aims to unlock commercial finance for development that would otherwise not be forthcoming due to market failures. Examples of such market failures that blended finance can help address include:

1. ***Externalities***: Goods or services with positive externalities (such as infrastructure or social services) are often undersupplied by commercial markets. Market prices typically do not take into account additional benefits to third parties and are thus too low to meet requirements for commercial viability of private sector projects. Blended finance instruments can improve the commercial viability of such projects by e.g. lowering financing costs or provide top-up payments to improve the cash flow profile of a project to make it commercially viable or by providing risk mitigation instruments to increase the attractiveness of projects to private investors.

[2] Additional work on development and financial additionality is forthcoming as part of the implementation guidance of the OECD Blended Finance Principle 2)

2. ***Catalyse markets***: Access to finance can be challenging for providers of development solutions due to challenging investment climates or high-risk characteristics. Examples include the case of first movers, where entrepreneurs incur demonstrably higher costs and risks when introducing new technologies, products or business models, such as the implementation of the first renewable energy project by an independent power producer (IPP) in a low-income country with an untested regulatory and institutional environment. Similarly, start-ups or informal SMEs often lack access to financial markets due to their inherently higher risk and lack of standard collateral. Blended finance can provide concessional guarantees to backstop public sector obligations in untested regulatory and institutional environment; de-risk private finance in high impact, innovative sectors and new/challenging markets through the provision of grants, equity, subordinated debt, or guarantees; and meet minimum return requirements.
3. ***Information asymmetries*****:** they can create barriers to marker development in some segments or sectors. A case in point are credit markets for micro, small and medium enterprises (MSMEs), including the lack of availability for venture, or seed, financing. These businesses are often informal and lack audited accounts. Therefore, banks and other lending institutions often decline to offer loans to MSMEs or if they do, borrowing costs and collateral requirements are prohibited. Information asymmetries may also exist in the case of public private partnerships where private stakeholders often have more information about a project providing them with more bargaining power vis-à-vis the public sector. In this case, blended finance can help create markets by addressing the challenges of information gaps though concessional financial support and risk mitigation to businesses and projects with development impact.
4. ***Affordability considerations for end-beneficiaries,*** to leave no one behind: In user-funded sectors such as infrastructure, cost-recovery price including for commercial financing terms may temporarily exclude participation by certain low-income and/or vulnerable groups, violate human rights obligations or hinder the achievement of the Agenda 2030 commitment to leave no one behind. Blending has been used to alleviate such affordability problems. However, blended finance cannot replace long-term solutions through structural reforms, public services provision, social protection and targeted social safety nets. Nevertheless, there may be instances where affordability issues are temporary and blended finance is appropriate, e.g. in cases where temporary tariff support combined with policy reforms will eventually create long term market viability, or where technological changes are expected to eventually lower costs and make markets commercially sustainable.
5. ***Project bankability***: Infrastructure projects require feasibility studies, social and environmental impact assessments, and technical designs before they reach the financing stage. A project that potentially has development impact may fail to achieve bankability because of the shortage of financing for project preparation that is very risky for commercial investors. Blended finance can provide reimbursable project preparation financing to support infrastructure projects development to bankability or invest concessional development capital in early stage projects. Blended finance can also provide support to governments to prepare a pipeline of bankable projects that can be auctioned off to investors.

15. **This Detailed Background Guidance lays out implementation guidance for DAC Blended Finance Actors for OECD Blended Finance Principle 4** based on a stylised approach towards risk allocation and emerging good practice from a review of selected case studies. The note has served as basis for consultation with all relevant DAC blended finance actors (donor governments, government agencies, etc.) and their partners and implementing agencies in blended finance, including but not limited to partner countries, MDBs, bilateral DFIs, philanthropic organizations, civil society (NGOs, trade unions, etc.) and private sector organisations including commercial banks and institutional investors (local and international pension funds, asset managers, insurance companies).

2. Principle 4 (a) Engaging each party on the basis of their respective mandate

16. **To make blended finance work, each party needs to engage based on their mandate and obligations**. The eco-system of blended finance includes public and private actors and providers of developmental and commercial funding, each with their own mandates and obligations in blended finance. As illustrated in Table 1, these are:

- ***Donor governments*** who are guided by a developmental mandate, act as providers of ODA-eligible concessional funding for de-risking in blended finance and, through their intervention, need to ensure that each blended finance party fulfils its role and mandate according to the Blended Finance Principles; donor governments often make concessional finance for blended finance available through funds and facilities but can also invest in and/or guarantee blended finance solutions directly;
- ***Recipient governments*** who have a developmental mandate, and as policy makers and regulators are responsible for creating an enabling investment climate for commercial and private finance, but can also act as concessional finance providers in blended finance solutions;
- ***National investment funds,*** such as Sovereign Wealth Funds (SWF) who manage public funds based on commercial criteria, sometimes with an additional development mandate;
- ***Project developers*** who invest equity in early stage project development to bring a project to bankability and can act as arrangers of blended finance solutions during the development phase;
- ***MDBs and DFIs*** who are guided by a dual mandate of developmental impact and financial sustainability, seek commercial returns in their private sector operations as investors and frequently act as arrangers of blended finance solutions; they also frequently act as implementer/executing agency of concessional finance from donor governments and philanthropy;
- ***Commercial banks*** who engage in blended finance with commercial motives, seeking a commercial return in line with their regulatory requirements, mostly with a short- to medium-term investment horizon;
- ***Institutional investors*** (pension funds, insurance companies, asset managers, asset owners) who are driven by commercial and fiduciary mandates, and look for commercial return profiles that meet their regulatory requirements, mainly with a long-term investment horizon;
- ***Retail investors*** are starting to invest in financial product offerings that combine financial returns with impact; the distribution of such financial investment products needs to comply with applicable regulation for retail investors who are a small but growing investor base in impact investing;
- ***Philanthropic organisations*** are guided by developmental impact in line with their specific mandates and can provide flexible capital at concessional terms to incubate new financing solutions, de-risk and enable blended finance solutions;
- ***CSOs and NGOs*** pursue transparency and developmental mandates by assisting with capacity building of local stakeholders and monitoring of impact of blended finance solutions. Some NGOs also assist with incubating new innovative financing solutions, e.g. in conservation finance;

- ***Research centres and academia*** contribute to building the evidence base on blended finance, generating and sharing knowledge.

Table 2.1. Objectives, roles and instruments of blended finance actors

Blended finance actor	Objective	Role in blended finance	Financial instruments provided
Donor country governments	High development impact ODA eligibility Concessional return	Provider of concessional finance for de-risking Enabler of blended finance ecosystem Investors	Grants Loans Equity (in some cases) Guarantees Insurance
Partner country governments	High development impact Concessional return	Recipient of ODA, policy maker, regulator, investor	Grants Loans Equity (in some cases) Guarantees Insurance
National development banks	High development impact Financial sustainability Concessional returns in targeted development areas	Investor/guarantor, provider of local currency finance, manager of concessional finance for blending	Loans Equity Guarantees Grants (as trustee)
National investment funds (SWF, public pension funds)	Commercial returns Development impact	Project developer, arranger of blended finance solutions, investor	Loans Equity
Multilateral development banks and development finance institutions	Development Impact Financial sustainability Commercial returns (for private sector operations) Concessional returns (for public sector operations)	Arranger, anchor/co-investor, guarantor, M%E, policy advice, trustee/manager of concessional funds for blending	Loans (mainly senior, some mezzanine) Equity (limited) Guarantees Grants and other concessional instruments (as trustee)
Project developers	Project development Commercial returns	Preparation of bankable projects, arranger for project development phase	Grants Equity
Commercial banks	Commercial returns	Investor and arranger (in come cases)	Loans (short- to medium-term) Equity (limited)
Institutional investors	Commercial returns	Investor	Loans (short- to long-term) Equity
Retail investors	Commercial returns	Investor	Debt Equity
Philanthropy	Development impact Concessional returns	Incubation, piloting, provider of concessional finance for de-risking	Grants Patient/catalytic capital (equity, debt)
Civil society (NGOs, trade unions, etc)	Development impact Transparency, equity Compliance with human rights and ESG standards	M&E, capacity building, piloting innovative finance	Grants
Research centres and academia	Transparency Learning	Capacity building, policy advice, knowledge	Grants

Source: Authors

17. **As a financial structuring approach that uses concessional finance to de-risk and catalyse commercial finance for development, blended finance is based on the balanced allocation of risks and returns between the various financial parties**. In this context, blended finance can (i) reduce the risk in a project/program through concessional finance (e.g. a guarantee or insurance) to align risks with given return requirements of commercial finance (cf. point A in Figure 1 below) or (ii) enhance the returns of a project/program through concessional finance (e.g. a viability gap payment) to make them commensurate with the return requirements of commercial finance for a given risk profile (cf. point B in Figure 1 below).

18. **As a starting point, it is therefore important to understand the risk-return profile of providers of concessional and commercial finance in blended finance based on their mandates.** Figure 1 below illustrates this in a stylised manner, illustrating each parties' objectives, risk-return requirements and their optimal role in blended finance based on additionality considerations:

1. **Providers of concessional development finance**
   - ***a) Donor governments*** make development finance available at concessional and ODA-eligible terms; they are therefore best positioned to take high risk that commercial blended finance parties cannot take, such as early-stage development risk, new technology risk or first loss risk in frontier markets. This implies that donor governments need to be prepared to take and manage risks in line with the high-risk nature of their intervention, including potential losses.
   - ***b) Recipient governments*** are not yet a major player in blended finance but could use budget funds to contribute to blended finance solutions, including in local currency, both as finance providers (through grants, equity, debt) at concessional terms; and/or indirectly as mobilisers or commercially oriented investors in national investment vehicles such as sovereign wealth funds (see 2.c) below).
   - ***c) National Development Banks*** are not yet a major player in blended finance but can provide medium-to high-risk funding for development objectives at terms that allow them to maintain their financial sustainability on an average basis; they can also act as provider of local currency financing in blended finance structures;
   - ***d) Philanthropic organisations*** can make concessional development finance available at flexible terms in line with their development mandate and investment strategy; they can therefore play a major role in taking risks, which other blended finance parties cannot take, such as high risks in early stages of product or project development, incubation of new technologies, or in frontier markets.
2. **Providers of commercial finance**
   - ***a) Commercial banks*** mainly provide short- to medium-term loans at commercial terms; as regulated entities, they face limitations on the type of risks they can take and typically have high capital charge requirements for high-risk investments, which leads them to focus on low- to medium-risk investments, such as the construction and operating stage in developed geographies. Some banks also engage in project finance in emerging markets and developing economies (EMDEs). Local commercial banks in EMDEs phase additional limitations in terms of limited maturities and high interest rate requirements in local currency resulting from underdeveloped capital markets and a short-term deposit base.
   - ***b) Institutional investors*** (pension funds, insurance companies, other asset managers) as regulated entities with fiduciary obligations typically have a low risk appetite for commensurate market-based returns. They typically invest in long-term fixed income assets with minimum liquidity and rating requirements, the majority of which in investment grade assets, while they have a smaller allocation for higher-risk and illiquid assets, such as private equity or private debt in emerging markets. Institutional investors are looking to invest larger amounts. A growing number of institutional investors is incorporating sustainability criteria in their

investment strategies. In blended finance structures, foreign institutional investors are best placed to take operating risks in established markets and technologies, while local institutional investors can also take operating risk in EMDEs.

c) ***National investment funds*** such as sovereign wealth funds manage public funds in accordance with commercial criteria. They can be flexible in the type of risk they take as long as they earn commensurate risk-adjusted returns. They typically have a long-term investment horizon and increasingly aim to include sustainability and impact objectives in their investment strategy in addition to return criteria.

d) ***Private equity funds*** invest unlisted equity in established or growing companies with a limited time horizon (typically maximum 5 years) for commercial equity returns at the time of exit or sale of the asset. They often look for majority positions to actively engage in operations.

e) ***Project developers*** invest equity capital in high-risk early stage business propositions and actively manage the project development up to bankability when they either sell the project for commercial returns or participate in the next round of project financing.

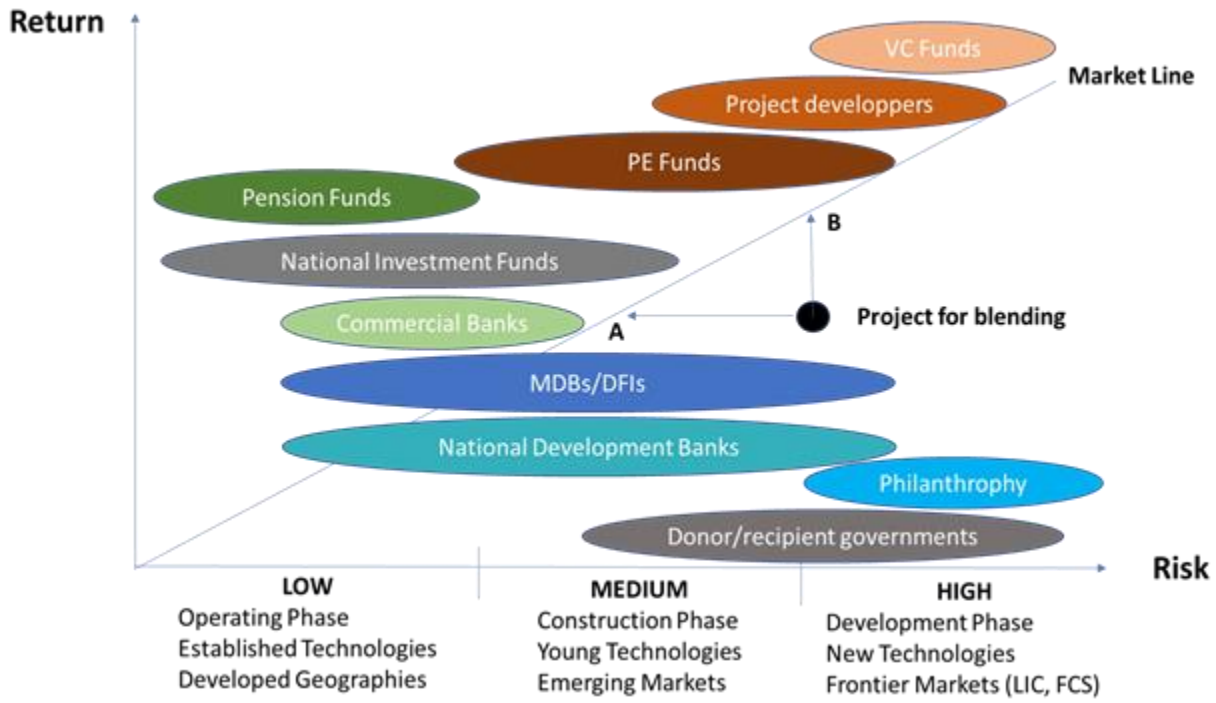
f) ***Venture capital funds*** provide unlisted equity capital in high-risk start-ups and growth companies who do not yet have access to capital markets. Investment horizons are typically 5-7 years with high return expectations at exit to cover the high-risk nature of the underlying asset. In the OECD Survey of Blended Finance Funds and Facilities, the majority of venture capital funds indicated their return expectations in the ranges of 10-15% and 15-20%, while only a small share of blended funds and facilities was active in venture capital (Basile and Dutra, 2019[4]).

3. MDBs and DFIs

MDBs and DFIs operate at the intersection of development and commercial finance with a mandate to maintain financial sustainability. In their sovereign operations, they provide concessional finance in form of sovereign loans at below-market rates to low-income countries and loans around market rate for middle-income countries.[3] In their private-sector operations, they can provide senior debt, and other financial instruments, at commercial terms. This can lead to potential overlap with other commercial actors such as commercial banks and institutional investors. In their financial operations MDBs and DFIs should therefore provide investment that is additional to the type of investment available from other commercial actors, such as subordinated debt or equity, and focus on project stages where other commercial investors do not invest (such as the development and construction phase). In first time markets, additionality should also be ensured, while pari passu investments from provider of commercial finance and MDBs and DFIs may be appropriate to unlock commercial finance. As implementing agencies of blended concessional finance on behalf of donors, MDBs and DFIs also manage both grant-based blended finance allocations (such as via a grant facility) as well as returnable capital funds with varying degrees of risk appetite as per donor instructions that should be aligned with the OECD guidance. As these allocations are provided by DAC governments, the effectiveness of such grants will benefit from increased transparency between DAC donors and MDBs and DFIs.

