



EIGHTEEN EAST

A SUSTAINABLE DEVELOPMENT CERTIFICATES FRAMEWORK

HOW SECURITISATION CAN ENABLE DFIS
AND MDBS TO UTILISE CAPITAL MARKETS
TO DELIVER ON THEIR SUSTAINABLE
DEVELOPMENT OBJECTIVES.

20 MARCH 2020



TABLE OF CONTENTS

1.	EXECUTIVE SUMMARY	03
2.	CONTEXT AND RATIONALE	06
2.1.	THE DEVELOPMENT FINANCE SYSTEM	07
2.1.1.	DFI and MDB Funding, Regulation, and Asset Allocation	08
2.1.2.	Successful Initiatives and Lessons Learnt	10
2.1.3.	In Search of a Flexible Instrument	10
2.2.	THE SECURITISATION OPPORTUNITY	11
2.2.1.	How can securitisation address existing limitations?	11
3.	LITERATURE REVIEW: DEVELOPMENT AND SECURITISATION	13
3.1.	INTRODUCTION	13
3.2.	OVERVIEW OF THE SECURITISATION MARKET	14
3.2.1.	The Development of the Securitisation Market	14
3.2.2.	The Emerging Sustainable Securitisation Market	14
3.3.	SECURITISATION AND THE SDGS	15
3.4.	CONCLUSION	17
4.	THE ROUTE TO SECURITISATION	18
4.1.	THE SDC FRAMEWORK	18
4.2.	THE SECURITISATION LEG	20
4.2.1.	True Sale vs Synthetic Securitisation	20
4.2.2.	Total Return Swap vs Risk Participation Agreement	22
4.3.	THE INSTRUMENT ISSUANCE LEG	26
4.3.1.	SPV vs Bank Balance Sheet	26
4.3.2.	Stakeholder Outreach and Market Readiness	26
5.	BUILDING MARKETS: KEY PRINCIPLES	28
5.1.	CREATING A MARKET AT SCALE: TWO EXAMPLES	28
5.2.	GUIDING STRUCTURING PRINCIPLES	31
6.	THE EUROPEAN UNION'S REGULATORY ENVIRONMENT FOR SECURITISATION	33
7.	THE SDC FRAMEWORK: A BLUEPRINT	42
7.1.	OBJECTIVES AND THE DATA ISSUE	43
7.1.1.	Scope of the Exercise, Limitations, and Assumptions	43
7.1.2.	Hidden GEMS and the Challenge of a Lack of Transparency	43
7.2.	BUILDING THE SDCS	43
7.2.1.	The Portfolio	43
7.2.2.	VAR and ECL	44
7.2.3.	Waterfall and Portfolio Tranches	45
7.3.	ISSUING THE SDC	47
7.3.1.	The Securitisation Leg	48
7.3.2.	The Issuance Leg	51
8.	CREDIT ENHANCEMENT: APPLY A DOSE OF BLENDED FINANCE	52
8.1.	WHERE TO APPLY	53
8.1.1.	The Securitisation Leg	53
8.1.2.	The Issuance Leg	55
8.2.	WHO TO APPLY TO?	57
9.	CONCLUSION	59
10.	BIBLIOGRAPHY	61

01

EXECUTIVE SUMMARY

Development Finance Institutions (“DFIs”) and Multilateral Development Banks (“MDBs”) can and should play a unique role in the deployment of capital at the scale and speed necessary for the achievement of the Sustainable Development Goals (“SDGs”).

DFIs and MDBs have over decades successfully developed the unique resources, processes and expertise needed to provide businesses across developing countries with the capital they need to deliver impact on the ground.

If the world’s most pressing development challenges are to be met, the time it would take private financial institutions to replicate these achievements is time we do not have.

It is therefore crucially important to design innovative ways to enable the development finance system of institutions (the ‘development finance system’) to increasingly integrate and make use of capital markets to continue to act as the levers needed to move the world down the path of sustainable development.

Integrating the development finance system into the wider capital markets is not easily done, and private capital mobilisation efforts have to date met with limited success. This paper argues that an historic reliance on the asset management approach has proved insufficient, and that an increased focus on the transfer of risk through the issuance

of securities (‘securitisation’) would allow sustainable development stakeholders to harness the power of the global financial institutions and distribution channels that are the foundation of organised capital markets.

Through a review of available literature and a brief history of securitisation this paper seeks, at the outset, to showcase its growing relevance to development finance.

Known securitisation techniques can be adapted to transfer risk from key frontline development investors to capital markets. This approach has the potential to deliver on the dual objectives of allowing DFIs and MDBs to pro-actively optimise their balance sheets and manage their risk exposure, and of mobilising the private sector. Private capital can then be utilised to enable a higher risk tolerance on the part of DFIs and MDBs and/or to augment the overall amount of capital being deployed towards sustainable development. This is also particularly relevant to those institutions facing increasing regulatory and credit rating pressures.

A small number of breakthrough transactions have recently highlighted the concrete but largely unrealised potential of this concept. The development finance system should build on these key milestones and this paper provides a blueprint for the use of known synthetic securitisation and structured notes issuance techniques to build a bridge between development finance institutions and private investors.

Having reviewed some of the potential routes to securitisation and linked issuance, a synthetic securitisation approach, centred on a Risk Participation Agreement (“RPA”) is identified as the most appropriate. The resulting exposure can then be transferred to investors through the issuance of structured notes, a model referred to in this paper as the Sustainable Development Certificate (“SDC”) Framework and depicted in *Figure 1* below.

Through the ‘Securitisation Leg’ of the SDC Framework, DFIs and MDBs are able to buy credit protection on a specific tranche of their loan portfolios. The resulting reduction in their risk exposure in turn allows them to redeploy a proportion of their assets into new investments, increasing their contribution to sustainable development goals.

The ‘Issuance Leg’ of the SDC Framework transfers the RPA exposure to investors through the issuance of structured notes, the Sustainable Development Certificates (“SDCs”).

The duration, risk, and other characteristics associated with the RPA and therefore the SDCs can be modulated to solve for the intersection of the DFI or MDB’s risk management objectives and the investors’ requirements.

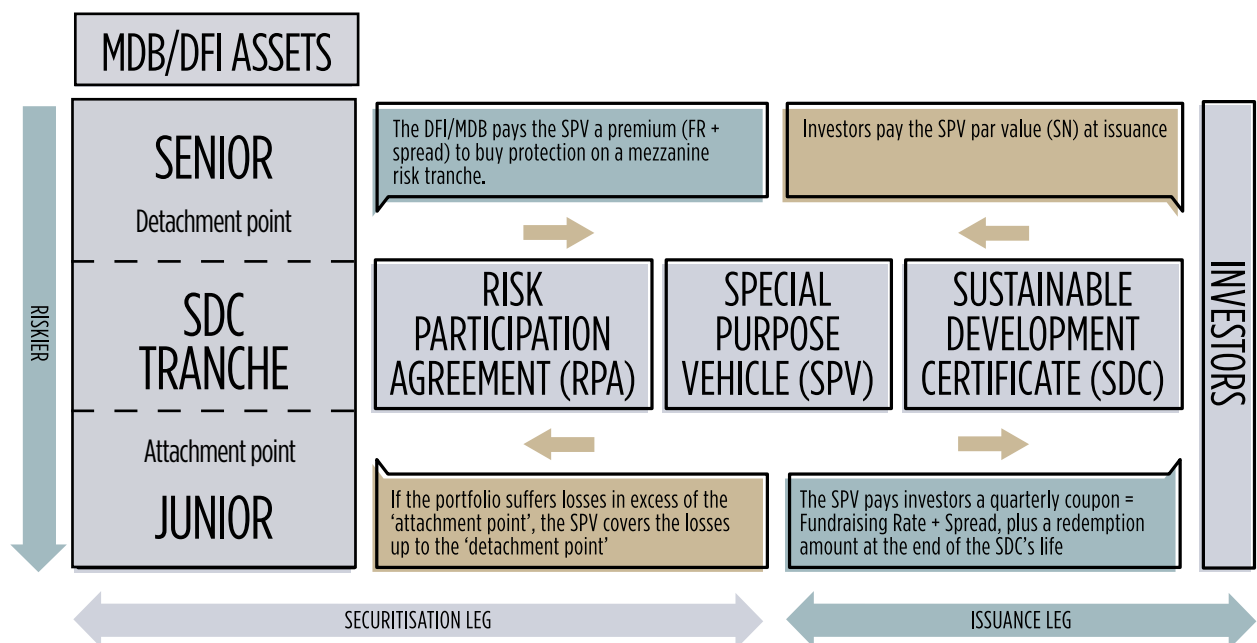


Figure 1 – SDC Framework Overview



DEFINITIONS

Securitisation:

financing technique by which homogeneous income-generating assets – which on their own may be difficult to trade – are pooled and sold to a specially created third party, or Securitisation Special Purpose Entity (“SSPE”), which uses them as collateral to issue securities and sell them in financial markets.

True sale securitisation:

transaction involving the effective legal transfer of the assets to the SSPE; as a result, the SSPE becomes entitled to the cash flows that are generated by the assets (including those resulting from a subsequent sale of the assets). The underlying assets are removed from the originator’s balance sheet.

Synthetic securitisation:

transaction involving no transfer of legal title, but only the sale of the credit risk associated with the assets through the use of credit derivatives such as credit default swaps. The underlying assets remain on the balance sheet of the originator.