[3] Not all DFIs are engaging in sovereign operations; most MDBs have private sector arms.

Figure 1. Stylised Risk-Return Profiles of Blended Finance Actors



Source: Authors' creation

19. Risk-return requirements by all blended finance actors vary according to geographies and sectors, reflecting the stage of market development, available investment experiences and track record and the underlying risk profile of the sector in question.

3. Principle 4 (b) Allocating risks in a targeted, balanced and sustainable manner

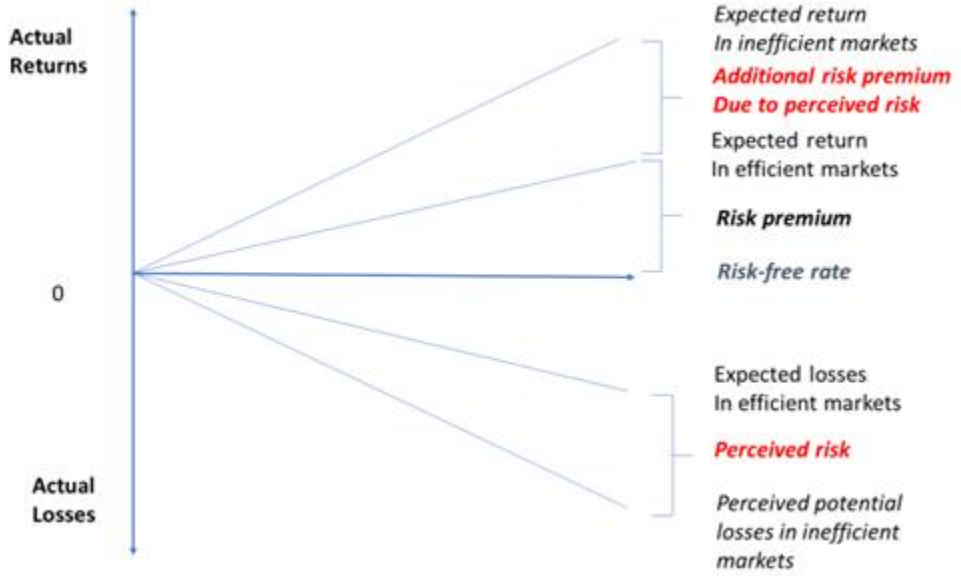
20. **Balanced risk allocation is key in developing blended finance mechanisms that use limited development finance to unlock and mobilise a multiple of commercial finance for the SDGs**. Principle 4b) is therefore at the heart of good practice in blended finance transactions and also important to achieve Blended Finance Principle 2) on Designing Blended Finance to Increase the Mobilisation of Commercial Finance. Achieving a balanced and sustainable risk allocation between partners providing concessional vs commercial finance for blended finance requires a clear understanding of the type of risks involved, the respective parties best positioned to bear them and the different and evolving nature of risk depending upon the stage in the project cycle, the sector and geography involved. Balanced and sustainable risk allocation also requires a detailed risk assessment and minimum risk management capacity of all partners involved. Finally, blended finance as a tool is not a panacea and its limitations in terms of which risks it can and cannot address need to be understood.

3.1. Definition of risk

21. **In economic terms, risk can be defined as the deviation from an expected outcome, or the deviation in an investment's actual return from the expected earnings.** In the case of zero risk/uncertainty, actual outcomes/returns equal expected outcomes/returns. High risk implies high uncertainty so that actual outcomes/returns can vary significantly from expected outcomes/returns.

22. **For commercial investors, risk is the chance that an investment's actual return/loss will deviate from its expected return/loss** and the degree of potential fluctuation determines the degree of risk. In finance, return requirements increase with increased risk, so that investors demand a risk premium over the risk-free rate that reflects the amount of risk involved in an investment. Financial theory also assumes that capital markets are efficient based on well-informed buyers and sellers and that investors behave in a rational manner. From the perspective of a private investor, in developed markets, several decades of private sector investment have produced sufficient data by industry, geography and financing instrument to calculate the expected loss/return of an investment with a high degree of certainty, limiting the required risk premia to cover for residual uncertainty. In contrast, in emerging and developing market economies (EMDEs) where the majority of investments to meet the SDGs are required, less private sector investment has taken place to date and less historic performance data is available. As markets are more fragmented and less efficient, private investors lack the analytical basis to calculate expected losses/returns with a high degree of certainty. Furthermore, international investors are less familiar with these markets. In the absence of an analytical basis, such 'perceived risk' can unduly drive up risk premia requested by international investors for commercial investments in EMDEs. While the prevalent discussion around risk focuses on the downside (lower actual returns than expected returns/higher losses than expected losses), it is important to note that uncertainty in EMDEs can also create upside (higher actual returns than expected returns) for investors.

Figure 2. Risk-Return Trade-Off in Efficient vs Inefficient Markets

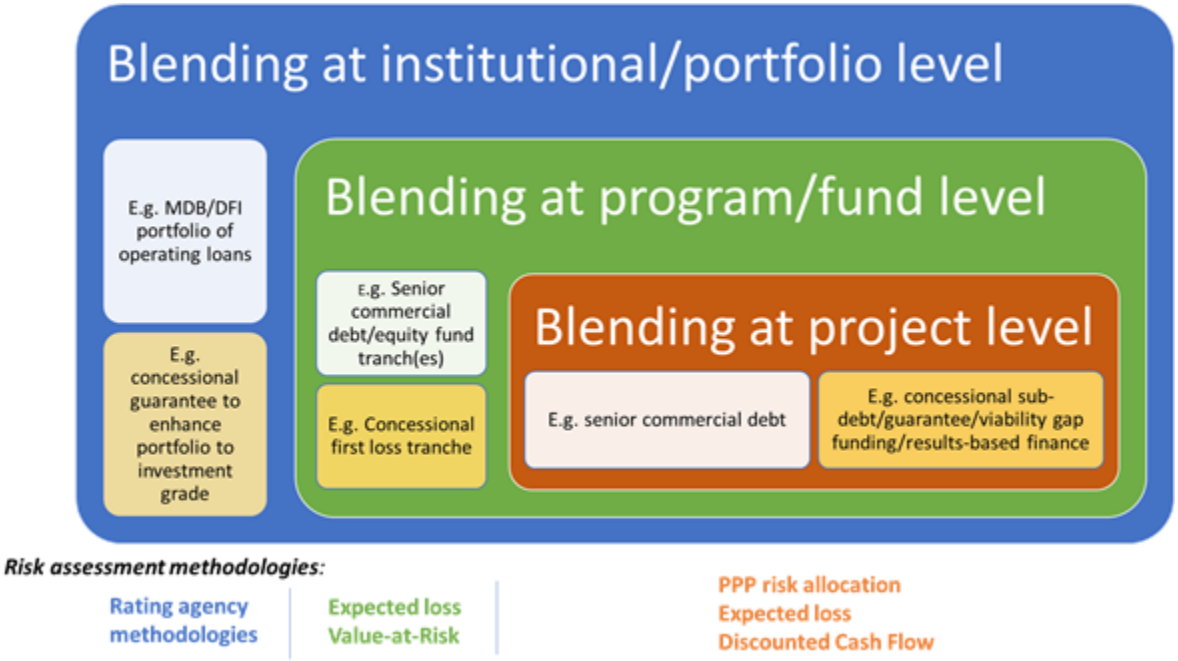


Source: Author's creation

23. **For providers of development finance, especially donor governments and philanthropic partners, an additional risk dimension concerns the future uncertainty related to achieving a targeted development outcome**. Donors are looking to provide additionality through their interventions both in financial terms (providing financing not available by the market and other stakeholders) and in terms of development impact (achieving additional development outcomes that could not be achieved without their intervention). 'Impact risk' therefore relates to an understanding of the future uncertainty around achieving a targeted development outcome. In the context of blended finance, 'impact risk' could also refer to potentially negative impact of market distortions through the use of concessional finance. To date, no analytical risk frameworks have been developed to assess such impact risk with the exception of the analysis of environmental and social risks and associated management plans. Further work is required in this area.

24. **In blended finance, blending and risk assessment can take place at three levels: at the level of (i) an institution/portfolio, (ii) a program and (iii) at project level**. At the level of an institution, blended finance can be applied e.g. through enhancements for securitisation of MDB/DFI assets to optimise the use of their balance sheet (see Box 11). Blending at the program level is achieved e.g. in the form of a structured fund involving a concessional first loss tranche. Blending at the project level involves the use of concessional finance to address specific project risks or enhance project returns through a variety of instruments. At each level, different methodologies for risk assessment as the basis for determining the right amount and financial instrument for blending apply.

Figure 3. Different levels of blending and associated risk assessment methodologies



Source: Author's creation

3.2. Key risk categories

25. **Balanced risk allocation requires an understanding of the various risks involved in a blended finance transaction.** A blended finance transaction can be understood as a public-private partnership in financial terms in that it combines public concessional capital with private commercial investment. Drawing on standard literature related to public-private partnerships in infrastructure4, the following Figure provides an overview of the main risk categories to analyse in the context of blended finance transactions.

26. **A few general considerations are important in the context of an approach to balanced risk allocation for blended finance**:

a) Analogous to finance literature, certain risks are *systematic risks* that impact all investments in a given country or sector, such as political risks and certain financial risks (e.g. liquidity risk, refinancing risk); while others are *unsystematic,* i.e. limited to the specific transaction (such as commercial risks);

b) Risks are context-specific and dynamic and can take different forms according to

I. The *respective stage in the project cycle*, e.g. political risk in the construction phase could refer to the cancellation of permits, while limitations to currency convertibility could be a risk during the operating phase. Similarly, in terms of financial risk, liquidity risk and cash flow volatility are relevant in the operating phase.

II. The *sector of intervention* and

[4] Reference literature includes the Global Infrastructure Hub's "Allocating Risks in Public-Private Partnership Contracts" (Global Infrastructure Connectivity Alliance, 2015[22])and the World Bank's "Risk Allocation, Bankability and Mitigation in Project Financed Transactions" (World Bank Group, 2019[21]).

III. The *respective geography/country*.

c) The level of disaggregation that is possible in terms of risk analysis in blended finance transactions varies significantly depending on the sector and geography involved, allowing for different approaches towards risk allocation as follows:

I. In larger scale infrastructure projects, a high degree of disaggregation of risks is possible in line with risk analysis in public-private partnerships for infrastructure[5]; this allows for a detailed evaluation of risk allocation in blended finance transactions to achieve a balanced and sustainable outcome:

II. In sectors where transaction sizes are smaller, such as SME or agricultural lending, it is not possible to conduct a risk analysis with a high degree of disaggregation of specific risks. Aggregate approaches to risk analysis, the use of proxies and/or an analysis of a relevant sub-set of risks (such as financial risk related to intermediaries and impact risk for SME lending) are more feasible in this context.

[5] Ibid.

Figure 4. Typology of risks

Risk	Description	Systematic vs unsystematic	Risk allocation	Risk mitigation instruments
Political risks				
Force majeure risk	Natural disaster, war, terrorism	Systematic	Shared (public sector taking uninsurable risks)	Contractual arrangements; Political Risk Insurance (PRI); first loss funding/guarantee
Political risk	Expropriation/nationalization, breach of contract, change in law, currency inconvertibility	Systematic	Public sector / Insurance and guarantee providers	Contractual arrangements; PRI first loss funding/guarantee
Regulatory risk	Changes in laws and regulations affecting performance and price, e.g. changes in tariffs, contracts, permits, taxation; enforceability of contracts and collateral	Systematic	Public sector / Risk insurers	Contractual arrangements; PRI, Partial Risk Guarantees (PRG)
Termination risk	Risk of early termination by government and monetary consequences	Systematic / Unsystematic	Shared (depending on defaulting party)	Political risk insurance (for goverment default)
Commercial risks				
Design, construction and completion risks	Delays, cost overruns, completion on time	Unsystematic	Private sector (Project developers, PE funds, commercial banks), MDBs/DFIs	Contractual arrangements
Operating and performance risks	Cost of operations, technical performance	Unsystematic	Private sector (PE funds, commercial banks), MDBs/DFIs	Contractual arrangements; performance bonds
Termination risk	Risk of early termination by private party and monetary consequences	Unsystematic	Shared (depending on defaulting party)	Contractual arrangements; PRI; liquidity back-stop arrangements
Market risk	Demand for product/service, competition	Unsystematic	Private sector, MDBs/DFIs, can be shared in certain sectors and geographies	Contractual arrangements; Availability payments; Min. revenue guarantee
Technology risk	Performance risk of new / unproven technology; obsolence of utilized technology	Unsystematic	Public sector / Shared	Contractual arrangements; Contingent grants
Financial risks				
Counter-Party credit risk	Inability of counterpart (e.g. off-taker) to honor contractual obligations	Systematic	Public sector if off-taker is SOE / otherwise private sector	PRGs; Liquidity support facilities; credit default swaps
Liquidity risk	Inability to sell / exit investment when required	Systematic	Public sector / donor governments	Put options; Letters of Credit
Foreign exchange risk	Cash flow volatility due to FX movements	Systematic	Shared / private sector	Hedging instruments; concessional hedging arrangements where hedging is not available or too costy
Interest rate and inflation risk	Risk of rising prices and asset replacement costs; increase in real interest rates	Systematic	MDBs/DFIs, private sector; interest rate risk may be shared if no hedging available	Hedging instruments
Other financial risks	Cash flow volatility, return risk, refinancing risk (where applicable)	Systematic and unsystematic	MDBs/DFIs, private sector	Availability payments; Min. revenue guarantee; Partial Credit Guarantees (PCGs)
Impact risk				
Environmental & social risks	Adverse environmental impact, impact on communities (land, resettlement, social services etc.), cost of compliance with environmental and social standards	Unsystematic	Shared: public sector (resettlement, compensation), private sector (ESMP)	Contractual arrangements Third party monitoring
Risk of additional development impact	Incremental risks linked to development outcomes targeted through blended finance	Unsystematic	Donor governments	Results frameworks, M&E Results-based payments
Risks related to financial additionality of blended concessional finance	Risk that concessional blended finance provides undue subsidies to the private sector and undermines sustainable market mechansims	Systematic	Donor governments Blended finance arranger	Market test (where feasible) Catalytic donor capital

Source: Authors' creation

3.3. Guiding principles for balanced risk allocation in blended finance

3.3.1. Balanced risk allocation in sectors with a high level of risk disaggregation

27. **In line with good practice risk allocation approaches, balanced risk allocation in blended finance transactions in sectors such as infrastructure should allocate risks to the party best positioned to manage them in an efficient manner.** As a structuring approach, the concessional element in blended finance can help address risks that the private sector is unable to manage. In this context, concessional finance or guarantees provided by the public sector should address risks that are typically allocated to the public sector. In general, the private sector is better positioned to manage commercial, market and business risks, while the public sector is better placed to address political, macro-economic and regulatory risks.

28. **In conformity with OECD Blended Finance Principle 2 on mobilising commercial finance by using minimum concessionality, blended finance structures should avoid covering risks that the private sector can assess and manage**, such as commercial risks, as this would create undue subsidies for the private sector. An exception to this guiding principle are first time investments in a new sector, technology or country for which no historic performance data is available to the private sector to assess and price the risk. For example, the private sector can be challenged to assess market demand risk in first-time public-private partnerships in the transport sector, so that this risk can initially be shared with the public sector. However, blended concessional risk mitigation should ideally remain a one-off intervention. In cases where concessional finance may be required in follow-on transactions, they should involve a lower share of concessionality than in first-time transactions. Blended concessional finance should always remain a time-bound intervention and be phased out over time after an operating track record has been created.

29. **In addition, the blended concessional finance element should be additional to existing risk mitigation instruments** and address market gaps that are not covered by existing risk mitigation instruments, such as existing guarantees or insurance products.