Adapted from: http://www.europarl.europa.eu/RegData/etudes/IDAN/2015/569017/EPRS_IDA%282015%29569017_EN.pdf

Whilst the SDC Framework represents one possible solution, its specific features are less relevant than the opportunity to create a scalable market for sustainable development securitisation instruments. It is crucially important to ensure that frameworks are built to deliver on three guiding principles:

- Alignment to the business model of financial institutions
- Operational efficiency
- Self-motivated stakeholders

In the context of aligning the SDC Framework to the requirements of the capital markets from both a market and policy perspective, an overview of the EU regulatory framework is provided.

The SDC Framework provides a high-level blueprint model for the process through which synthetic securitisation can be used to transfer

exposure from the balance sheets of DFIs and MDBs to private capital markets through the issuance of structured notes, i.e. the SDCs.

A significant barrier to any private capital mobilisation initiative continues to be the scarcity of publicly available data on the historical performance of the portfolios of development finance institutions. This does limit the ability to provide a validated quantitative model, but some of the high-level dynamics underpinning the model are described in the paper, as are avenues through which blended finance techniques can be brought to create instruments specifically in line with investors’ requirements.

The SDC Framework lends itself particularly well to the use of blended finance to adjust the risk and returns of the issued instruments to the specific requirements of market participants.

This paper proposes, and recent transactions have demonstrated that:

1. Development finance institutions can transfer risk from their balance sheet to private investors through the use of synthetic securitisation. This in turn allows them to manage their exposure to address regulatory constraints or adjust their own risk appetite.
2. They thus retain ownership of all underlying investments, thereby ensuring there is no mission drift, and the process does not create a conflict with their absolute deployment objectives.
3. Such transactions have thus far involved specialised institutional investors but tried and tested structured notes issuance techniques mean the resulting exposure can in turn be transferred to a wide audience of investors.

This paper and the SDC Framework propose that a market for development finance securitisation instruments can be created at scale. The SDC Framework, and other such initiatives, have the potential to combine the unique expertise of development finance institution with the power of financial institutions and capital markets to deliver on the United Nations’ SDGs.

This report was written and compiled by Eighteen East Capital with the support of the Rockefeller Foundation. It forms part of the Rockefeller Foundation’s Zero Gap initiative, that seeks to develop innovative financing mechanisms that can ultimately catalyse large-scale capital flows from institutional and individual investors to be invested for development.

02

CONTEXT AND RATIONALE

If the lives of the world's poorest and most vulnerable populations are to be improved the world needs to find new and innovative ways to advance the achievement of the United Nation's SDGs. The costs of these crucial endeavours are enormous, and the UN estimates at least an additional USD 50 trillion of funding is required over the coming 25 years. It is therefore essential that new sources of capital are attracted to address the broader development challenges represented by the SDGs.

In addition, current providers of development capital, largely public and philanthropic institutions, must find new ways to both utilise their capital more efficiently and catalyse new sources of private capital through the creation of innovative mechanisms that allow all types of investors to participate.

2.1. THE DEVELOPMENT FINANCE SYSTEM

Governments have for several decades been allocating capital for the purposes of investment in private institutions, businesses, and projects in the developing world. For the vast majority of this time, and particularly as it pertains to investments in non-extractive assets, poor countries have attracted very little in the way of investment from private investors in the developed world. Recent times have seen something of a reversal of this trend with the increasing global awareness of the drastic need for private capital to participate in attempting to achieve the SDGs.

This need for private capital assumes the limited ability, due to budgetary constraints and competing priorities, of developed world governments to directly fund development through their DFIs. In this paradigm if the relatively limited capital that can be deployed by DFIs (at least when compared to the SDGs' ambitious targets) is important, then their collected combined institutional experience, skills, capacity, and networks are systemically crucial.

This chapter will briefly outline what DFIs are, why they are important in the context of achieving the SDGs, how they are funded, and why the securitisation strategies detailed in this paper could have an important role to play in leveraging their balance sheets and capacities to crowd in private capital at scale.

The Organisation for Economic Co-operation and Development ("OECD") defines DFIs as follows:

National and international development finance institutions ("DFIs") are specialised development banks or subsidiaries set up to support private sector development in developing countries. They are usually majority-owned by national governments and source their capital from national or international development funds or benefit from government guarantees.

Simply put DFIs are mandated by the governments of rich countries to invest a portion of their overseas development aid ("ODA") – defined by the International Monetary Fund ("IMF") as *'aid expended in a manner that is anticipated to promote development, whether achieved through*

economic growth or other means' – towards the dual objectives of fostering economic, social, and environmental development in poor countries while generating a financial return.

The OECD definition further alludes to the important distinction between the bilateral DFIs (referred to as "DFIs" for the rest of this paper) set up and funded by individual governments, and multilateral DFIs created by groups of countries, which are otherwise commonly referred to as Multilateral Development Banks ("MDBs") or International Finance Institutions ("IFIs").

Prominent DFIs include the United Kingdom's CDC, the Overseas Private Investment Corporation ("OPIC") of the United States, Nederlandse Financierings-Maatschappij voor Ontwikkelingslanden ("FMO") the Dutch development bank, France's Proparco, and Germany's KfW Development Bank ("KfW") and its private investment arm Deutsche Investitions- und Entwicklungsgesellschaft ("DEG").

Among the MDBs, the World Bank and its private investment arm, the International Finance Corporation ("IFC"), is the largest. Other important MDBs include the African Development Bank ("AfDB"), the Inter-American Development Bank ("IADB"), and the Asian Development Bank ("ADB").

None of these institutions were recently conceived. Indeed, the concept of ODA itself dates back to the 1944 Bretton Woods meetings, and its complicated history traces from post-war European reconstruction through its multi-faceted use during the Cold War to its now well-understood use as a tool for poverty alleviation and economic development in the global South. The generally accepted and agreed ODA target for OECD countries is to commit to contributing 0.7% of GNI.

Of the MDBs, the World Bank is a Bretton Woods institution formed in 1944 and IFC was created in 1956. Among the DFIs, CDC was formed in 1948, KfW and DEG in 1962, and FMO and OPIC in 1970 and 1971 respectively. As a consequence, and of particular relevance in the current environment of heightened interest on the part of private sector financial institutions to explore opportunities for the allocation of capital to align with the UN's SDGs, DFIs and MDBs represent a unique and potentially

crucial asset in facilitating the use of private investments in reducing poverty and uplifting standards of living in developing countries.

2.1.1. DFI and MDB Funding, Regulation, and Asset Allocation

The equity of DFIs and MDBs is typically held by their parent government, or governments in the case of the multilaterals. In some instances, they have private sector institutions such as local banks and insurance companies as minority shareholders.

Most DFIs and MDBs fund their activities through a combination of this equity and through debt issued on the capital markets. Irrespective of their funding mix, they tend to maintain relatively low debt to equity ratios.

Of the larger DFIs, some are regulated as banks and/or voluntarily adhere to banking regulations, which for the European DFIs typically means Basel III and International Financial Reporting Standard 9 (“IFRS9”) among others. The MDBs, with their multiple government shareholder arrangements, operate as supranational treaty-based institutions and are not as such subject to a regulatory supervision. They do however have a very strong incentive to maintain their credit rating, and are therefore sensitive to the frameworks used by credit rating agencies.

By their very nature DFIs and MDBs seek to invest in geographies and sectors, as well as businesses, funds, and projects that would otherwise experience difficulties in raising funds

via traditional commercial capital markets. This results in a dynamic whereby they are obliged to provide, on a risk-adjusted basis, relatively cheap capital to their investees.

To maintain and grow the volume of their investment activity they therefore typically exercise one or both of the following options:

1. Apply to their shareholder governments for new injections of equity capital
2. Issue debt instruments through capital markets

The former tends to happen at best on a periodic basis. In the case of DFIs the important but cumbersome parliamentary processes pertaining to the custodianship of taxpayer funds necessitate very complicated, drawn out, and time-consuming equity allocations. In the case of the MDBs these processes can be even more protracted and unpredictable as they require the consent of multiple governments. As a consequence of the above hurdles, DFIs and MDBs must contend with variable levels of uncertainty regarding both the timing and quantum of fresh equity capital injections, and whether their capital requests will ultimately be successful. This dynamic could be argued to not present a reliable, flexible, or sustainable solution to DFI and MDB funding needs.

Some DFIs and MDBs are active participants in the bond markets where they are typically able to raise funds at competitive rates. This alternative is not a complete solution as the limited and inflexible (for reasons described above) equity positions of these institutions mean that they cannot continue to leverage indefinitely.

The question of how DFIs and MDBs are able both to sustainably fund themselves at the right cost while also meeting their ongoing capital deployment and development targets is crucial and is central to the purpose of this paper.

The question of how DFIs and MDBs are able both to sustainably fund themselves at the right cost while also meeting their ongoing capital deployment and development targets is crucial and is central to the purpose of this paper.

DFIs and Private Capital

DFIs and MDBs have over decades created centres of expertise dedicated to mission-driven investment, and beyond the capital they currently deploy, they have built the following unique value proposition:

- They arguably have the longest track records of making private investments in developing countries and have adapted operational practices and sets of financial instruments specifically suited to the needs of their investees.
- They have over multiple decades invested in and built up extensive human capacity and skills and developed robust and appropriate due diligence processes. DFI and MDB employees consequently have unprecedented levels of expertise in development investing.
- As government funded and/or owned entities answerable to their respective parliaments they are obliged to adhere to rigorous standards of compliance and operational performance, as befits custodians of taxpayer money. This oversight dynamic has resulted in DFIs and MDBs playing an important role as custodians of the development ecosystem, and has seen constant improvements in their ability to implement and measure development impact
- They generally operate direct and indirect strategies. The former typically requires them to maintain networks of local offices around the world, while for their indirect strategies they have a history of supporting the emergence of locally-based fund managers. This arrangement provides them with extensive on-the-ground presence and capacity, and deep and broad networks across the developing world.
- They work in close cooperation on a variety of matters, from sharing due diligence on funds to developing industry-wide impact metrics. For example, their ubiquitous presence as investors in development-focussed private equity funds in emerging markets allows them to collaborate in deals, thereby de-risking their investments while also being better positioned to provide adequate technical assistance to investee funds and businesses.

- Each of the above points speaks to the systemic importance of DFIs and MDBs in the development landscape. They are uniquely positioned to interact with the private sector and their efforts in recent years to crowd in private capital for the purposes of development investing at scale are to be applauded. These efforts will hopefully lead to DFIs and MDBs taking an increasingly proactive role in seeking to address the global development challenges in a comprehensive, coordinated, and integrated manner.

Given the context described above it could be argued that DFIs and MDBs are the natural conduit to channel private capital towards the financing of the SDGs in countries where businesses are seldom in a position to attract investments directly. The fact remains however that they have limited funding interaction with the private sector, and that they were generally not structured to be the recipients of private capital. The management of third-party funds is not traditionally part of the modus operandi of either category of institutions.

Notwithstanding this current state of play, direct interaction with DFIs and MDBs over several years has confirmed that their catalytic role is an increasingly important component of their mission.

Whilst the core tenet of their catalytic strategy has long been to provide businesses and fund managers with cornerstone capital, thereby theoretically enabling them to raise additional monies from private investors, there has been a noticeable shift towards being more proactive in integrating with the capital markets. Some have, for example, created vehicles and participated in initiatives where they themselves either play the role of fund managers or are at the core of the investment process.

It is however worth noting that DFI and MDB private capital mobilisation objectives are essentially contingent on the ability of these institutions to deploy ever larger amounts of capital in challenging environments while operating within the constraints of prudent investment criteria. This is a challenge that was consistently acknowledged during direct interactions with these institutions.

The restrictive nature of these investment criteria is at least in part linked to the limited current ability for these institutions to transfer risk to external investors. Prudential guidelines drafted when capital was relatively less available are quite logically a restraining factor for those institutions experiencing a increase in the supply of government capital.

The SDC initiative and this paper seek to articulate a framework for DFIs and MDBs to meaningfully integrate into the capital markets and transfer the risks of parts of their portfolios to private investors.

This will allow those who are constrained by a lack of capital to grow their balance sheet without leveraging it, and to maximise the utility of their resources.

The SDC Framework will equally allow those institutions confronted with investable funds in excess of the opportunities their investment mandate allows them to finance, to selectively sell the risk of part of their portfolio, thereby synthetically heightening their risk tolerance and facilitating the deployment of their assets to a wider range of investments.

KEYPOINT

DFIs and MDBs are the custodians of finite, if at times growing, pools of capital linked to political decisions. Diversifying their sources of funding and further integrating them into the wider capital markets are decisive steps towards allowing these key institutions to play a crucial leadership role in investing towards the SDGs in the developing economies they know better than most.

2.1.2. Successful Initiatives and Lessons Learnt

There is a strong case to be made that the most significant success achieved in the sustainable finance space over the recent years is the advent of green bonds.

Green bond issuance from the European Investment Bank (“EIB”), FMO, the World Bank, and the IFC has met with sound appetite on the part of private investors across categories. Moreover, initiatives such as the Amundi Planet Emerging Green One fund are positive indicators of the asset

management industry’s desire to participate.

The argument is often made that this success is explained by the increasing priority given to climate change issues and is not necessarily replicable for other SDGs.

It is however contended in this paper that the major learning point is that green bonds are bonds, before they are green. And that, by virtue of their structure rather than their thematic nature, they are therefore aimed at a much larger part of any private investor’s portfolio. It further stands to reason that to attract capital to a riskier field, a lower risk asset class should be the entry point.

Straight bond issuance does however have its inherent limitations, and leverage comes at a cost. This is not a new problem and securitisation has long allowed financial institutions to increase footprint and income without altering their capital structure. The advantages of and possibilities for applying securitisation solutions to the development finance system are explored in detail below.

2.1.3. In Search of a Flexible Instrument

The development finance system has thus far been focussing on funds as the primary vector of private capital mobilisation. There are several inherent limitations to the ability to raise development-focussed funds from traditional sources of capital, even when the underlying is debt rather than equity.

These include:

- **Time to deployment:** The provision of capital to businesses in developing countries is a slow process. Addressing the typical opportunity cost and cash drag factors requires a commitment/cash call approach that is unattractive to some investors, and impossible to manage for many others (private banks, retail, etc). Transferring portfolios of mature assets could for example remedy this, but no such initiative on the part of DFIs and MDBs has been observed at scale to date.
- **Blind pool:** A feature of private assets markets. A lack of visibility of the portfolio they are asked to invest in is a concern for most private investors.

- **Liquidity:** There typically isn't, and there will not be in the short term, any relevant market liquidity in many of the instruments utilised by DFIs and MDBs. This in turn means that the funds investing in such instruments cannot provide the liquidity that their prospective investors require.
- **Counterparty:** Whilst the expertise of the DFI and MDB investment teams is not in question, the institutions themselves are not recognised counterparties for most asset owners. The same can be said of most of the fund managers that DFIs and MDBs use as intermediaries. The visible fund-raising success of the TPG and Bain impact funds is a strong reminder of the importance of brand in the asset management industry.

2.2. THE SECURITISATION OPPORTUNITY

As has been argued, DFIs and MDBs are essential to unlocking the levels of development investment necessary to achieving the SDGs. The depth and breadth of their expertise in sourcing, funding, and cultivating investments in developing countries is at present unique.

Their limited ability to adequately raise new equity capital from their shareholders, combined with the limitations of their capacity leverage their equity through bond issuance do however present a serious challenge. They can neither increase their risk budget to fund a wider array of investment opportunities on the ground, nor can they scale up to the levels the SDGs suggest are required.

This paper will explore how the use of synthetic securitisation techniques can be implemented to leverage the capacity and expertise of DFIs and MDBs without encumbering their balance sheets to crowd in private capital at scale.

2.2.1. How can securitisation address existing limitations?

It is proposed herein that securitisation can address the existing limitations described above:

- **Time to deployment & blind pool:** Synthetic securitisation instruments can transfer risk exposure to existing portfolios of assets, without the actual transfer of the ownership of such assets being necessary. This in turn means that investors can identify the underlying assets and that there is no lengthy deployment time.
- **Liquidity:** Whereas there is no real short-term prospect of developing liquid markets for the underlying assets (e.g. investments into developing country SMEs), liquidity can progressively be created for those aggregation level instruments that can reach scale. For example, bonds can be listed on major exchanges.
- **Counterparty:** Instruments can be issued by recognised counterparties and included in funds managed by established asset managers.

In addition, securitisation would enable the emergence of two essential elements in the establishment and growth of any financial sector. Namely:

Intermediation

Attempts at raising development-focussed collective investment funds directly from investors are essentially bypassing incumbent private sector financial actors and intermediaries. This has the effect of ensuring that efforts to mobilise capital for development are not adequately leveraging off the distribution channels through which capital markets operate.

The objective of this paper is to propose a framework for investment bank issued instruments that will allow DFIs and MDBs synthetically to transfer exposure to their portfolio of assets to private investors. Such instruments will:

- Open the gates to much larger allocations in investors' portfolios
- Enable mainstream asset managers to build portfolios of these instruments for their clients
- Provide investors with a recognisable financial institution as their counterparty
- Incentivise distribution channels
- Provide the basis for the creation of liquidity for these instruments

Replication

Capital markets are, contrary to popular wisdom, not very good at innovation. They do however excel at replicating successful products. It is therefore crucial to ensure that any instrument that is adapted to the needs of the development finance system can be replicated in a reasonably straightforward manner.

The SDC initiative is therefore aimed at demonstrating the benefits of securitisation as applied to DFI and MDB assets and at defining a framework for securitisation programmes, rather than to design a singular product.

A major impediment to the mobilisation of private capital at scale is the lack of liquidity in the assets themselves. This lack of liquidity is at least partly explained by the sector's excessive reliance on bespoke, non-standardised, non-replicable structures.

The potential of securitisation is increasingly recognised in conversations within the development finance system, and it is the collective responsibility of all stakeholders to ensure the adoption of a framework approach akin to what the International Swaps and Derivatives Association ("ISDA") agreement achieved for the derivatives market.

The SDC initiative is therefore aimed at demonstrating the benefits of securitisation as applied to DFI and MDB assets and at defining a framework for securitisation programmes, rather than to design a singular product.

03

LITERATURE REVIEW: DEVELOPMENT AND SECURITISATION^I

3.1. INTRODUCTION

DFIs and MDBs play a significant bridging role between government and private sector contributions to sustainable development¹. These institutions have proven broadly beneficial in their focus geographies, including through leveraging additional investment for underserved regions² and promoting economic growth in recipient countries³.

DFI and MDB contributions to private sector development increased from US\$15.3 billion to US\$33 billion in the six years through to 2009 alone, effectively doubling their deployments and making these institutions, and their downstream leveraging effect, increasingly central to the global development agenda^{2,4}.

The need for DFI and MDB finance does however remain significant despite these strides, and development institutions have been called upon by to increase their allocations even further if the SDGs are to be achieved. In 2015 the Addis Ababa Agenda^{II} challenged DFIs and MDBs to broaden finance flows from all sources and establish effective, cross-sectoral partnerships to address sustainable financing gaps in areas including sustainable infrastructure, energy, agriculture, and SMME financing^{5,6}.