30. **Against this background, the importance of blended concessional finance should be acknowledged by DAC governments as its strategic use can help address the following risks:**

1. *Systematic risks for which no/limited risk mitigation products are available in the market, such as certain types of political risks, regulatory risks or financial risks*. Examples of areas of intervention of blended concessional finance would be:
    - insurance coverage of currently uninsured force majeure risk;
    - a partial risk guarantee for events of default triggered by changes in regulation in a new and untested regulatory regime (as e.g. offered through the concessional Partial Risk Guarantee (PRG) by the International Development Association (IDA)); or
    - a liquidity support facility that back-stops off-take obligations for a State-Owned Enterprise (SOE) in a public-private partnership in infrastructure (such as the liquidity guarantee offered by the Regional Liquidity Support Facility – see Box 2), thereby reducing the off-taker credit risk for private investors.
    - Similar products are offered by the Risk Mitigation Facility of the IDA 18 Private Sector Window (IDA PSW) through IFC and MIGA.

Box 2. Regional Liquidity Support Facility

The Regional Liquidity Support Facility (RLSF) is a liquidity facility administered by the African Trade Insurance Agency (ATI) and supported by the German Federal Ministry for Economic Cooperation and Development (BMZ). In ATI member countries, RLSF provides liquidity to lenders to Independent Power Producers (IPPs) in the renewable energy sector with a capacity of up to 100 MW. ATI selects a bank that issues stand-by letters of credit to approved IPPs, with the backing of the RLSF. The amount will enable the IPP to continue to operate for at least six months in the event of off-taker default. The RLSF has two components:

- Cash collateral, which the bank can use to immediately pay the IPP if the Letter of Credit (LC) is called. The German Government, through KfW, has made EUR 31 million available to ATI for this purpose.
- An on-demand guarantee for the same amount as the cash collateral component, provided by ATI. This is used in the event that the cash collateral is exhausted.

Source: (African Trade Insurance Agency, 2019[5]), Regional Liquidity Support Facility, http://www.ati-aca.org/energy-solutions/facilities/regional-liquidity-support-facility/

2. *Unsystematic risks that the private sector is not prepared to take due to the unknown nature of risk involved*, e.g. in the case of a first-time investment in a new market or sector or unproven technologies;
    - An example is the Geothermal Development Facility managed by KfW that provides grant support from the German government to geothermal project development risk, a high risk in the preparation of geothermal projects which the private sector is not willing to take (cf. Case Study 4 in Annex A)
3. *Systematic or unsystematic risks for which only partial market solutions exist and/or the cost of existing risk mitigation instruments is prohibitive*, such as the absence of or high cost currency hedging solutions for certain countries.
    - Examples in this context are the concessional EFSD guarantee provided by the European Commission that includes guarantee coverage for local currency financing and therefore mitigates foreign exchange risk up to a total capped amount in Euro equivalent in line with applicable portfolio rules (see Box 3); and the Local Currency Facility of the IDA PSW implemented by IFC.

Box 3. EFSD – Local currency guarantee by the European Commission

Demand for local currency financing in many parts of Sub-Saharan Africa is far greater than supply. Loans are often denominated in hard currency. But by borrowing in hard currency the unhedged foreign exchange rate risk can cause serious problems to borrowers in the event of severe currency depreciation. Hedging solutions are often not readily available or are expensive. The EFSD local currency guarantee provided by the European Commission covers a portion of the risks associated with local currency projects, allowing local currency borrowers to reduce their funding cost.

The AfDB has recently been awarded EUR 12.5 million equivalent under the EFSD local currency guarantee which will:

- enable the AfDB and local financial institutions to provide affordable long-term local currency loans to local businesses (including SMEs) in key sectors, including in least developed countries and fragile countries;
- lower part of the project risks in local currency and therefore the lending margin;
- stimulate listings of local currency bonds and crowd in private sector funds, helping to develop local capital markets and unlocking local currency investment in Africa;
- serve as an example for investors and other potential corporate bond issuers.

Source: (European Union, 2019[6]), Summaries of the EU External Investment Plan – Guarantees https://ec.europa.eu/europeaid/sites/devco/files/181213-eip-28-guarantees-brochure-final.pdf

3.3.2. Balanced risk allocation in sectors where risk analysis is only possible at aggregate level

31. **Balanced risk allocation in blended finance in sectors with smaller transaction sizes can be achieved through the use of benchmarks and portfolio approaches.** In these cases, risk allocation is mainly based on financial risk analysis and risk-return considerations for sectors such as SME finance or investments in agriculture. These sectors also typically benefit from blended programmatic approaches, such as structured funds involving a concessional first loss tranche. Benchmarks can be used to derive the level of concessionality required to address risk concerns from private investors. For debt investments, expected loss calculations (see Annex C), possibly based on proxy data from similar countries in other regions in the case of first-time investments, can be used as a benchmark to determine the minimum degree of concessionality. For example, if the expected loss for loans to agriculture SMEs is between 5-10% in a certain region, a concessional first loss tranche could be sized at 10-15% of the fund's target volume. Returns for commercial investors would need to be reduced to take into account the risk protection offered to investors through the concessional subordinated tranche. This sample calculation shows that blended finance structures involving first loss tranches covering 30% of total fund volumes (as was the case in certain first generation blending facilities) may involve too much concessionality as no benchmark was used. For equity investments, return expectations should be benchmarked with returns in similar sectors and similar countries (e.g. in agriculture PE funds in low-income countries in another region), possibly adjusted for country or region-specific risk premia. Programmatic portfolio approaches are useful to diversify risk and limit exposure to individual high risk transactions.

3.3.3. Sustainability considerations

32. Principle 4b) also focuses on sustainable risk allocation. In this context, it is important to understand the limitations of blended finance. As a financial structuring approach, blended finance is a tool to address specific risk factors at the level of a project and program. **However, it is not a tool to address underlying weaknesses in market fundamentals or to ensure that systematic risks are addressed in a sustainable manner over the long term** (cf. Blended Finance Principle 3c) on the Use of Blended Finance alongside Efforts to promote a Sound enabling Environment). For these purposes, accompanying interventions are required before or in parallel to blended finance transactions. Accompanying interventions include:

- Policy dialogue on sector regulatory reforms and/or restructuring of state-owned enterprises to achieve financial sustainability of a sector;

- Advisory services on creating an enabling investment climate for private investors;
- Technical assistance to partner country actors on improving macro-economic stability, regulatory systems or project preparation capacity; and
- Capacity building for project sponsors and financial intermediaries.

3.4. Risk allocation by sector: an example of risk allocation in the renewable energy sector and sector

33. **Balanced risk allocation in blended finance transactions requires an in-depth understanding of the specific nature of project risks in the specific sector and sub-sector.** Based on best practice approaches to public-private partnerships, risks should be allocated to the party best able to manage them efficiently. Risk allocation differs between sectors, as each sector has different risk factors from the perspective of a private investor. This section provides examples of risk allocation in the renewable energy and water sectors. Additional guidance for risk allocation in other sectors is available from good practice resource guides and tool kits for risk allocation in public-private partnerships in infrastructure6.

Table 1. Example: Solar PV project

The below risk allocation matrix reflects good practice risk allocation in a renewable energy project using the example of a solar PV project built on a build-own-operate basis that sells the electricity produced from the solar PV project to a state-owned single buyer. The example assumes that the PV project will connect to the existing transmission lines and electric system which the contracting authority owns (or will own to the extent the project company has been asked to build transmission infrastructure). [7]

Risk	Additional sector-specific features of risk	Risk allocation (Public/ Private/ Shared)	Risk mitigation instrument	Applicable in		
				Development phase	Construction phase	Operating phase
Political risks						
Force Majeure	None	Shared	Contractual arrangements (e.g. term extension); insurance	X	X	X
Political risk	None	Shared	Political risk insurance	X	X	X
Regulatory risk	Changes in tariffs, level of subsidies, contractual terms	Shared	Partial Risk Guarantees	X	X	X
Commercial risks						
Design, construction and completion risk	Delays due to availability of necessary inputs, possibly local assembly	Private	Contractual arrangements; Pass-through to contractors; liquidated damages	X	X	

[6] Useful reference literature and toolkits include the Global Infrastructure Hub's "Allocating Risks in Public-Private Partnership Contracts" (https://ppp-risk.gihub.org/risk_category) and the World Bank's "Risk Allocation, Bankability and Mitigation in Project Financed Transactions" (https://ppp.worldbank.org/public-private-partnership/financing/risk-allocation-mitigation)

[7] This section draws on the risk-allocation matrix for a solar PV project as developed by the Global Infrastructure Hub as well as the work by the Climate Policy Institute on Blended Finance in Clean Energy.

Operating and performance risk	Risk of not meeting output specification, technical risks at plant, natural variability of outputs	Private	Contractual arrangements			X
Market/ Demand risk	Demand at available volume and price	Public	Take-or-Pay contracts; compensation to private operator if limitations due to network operator			X
Termination risk	None	Shared	Contractual arrangements, government guarantees, partial risk guarantees, direct agreements	X	X	X
Technology risk	Risk of technology replacement through disruptive new technology	Shared		X	X	
Financial risks						
Counterparty credit risk	Potentially high in case of first-time off-take, lack of knowledge of technology	Shared	Government guarantee, Partial Risk Guarantee			
FX risk	None	Private[1]	Hedging		X	X
Interest risk	None	Private	Contractual pass-through; hedging		X	X
Other financial risks	Volatility of revenue and operating costs related to technology	Private	First loss cover/guarantee			
Environ-mental and social risk	Risk of plant- and tech-specific environ-mental damage and social risk	Private	Environmental and Social Management Plan, collaboration with local communities	X	X	X

Note: An example of a blended finance structure supporting the development of renewable energy projects is the EBRD and GCF-supported Egypt Feed-In-Tariff scheme, which uses grants for technical assistance and to blend them into the debt capital structure for renewable energy (cf. Case Study 2 in Annex A).

34. The expansion of the As-Samara Wastewater treatment project in Jordan emerged due to limited capacity stemming from the projected population increase from refugees from the West Bank and Gaza. The Millennium Challenge Corporation (MCC) worked towards the expansion of the plant as part of its compact with the Government of Jordan. The project was set up as a public private partnership using a build-operate-transfer (BOT) arrangement. The BOT contract was signed between MWI and Samra Wastewater Treatment Plant Company Limited (SPC); consortium members include Suez, Morganti and Infilco Degrémont. SPC will operate and maintain the plant for 25 years. At the end of the concession period, in 2037, the agreement requires that the facility be transferred back to the Government of Jordan for free and in good working order. The plant generate revenues via tariffs for treatment of wastewater and provision of clean water. In addition, the plant provides 80% of its energy needs via hydropower and biogas.

35. The total project cost for the expansion of the treatment plant was USD 223 million. Grant funding of USD 93 million from MCC and USD 20 million from the Government of Jordan covered 50% of the construction cost. The private operator, SPC, mobilised further equity as well as debt finance from private banks to finance the other 50%. The grant/viability gap funding was needed to (i) increase the bankability

of the project, (ii) make it more affordable for the Government of Jordan and (iii) also financially sustainable for the private operator. However, whilst the expansion plans have been successful, the new plant is already nearing full capacity and the intention to further expand the plant with funding from the EU and EBRD was announced in December 2018 (EBRD, 2018[7]).

Table 2 Example: Wastewater treatment project

Risk	Additional sector-specific features of risk	Risk allocation (Public/Private/Shared)	Risk mitigation instrument	Applicable in		
				Development phase	Construction phase	Operating phase
Political risks						
Force Majeure	None	Shared	Contractual arrangements ; insurance	X	X	X
Political risk	Water highly regulated	Public	Political risk insurance	X	X	X
Regulatory risk	Changes in tariffs, contractual terms	Public	Partial Risk Guarantees	X	X	X
Commercial risks						
Design, construction and completion risk	Delays due to availability of necessary inputs, possibly local assembly	Shared	Contractual arrangements; Pass-through to contractors; liquidated damages	X	X	
Operating and performance risk	None	Shared	Contractual arrangements			X
Market/ Demand risk	Demand at available volume/price in particular given the special situation in Jordan	Public	Take-or-Pay contracts; compensation to private operator if limitations due to network operator			X
Termination risk	None	Shared	Contractual arrangements, gov. guarantees, partial-risk guarantees,direct agreements	X	X	X
Technology risk	Risk of technology replacement through disruptive new technology	Shared		X	X	
Financial risks						
Counterparty credit risk	None; experienced private operator	Shared	Government guarantee, Partial Risk Guarantee			
FX risk	None	Private[1]	Hedging/LCY financing		X	X
Interest risk	Yes, The interest rate during the three-year construction period for the treatment plant expansion was fixed[8]	Shared	Contractual pass-through; hedging		X	X

[8] (Yr. 1: 7.25 percent , Year2: 7.75 percent, Year 3: 8.25 percent). The loan evolved to a floating rate linked to the average prime lending rate of four local banks.

Other financial risks	Volatility of revenue and operating costs related to demand	Private	First loss cover/guarantee			
Environ-mental and social risk	Risk of plant- and technology-specific environ-mental damage and social risk	Shared	Environmental and Social Mngmnt-Plan, collaboration with local communities	X	X	X

Source: (OECD, 2019[8]), Making Blended Finance Work for Water and Sanitation: Unlocking Commercial Finance for SDG 6, https://dx.doi.org/10.1787/5efc8950-en

36. From the above examples, one can draw a few guiding lessons for risk allocation in blended finance:

- In sectors with mature technologies and repeat transactions (such as the renewable energy sector), the private sector can be expected to bear the majority of commercial, technical and most financial risks. This means that there is limited to no need for involving concessional finance through blended finance structures with the potential exception of concessional guarantees to back government commitments or the use of concessional finance to address perceived risks of first-time investments into proven technologies in new markets or of first-time investments in an unproven regulatory environment.
- In less mature sectors such as wastewater, more government support may be needed and government support may also be required to mitigate commercial risks in first time transactions. To assist them in this decision as to what support to offer, DAC donors benefit from having evidence regarding the successful interventions of blended finance in such sectors.
- Concessional finance can be needed even for brownfield investments in order to facilitate private sector participation and to meet commercial criteria while maintaining affordability.
- In the water sector, concession contracts with the government are required to ensure clarity and stability of revenue models.

37. The OECD published a report on “Making Blended Finance Work for Water and Sanitation” in August 2019, which examines the status and potential of blended finance in financing utilities, off grid sanitation and multipurpose water infrastructure and landscape-based approaches (OECD, 2019[8]). The OECD is also working with SAFIN on a forthcoming paper on “Mobilising Private Finance for Agri-SMEs investments through blending”.

3.4.1. Risk allocation in specific geographies, especially least developed countries and fragile contexts

38. **Risk allocation also needs to take the specific profile of the concerned country into account.** In this context, a country’s political/systematic risk is a key determinant for the risk-return requirements of commercial investors and their risk perception, especially in first-time markets. In EMDEs, country risk is often correlated with a country’s GDP per capita. Blended finance literature therefore differentiates between blended finance in middle-income countries – where the majority of blended finance has been allocated to date – and blended finance in the Least Developed Countries (LDCs) where the application of blended finance has been limited to date.

39. In terms of risk profile, risk elements specific to LDCs include[9]

- Higher enabling environment risks with most of the LDCs ranking low in e.g. the World Bank's Doing Business ranking;
- Higher country risk as reflected in below-investment grade sovereign credit ratings, translating into higher perceived risk from the perspective of private investors and lower risk appetite, including from MDBs and DFIs;
- As a result, it is more challenging and expensive to develop a project pipeline for private investment and investment opportunities are generally limited;
- Transactions are typically of smaller size, creating relatively higher costs of engagement from the perspective of a private investor;
- Capacity and experience in government counterparts in public-private partnership and dealing with private investors is typically limited;
- Domestic capital markets are not very developed.

40. **As a result of the relatively higher risk profile in LDCs, some emerging features related to blended finance in LDCs include:**

- The need for ex ante and/or accompanying technical assistance and policy dialogue to develop the regulatory environment and an enabling investment climate for private sector investment;
- The need to possibly combine several concessional instruments in a blended finance structure, such as a combination of guarantee instruments with a viability gap payment;
- As a result, a higher share of concessionality is typically required to catalyse private investment in first-time markets; this can also entail a transition from concessional instruments to market-based instruments; including a transition from public investors to private investors over time;
- This in turn translates into lower mobilisation ratios of commercial/private sector investments in blended finance in LDCs; for these reasons a minimum target mobilisation ratio may not be feasible for LDCs, as building markets by attracting first-time commercial/private investment is a development outcome in itself[10].