The G20 has historically called on MDBs in particular to explore avenues for growing their lending capacity and, in 2015, tabled an Action Plan for MDBs to optimise balance sheets. The Action Plan contemplated a set of measures including MDB engagement with their shareholders to increase risk appetite, exposure exchanges to diversify risks and the use of instruments such as structured finance, and credit guarantees to share risk in from their non-sovereign activities with private investors⁷.

As ever, cost of capital remains central to sustainable DFI and MDB operations and institutions must balance the need to extend their capital deployment and leverage potential without compromising credit ratings and thus their access to low cost financing.

^I Chapter compiled by Barry Panulo

^{II} The global framework for financing development post-2015 adopted by the Third International Conference on Financing for Development (July 2015)

In this context securitisation is one avenue for DFIs and MDBs to achieve risk-transfer and thus free additional risk-bearing and lending capacity. Amidst an uptick in interest for sustainable securitisation offerings, synthetic securitisation has emerged as a notable focus for those seeking to grow DFI and MDB market involvement as a means of improving their lending headroom capacity.

3.2. OVERVIEW OF THE SECURITISATION MARKET

3.2.1. The Development of the Securitisation Market

No evaluation of the securitisation market is complete without first acknowledging that the securitisations of sub-prime mortgage loans contributed to the 2009 financial crisis. The specific use of securitisations in this context, while naturally dampening market activity broadly in subsequent years, need not serve as an indictment of the potential uses of securitisation as a tool for mobilising private capital for development.

To trace its emergence; the development of securitisation as a financing tool was largely driven by mortgage market applications and the approach traces its origins to the 1930's USA residential mortgage market, with a secondary market for mortgage-backed securities emerged in the 1950's and 60's⁸.

The market for securitisations began to experience significant growth in the 1970's following the establishment of the Federal Home Loan Mortgage Association ("Freddie Mac"), the Federal National Mortgage Association ("Fannie Mae"), and the Government National Mortgage Association ("Ginnie Mae")⁸. These government-backed affordable housing agencies needed a means of releasing liquidity from existing holdings to support new origination and employed Special Purpose Vehicles ("SPVs") to pool mortgage loans. The SPVs sold investors securities referenced to future pool income with securities sales supporting new origination⁹.

US government support encouraged the extension of securitisation to applications including securitising student loans and farm credit in the ensuing years, and global markets went on to embrace securitisation market innovations during the 1980's⁹. By the turn of the millennium securitisation issuance was in excess of US\$1 trillion¹⁰ and by 2007 totalled some US\$6.44 trillion in the US and some EUR595 billion in Europe⁹. Issuance volumes in emerging market jurisdictions pale in comparison. With the exception of countries including Brazil, Chile, and India, most such jurisdictions assessed in 2010 reported having no or relatively underdeveloped securities markets¹¹.

As mentioned, securitisations of sub-prime mortgages were at the heart of the 2009 financial crisis after political pressures to grow home ownership drove aggressive home loan origination in the USA, and the resultant innovation in mortgage-based securities. Lenders were encouraged to extend credit, even to relatively risky borrowers with the expectation that housing prices would continue to appreciate and borrowers could refinance at lower cost over the loan term. However, reversals in home prices in 2007/2008 put this origination model under pressure and many risky borrowers went into default, adversely impacting the mortgage-backed securities market. The housing market's effect on securitisation was significantly amplified by the wide spread use of re-securitisations which introduced significant leverage and caused even investment grade tranches to default. The ensuing market reaction prompted the financial crisis and a loss of confidence in the credit quality of securitisations across the board⁹.

The financial crisis caused precipitous declines in issuance and in 2015 US securitisation issuance volume had collapsed to US\$1.9 trillion with European volumes at EUR214 billion⁹. Despite the resultant effects on the global economy, securitisation issuance losses were mainly concentrated in US markets which featured more aggressive origination practices. Tellingly, European market losses averaged 0.2% between 2000-2011, compared to 6.4% in the USA¹².

Thus, far from being an indictment of securitisation as a mechanism, it can be argued that the crisis best demonstrated that the choice of underlying asset is important, and that sub-prime mortgages are ill-suited to securitisation. It also demonstrated the inherent moral hazard in originate-to-distribute models of securitisation, and a need to promote sound professional judgement and temper overconfidence in relation to the use of credit ratings and seemingly sophisticated financial models⁹.

In 2019 issuance volumes in Europe were EUR270 billion and USA issues at EUR1.67 trillion with total volumes outstanding at EUR1.25 trillion in the EU and EUR9.18 trillion in the USA¹³. Market activity remains muted and, although the market is rebounding in Europe, much of the initial recovery has been with respect to more traditional issuances and issuances retained as central bank collateral¹⁴.

3.2.2. The Emerging Sustainable Securitisation Market

One market segment that has shown significant growth in recent times is green securitisation. The segment accounted for over 10% of green bond market issuance as of mid-2018, issuances in excess of US\$28 billion in 2017, and it enjoyed expectations of double-digit issuance growth in coming years¹⁵. The OECD estimates that annual green asset-backed securities issuances could reach up to US\$380 billion by 2035¹⁶.

Some commentators attribute the remarkable growth in this segment, which emerged as recently as 2013, to its green credentials and have noted the potential for mortgage-backed securities to originate relevant infrastructure securitisations and thus meet rising institutional demand for the assets and spur market development¹⁷.

Similarly, interest in infrastructure-focussed synthetic securitisations appears to be on the rise and, as of 2017, at least four significant infrastructure synthetic deals, including a US\$3 billion deal by Crédit Agricole (see *Case Study 4*) based on loans from 35 countries, closed. Interest in infrastructure securitisation has also been observed in emerging and developing economies¹⁷.

In the EU the 2019 implementation of the simple, transparent and standardised (“STS”) framework has been set forth as a means of promoting financial stability, making securitisation risks easier to assess, and should mean qualifying securitisations enjoy less heavy-handed regulatory capital treatment. These measures are expected to create a sound basis for the market’s growth and facilitate capital supply to the real economy¹⁸.

The effort to create enabling frameworks that provide attractive regulatory capital treatment for qualifying securitisations exemplify consensus the tool has been relatively underutilised in recent times and may well drive further interest from institutional investors.

3.3. SECURITISATION AND THE SDGs

MDBs have been increasingly called upon to help address an expanding set of global issues and have had to explore avenues for promoting efficiency⁴.

In 2013 the G20 issued a call for MDBs to optimise balance sheets and unlock liquidity for new credit extension without taking on imprudent risk or compromising credit ratings¹⁹. In anticipation of the adoption of the SDGs in 2015, the AfDB, ADB, EBRD, EIB, IADB, IMF, and the World Bank Group issued a joint statement committing to increase coordination towards the Goals. Entitled ‘*from Billions to Trillions*’, the document emphasized the need to move from a focus on development aid alone to growing investment and capacity from a diverse range of sources to meet SDG investment requirements. It also established a need for MDBs to consider financial innovations to increase lending headroom²⁰.

In 2016 the AfDB, ADB, EBRD, EIB and others reported back to the G20 call detailing some of the initiatives undertaken, amongst them capital efficiency and risk transfer measures which included establishing balance sheet optimisation prominence as a regular discussion item in regular meetings of the banks’ heads.

03 Literature review: development and securitisation

MDB engagement with securitisation prior to this movement was practically non-existent and only one MDB, the IFC, reported having undertaken a previous securitisation (in the 1990s)¹⁷. However, interest in the tool rebounded in the aftermath of the G20 call, and in its response the AfDB reported on efforts to consider the application of synthetic securitisation in its non-sovereign credit portfolio and on the establishment of a specialist team focussing on syndication, co-financing, and balance sheet optimisation²¹.

In 2017 the World Bank provided additional momentum to the MDB securitisation movement, proposing to establish an infrastructure loan refinancing facility for the International Bank for Reconstruction and Development's ("IBRD") public sector infrastructure portfolios. The Bank considered unlocking IBRD capital for new originations by refinancing existing loan with private investor and donor funds pooled in a dedicated facility¹⁷.

However, such 'true sale' proposals are relatively uncommon for MDBs and synthetic securitisation has developed as a preference (see *Chapter 4*). One significant consideration is the potential political sensitivity around the transfer of public debt held by MDBs to private investors. Further, the concessional rates available on public-lending based securitisations are not commercially viable and would require significant yield enhancement to render issuances attractive to investors. Private loans are less politically sensitive and their securitisations often commercially viable but DFIs and MDBs are mandated to drive development objectives and environmental, social, and governance criteria through ongoing management of loan portfolios – a role that cannot be effectively fulfilled if a true sale is employed¹⁷.

There is precedent for the use of synthetics to create headroom with a development lens. In Europe, the European Investment Fund ("EIF") has engaged with synthetic securitisation and

in 2015 implemented two synthetic transactions intended to achieve capital relief for SME lending assets, with proceeds to support new origination²³. Relatedly, the EIB has a guarantee facility for SME securitisation intended to help attract new investors to the segment²⁴.

More recently, a group of MDBs discussed a synthetic securitisation proposal envisaging a loan recycling mechanism with private investors participating in senior and junior tranches and public sector investors taking a junior tranche. The approach would be on a mixture of public and private sector loans and retain assets on the MDBs' balance sheets¹⁷.

In late 2018, AfDB completed Room2Run (see *Case Study 1*), a synthetic securitisation whereby it bought credit protection on a \$1bn renewable energy loans from a US credit fund. Referenced to a pool of infrastructure assets and financial institutions, the mechanism reduces AfDB's credit risk enabling it to benefit from a lower risk weighting; enabling the bank to free up over \$600 million to support new lending¹⁵.

Some commentators contend that concerns akin to those on DFI and MDB mandate dilution when using a true sale prevail with the shift to synthetic securitisation. Specifically, institutional investors, who often require tailored terms on securitisation arrangements, can seek to shape the selection of pool assets to be consistent with their own sustainability and governance criteria in a manner that has the potential to dilute development impact outcomes. In this context, growing synthetic securitisation usage could reduce the public sector's ability to use developmental investments to further sustainability-related policy objectives²⁵.

It is thus incumbent on institutions to ensure appropriate safeguards are employed. It is also important that DFIs and MDBs continue to strive for additionality and not gravitate towards projects that can be easily securitised – lest they crowd private sector originators in the process¹⁷.

Collaboration is central to the 'Billions to Trillions' agenda and members of the International Development Finance Club ("IDFC") command at least US\$3.8 trillion in assets, over twice the level of funding of core MDBs. A recent survey of IDFC membership demonstrated these institutions, especially the multilateral banks, also perceive a need for balance sheet optimisation and other approaches to improve lending headroom²⁶.

Where applied, synthetic securitisations involving multiple DFIs and MDBs as originators could enable broader geographic and sector diversification and unlock more significant headroom improvement for participating institutions¹⁷.

3.4. CONCLUSION

Growing regulatory support for securitisation and investor interest in sustainable issuances broadly indicate potential opportunities for DFIs and in particular MDBs, who hold a range of suitable collateral, to develop issuances that achieve risk reduction and regulatory capital relief. There is existing momentum with synthetic securitisation of MDB portfolios and scope for well-designed mechanisms to benefit originators and enable further lending for development, and for the overall broadening of capital sources in accordance with their 'Billions to Trillions' mission.

Where applied, synthetic securitisations involving multiple DFIs and MDBs as originators could enable broader geographic and sector diversification and unlock more significant headroom improvement for participating institutions¹⁷.

04

THE ROUTE TO SECURITISATION

4.1. THE SDC FRAMEWORK

The SDC Framework is a model whereby DFI and MDB risk exposure can be transferred to investors through the issuance of structured notes. It is underpinned by a synthetic securitisation approach and is centred around the use of a Risk Participation Agreement (“RPA”).

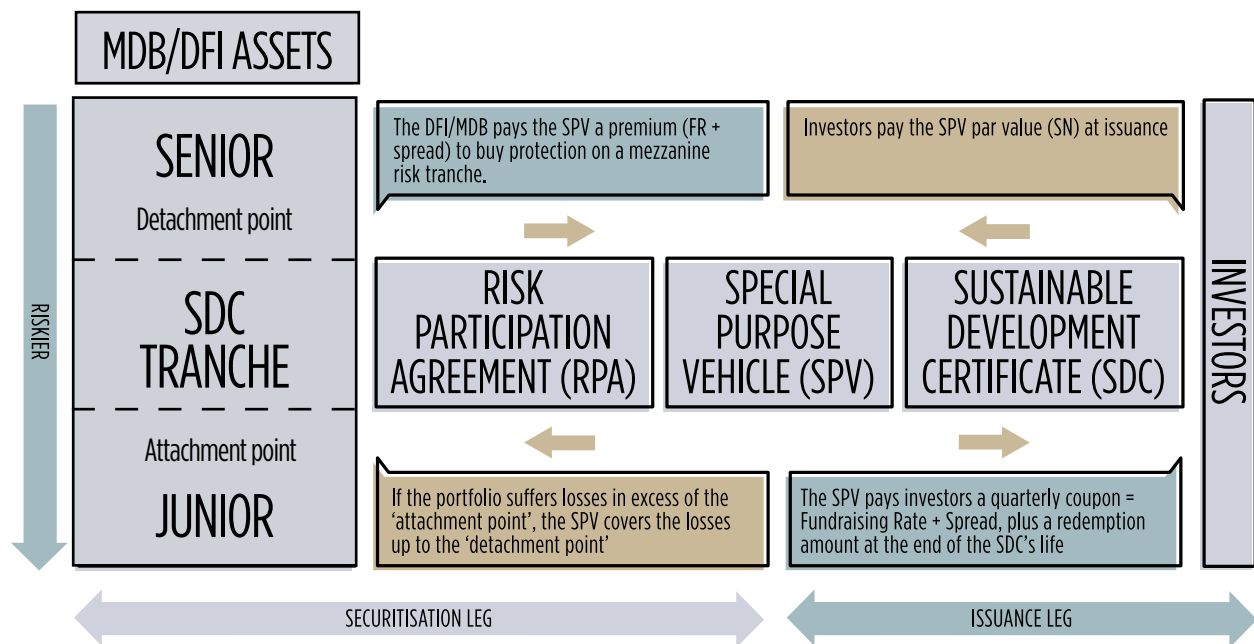


Figure 2 – SDC Framework Overview

The maturity, risk, and other characteristics associated with the RPA and therefore the SDCs can be modulated to solve for the intersection of the DFI risk management and the investors' requirements.

As illustrated by Figure 2 above, the SDC Framework is the aggregation of two distinct but linked legs:

1. Through the **'Securitisation Leg'**, DFIs and MDBs are able to buy credit protection on a specific tranche of their loan portfolios. The resulting reduction in their risk exposure in turn allows them to redeploy a proportion of their assets into new investments, increasing their contribution to the SDGs.
2. The **'Issuance Leg'** transfers the RPA exposure to investors through the issuance of structured notes, i.e. the Sustainable Development Certificates ("SDCs").

The maturity, risk, and other characteristics associated with the RPA and therefore the SDCs can be modulated to solve for the intersection of the DFI risk management and the investors' requirements.

At the centre of the SDC Framework, acting as the conduit for this exposure is either a SPV or an investment bank. The following sections provide a high-level overview of the options available to structure each leg, and how the SDC Framework was conceived by selecting the options deemed most appropriate to the DFI/MDB context.



4.2. THE SECURITISATION LEG

4.2.1. True Sale vs Synthetic Securitisation

True Sale Securitisation

True sale securitisation (see Figure 3) refers to the transfer of the title assets from the balance sheet of the originator to an SPV. This SPV in turn issues securities to investors that are linked to the cash flows generated by this underlying pool of assets.

Where assets are taken off the balance sheet optimal refinancing benefits are offered to the originator. This is determined in part by whether the SPV is consolidated or not, whether there is significant risk transfer, and by the accounting regime applicable to the originator.

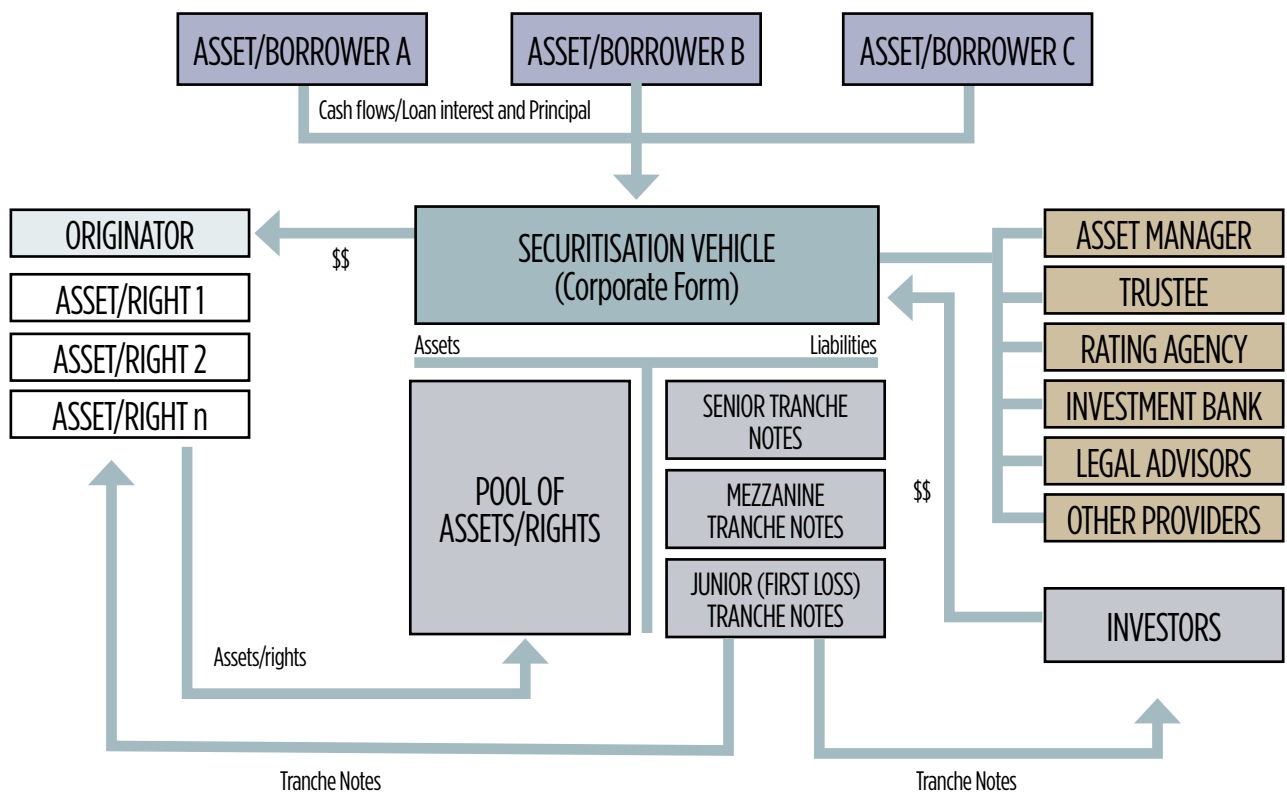


Figure 3 – Overview of True Sale Securitisation (Deloitte)

Synthetic Securitisation

In the case of a synthetic securitisation (see *Figure 4*), the assets remain on the originator's balance sheet, and only the credit risk of the portfolio, or a tranche thereof, is transferred to investors in exchange for a return. As the assets remain on its balance sheet, the originator is not per se refinanced, but the credit risk removed should result in regulatory capital relief, and the ability to target specific risk allows for better risk management.