41. As a result, providers of concessional finance for blending in LDCs should check and ensure that accompanying measures regarding the enabling environment are being provided to ensure that the blended finance transaction takes place in a sustainable market environment.

Box 4. SIDA Guarantee for the Private Agriculture Sector Support Project in Tanzania

The Private Agriculture Sector Support Project (PASS) in Tanzania benefits from a guarantee from SIDA to support farmers with insufficient collateral to obtain bank loans. The potential borrowers provide their business plans to PASS and receive business development services to improve their commercial competitiveness and viability. Viable projects that are not yet considered bankable can be supported by a fixed deposit from grants with partner banks. After two years, the deposit is replaced by an indemnity fund, guaranteeing a portion of the loan. SIDA's re-guarantee of USD 20 million increases PASS's capacity to provide guarantees to local banks and is expected to contribute to a reduction of the financial risks of cooperating commercial banks of providing increased inputs to investments in agricultural

[9] Drawing on (OECD and UNCDF, 2018[20])

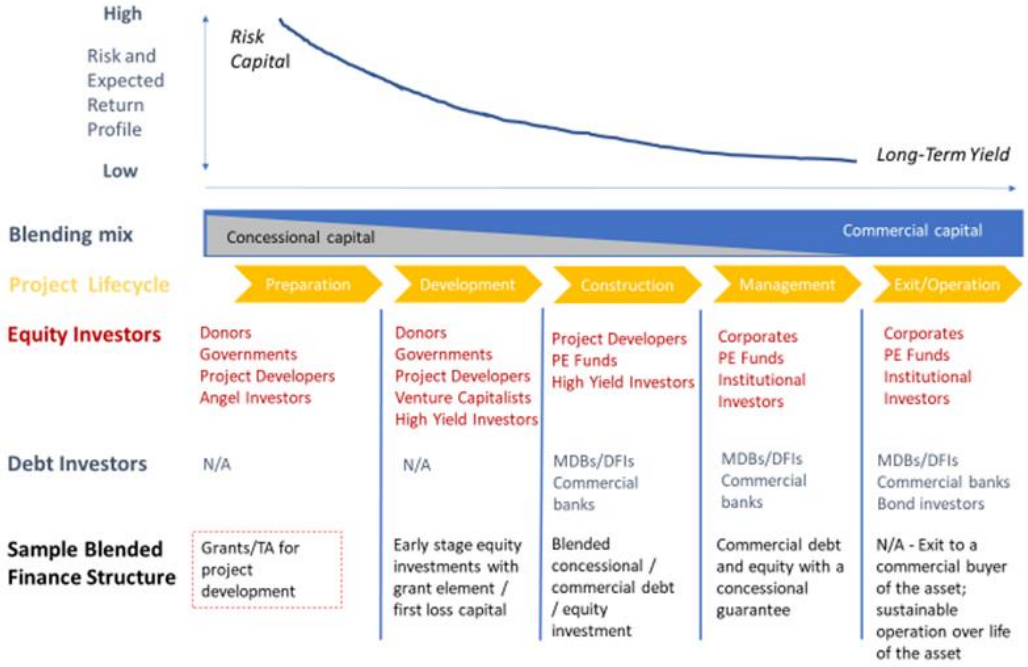
[10] The OECD and UNCDF have published a joint report on the state of blended finance in LDCs in 2018 and an update report in 2019 (OECD/UNCDF, 2019[18]). The OECD also published a Working Paper on blended finance in fragile contexts in November 2019 (Basile and Neunuebel, 2019[17]).

operations. SIDA's re-guarantee is estimated to provide additional access to loans of USD 60 million to local farmers to improve their businesses. Women may be provided with higher guarantee coverage on their loans, thus providing a higher risk reduction and an incentive to lend to women.[11]

3.4.2. Changing risk profile and investor base along the project lifecycle

42. **The risk profile of a project changes depending on the stage in the project life cycle which allows to adjust the mix between concessional public and commercial private finance depending on different stages in the project lifecycle.** In addition, such an approach offers opportunities to allocate the risks along different project lifecycle stages to those public and private investors best positioned to bear them. Figure 5 below offers a stylised overview of this.

Figure 5. Changes risk profile, blending mix and investor base over the project lifecycle



Source: Author's creation

43. **Successful blended finance structures should be monitored and demonstrate a declining risk profile over the project lifecycle** as assets move from the more risky project development and construction phase to the less risky and cash flow generating operation phase. Consequently, the concessional share in blended finance should reduce with declining risk. However, blended finance practice has not yet reached sufficient maturity to adjust the levels of concessionality over the project life cycle to reflect a declining risk profile. Amongst others, this is due to the following reasons:

- *At the project level, project finance structures still prevail in sectors such as infrastructure*. These are complex financing arrangements normally covering the construction and operating phase of an

[11] Ibid.

asset typically involving several equity investors and debt providers. Once complex legal, contractual and financial arrangements are in place at financial close, financing parties are reluctant to review these agreements over the life of the project, especially in case of complex projects. Some project finance parties and some jurisdictions also do not like to accept refinancing risks of projects. In project finance arrangements involving blended finance, this may mean that too much concessionality may be locked into the financing structure over the life of the project. Traditional project finance structures do also not allow to adjust the investor mix in line with the different risk profiles of different stages in the project life cycle as financing parties are typically locked in for both the construction and operating phase. Modifications of the standard project finance model through e.g. mezzanine structures with deferrals and stand by support facilities can facilitate a more tailored risk allocation even in the context of project finance structures.

- To date, limited alternative structures have been developed to take different risk profiles into account and match the declining risk profile of blended finance structures with various investor groups along the project lifecycle. The most eminent such structure is the Climate Investor One structure developed by FMO (see Box 5). It involves starting with a high share of concessional donor capital in the project development fund which decreases in the construction equity fund where DFIs and some private investors also joined[12] and should not be necessary in the refinancing fund which can only be raised once assets have been built. While this structure has been piloted in the renewable energy sector, it is fully replicable in other sectors as well.

Box 5. Climate Investor One

Climate Investor One ("CIO") is a global investment vehicle founded in 2015 by Netherlands Development Finance Company (FMO) and Phoenix InfraWorks (as anchor sponsors/investors) to finance renewable energy projects in emerging markets globally.

CIO comprises three investment funds tailored towards an integrated financing approach covering all stages of a project life cycle i.e. from development, construction to operations. The investments funds targeting a total commitment of USD 1 billion at final close are:

i) Development Fund (DF): At early project stage, CIO provides financial, technical, environmental, social development and structuring support through this fund. The fund shall attract donor capital i.e. grants of up to USD 30 million.

ii) Construction Equity Fund (CEF): CIO aims to reduce the complexity associated with multi-party negotiations associated with typical project finance delays by equity financing the construction phase using the CEF. Target size for the fund is USD 500 million expected to be raised from commercial and institutional investors with the following layered structure:

- 20% Tier 1 capital, a first-loss tier from donors;
- 40% Tier 2 ordinary equity from commercially oriented investors such as FMO and other DFIs;
- 40% Tier 3 capital i.e. preference shares from institutional investors such as Export Credit Agencies and pension funds.

iii) Refinancing Fund: target size of USD 500 million by way of refinancing of up to 50% of equity with long-term senior debt to leverage equity returns during the operational phase. This fund would allow mainstream commercial investors such as commercial banks and pension funds to invest in

[12] Private investors in the senior tranche (Tier 3 capital) benefit from an enhancement in form of a guarantee from the Dutch Export Credit Agency Atradius.

operating projects that have been developed through the development and construction equity funds.

CIO is managed by a dedicated fund manager Climate Fund Managers ("CFM"), a joint venture between FMO and Phoenix. CIO had raised USD 462 million for the development fund and Construction Equity Fund by its second close in December 2017. Fund-raising for the Refinancing Fund can only commence once projects develop through the first two funds are nearing the operational phase.

44. Similarly, risk declines in sectors and geographies that have seen repeat transactions due to a track record and a proven framework. This helps address risk perceptions and reduces uncertainty which should, in principle, also translate into a reduced share of concessionality. In terms of sectors, microfinance is the sector with the longest track record in the field of sustainable investments with over 20 years of credit history that have helped build a thorough understanding of the industry's lower than expected risk profile and a demonstration effect in certain geographies of graduating from a sector dominated by NGO-based lending to full access to capital market instruments (see Box 6).

Box 6. Graduating from blended finance? – Example Microfinance

Microfinance, the character-based lending of funds to the poor who do not have access to the formal banking sector, was invented by Nobel Peace Prize winner Mohammad Yunus in Bangladesh in the 1970s. It initially started as an informal activity outside the formal banking sector through NGOs. As experience grew, NGOs started to be subjected to regulation and some microfinance institutions evolved into specialized non-bank financial institutions (such as Grameen Bank) or fully-fledged commercial banks (such as BRAC), constantly expanding their client base and maintaining loan repayment rates above 95%, with women borrowers demonstrating higher repayment rates than men. As a result, they were able to attract commercial funding on their balance sheet. Several microfinance institutions to date have issued bonds in capital markets in countries such as Mexico or Cambodia. In Europe, structured blended finance funds like the European Fund for Southeast Europe (www.efse.lu) used a 30% first loss tranche to successfully attract commercial investment from MDBs/DFIs in mezzanine and senior tranches and private investors in senior tranches and/or notes products, thereby mobilizing large scale financial commitments over time – today, EFSE has close to EUR 1 billion in committed capital. Furthermore, a global range of successful microfinance institutions has allowed sustainable asset managers like Finance-In-Motion, BlueOrchard or ResponsAbility to build diverse global portfolios for investment by institutional investors and more recently also retail investors. As a result, fully commercial investment products without any concessional tranche involved have successfully been placed in the market. This illustrates that incubating new asset classes through blended finance creates markets and future investment demand where concessional finance is no longer required. The available history of low default rates and long track record of the sector have helped investors in certain geographies to become comfortable with the risk-return profile on a fully commercial basis, in some cases also facilitated by credit ratings.

45. **In general, reflecting the dynamic nature of risks, blended finance should successively enter new markets and sectors and exit established blended-finance markets where commercial investors can take over.** In the early stages and in the absence of markets (when socioeconomic returns exceed private returns), blended finance interventions are justified. Once markets have developed and

commercial financiers can take over (when private returns exceed the benefits to society), blended finance should exit and move on to less developed geographies and sectors.[13]

3.4.3. Choosing the right de-risking instrument

46. **Achieving balanced risk allocation in blended finance entails choosing the right financial instrument to introduce concessionality into the structure** and to achieve the appropriate risk-return profile to attract commercial investment while respecting good practice standards, including the principle of minimum concessionality (OECD DAC Blended Finance Principle 2C).

47. As illustrated in 6 below, financial instruments and their concessional use in blended finance structures include:

- Grants – typically, these are being provided for technical assistance or development capital for project preparation. They are also being used as viability gap funding in blended finance projects and as performance-based incentive payments;
- Concessional equity instruments – such as:
  - Subordinated / first loss equity capital at concessional returns – numerous examples exist in layered fund structures;
  - patient equity capital that ranks pari passu to commercial investors but has concessional return expectations with regards to the level of returns and the expected time period to exit; an example is the concessional equity investment by the Sustainable Energy Fund for Africa (SEFA) in the equity capital of the Africa Renewable Energy Fund (AREF);
  - catalytic capital[14] that is willing to take very high risk and/or concessionary returns – this concept is being developed further by certain actors in philanthropy;
- Debt instruments – these can be senior debt or subordinated debt at concessional terms (with interest rates below market level or tenors provided longer than what is available in the market) and be made available in local currency which benefits those companies and projects that generate revenue in local currency;
- Guarantees – they are useful instruments for mitigating risks for commercial investors. They can be categorized into[15]:
  - Partial Risk Guarantees (PRGs) – which are flexible instruments tailored to counter-guaranteeing government and other public sector obligations in e.g. public-private partnership; an example is the World Bank PRG frequently used in Public-Private Partnerships; [16]
  - Partial Credit Guarantees – guaranteeing credit risk to achieve longer tenors than available in the market;
  - Guarantees covering against losses arising from foreign exchange risk, at least up to a cap in hard currency equivalent, an example for this is the use of the EFSD guarantee by the European Commission (cf. Box 3).

[13] ODI (2019)

[14] Tideline (2019) defines catalytic capital as debt, equity, guarantees, and other investments that accept disproportionate risk and/or concessionary returns relative to a conventional investment in order to generate positive impact and enable third-party investment that otherwise would not be possible.

[15] PRGs may also help to mitigate political risk (political force majeure risks).

- Insurance instruments such as political risk insurance provided by MIGA.

48. In terms of financial mechanisms, examples include:

- Structured funds involving a subordinated first loss equity tranche and one or several mezzanine and senior equity and/or debt tranches are established instruments in blended finance;
- Risk-sharing arrangements which share in losses are often used to incentivize commercial banks to lend to new sectors, while building their capacity;
- Syndication is being used by MDBs/DFIs to co-finance alongside institutional investors who can benefit from enhancement in co-financing structures;
- Viability gap payments are applied in public-private partnerships in infrastructure to meet both affordability and commercial return expectations; examples include the KfW-supported GET FiT program in Uganda, the IFC-supported Scaling Solar program in Zambia or the EBRD-supported renewable energy FiT program in Egypt;
- Securitisation is a recently emerging mechanism in blended finance; examples include the African Development Bank's Room-to-Run synthetic securitisation or the European Commission's EFSD guarantee for the securitisation of receivables of solar off-grid power companies;
- Results-based finance remains an underutilised mechanism but should be explored further to provide concessional finance in return for achieving targeted development outcomes.

Figure 6. Blended Finance - Financial Instruments and Mechanisms

Financial Instrument	Example of Concessional Use in Blended Finance
Grant	• Technical assistance • First loss grant • Project development capital • Performance-based incentives
Equity	• First loss capital • Junior equity • Patient capital • Catalytic capital / undefined time to exit • Concessional returns • Hybrid instruments
Debt	• Subordinated debt • Long-term debt • Local currency debt • Below-market interest rates • Longer grace periods • Reduced collateral requirements • Deferrals • Stand-by products
Guarantees / Insurance	• Partial Credit/Risk Guarantees • Political Risk Insurance • Unfunded liquidity support facilities • (Partial) currency risk mitigation • Concessional guarantee fee

Example Mechanisms
• Structured funds • Syndication • Securitization • Viability gap payments • Results-based finance • Public-Private Partnerships • Risk sharing arrangements

Source: Authors

3.4.4. De-risking through local entities

49. **Bringing in local entities can improve risk allocation in blended finance.** Local investors such as sovereign wealth funds and local pension funds can provide local currency finance to projects that

generate revenues in local currency, thereby eliminating foreign exchange risk, and are also well positioned to provide long-term finance. They are also better placed to understand, price and manage political risk in their country. Blended finance should therefore seek to catalyse investment from local investors in line with their regulatory requirements. In addition, national development banks and local commercial banks can also provide development finance through blended finance involving risk sharing mechanisms. InfraCredit, a joint entity between the Nigerian sovereign wealth fund, GuarantCo and KfW is a good example of a public-private entity providing credit enhancement to local currency finance (see Case Study 3 in Annex A). Furthermore, in line with the OECD DAC Blended Finance Principle 3, blended finance should support the development of local capital markets, in turn offering additional investment opportunities for local investors. The Africa Local Currency Bond Fund provides a good example of a blended finance structure enabling local capital market development (see Case Study 8 in Annex A).

3.4.5. Ongoing challenges to balanced risk allocation in blended finance

50. **Different stakeholders use different methodologies to assess risk in a blended finance transaction and derive expected returns.** Based on discussions held with different stakeholders in blended finance transactions (donor governments/agencies, MDBs/DFIs, foundations, private investors), no uniform approach to assessing risk exists and different stakeholders use different models for risk assessment as the basis to determine their expected concessional or commercial return. Different methodologies also apply for blended finance at the institutional/portfolio, program and project levels. Box 7 provides an overview of the most commonly used approaches towards risk assessment by various stakeholders in blended finance.