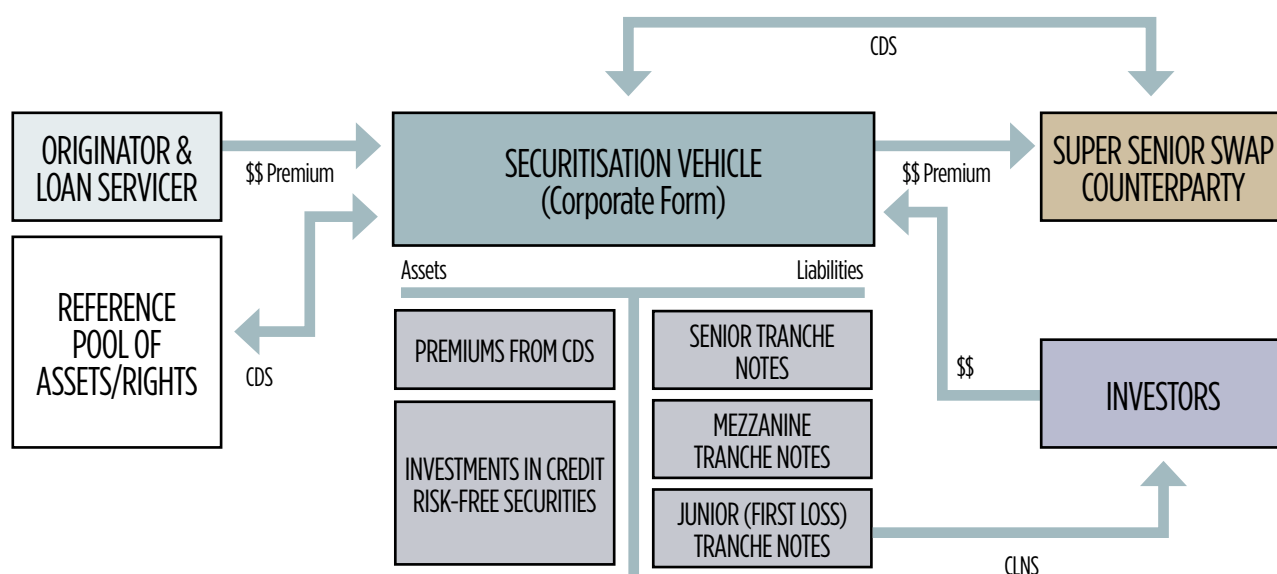


Figure 4 – Overview of Synthetic Securitisation (Deloitte)

True Sale vs Synthetic: Conclusion

In the context of development finance, synthetic securitisation does provide a number of comparative advantages over true sale. For example, it is associated with lower transaction costs, which is key in an environment where issue sizes are likely to be small for the foreseeable future.

It also offers higher flexibility, allowing for issues to be designed to the specific risk management needs of the DFI or MDB and/or the investment criteria of investors. Again, the lower cost is an important factor, enabling a multi-issuance approach, rather than a one-size-fits-all launch.

Perhaps counter-intuitively, simplicity is another attractive characteristic, explained here by the EIF:

Synthetic securitisations — transferring of the credit risk of a portfolio to another investor without transferring the ownership of the securitised exposures — are actually simpler than traditional cash securitisations due to their lesser legal and operational complexity. Cash securitisations (involving the transfer of assets as well as risk to a third party) require a greater number of other parties to the deal, whether a hedging counterparty, liquidity provider, back-up servicer, trustee or paying agent.

By synthetically securitising a mezzanine tranche of a portfolio of loans, the DFI or MDB is able to provide investors with a built-in de facto first loss feature without having to actively invest in such a tranche in each true sale SPV.

Another key feature is that the ownership and servicing of the loans remains with the originator. This is important because DFIs and MDBs are the best equipped to carry on this task and to measure and report development impact. The legal documentation of individual loans often precludes the transfer of the loan to a third party, and the impact and ESG frameworks enforced by DFIs and MDBs remain in place.

4.2.2. Total Return Swap vs Risk Participation Agreement

Total Return Swap (“TRS”)

Total Return Swaps (see *Figure 5*) transfer the entire risk (credit risk, market risk, and depending on the specific structure, interest rate risk) of a discrete part or of all the reference portfolio, together with the associated variable returns from the total return ‘payer’ to the total return ‘receiver’.

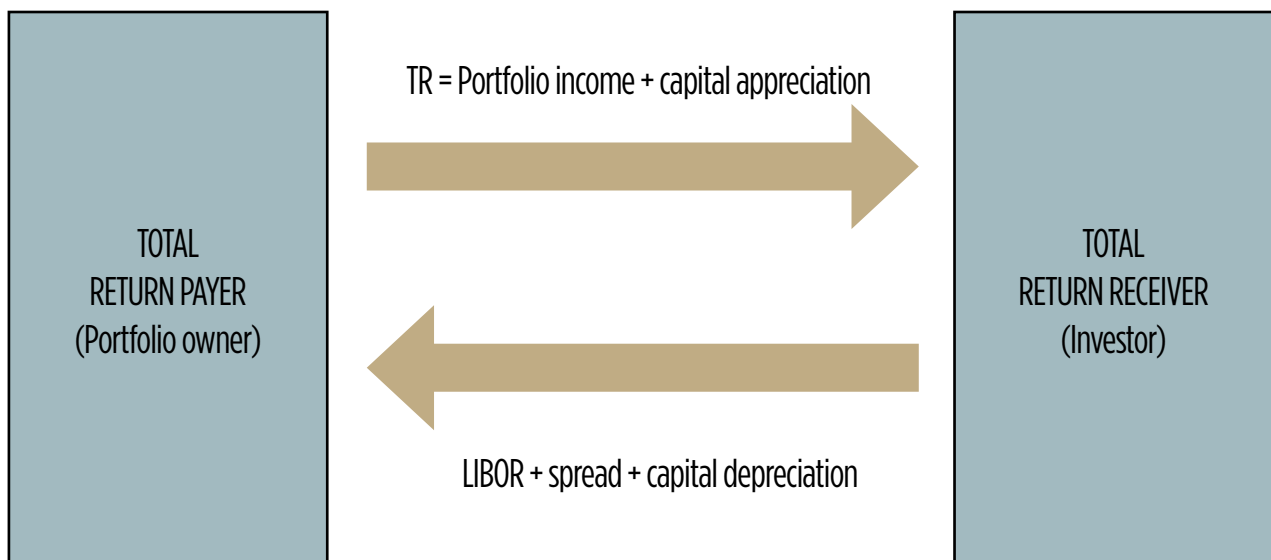


Figure 5 – Total Return Swap

The receiver therefore receives the income from the portfolio of loans, plus or minus the change in the valuation of these loans as measured at regular intervals and/or at the end of the swap's life.

In addition to an income stream equivalent to coupon payments from the underlying loans, the TRS is therefore directly associated with changes in the valuation of these loans, which can be affected by factors other than defaults.

The absence of a market for most of the loans made by DFIs and MDBs adds a level of complexity to the use of a TRS to securitise their assets linked to the requirement to value the loans to determine the capital appreciation/depreciation of the reference asset.

Risk Participation Agreement (“RPA”)

A Risk Participation Agreement (see *Figure 7*) is a specific, non-speculative form of a credit derivative. To gain an understanding of its underlying principles, it is therefore useful to take a step back and discuss a simpler form of credit derivative; the Credit Default Swap (“CDS”). CDSs are instruments used to effect credit risk mitigation and are defined in the CFA curriculum as follows:

A CDS is a contract between two parties in which one party purchases protection from another party against losses from the default of a borrower for a defined period of time.

In practice, the buyer of protection (‘originator’) will pay the seller of protection (‘investor’) a premium, either upfront or periodically. Should a pre-defined credit event occur (default, restructuring, etc...), the investor will compensate the originator

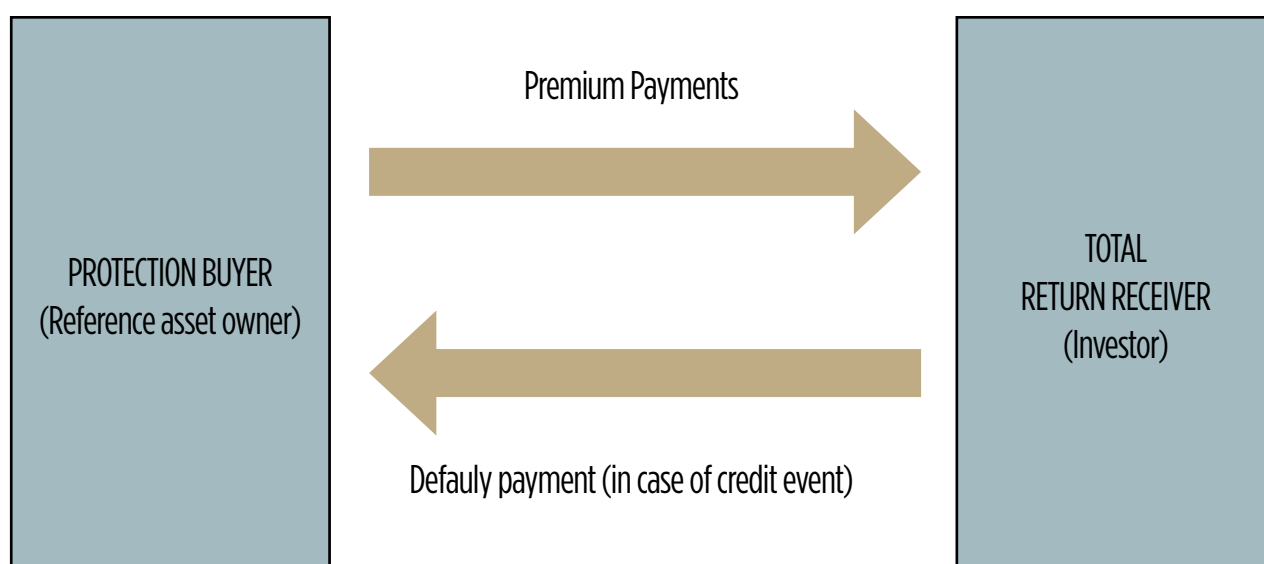


Figure 6 – Credit Default Swap

according to contractually agreed rules.

In the context of DFI and MDB portfolios, RPAs on tranches, rather than single name CDSs, will be the focus of this paper.

An intention of this paper is to establish how to transfer a share of the risk of a portfolio of assets, rather than that linked to a single loan. A traditional CDS is terminated at the earliest of a credit event occurring or the end of its life and since it is proposed to create a bond-like, fixed-duration instrument, there cannot be a scenario where a single event leads to the

termination of the securitisation instrument.

The ISDA provides a very useful set of template legal documents, rules, and definitions for credit derivatives in general and CDS contracts in particular. To allow for optimal flexibility at a stage where there is no established practice within the development finance system, it is therefore prudent to refer to RPAs. In the long run it is however acknowledged that adherence to a standardised set of practices and the use of standardised legal documentation is key to the scalability of the SDC Framework.

04 The route to securitisation

Under such an RPA, the assets are tranced according to the deal's specifications, and the originator buys 'protection' from investors against losses associated with one specific tranche defined by an attachment and a detachment point.

The investor receives a premium or spread over a reference interest rate (e.g. LIBOR) on the notional value of the tranche at regular intervals (e.g. quarterly).

This means that the originator will receive a payment on the occurrence of the predefined credit event, i.e. when cumulative losses on the portfolio exceed the attachment point. The investor is not liable for losses in excess of the detachment point. It is important to note that an RPA does not provide full economic exposure to the portfolio to investors.

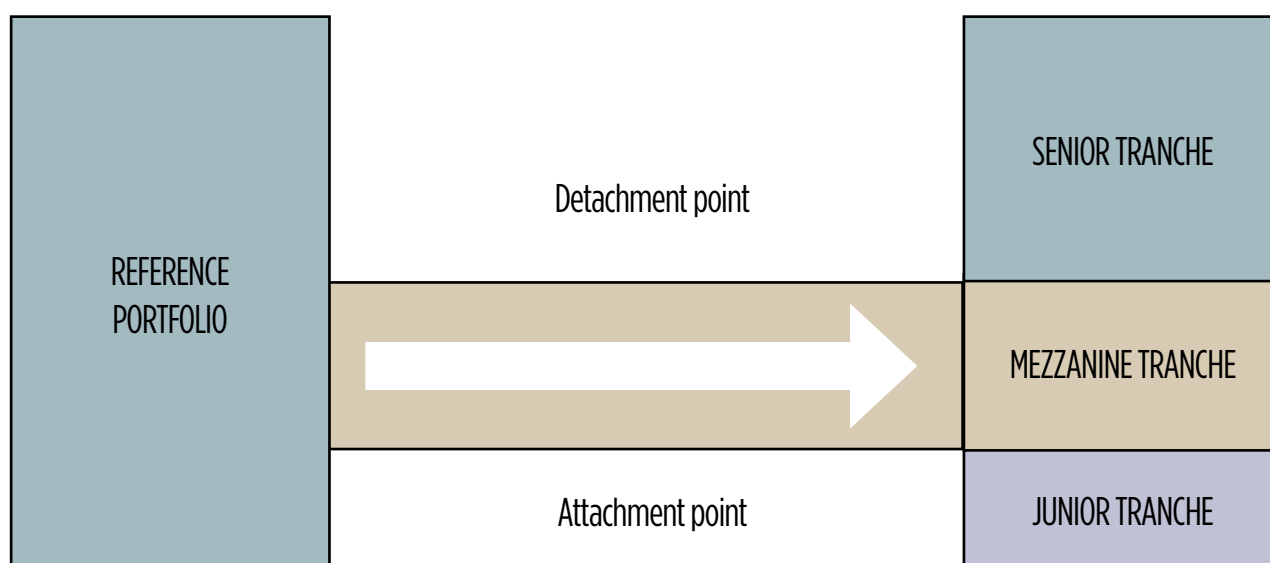


Figure 7 – RPA Tranching

TRS vs RPA: Conclusion

There are several reasons to favour a credit derivative-based route to securitisation in the context of development finance:

- Some investors may not be in a position to shoulder the same level of risk. This is after all core to the raison d'être of DFIs and MDBs. The advent of blended finance is linked to this very observation. Others might seek higher returns. In this context, the securitisation of a specific tranche of a portfolio can be used to obtain a specific risk/return profile and to provide an embedded first loss protection through the retention by the originator of the riskiest tranche of the portfolio.
- Extensive interactions with DFIs and MDBs have evidenced a real aversion to the possibility of private investors 'cherry picking'

their assets and leaving them with the lower quality part of their portfolios. Whilst there is still an element of asset selection built into the tranche definition process, it significantly mitigates the risk for such adverse selection from the originator's standpoint.

Ultimately, neither the TRS nor the RPA route is simple. It is however put forward here that the specific requirement to value the loans inherent to the TRS route is problematic in the context of development finance, given the lack of market pricing for the majority of the underlying instruments. As a result, the RPA approach is suggested as the preferable option.

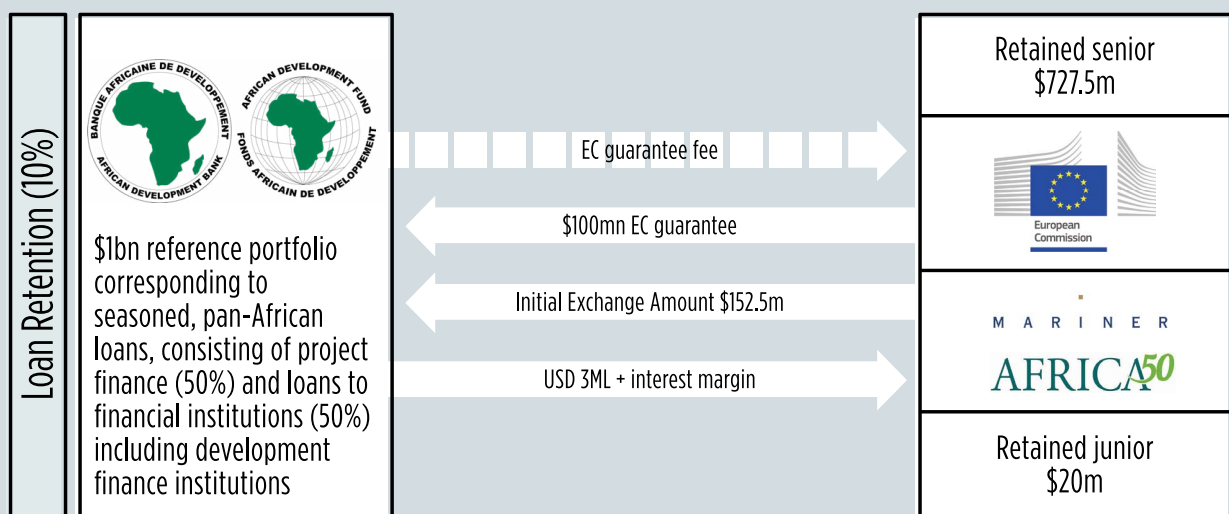
The 'Room2Run' case study below demonstrates that private investors and, in this case, MDBs can collaborate to execute transactions through the use of RPAs.

CASE STUDY 1:

‘ROOM2RUN’

In October 2018, the AfDB announced the pricing of Room2Run, the ‘first-ever synthetic impact securitisation with a multilateral development bank’ that it had entered into with Mariner Investment Group, the European Commission, and infrastructure fund Africa 50.

AfDB non-sovereign portfolio



Source: www.structuredcreditinvestor.com

As illustrated above, the AfDB obtained credit protection on two separate mezzanine tranches of a US\$1 billion portfolio of non-sovereign loans, comprised of 45 loans across 18 African countries. It in particular entered into an RPA with Mariner and Africa 50 over a 15.25% thick tranche. The AfDB received the full notional amount of their tranche from the investors (the initial exchange amount).

This is accomplished via a fully collateralised RPA.

Further to extensive interaction with credit rating agency S&P, the transaction enables the AfDB to redeploy US\$650 million to renewable energy projects across Africa.

There is a wealth of publicly available information about the Room2Run transaction, and it is therefore not useful for this paper to study it at length.

This transaction does however represent a significant breakthrough and demonstrates that synthetic securitisation can be used to transfer risk from an MDB balance sheet to commercial investors and ultimately to free up scarce capital and allow additional development investments to be made. It is a key milestone on the path to building the bridge between DFIs/MDBs and capital markets.