Box 7. Commonly used approaches to risk-return analysis in blended finance transactions

Based on discussions with stakeholders consulted for this work (including donor governments/agencies, MDBs/DFIs, foundations, private investors), 4 approaches are being used to assess risk in the context of blended finance. These include

1. S&P Risk-Weighted Asset Calculation for securitisation: At the level of an institution/portfolio and in the case of securitisation of MDB assets benefiting from enhancement through a concessional guarantee, rating agency methodologies for securitisation are applied. One example is the methodology used by Standard&Poor's. To identify the amount of risk to transfer from an MDB's balance sheet in order to free up as much capital as possible (i.e. determine the lowest risk weighting of the concerned assets), S&P calculates the expected loss rate by adding up the implied unexpected loss, the normalized expected loss and adjustments for loan concentration etc. The targeted risk tranche can then be rated and transferred to the risk-taker, while the risks retained by the MDB should be of the same quality (rating) of the transferred risk in order to avoid cherry-picking of assets in a securitisation and reducing the overall asset quality (rating) of the MDB.

2. Expected loss: Expected loss is the common risk metrics used by institutions providing loans. It is what the lender can expect to lose if the borrower defaults. Expected loss (EL) is calculated as the probability of default (PD) multiplied with the loss given default (LGD) and the exposure at default (EAD):

$$EL = PD \times LGD \times EAD \text{ where}$$

- PD: The probability of default (PD) is the likelihood that a loan will not be repaid and will fall into default. PDs are based on the credit history of the borrower and the nature of the investment. They can be calculated using external ratings agencies such as Standard and Poors or Moody's or based on internal rating methods.
- LGD: The loss given default (LGD) is calculated as 1 – recovery rate (which can be calculated as the value of collateral/value of the loan)
- EAD: The exposure at default (EAD) is the amount that the borrower owes to the lending institution at the time of default

The International Financial Reporting Standard (IFRS 9) requires the calculation of expected current losses involving regular updates of PDs under weighted scenario analysis. Expected loss calculations are the common risk assessment used by MDBs and DFIs in their credit risk assessments. In terms of returns, MDBs add a margin over the expected loss to cover their administrative costs and target profitability.

Expected loss calculations rely on historic credit data from internal or external sources as input. In addition, IFRS9 requires forward-looking scenario analysis. Such data is typically not always readily available for new sectors, technologies or markets, especially in EMDEs. Comparable industry and geography parameters are used to fill this gap. However, the absence of reliable data can result in uncertain and high assumptions regarding the underlying parameters (PD, LGD) resulting in higher expected loss assumptions than may actually materialize.[17] Expected loss calculations can be used as a benchmark for sizing concessional tranches in blended finance structures. In the event of high expected loss expectations due to data gaps, this may result in a higher use of concessionality than may be required. At a fund level, expected loss calculations can be used as benchmark to size concessional tranches. At the project level, a pragmatic approach currently deployed in structuring blended finance transactions is to negotiate with potential investors on acceptable target risk-return profiles, and then back out the needed level of concessional finance while applying industry benchmarks such as the sector's average expected loss.

3. Value-at-Risk (VaR): Value at risk (VaR) is a statistic that measures and quantifies the level of financial risk within a firm, portfolio or position over a specific time frame. This metric is most commonly used by commercial banks and investment banks to determine the extent and occurrence ratio of potential losses in their institutional portfolios. VaR calculations can be applied to specific positions or whole portfolios or to measure firm-wide risk exposure. VaR modeling assesses the amount of potential loss, the probability of occurrence for the amount of loss, and the timeframe. Credit VaR is calculated as the deviation from the mean expected loss at a certain confidence level, also referred to as unexpected loss [Statistical approaches in this context include historical simulation, variance and Monte Caro analysis.]

The European Commission is using a VaR approach for the risk modelling of their EFSD Guarantee with a 90% degree of confidence in order to assess and monitor that their expected loss at the portfolio level does not exceed the EUR 750 million funded element of the EFSD guarantee at all times.

[17] For example, a 2010 study by Moody's found that default rates of infrastructure projects in emerging markets are not significantly higher than default rates of infrastructure projects in developed markets (Moody's, 2010[19]).

4. Discounted cash flow analysis: Discounted cash flow (DCF) is a valuation method used to estimate the present value of an investment based on its future cash flows. DCF analysis finds the present value of expected future cash flows using a discount rate. A present value estimate is then used to evaluate a potential investment. If the value calculated through DCF is higher than the current cost of the investment, the opportunity should be considered. In DCFs, double-counting needs to be avoided. If certain factors are included in expected cash flows, they should not be included in the discount rate. An important factor in any DCF analysis is the choice of discount rate. This can be done using comparables or a firm's weighted average cost of capital (WACC[18]). WACC can be understood as the minimum return required in any investment, as any return below WACC would be loss-making for a company and investor. However, in EMDEs insufficient data may be available to calculate the appropriate discount rate, for example, it may be difficult to determine the risk-free rate in countries where no government bond is outstanding.

Nevertheless, DCF analysis is a frequently used evaluation tool in order to assess financial investments. Investors use DCF analysis to determine expected returns. For equity investments, this is typically based on government bond yields for the specific maturity in question and adding an investment-specific risk margin (e.g. for construction, operating and financial risks). Cash flow forecast and analysis is also used to determine the gap in financing blended concessional finance can help fill in order to reach standard market financial ratios. For debt investments, such standard financial ratios include debt service coverage ratios, debt/EBITDA ratios or return on investment ratios for debt financing.

51. **Several challenges exist in risk assessments for blended finance transactions that impact balanced risk allocation between the public and private sector.** First, every stakeholder uses slightly different risk models which makes it difficult to develop a systematic approach towards risk analysis across sectors and geographies. Second, the perspective of various stakeholders is different as each group of stakeholders has their specific approach to risk-return considerations:

- Private investors (commercial banks, institutional investors) prioritize financial risk-return considerations and use risk models to ensure that their minimum return requirements are being met; developmental impact can be an additional impact but does not drive risk analysis and return expectations;
- MDBs/DFIs that are active in private sector operations typically follow commercial practices when analysing risk-return considerations, while their financial return targets can be more patient than those of private investors (e.g. through longer tenors or reduced return expectations) as a result of additional developmental objectives (such as catalysing first time markets, developing capital markets through long-term finance etc.);
- Donor governments and agencies are motivated by development impact first, while some have minimum financial criteria such as total or partial capital preservation and/or a minimum concessional financial return.

4. In particular, donor governments are typically less well-equipped than MDBs/DFIs and private investors to assess risks in blended finance transactions. Current standard practice is that MDBs/DFIs act as arrangers and implementers of blended finance transactions, often presenting them to donors with a specific request for a certain level of concessionality. As donors typically do not have the same degree of sophistication on their side regarding risk modelling and risk analysis, this creates information asymmetry. In turn, this provides MDBs/DFIs and the private sector with strong bargaining power that could result in a skewed risk allocation towards the public sector which could translate into higher shares of concessionality than optimal in a balanced risk allocation

[18] WACC is the (cost of equity multiplied with the percentage of financing that is equity) plus (the cost of debt multiplied with the percentage of financing that is debt multiplied with (1-corporate tax rate))

approach based on full information transparency. To address this, donor governments are advised to:

a) When using MDBs/DFIs as arrangers and implementers of blended finance, request them to set up appropriate governance approaches to manage and implement blended concessional finance that take into consideration potential conflict and misalignment of interest and information asymmetries; for example, this can be achieved through the use of independent governance and separate investment teams to represent the donor objectives;

b) Request that MDBs/DFIs make their risk models and risk analysis accessible to donors for understanding and verification that good practice risk allocation approaches are being followed;

c) Build their own capacity in risk analysis through knowledge exchange and

   I. A concerted dialogue amongst donor governments/agencies on risk assessment approach and capacity in general and for blended finance in particular is recommended; joint and/or outsourced risk assessment structures could also be considered, following the example of MDBs collaborating in GTAG for the risk assessment for the European Commission's the EFSD guarantee;

   II. More work is required to develop risk models that properly account for development impact risk; the theoretical objective would be to understand and price the incremental risk related to donors' objectives to achieve specific development outcomes;

d) In addition, most donor governments need to build risk management capacity to monitor their risk exposure through the concessional funding they are making available to blended finance transactions over the life cycle of the project/program either directly or indirectly through implementing entities. In this context, risk management capacity needs to potentially also manage losses occurring under a first loss arrangement.

4. Principle 4 (c) Aiming for scalability

52. **Principle 4c) focuses on scalability for blended finance.** This requires creating access to market-building information for private investors (such as the data included in the Global Emerging Markets (GEMs) Risk Database) and setting incentives for scaling up through mobilisation objectives for MDBs/DFIs of private investment. It also involves developing financial instruments that meet the criteria of private investors – including replicability/standardisation, diversity and liquidity. DAC donors need to encourage replicability of successful blended finance structures, incentivise improved collaboration in the creation of blended finance structures for scale and consider making a larger pool of concessional funding available to all MDBs/DFIs on equal terms with potential sub-windows for specific sectors and/or regions. Programmatic approaches towards asset creation should also be encouraged in markets that are ready for their adoption. New financial instruments, such as multi-MDB securitisation or take-out (put) options for commercial banks should be pursued to facilitate achieving scale. Lastly, for the blended finance market to grow at scale, enhanced co-ordination among all different actors is also needed, for instance through multi-stakeholder initiatives such as the Tri Hita Karana (THK) Roadmap for Blended Finance.

4.1. Enabling conditions to achieve scale

53. Market transparency and efficiency needs to be created by making available performance data available to all market participants, especially private investors. Data sources about credit history in emerging markets include rating agency databases and IFI reporting to the GEMs database. The latter contains 30 years of infrastructure performance data from 21 IFIs with combined balance sheets of EUR 1.5 trn covering 9,000 counterparts and 17,000 contracts (see Box 7). This unique data source is currently proprietary to member IFIs, creating significant market distortions and inefficiencies. Sharing the GEMs data with third parties such as investors, rating agencies, regulators and standard setting bodies can unlock significant volume of additional private financing for SDG investments in EMDEs.[19] GEMs can be treated as a public good which is possible while respecting necessary confidentiality arrangements with regards to individual investments. Donors of concessional finance for blending should therefore insist that institutions and structures benefiting from such finance publish their data to GEMs. For example, the EC will require that future beneficiaries under the EFSD Guarantee publish to GEMs. In addition, a concerted effort is required at the level of donor government (in collaboration with e.g. the G20's infrastructure initiatives) to ensure that GEMs data is made available to all market participants. Members of the GEMS steering committee have indicated that a first report with aggregated data by sector will be made available by end-2019.

[19] The GEMs database is poised to be accessible via a fee-based scheme.

Box 8. The GEMs database

The Global Emerging Markets (GEMs) Risk Database provides unique information on credit risk for International Financial Institutions (IFIs) representing a real alternative to the statistics published by rating agencies. The database includes cohorts of active counterparties from 1988 onwards. In 2017 GEMs database reported on around 9,000 counterparts, 1,900 default events and 2,600 resolved contracts. This makes it the world's largest default and loss database for the emerging markets business of IFIs. The database includes counterparts from three main risk categories: Privates, Publics and Sovereigns. Approximately 86% of counterparts are operating in the private sector, while 10% are public authorities and 4% sovereign governments. GEMs also requires its members to assign a single sub-industry from the Global Industry Classification Standard (GICS©) to every counterpart and contract. Data can also be filtered geographically: GEMs distinguishes between 12 regions. In order to combine data from different consortium members, individual institutions map their internal ratings to a common rating scale. For this purpose the GEMs PD Rating Scale has been developed, which consists of 10 Investment Grades and 10 Speculative Grades. Most GEMs Risk Database counterparts fall in the speculative rate spectrum. Recovery Rates in the GEMs database are measured on an economic basis by incorporating the cash flows and collateral recovered after a default event occurred. (www.GEMs-riskdatabase.org)

Source: (GEMs, n.d.[9]), Global Emerging Markets (GEMs) Risk Database, www.GEMs-riskdatabase.org

54. Donor governments, as shareholders of MDBs/DFIs, should set incentives to improve the mobilisation of private capital for SDG investments. Another important note is that while DAC (or development) representatives are from departments (or ministries) of development or aid, DFIs, for example, are often under the purvey of Ministries of Finance (or Treasury Departments). This division can make it difficult to build a united, national, cohesiveness and collaboration. **A whole-of-government approach is essential to achieve co-ordinated and effective blended finance solutions.**

55. Often MDBs/DFIs are currently mainly evaluated based on their own account financing volume. They should also be evaluated based on how much private finance they helped mobilise. While MDBs/DFIs have started to jointly report on their mobilisation of private finance[20], significant caveats around the data exist, such as potential double-counting. Furthermore, the amounts reported in private direct mobilisation are about one third of total annual ODA, with total private mobilisation (including private indirect mobilisation) amounts to about the annual amount of ODA. For 2017, DFIs reported USD 8.8 billion in blended finance for private sector operations, of which USD 1.2 billion were concessional funds, USD 3.9 billion DFI own account investment and USD 3.3 billion additional private sector investment. Furthermore, about 90% of private capital mobilisation is taking place in middle-income countries. This kind of leverage ratio will not allow to achieve the SDG investment needs. Donor governments as MDB/DFI shareholders should therefore consider using a private capital mobilisation target as additional measure to evaluate MDBs/DFIs. While an overall direct mobilisation target of at least one dollar of private capital for every dollar invested by MDBs/DFIs could be considered, careful consideration is required in terms of setting appropriate sub-targets for mobilisation in different geographies, countries and sectors. For example, a mobilisation target for private capital in low-income countries or least-developed countries may need to

[20] Cf. The 2017 Report on Mobilisation of Private Finance by Multi-Lateral Development Banks and Development Finance Institutions

remain below one initially, while a trajectory showing growing mobilisation with improved market development and repeat transactions can be considered. In the mobilisation of private investment, it is important to ensure quality. Private sector finance mobilised through blended finance needs to fill a market gap by being additional to existing financing and create additional development results which need to be monitored.

56. An important but often overlooked sub-aspect of mobilisation of private capital through blended finance projects or programs is the need to **monitor MDB/DFI exits**.[21] MDBs/DFIs are investors both in blended finance projects – such as infrastructure projects – and structured blended finance funds. In line with the principles of good practice risk allocation discussed under Principle 4b), MDB/DFI finance should be additional to private sector investment in that it covers the phases in a project or the tranches in a blended finance fund that private investors are not willing to invest in. However, while risk profiles improve over the life of a project or a fund, creating opportunities for private investment e.g. during the operating phase of a project or in a mezzanine tranche of a fund with an established track record, MDBs/DFIs often behave as long-term investors. This can lead to crowding out of private investors e.g. in a layered fund who may be interested in investing in a mezzanine tranche after the fund has established a few years of track record, while MDBs/DFIs as anchor investors in such a tranche may not want to exit it due to attractive return characteristics.[22] Providers of concessional finance for blended finance solutions should actively monitor and encourage MDBs/DFIs to exit once risk profiles have become known. Regular calls for investment could be made after an initial period of investment (e.g. 3-5 years to develop an investment track record) to test for market interest from local and international private investors. Successful examples of such approaches need to be collected and shared with all blended finance stakeholders.

57. **Ongoing efforts are needed to improve enabling conditions for blended finance at country level and increase the pipeline of bankable projects as pre-conditions for scaling up**. Creating a conducive investment climate and regulatory environment for blended finance at country level requires ongoing support through technical assistance and collaboration at country-level. Furthermore, creating a sufficient volume of bankable pipeline projects is an important pre-condition for achieving scale. Ongoing concessional funds are required in the early stages of project preparation to (i) create enabling investment climate and regulatory reforms through advisory services; (ii) assist governments to develop SDG investment plans that identify opportunities for private investment early; (iii) finance project feasibility studies through (reimbursable) grants and (iv) provide early stage high-risk project development capital. Blended finance has a strong role to play to help project developers, MDBs/DFIs and national entities create a sizeable pipeline of bankable projects for investment by the private sector. At the local level, national project preparation funds can help generate pipeline and could benefit from de-risking through concessional donor funds/grants and/or guarantees.

58. **Programmatic and standardised approaches to asset creation can help attract private investment at scale.** Programmatic approaches can help both in terms of creating several assets at the same time for investment and in doing this in a standardised manner to facilitate private sector participation. For example, in public-private partnerships in infrastructure, programmatic approaches to developing and procuring independent power producer projects (IPPs) in renewable energy have been developed and utilized in South Africa through the REIPPPP program, in Zambia and other countries through the IFC-led Scaling Solar program, in Uganda through the KfW-supported GET FiT program or in Egypt through the EBRD-supported solar IPP program. Some governments have put in place specialized units to manage these processes, such as the South Africa IPP Office in the Department of Energy. Several of these programs where anchored through a financing package provided by a MDB. In all of these programs,

[21] This topic is covered more extensively in OECD DAC Blended Finance Principle 2 Guidance Note

[22] This is likely to vary depending on the DFI/MDB, as they each will have distinctive calculations regarding break-even analyses.

standardised contractual arrangements (e.g. for the Power Purchase Agreement) have helped to attract several private sector bidders, thereby creating healthy competition to meet competitive end-user tariffs. Donors should incentivise MDBs to collaborate in such programmatic approaches to further enhance replicability and standardisation for private investors.

Box 9. South Africa's Renewable Energy Independent Power Producer Procurement Programme

The South Africa Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) was the first programmatic approach in Africa towards the procurement of IPPs for the renewable energy sector. It was motivated by South Africa's National Development Plan and Integrated Resource Plan that called for over 13,000 MW of additional electricity generation capacity from renewable energy by 2030. The procurement approach was based on standard terms and conditions for four non-negotiable project documents (Power Purchase Agreement, Government Support Agreement, Implementation Agreement, Direct Agreement); a competitive bidding process; objective qualification criteria; several bid windows (staggered process) and a capped MW allocation to entice competition; and objective evaluation of qualifying bidders. Since 2011, more than 6,000 MW from over 100 renewable energy projects have been awarded, with wind and solar projects having attracted the most interest from project developers. Due to local content targets, significant investment has been mobilised from domestic investors, creating significant local employment, while international investors also participated. As a result of the competitive process, cost-efficient end-user tariffs have been achieved. The rolling programme with several windows developed credibility and market confidence. (South Africa IPP Office, March 2016)

Source: (DBSA, 2016[10]) Independent Power Producers Procurement Programme (IPPPP)

59. **Blended concessional financial elements should be included in bidding procedures for programmatic procurement approaches.** Programs like the Egypt Feed-in-Tariff scheme or the Zambia (and other countries) Scaling Solar program have involved a grant/concessional finance element for affordability purposes[23]. In programmatic procurement approaches, concessional financial elements (such as viability gap payments or concessional debt tranches to achieve a target end-user tariff) should be included in bidding procedures to help the procuring authority assess which bidder offers the strongest development impact (e.g. in terms of electricity connections for poor households) for a given subsidy. An example is the GET FiT program in Uganda, where reverse bidding was included to determine the lowest grant element required in a new market and technology (solar power) where no market information was available to determine the topping up tariff to achieve a commercially viable feed-in-tariff for small- to medium-scale renewable energy projects. Donor governments that provide concessional finance for programmatic procurement approaches should request that such finance be included in the bidding procedures in a transparent manner.

[23] It is important to note that there are limits to the use of subsidies for affordability purposes. A sustainable transaction needs to remain financially viable over its lifetime and cannot entirely depend on subsidies for its viability.

4.2. Financial instruments to achieve scale through aggregation and diversification

60. Achieving scale through blended finance requires that financial instruments meet the requirements of private investors: standardisation/replicability, diversification and liquidity. In terms of replicability, blended finance stakeholders should move away from the current practice that each MDB/DFI and donor works tries to invent new blended finance instruments, often with bilateral concessional funding made available to one institution channelling the funds based on its own procedures. This prevents blended finance vehicles from achieving the required scale that makes it interesting for mainstream commercial investors to invest; creates undue fragmentation in the market; and prevents a systematic approach towards risk allocation and minimum concessionality. Instead, all blended finance stakeholders need to move towards supporting successful structures to achieve scale and/or replicate successful approaches in new markets. Working on fewer but larger blended finance structures and vehicles has several advantages: (i) it creates cost savings as set-up costs can be leveraged by more market participants and larger financing volumes; (ii) it unlocks access to large institutional investors who currently do not yet invest in blended finance structures as they are too small to accommodate their usual ticket sizes; and (iii) it allows to build on lessons learnt from existing structures. Stakeholders consulted for this work cited the following blended finance structures as examples for successful structures that should be replicated in other sectors or geographies: FMO's Climate Investor One (see Box 4), GuarantCo's InfraCredit (see Case Study 3 in Annex A) or the IFC's Managed Co-Lending Portfolio Program for Infrastructure (see Box 10). Donor governments providing concessional finance or guarantees to blended finance structures should therefore be guided by the approach to enhance replicability and standardisation. This means verifying if the proposed structure helps to replicate a proven model and, should this not be the case, why setting up a new structure is required to achieve the targeted development objective instead of scaling up an existing mechanism. Exceptions may be justified in the early stage of project development, testing innovative financial structures or piloting blended finance approaches in new technologies, all of which may require a tailor-made approach.

Box 10. IFC's Managed Co-Lending Portfolio Program (MCPP)

The IFC's Managed Co-Lending Portfolio Program was established as a syndication platform to allow institutional investors to invest alongside IFC in emerging markets and thereby mobilise private sector investment at scale, including for infrastructure projects. For this purpose, the MCPP structure for infrastructure provides a first loss tranche provided by IFC and the Swedish International Development Cooperation Agency (SIDA) to de-risk the portfolio in order to achieve the investment grade risk-return profile required by investors' regulation and preferences. MCPP investors and IFC sign upfront administration agreements determining the makeup of the portfolio based on agreed eligibility. Investors pledge capital upfront and then as IFC identifies eligible deals, investor exposure is allocated alongside IFC's own per the terms of the agreement. IFC conducts the investments on behalf of private sector investors and in line with its applicable procedures. The MCPP platform has attracted interest from mainstream commercial investors. As of 2018, the MCPP has attracted USD 7 billion in commitments from 8 global investors. Sovereign investors include the People's Bank of China invest alongside IFC through a trust fund (USD 4 billion commitment). Institutional investors like Allianz, Axa and Prudential invest alongside IFC through a B-loan facility (USD 1.6 billion commitment). Credit insurers provide IFC with credit insurance or risk guarantees (USD 1.5 billion commitment).

Source: (IFC, 2018[11]), Managed Co-Lending Portfolio Program (MCPP), https://www.ifc.org/wps/wcm/connect/corp_ext_content/ifc_external_corporate_site/solutions/products+and+services/syndications/mcpp

61. **Regarding guarantee instruments, standardisation of existing instruments would facilitate achieving scale.** Several MDBs/DFIs and bilateral government agencies offer credit enhancement through various forms of guarantees, all on slightly different terms and conditions and with different coverage events. This is confusing to the market and does not always help investors meet their regulatory requirements. For example, in order to provide capital relief for commercial banks under the Basel III regulation, guarantees need to be irrevocable and payable on demand, which is not the case for e.g. all guarantees offered by MDBs. Collaboration on aligning guarantee instruments should therefore be enhanced, which donor governments as shareholders of multi-lateral and bi-lateral guarantee providers can further encourage. A case in point is the MOU signed between the African Development Bank, GuarantCo, the Africa Trade Insurance and the Islamic Corporation for the Insurance of Investment and Export Credit (ICIEC) to create a co-guarantee platform in order to meet the guarantee and credit enhancement requirements for Africa's infrastructure investments in a coordinated manner (PIDG, 2018[12]). In addition, the European Commission's EFSD guarantee is developing standard guarantee templates in its five focus areas of SME finance, agriculture, renewable energy, sustainable cities, digitalisation and local currency finance which will help develop market standards in these sectors (European Union, 2019[6]).

62. Furthermore, **the use of guarantees as de-risking instruments for private sector investments in SDGs is currently limited by penalising capital charges for MDBs/DFIs as guarantee providers**. MDBs providing guarantees for private sector operations face the same capital charge on their balance sheet as if they would be lending to the entity through a funded credit.[24] As interest rates on credits are higher than guarantee fees, MDBs do not have sufficient incentives to scale up the use of their guarantee instruments to de-risk private investors in EMDEs. However, from a private sector perspective, guarantees that meet regulatory requirements are viewed as an efficient credit enhancement mechanism. Donor governments as MDB shareholders should therefore consider establishing regulatory and performance incentives to scale up the use of MDB guarantees for private sector operations.

63. **Use of established market-based credit enhancement instruments would equally facilitate scale.** From a commercial bank perspective, the limitations related to guarantee instruments from multi-lateral or bilateral guarantee providers could be overcome if these entities would make established market-instruments available, such as credit default swaps (CDS). CDS are derivative instruments that enable investors to swap credit risk with another investor. CDS are often used to transfer credit exposure on fixed income products. They are traded over-the-counter, providing commercial investors with easy access and market-based pricing (where available).

64. **Securitisation of MDB/DFI assets is a proven way of attracting private investment into operating assets at scale.** As institutional investors like pension funds and insurance companies are looking for long-term investments of assets with moderate risk but reliable return profiles, they are well positioned to invest in securitisation structures of MDB/DFI operating assets. Credit enhancement or risk sharing mechanisms can be deployed to meet investors' regulatory requirements. In turn, securitisation helps MDBs/DFIs to free up balance sheet space to invest in new assets in sectors and stages where private investment is not yet forthcoming. The African Development Bank has recently completed the first synthetic MDB securitisation of up to USD 1 billion of a portfolio of non-sovereign loans to infrastructure

[24] Another issue in providing guarantees is whether it is classified as ODA-eligible or not.

providers at operating stage and to financial institutions that have been invested in by private investors (see Box 11).

Box 11. The African Development Bank's Room-to-Run (R2R) Securitisation

The Room-to-Run synthetic securitisation is the first securitisation of MDB assets piloted by the African Development Bank (AfDB) pioneering the use of securitisation and credit risk transfer technology to a new and previously unexplored segment of the financial markets. It involves selling the credit risk of a reference portfolio of up to USD 1 billion in AfDB non-sovereign loans in Africa to project finance companies in the operating phase (mainly in infrastructure) and financial institutions to private investors. The AfDB retains the first 2% of losses in the reference portfolio, buys credit protection for the next 15.25% of losses from private investors (led by Mariner Investment Group) and benefits from an EFSD guarantee for losses between 17.25-27.25% by the European Commission. Based on the applicable rating agency methodology, the resulting reduction of risk capital consumed created significant additional headroom for the AfDB to lend to its core business which the Bank intends to use primarily for loans to the renewable energy sector. Room-to-Run therefore creates an impact investment opportunity for private investors that is fully dedicated to achieving sustainable development impact in Africa. Under the synthetic securitisation structure, AfDB remains the lender of record and continues to monitor the loans in line with its applicable policies and procedures.

Source: (African Development Bank, 2018[13])

65. **Additional scale could be achieved by creating multi-MDB/DFI securitisation portfolios**. The AfDB synthetic securitisation structure can easily be replicated by other MDBs/DFIs and provides opportunities for all MDBs/DFIs to attract private investment into operating assets in developing countries. Furthermore, collaboration to create multi-MDB/DFI asset portfolios for securitisation would produce larger, more diversified portfolios that could attract private capital from commercial investors at scale. Credit enhancement and/or risk sharing mechanisms could be added as necessary. Scaling up the use of securitisation for MDB assets would also be aligned with the G20's Action Agenda for MDB Balance Sheet Optimization. As MDB shareholders, governments should actively encourage MDBs to explore opportunities of securitisation which they can enhance through concessional first loss, risk sharing or guarantee arrangements as needed. Annex 2 shows a potential structure how a multi-MDB securitisation platform could be conceptualized. In this context, it is beneficial for the MDB/DFI to remain the lender of record and maintain supervision of the assets which speaks in favour of a synthetic securitisation arrangement. In addition, potential impact on MDB's preferred creditor status needs to be understood well. It is recommended that OECD host a working group to explore the concept of multi-MDB/DFI securitisation further.

66. **Fund-of-fund solutions provide additional instruments for aggregation and achieving scale.** Investing in a fund structure that in turn invests in several funds in a specific sector and/or geography provides advantages of scale, risk diversification, transaction cost efficiency and a high mobilisation factor. Fund-of-funds can invest in high-risk high-return market segments which its investors would typically not invest on their own. Fund-of-funds with such a developmental mandate typically benefit from de-risking through a concessional first loss tranche. The eminent example of such a fund-of-fund structure is the Global Energy Efficiency and Renewable Energy Fund (GEEREF) co-created and advised by EIB (cf. Case Study 11 in Annex 2). Another example in the SME space in Africa is the BOOST Africa Platform co-created by the EIB and AfDB with first loss capital from the European Commission for private equity investments in incubators, venture capital and private equity funds investing in start-ups and SMEs in Africa. In the insurance sector, the KfW-supported InsuResilience Investment Fund (see Annex A Case Study 5) also provides equity investments in intermediaries (insurers and brokers) building the market for climate insurance (in addition to lending to financial institutions and aggregators in return for participation in the development and distribution of climate insurance). In addition to investing in the high-risk high-

return market segment, fund-of-funds can also provide an avenue to aggregate portfolios and mobilise larger scale private investment into existing impact funds. For example, a fund-of-funds for sustainable agriculture would provide a mechanism to raise additional private capital for investment into global and regional sustainable agriculture funds.

67. **Creating financial instruments for scale requires appropriate governance solutions and should not crowd out local context solutions.** While larger investment vehicles can mobilise more commercial investment for development, adequate governance structures need to be in place to ensure that they deliver the intended development impact. For example, while a large blended fund-of-funds could be an attractive vehicle for SME finance at scale, it would needs to be ensured that the concessional element is used to fill a market gap, such as financing for the 'missing middle' / smaller size SMEs. In addition, a natural trade-off exists between scale and local context solutions that take the development of local capital markets and SDG financing needs into account. This trade-off could, however, be overcome by combining local financing solutions with an aggregation approach through e.g. fund-of-funds.

4.3. Liquidity

68. **Private investors are looking for liquidity to have visibility regarding their ability to exit an investment.** As most SDG-related blended finance structures are unrated, illiquid alternative private equity and private debt investments, no market mechanisms exist to provide liquidity to commercial investors. This creates an obstacle for private investments, mainly due to investor regulations that generally require high capital charges for illiquid assets. Addressing the liquidity challenge is therefore important to enable scale. This requires the creation of new instruments. Potential approaches include:

- **put options** – binding undertakings from long-term institutional investors and/or donor governments or MDBs/DFIs to e.g. refinance a commercial bank's loan at maturity;
- **partial risk guarantees** – such as guarantees for take-out financing by a donor, government or MDB in case a commercial bank cannot refinance a loan at maturity due to non-commercial factors (such as adverse macro-economic developments, changes in regulation etc.);
- **donor-funded take-out facilities**, similar to the approach used in the Microfinance Enhancement Facility which provided bridge liquidity to microfinance institutions during the 2008/9 financial crisis when market-based investments for microfinance where not readily available. However, a fully funded facility would require a minimum size to provide sufficient comfort to private investors, which could result in an inefficient use of donor funds.
- **market-based take-out funds that** e.g. provide for an exist for private equity funds in EMDEs after 5 years at the prevailing returns

69. **An alternative approach to solving the limitations of illiquid alternative investments in EMDEs would be to consider regulatory incentives for investments in SDGs, including lower capital requirements.** Such incentives exist in certain EMDEs such as South Africa or Chile and have helped to successfully mobilise private investment into development projects and sectors.

4.4. Improved collaboration

70. **Improved collaboration between MDBs/DFIs, donor governments and other actors active in blended finance is required to enable scale and efficiency.** The fragmentation created by the development of numerous new blended finance products through individual MDGs and DFIs, often with bilateral concessional funding, prevents a more strategic, structured approach to achieving scale. Multi-lateral and bilateral providers of concessional funding for blending purposes should therefore incentivise joint product development between MDBs/DFIs. Bilateral donor governments can do this by making

concessional finance available with the condition that at least 2-3 MDBs/DFIs are involved. Multilateral providers of concessional finance, such as the Green Climate Fund or the Global Environment Facility, can encourage collaboration between MDBs and DFIs in product development on the basis of identifying synergies amongst the proposals they receive. Case studies of successful collaboration should be documented and shared. The DFI Alliance represents a promising and encouraging step towards improved collaboration in this field. The DFI Alliance is composed of 16 bilateral DFIs, committing to find solutions that will reduce the impact of COVID-19 in developing countries, by working collaboratively to identify mechanisms designed to bring liquidity to the market, sustain companies, return them to full production, and restore employment opportunities (EDFI, 2020[14]).

71. **In this context, developing or leveraging regional and/or global partnerships for scaling up of blended finance by sector or instrument could be an effective approach to achieve scale**. Such partnerships can be anchored in existing public-private partnerships and funding platforms that could be scaled up through additional concessional and commercial partners, such as the Global Partnership for Education, the Global Environment Facility, the Global Alliance for Vaccination and Immunization et al. Similarly, existing instrument-based platforms can be used as anchor for improved collaboration and scaling up, such as InsuResilience Global Partnership as platform for a public-private climate risk insurance collaboration, the African Development Bank's synthetic securitisation platform as anchor for a multi-MDB securitization, the IFC's MCPP-platform, as platform for a multi-DFI co-financing platform etc. In sectors where no global initiative exists, public-private funds-of-funds could provide a useful instrument for collaboration and scaling up. A complementary approach could be to develop thematic blended finance funds at regional level, e.g. a pan-African climate fund that could invest directly in climate projects in Africa and/or indirectly through a fund-of-funds arrangement.

72. **Donor governments could consider making one multilateral pool of concessional finance for SDG blending available to all MDBs/DFIs on equal terms**. Similar to the model used by the Climate Investment Funds and the process by the European Commission for the EFSD guarantee, this would provide an opportunity to ensure a more structured approach towards risk allocation, the use of concessionality, mobilisation of private capital and development impact targeting and reporting. It would also require MDBs/DFIs to compete for concessional funds on equal terms and would address concerns that certain bilateral facilities could distort markets or provide unfair advantages to one MDB/DFI over others. Sectoral and regional specificities may need to be taken into account which could be achieved through dedicated standardised sub-windows (e.g. targeting specific sectors). Benefits of such a concerted approach would include transparency, cost efficiency and scale. Challenges might be governance and procedural complexities involved in multi-donor arrangements which would need to be kept lean and flexible to enable efficient implementation while adhering to good practice standards.

73. **Improved collaboration is also required at the stage of incubators and catalytic capital providers** as e.g. a large number of challenge funds for the incubation of business ideas and financing structures exist for SDG implementation. These are challenging to navigate for the private sector, typically provide financing in small amounts and limit connectivity with subsequent funders, such as venture capitalist and private equity funds. Joining forces on challenge funds would also provide philanthropic organizations with a platform to develop joint approaches towards definitions (e.g. of catalytic capital) and risk allocation in early stage blended finance structures. Creating an IT-based platform that connects challenge funds with subsequent capital providers may help address current challenges related to fragmentation and could accelerate achieving scale when moving from the incubation/pilot/development phase to full bankability.

74. **Collaboration with private sector and local entities to structure and arrange blended finance solutions should be increased.** Currently, MDBs/DFIs are leading on the arranging and structuring of blended finance solutions. However, as the example of the synthetic securitisation shows, the private sector is better positioned in certain financial instrument areas to lead on the structuring of blended finance solutions. Blended finance solutions arranged by private sector entities also ensure alignment with the

criteria of private investors. Furthermore, local entities such as national development banks or sovereign wealth funds are well positioned to incubate, anchor and lead the arrangement of blended finance solutions at the national level, in particular solutions involving local currency finance.

75. **Knowledge sharing should equally be scaled up.** Given the relatively recent nature of blending for development finance, lessons learnt should be readily made available to all participants with the objective to (i) understand which approaches have worked well where and why and are suitable for replication, including from the perspective of development impact and respect of social, environmental and human rights; (ii) which approaches and structures did not work well, where and why and should thus not be replicated; and (iii) identifying enabling framework conditions for replication. Existing platforms such as Convergence can serve as anchor platform for such knowledge sharing, while the creation of additional open platform solutions could be considered where participants can share experience, have access to case studies and, if interested, can identify partners for co-developing blended finance solutions.

76. **Lastly, governments need to develop a concerted approach to risk analysis and capacity building to enable blended finance solutions that catalyse private investment for the SDG at scale.** For this reason, a roundtable/working group amongst donor governments is recommended as one tangible outcome of this work. Capacity building for and collaboration amongst DAC governments should also include monitoring approaches for the changing nature of risk in blended finance structures that enables a commensurate reduction and ultimate phasing out of concessionality.

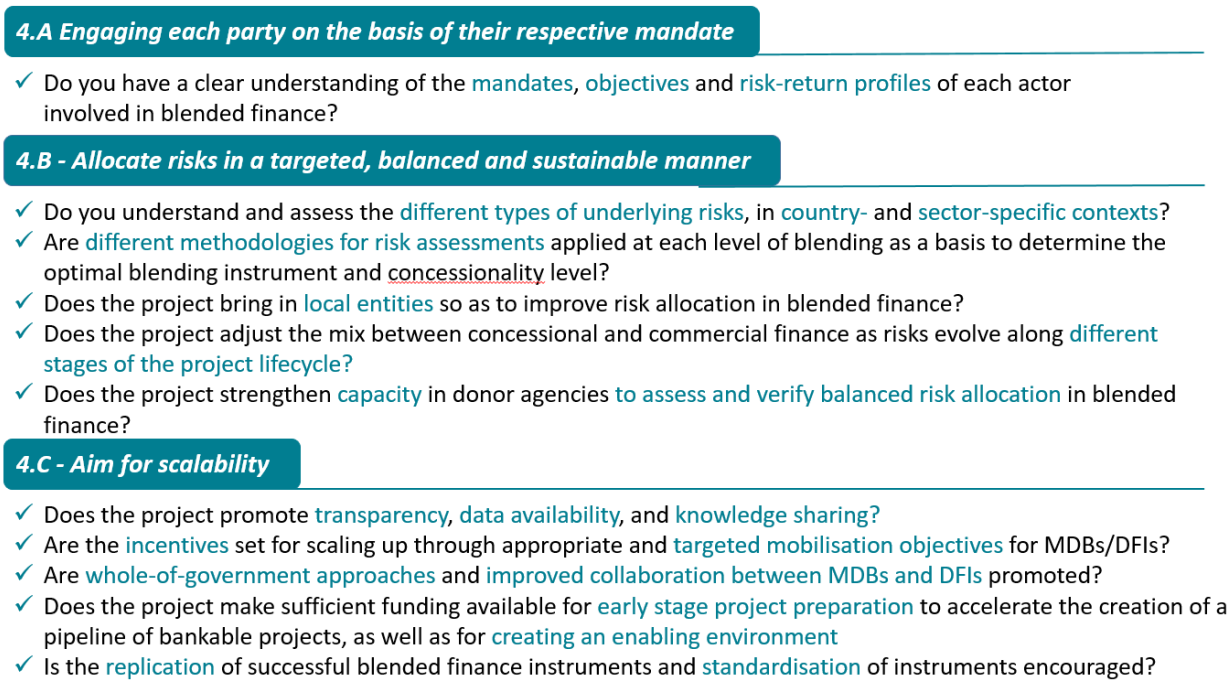
Conclusion

77. Implementation of the OECD Blended Finance Principle 4 by DAC Blended Finance Actors involves balanced and sustainable risk allocation while taking every party's mandate into account and facilitating scale. DAC Blended Finance Actors (donor governments, government agencies) as providers of concessional finance for blending purposes have an important role to play in facilitating good practice implementation of Principle 4. This paper provides a checklist for blended finance actors to consider when making concessional funding available for blended finance (see Figure 7 below).

78. Regarding Principle 4), areas that would merit additional work and analysis going forward include:

- Approach to assessing development impact risk;
- Overview of flow of blended finance funds by type of risk taken;
- Convening and implementation work on designing multi-party blended finance products, such as multi-MDB/DFI securitisation;
- Regulatory incentives for private sector investment in development in OECD countries.

Figure 7. Checklist to implement Principle 4



Source: Authors

Annex A) Selected case studies on blended finance funds and facilities

Case Study 1. Sustainable Water Fund (FDW)

Supports public private partnerships (PPPs) to address WASH, Water Efficiency and IWM issues in developing countries.

Manager	RVO
Type of Vehicle	Facility
Year of Financial Close (Commenced Operations)	2012
Lifespan of vehicle (years)	13
Region of investment	Global
Sources of Capital	Concessional, Development Non-Concessional
Sector	Water and Sanitation
Instruments used	Grants
Investments in Local Currency	Yes

Source: (Netherlands Enterprise Agency, n.d.[15]), based on results of the 2018 OECD Blended Finance Funds and Facilities Survey

Case Study 2. Egypt Renewable Feed-In-Tariff Framework

Supports Egypt in meeting its target of 20% renewable energy generation by 2022, through two complementary components. The first component is a comprehensive technical assistance programme to enhance renewable energy integration, policies, and planning. The second component is to scale up investments to support the development and construction of renewable energy projects totalling USD 1 billion. This will be done by blending GCF and EBRD financing to leverage debt financing from international and development financial institutions, and at a later stage from commercial banks and private sector investments.

Manager	European Bank for Reconstruction and Development (EBRD)
Type of Vehicle	Facility
Year of Financial Close (Commenced Operations)	2017
Lifespan of vehicle (years)	5
Region of investment	Africa
Sources of Capital	Concessional, Development Non-Concessional
Sector	Energy
Instruments used	Loans, Grants
If the vehicle invests at the project level, what phase is targeted?	Pre-construction, Construction, Operation and Maintenance

Source: (EBRD, 2017[16]), based on results of the 2018 OECD Blended Finance Funds and Facilities Survey

Case Study 3. Infrastructure Credit Guarantee Company Limited (InfraCredit)

An infrastructure credit enhancement facility established as a commercial entity and backed by the Nigeria Sovereign Investment Authority, GuarantCo, Africa Finance Corporation and KfW Development Bank to provide guarantees to enhance the credit quality of local currency debt instruments issued to finance eligible infrastructure projects in Nigeria.

Manager	Infrastructure Credit Guarantee Company
Type of Vehicle	Facility
Year of Financial Close (Commenced Operations)	2017
Lifespan of vehicle (years)	NA (evergreen or revolving structure)
Region of investment	Africa
Sources of Capital	Concessional
Sector	Banking and Financial
Instruments used	Guarantees and TA reimbursable grant
If the vehicle invests at the project level, what phase is targeted?	Operation and Maintenance
Investments in Local Currency	Yes

Source: (InfraCredit, 2020[17]), based on results of the 2018 OECD Blended Finance Funds and Facilities Survey

Case Study 4. Geothermal Development Facility (GDF)

Supports Geothermal Projects (Private, Public, PPPs) in early stages through provision of (contingency) grants for surface studies and exploration drillings. Competitive 2-stage selection process. Currently composed of 10 eligible countries in Central and South America.

Manager	KfW Development Bank
Type of Vehicle	Flat Fund
Year of Financial Close (Commenced Operations)	2016
Lifespan of vehicle (years)	10
Region of investment	Latin America
Sources of Capital	Concessional
Sector	Energy
Instruments used	Grants
Type of Fund (self-described)	Venture capital
If the vehicle invests at the project level, what phase is targeted?	Pre-construction

Source: (GDF, 2020[18]), based on results of the 2018 OECD Blended Finance Funds and Facilities Survey

Case Study 5. InsuResilience Investment Fund - Debt Sub Fund (IIF - D)

The objective of the debt sub-fund is to improve the resilience of poor and vulnerable households as well as micro, small and medium enterprises (MSME) to weather-related events. To that end, the sub fund will provide financing to portfolio companies based in, or operating in, target countries that offer (or wish to offer) insurance solutions for weather events and natural catastrophes, including agricultural insurance.

Manager	BlueOrchard Finance
Type of Vehicle	Structured Fund
Year of Financial Close (Commenced Operations)	2017
Lifespan of vehicle (years)	12
Region of investment	Global
Sources of Capital	Development Non-Concessional, Commercial
Sector	Banking and Financial
Instruments used	Direct investment in company (equity, mezzanine, debt)
Type of Fund (self-described)	Fixed income
Investments in Local Currency	Yes

Source: (InsuResilience Investment Fund, 2020[19]), based on results of the 2018 OECD Blended Finance Funds and Facilities Survey

Case Study 6. The Emerging Africa Infrastructure Fund Ltd. (EAIF)

A public private partnership (PPP) that mobilises capital from public and private sources to lend to businesses creating, improving or expanding infrastructure in sub-Saharan Africa. It provides long-term debt on commercial terms to infrastructure projects in Africa, particularly in fragile states where conventional lenders are often averse to risks involved. The fund lends to infrastructure projects mainly owned, managed and operated by private sector businesses.

Manager	Ninety One
Type of Vehicle	Structured Fund
Year of Financial Close (Commenced Operations)	2002
Lifespan of vehicle (years)	NA (evergreen or revolving structure)
Region of investment	Africa and the Levant
Sources of Capital	Concessional, Development Non-Concessional
Sector	Infrastructure
Instruments used	S
Type of Fund (self-described)	Project debt
If the vehicle invests at the project level, what phase is targeted?	Construction, Operation and Maintenance

Source: (EAIF, 2020[20]), based on results of the 2018 OECD Blended Finance Funds and Facilities Survey

Case Study 7. Global Health Investment Fund (GHIF)

A social impact investment fund designed to provide financing to advance the development of drugs, vaccines, diagnostics and other interventions against diseases that disproportionately burden low- and middle-income countries. GHIF supports late-stage innovations for public health challenges such as malaria, pre-eclampsia, cholera, HIV and river blindness, with an emphasis on infectious diseases and maternal/infant health issues that cause significant morbidity and mortality in resource-limited settings.

Manager	Global Health Investment Advisors
Type of Vehicle	Structured Fund
Year of Financial Close (Commenced Operations)	2012
Lifespan of vehicle (years)	6
Region of investment	Global
Sources of Capital	Concessional, Development Non-Concessional, Commercial
Sector	Health
Instruments used	Direct investment in company (equity, mezzanine, debt)
Type of Fund (self-described)	Venture capital
Investments in Local Currency	Yes

Source: (Global Health Investment Fund, 2020[21]), based on results of the 2018 OECD Blended Finance Funds and Facilities Survey

Case Study 8. African Local Currency Bond Fund

Conceived by KfW to address the current underdevelopment of local currency bond markets in Africa, the goal is to improve access to long-term funding in local currency, strengthen the capacity of local markets and create opportunities for local investors. The fund acts as an anchor investor and provides technical assistance for local currency bond issuances by financial service providers and companies operating in developmental sectors. This includes the financial, agriculture, housing, education and renewable energy sectors.

Manager	LHGP Asset Management
Type of Vehicle	Structured Fund
Year of Financial Close (Commenced Operations)	2012
Lifespan of vehicle (years)	NA (evergreen or revolving structure)
Region of investment	Africa
Sources of Capital	Development Non-Concessional
Sector	Banking and Financial
Instruments used	Loans, Direct investment in company (equity, mezzanine, debt)
Type of Fund (self-described)	Fixed income
If the vehicle invests at the project level, what phase is targeted?	Operation and Maintenance
Investments in Local Currency	Yes

Source: (ALCB Fund, 2020[22]), based on results of the 2018 OECD Blended Finance Funds and Facilities Survey

Case Study 9. Danish Agribusiness Fund

Overall strategy of DAF is to undertake agribusiness related investments within the food chain in developing countries. Investment strategy is to be an active minority investor in equity and equity like instruments.

Manager	Investment Fund for Developing Countries
Type of Vehicle	Structured Fund
Year of Financial Close (Commenced Operations)	2016
Lifespan of vehicle (years)	12
Region of investment	Global
Sources of Capital	Development Non-Concessional, Commercial
Sector	Agriculture
Instruments used	Direct investment in company (equity, mezzanine, debt)
Type of Fund (self-described)	Private equity

Source: Based on results of the 2018 OECD Blended Finance Funds and Facilities Survey

Case Study 10. Climate Investor One

Climate Investor One comprises three separate yet operationally interlinked funds: Development Fund, Construction Equity Fund and Refinancing Fund. These funds are designed to invest in renewable energy (mainly solar PV, on-shore wind and run-of-river hydro) projects in developing countries across Africa, Latin America and developing Asia. Each fund is bespoke to a particular phase of a projects life cycle. (1) The Development Fund provides development loans of up to 50% of costs to projects in the development phase. (2) Successfully developed projects receive up to 75% all-equity funding from the Construction Equity Fund to finance the power plants construction. (3) The Refinancing Fund (not operational yet) will provide debt financing of up to 70% once the project is constructed and operational (to recycle the Construction Equity Fund's capital and reduce the cost of capital).

Manager	Climate Fund Managers
Type of Vehicle	Structured Fund
Year of Financial Close (Commenced Operations)	2017
Lifespan of vehicle (years)	20
Region of investment	Global
Sources of Capital	Concessional, Development Non-Concessional, Commercial
Sector	Energy
Instruments used	Direct investment in company (equity, mezzanine, debt)
Type of Fund (self-described)	Private equity

If the vehicle invests at the project level, what phase is targeted?	Pre-construction, Construction

Source: (Climate Investor One, 2020[23]), based on results of the 2018 OECD Blended Finance Funds and Facilities Survey

Case Study 11. Global Energy Efficiency and Renewable Energy Fund (GEEREF)

GEEREF is a PPP, set-up as a fund-of-funds, which leverages public sector funds to catalyse private sector investment into clean energy projects. It was set up to provide equity financing to renewable energy and energy efficiency project developers. To do so, it often is an anchor investor in funds raised by new teams.

Manager	European Investment Bank (EIB)
Type of Vehicle	Structured Fund
Year of Financial Close (Commenced Operations)	2008
Lifespan of vehicle (years)	15
Region of investment	Africa
Sources of Capital	Concessional, Commercial
Sector	Energy
Instruments used	Collective Investment Vehicles (CIVs), Direct investment in company (equity, mezzanine, debt)
Type of Fund (self-described)	Private equity
If the vehicle invests at the project level, what phase is targeted?	Pre-construction, Construction
Investments in Local Currency	Yes

Source: (GEEREF, 2020[24]), based on results of the 2018 OECD Blended Finance Funds and Facilities Survey

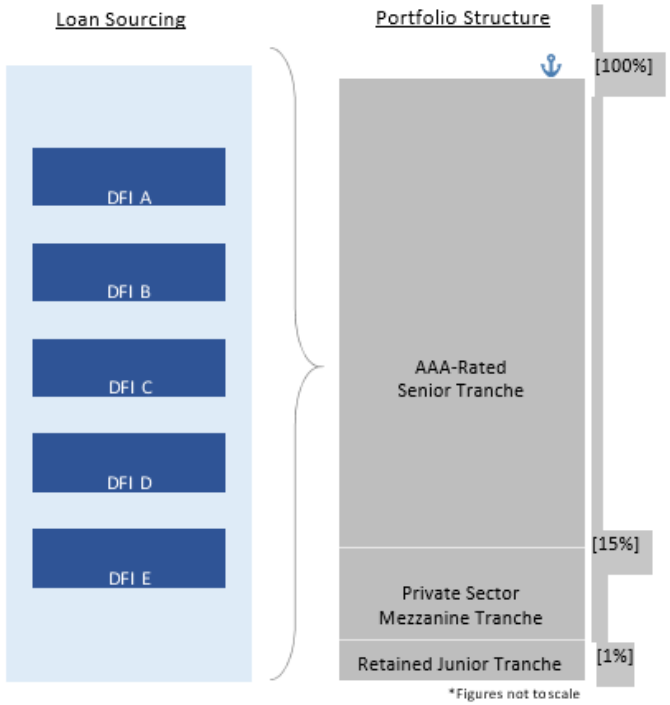
Annex B) Pooled risk sharing vehicle for MDB community

The following image was provided by Mariner Investment Group. Presented at OECD Principle 4

POOLED RISK SHARING VEHICLE FOR MDB COMMUNITY

[MDB Wholesale Funding Co.] is a hypothetical $[10] billion cash securitization funding platform for participating loans issued by participating development financial institutions ("DFIs"). This structure would enable DFIs to transfer loans to a third party vehicle, enabling them to manage both RWA and leverage ratios without new capital from sovereign shareholders.

Each loan, subject to mutually agreed eligibility criteria, would either be transferred into a private vehicle or a new treaty-based organization, allowing banks to retain governance controls and preferred creditor treatment. Through this structure, DFIs would continue to benefit from their unique low-cost wholesale funding while enhancing leverage ratios, maximizing impact, and engaging the private sector.



Select Transaction Features

- Vehicle Architecture. Either a treaty-based organization or a private vehicle
- Cash Securitization. Originating banks are able to continue servicing loan assets and preserve borrower relationships, while transferring the total loan exposure to the pool
- Eligibility Criteria. Loans entered into the vehicle will be subject to certain Eligibility Criteria, and underwritten and approved by a third party manager
- Diversification over Time. As more assets are contributed to the structure, the pool will naturally de-risk through diversification, allowing for a thinner junior tranche
- Loss Coverage. Junior and mezzanine tranches will be structured to cover expected losses and unexpected losses, plus a buffer
- Senior Tranche. Expected to seek AAA-rated issuance with the option to have a joint senior guarantee from contributing MDBs, which we believe would significantly reduce the funding cost of the senior tranche
- Grant or Donor-Based Retained Junior. Junior tranche may be retained by contributing MDBs and/or from third-party donors and grants

Source : Mariner Investment Group

Annex C) Expected Loss Calculation

This section is based on DBRS Expected Loss Ratings, 2018 and Moody's Analytics; PWC In-Depth: A Look at Current Financial Reporting Issues; PWC: IFRS9 Financial Instruments, Understanding Basics; and Moody's Analytics, IFRS9 Scenario Implementation and ECL Calculation for Retail Portfolios

Expected credit loss is a reference concept to determine the creditworthiness of a loan or portfolio of loans that is being used by credit rating agencies and financial institutions that are subject to applicable banking regulation. In addition, international accounting standards including IFRS9 require financial institutions to use the expected loss concept for loan loss provisioning and reporting.

Expected credit loss (ECL) is calculated as the probability of default (PD) multiplied with the loss given default (LGD) and the exposure at default (EAD):

$$ECL = PD \times LGD \times EAD \text{ where}$$

- PD: The probability of default (PD) is the likelihood that a loan will not be repaid and will fall into default. PDs are based on the credit history of the borrower and the nature of the investment. They can be derived by using idealized PD tables from external ratings agencies such as Standard and Poors or Moody's or based on internal rating methods.
- LGD: The loss given default (LGD) is calculated as 1 – recovery rate (which can be calculated as the value of collateral/value of the loan)
- EAD: The exposure at default (EAD) is the amount that the borrower owes to the lending institution at the time of default

For the purpose of accounting and reporting on financial instruments, IFRS9 requires forward-looking assumptions about the PD based on scenario analyses, which can include weightings of scenarios based on their probabilities of occurrence. A PD is determined under each scenario. A lifetime ECL calculation is then computed across scenarios (including weightings where applicable). ECL can be calculated at the level of an individual loan and for a portfolio of loans. Rating agencies have specific fine-tuned methodologies and forecasting models for each instrument and sector.

In general terms, expected credit losses are calculated by: (a) identifying scenarios in which a loan or receivable defaults; (b) estimating the cash shortfall that would be incurred in each scenario if a default were to happen; (c) multiplying that loss by the probability of the default happening; and (d) summing the results of all such possible default events. Because every loan and receivable has at least some probability of defaulting in the future, every loan or receivable has an expected credit loss associated with it—from the moment of its origination or acquisition.

Expected Credit Losses – A simple illustration

Estimated future cash flows at initial recognition assuming borrower pays as anticipated, discounted at the loan's effective interest rate	1,000
Estimated future cash flows if default occurs, discounted	100
Cash shortfall	900
Probability of default	1%
Expected credit loss	9

For ease of illustration, this example assumes only one default scenario.

1. Example loan portfolio

In the example case of a portfolio of loans, under an abbreviated illustration of applicable rating agencies methodologies, the expected credit loss would be calculated as follows:

Step 1: Determine the present value of loan portfolio's payments in a no-loss scenario

In a cash flow analysis, the present value of the loan portfolio assuming all loans are paid on time (no-loss scenario) is determined. Rating agencies consider the portfolio target yield, which is typically the initial weighted-average interest rate of the loans. In terms of loan principal payments, rating agencies analyse the loans' scheduled principal payments as well as an expected portfolio constant prepayment rate (CPR). As a cash outflow, the rating agency considers loan servicing costs. The discount rate used to determine the present value is the loan portfolio target yield, which is typically the initial weighted-average interest rate of the loans. Considering that the discount rate is equal to the portfolio interest payments used in the cash flow analysis, the loan portfolio's present value in the no-loss scenario is close to par, depending on the level of servicing costs.

Step 2: Determine the present value of loan portfolio's payments in the expected loss scenario

In a cash flow analysis, rating agencies determine the present value of the loan portfolio considering loan defaults, recoveries, recovery timing and portfolio nominal losses as determined by the relevant rating methodology (expected-loss scenario). Because part of the portfolio is underperforming in the expected-loss scenario, rating agencies typically assumes higher servicing costs than in the no-loss scenario. Compared with the no-loss scenario, a rating agency keeps its constant prepayment rate (CPR) assumption constant and uses the same discount rate.

Step 3: Expected loss calculation

The reduction of the portfolio present value because of adverse credit performance is the difference between the present values that were determined in the no-loss and in the expected-loss scenarios. The relevant average life of the portfolio is the average life determined in the no-loss scenario. The expected loss and average life of the loan portfolio are used to assign the expected loss rating to the portfolio instrument, using rating agencies' Idealised Expected Loss Table described below.

Moody's Idealized Cumulative Expected Loss Rates

	Year									
Rating	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Aaa	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%
Aa1	0.00%	0.00%	0.01%	0.01%	0.02%	0.02%	0.03%	0.04%	0.05%	0.06%
Aa2	0.00%	0.00%	0.01%	0.03%	0.04%	0.05%	0.06%	0.07%	0.09%	0.11%
Aa3	0.00%	0.01%	0.03%	0.06%	0.08%	0.10%	0.12%	0.15%	0.18%	0.22%
A1	0.00%	0.02%	0.06%	0.10%	0.14%	0.18%	0.22%	0.26%	0.32%	0.39%
A2	0.01%	0.04%	0.12%	0.19%	0.26%	0.32%	0.39%	0.46%	0.54%	0.66%
A3	0.02%	0.08%	0.20%	0.30%	0.40%	0.50%	0.61%	0.72%	0.84%	0.99%
Baa1	0.05%	0.15%	0.31%	0.46%	0.61%	0.75%	0.92%	1.08%	1.25%	1.43%
Baa2	0.09%	0.26%	0.46%	0.66%	0.87%	1.08%	1.33%	1.57%	1.78%	1.98%
Baa3	0.23%	0.58%	0.94%	1.31%	1.68%	2.04%	2.38%	2.73%	3.06%	3.36%
Ba1	0.48%	1.11%	1.72%	2.31%	2.90%	3.44%	3.88%	4.34%	4.78%	5.17%
Ba2	0.86%	1.91%	2.85%	3.74%	4.63%	5.37%	5.89%	6.41%	6.96%	7.43%
Ba3	1.55%	3.03%	4.33%	5.38%	6.52%	7.42%	8.04%	8.64%	9.19%	9.71%
B1	2.57%	4.61%	6.37%	7.62%	8.87%	9.84%	10.52%	11.13%	11.68%	12.21%
B2	3.94%	6.42%	8.55%	9.97%	11.39%	12.46%	13.21%	13.83%	14.42%	14.96%
B3	6.39%	9.14%	11.57%	13.22%	14.88%	16.06%	17.05%	17.92%	18.58%	19.20%
Caa	14.30%	17.88%	21.45%	24.13%	26.81%	28.60%	30.39%	32.18%	33.96%	35.75%

Source: Moody's Investors Service, Inc. "*A Users Guide for "Moody's Analytical Rating Valuation by Expected Loss" ('MARVEL') — a Simple Credit Training Model"* https://www.moodys.com/sites/products/productattachments/marvel_user_guide1.pdf

2. Example for one loan

Assume a lender loans USD 100,000 for two years, at a rate of 5% compounded annually, with both interest and principal payable only at maturity. The total cash flow to be received thus amounts to USD 110,250. Under traditional loan accounting principles, interest income would be recognized at the constant effective rate in the loan, i.e., 5%, USD 5,000 in year one and USD ,250 in year two. Under the IFRS9 new impairment concept, however, interest income would be recognized at a rate that excludes the premium that the lender demands for the risk that the loan will default. Let's say that rate is 3%. Under this concept only USD 6,090 of interest income would be recognized over the term of the loan, USD 3,000 in year one and USD 3,090 in year two. The difference of USD 4,160 is a loan impairment allowance. At initial recognition, the carrying value of the loan under both models is the same but its composition is very different, as shown in the following table.

	Traditional approach	IFRS9 approach
Total cash flows	110,250	110,250
Unearned interest income	(10,250)	(6,090)
Loan impairment allowance	0	(4,160)
Carrying value of the loan	100,000	100,000

Under the IFRS9 concept, expected credit losses are used as the basis for calculating the impairment allowance and the risk-adjusted interest. After initial recognition, the impairment allowance is adjusted, up or down, through profit or loss at each balance sheet date as the probabilities of collection and recoveries change. If the loan turns out to be fully collectible, expected losses eventually would fall to zero, as the probability of non-payment declines and "impairment gains" would be recognized in profit and loss. If the loan grows more risky, the probability that a default will occur and thus expected credit losses will increase. If a default happens, and the lender suffers an actual cash shortfall, expected credit losses will equal that shortfall.

The following example illustrates one way an entity may estimate expected credit losses on an individual loan using a loss-rate approach when no loans with similar risk characteristics exist[25]:

Community Bank B provides residential real estate loans to borrowers in the community. In the current year, Community Bank B started a program to originate commercial loans. Community Bank B has one commercial loan outstanding at period end and because the commercial loan does not share similar risk characteristics, the bank does not believe it is appropriate to pool the commercial loan for purposes of determining its allowance for credit losses. Community Bank B's commercial loan has an amortized cost of USD 1,000,000. Historical loss information for commercial loans in the community with similar risk characteristics show a 0.50 percent loss rate over the contractual term.

Community Bank B considers relevant current conditions and reasonable and supportable forecasts that relate to its lending practices and environment and the specific borrower. Community Bank B determines that the significant factors affecting the performance of this loan are borrower specific operating results and local unemployment rates. Community Bank B considers other qualitative factors including national macroeconomic conditions but determines that they are not significant inputs to the loss estimates for to this loan.

Community Bank B is able to reasonably forecast local unemployment rates and borrower specific financial results for one year only. Community Bank B's reasonable and supportable forecasts of those factors indicate that local unemployment rates are expected to remain stable (based on the main employer in the community continuing to operate normally) and there will be a deterioration in the borrower's financial results (based on an evaluation of rent rolls). Management determines that no adjustment is necessary for local unemployment rates because they are expected to be consistent with the conditions in the 0.50 percent loss rate estimate. However, the current and forecasted conditions related to borrower specific financial results are different from the conditions in the 0.50 percent loss rate estimate, based on borrower specific information. Community Bank B determines that an upward adjustment of 10 basis points to the historical loss information is appropriate based on those factors. Management estimates the 10-basis-point adjustment based on its knowledge of commercial loan loss history in the community when borrowers exhibit similar declines in financial performance.

The historical loss rate to apply to the amortized cost basis of the individual loan would then be adjusted an incremental 10 basis points to 0.60 percent. The allowance for expected credit losses for the reporting period date would be USD 6,000.

[25] Based on Postlethwaite & Netterville

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