4.3. THE ISSUANCE LEG

4.3.1. SPV vs Bank Balance Sheet

Having transferred exposure off the originator's balance sheet, it remains to determine how this exposure is then passed on to end investors, i.e. the Issuance Leg of the transaction.

Having transferred exposure off the originator's balance sheet, it remains to determine how this exposure is then passed on to end investors, i.e. the Issuance Leg of the transaction.

Figure 5 above depicts a synthetic securitisation structure whereby an SPV is created and plays the role of the protection seller. The SPV then issues Credit Linked Notes ("CLNs") to investors.

The alternative is for an investment bank to play both the role of the protection seller and that of the issuer of the CLNs.

The main advantage of the latter approach is that there is no need to create an SPV (or a sub-cell thereof) for each securitisation exercise, allowing for multi-issuance programmes. It also allows the bank to be the issuer of the structured notes, thereby potentially enhancing their attractiveness through having a recognised counterparty. Finally, it enhances the flexibility and replicability of the issuance.

Whilst the investment bank is essentially only passing the risk and returns from the DFI or MDB onto the investors, under Basel it still incurs a significant capital charge given the non-observable nature of the underlying assets, as will be explained below. This capital

charge and the resulting use of its balance sheet require the investment bank to charge a fee in excess of its cost of capital for that amount. The cash it receives from investors does reduce this additional cost, but it inevitably it does not altogether eliminate it.

A further consideration is that the SPV route may involve the acquisition by the SPV of low risk securities as collateral from the DFI or MDB originator. This presents the additional opportunity for the SPV itself to contribute to the funding of the SDGs through the acquisition of instruments issued by DFIs and MDBs.

4.3.2. Stakeholder Outreach and Market Readiness

Conversations were held with institutional investors, private banks, and investment banks throughout the development of the SDC Framework.

The structuring teams at two of the investment banks interviewed expressed interest in the SDC Framework and have since been actively engaged to identify opportunities for its potential implementation.

Interaction with three large life insurance groups, two in Europe and one in the United States, confirmed the existence of significant latent demand for sustainable development focussed debt instruments. One institution had in fact for some time been researching the potential for the securitisation of DFI or MDB loans, with a specific focus on infrastructure. Scale is in all cases important, as is an investment grade end product, but there is a high level of tolerance for long maturities.

Three of the five of the global private banks interviewed indicated both a familiarity with and a regular use of structured notes and certificates, and strong appetite on the part of their clients for short duration (ideally 5 year) debt instruments. Two of these banks had recently mobilised their structured product units to create sustainable development

04 The route to securitisation

investment products. The ability to distribute across multiple jurisdictions was viewed as a strong advantage of the issuance model.

In addition, the market's readiness to use structured notes and certificates to provide access to sustainable development assets finds recent validation in two recent issuance initiatives involving the World Bank and private banks.

In September 2018, on the 10th and 11th respectively, the World Bank Group announced the launch by the IBRD of Sustainable Development Notes and Sustainable Growth Bonds.

The performance of these instruments is linked to that of an equity index, one calculated by Solactive, the other by Sustainalytics, and their distribution managed respectively by UBS and BNP Paribas.

The development impact largely comes from providing the IBRD with funding, and to a more debatable extent from the use of an index composed of the listed businesses deemed to contribute to sustainable development.

What is however important to consider is that these notes (or bonds) are structured by adding a derivative instrument to an IBRD bond, and the suggested SDC Framework is no different in this regard.

The SDC Framework does however present the opportunity to add to the development impact generated by the additional funding made available to the issuing DFI or MDB by allowing it, through entering the RPA, to re-deploy the regulatory capital freed up through the Securitisation Leg.

The above appraisal of recent structured notes issuance confirms a number of important points:

- Private banks and wealth managers continue to distribute structured notes and certificates to their clients.
- They are doing so in the context of their broader 'impact investing' agendas.
- Large multi-lateral development banks have the technical capacity and, where it coincides with their funding needs, the will to issue such structured notes.

05

BUILDING MARKETS: KEY PRINCIPLES

5.1. CREATING A MARKET AT SCALE: TWO EXAMPLES

At the heart of the SDC Framework is the belief that SDG focussed investing must leverage off the banking industry as the most powerful and efficient means to raise private capital at scale. Banks are uniquely positioned to integrate financial innovation in an expedient fashion and to distribute the resulting instruments efficiently to a global and diverse investor base. They have in addition proven their ability to replicate and improve new financial products and to grow entirely new markets in a relatively short period of time when equipped with sustainable product frameworks.

Whilst there is a wealth of relevant examples, the following two case studies are specifically relevant to the key structuring principles for the SDC Framework as they demonstrate the power of the capital markets to scale when market building initiatives are designed to be integrated and replicable.

CASE STUDY 2:

THE 'SPY' ETF

The origins of the Exchange Traded Fund ("ETF") industry can be traced back to 1993 with the launch by State Street of the S&P500 Spider ETF Trust on the American Stock Exchange under the ticker 'SPY'. In 26 years, SPY grew from a mere US\$100 million at launch to an unprecedented US\$275 billion net asset value (as of October 2019), making it the largest fund by some margin.

Competition works

In that period of time, what was a minuscule domestic cottage industry became the familiar behemoth known today as the ETF Industry, totalling US\$4.7 trillion of assets, a pillar of financial markets, and a mainstay of investment portfolios.

It took only a couple of years for the banking industry to replicate at scale the blueprints created by State Street in 1993. Morgan Stanley's WEBS launched in 1996, and together with Barclays Global Investors, they quickly started expanding outside the US under the iShares brand, listing ETFs in markets as diverse as Australia, Canada, and Germany. Many other banks had joined the fray by 2000, and Societe Generale with its Lyxor CAC40 ETF in France quickly became the largest European ETF, followed by Deutsche Bank, Credit Suisse, and UBS.

In just a few years global Banks had embraced and improved upon the SPY initiative, to create a global industry that has been growing and innovating ever since. It also allowed new investors to enter the market efficiently access geographies, sectors, and investment strategies that were previously the preserve of a narrow circle of large institutional investors.

Financial innovation must rhyme with sound operations

ETFs were initially targeted at professional investors for tactical asset allocation in lieu of futures. The concept was to create a cost-effective and transparent instrument, that would be easy to trade from an operational point of view. Operational efficiency is crucial to the success of any investment product.

By 1993, futures on equity indices had been in existence for decades, providing liquid and efficient markets to hedge or speculate on stock markets worldwide. In theory the listed derivatives markets were entirely capable of answering all the needs of institutional investors.

But ETFs, equipped with a superior operational framework proved far more successful. Futures are not securities (i.e. 'shares') but rather they are listed derivatives associated with a dedicated complex operational infrastructure, a special regulatory regime, and complex trading procedures. They could as a result only be used by the most sophisticated of investors. In contrast, ETFs with their SEC-registered full prospectus, and their listing on main boards, could be traded by all investors. As a result, back-office teams at the banks' clients (i.e. brokers, mutual funds, wealth managers, IFA's etc) could process transactions without any hurdles or incurring additional costs from custodians or transfer agents.

Sky is the limit once banks are fully engaged

As a direct result of sound structuring and operational excellence the ETF market was able to expand well beyond its initial intended clientele of institutional asset allocators. Banks went on to attract retail investors, wealth managers, and institutions globally, making index-based investing accessible to everyone at a remarkable scale and speed. A perfect example of how financial innovation can scale when the right structures are put in place to meet pressing needs.

CASE STUDY 3:

WORLD BANK AND IBM AT THE DAWN OF THE MODERN SWAP MARKET

The genesis of the markets for Currency Swaps and the very foundation for all Over the Counter (“OTC”) derivatives can be traced back to the DEM, CHF, and USD Swaps arranged in 1981 by Salomon Brothers between IBM and the IBRD.

It is important to note that currency swaps had been trading in the City of London since the mid 1970's. At first glance there was nothing obviously innovative about this transaction. The currency swap concept was well understood, transactions were closed regularly. Neither the underlying currencies (DEM and CHF were liquid, established, and widely used currencies) the 5 years tenor, nor the CHF200 million and DEM300 million notional amounts made the transaction exceptional.

Financial Innovation is not necessarily about devising entirely new concepts, but rather making them efficient and replicable. In fact, until then currency swaps were structured as a pair of back to back tailor-made loans each written in two different currencies and entered into by two counterparties simultaneously. This required a long and complex process of negotiation and customised loan documents to take into account each counterpart's specificities.

Standardisation over creativity

What made it a landmark transaction that would herald an entirely new era for financial markets and annual turnovers of several trillions of dollars each year is it was not structured as a 'one off' transaction with obscure bilateral clauses. On the contrary it was structured as a model transaction trying to define all its key aspects beyond the financial terms themselves, including legal, tax, and operational considerations as well as accounting and valuation principles, risk, and the life cycle of the transaction itself (early terminations, disputes etc.).

This structure provided a replicable framework to conduct similar transactions using standardised terms, documentation, pricing methodology, accounting, and valuation principles. It therefore put the necessary building blocks in place for scalability. This was the foundation for the International Swap Dealers Association, created shortly thereafter that would later publish swap master agreements and continue as ISDA to codify derivatives trading to this day, from rates to equities, and from credit to infrastructure.

The World Bank Treasury | IBRD • IDA - 70 Years Connecting Capital Markets to Development
<http://pubdocs.worldbank.org/en/981111541019927135/70-years-chapter-four.pdf>

5.2. GUIDING STRUCTURING PRINCIPLES

Case Studies 2 and 3 above clearly illustrate the need to focus on carefully considered and replicable market building initiatives if new sources of capital are to be mobilised at the scale and the pace necessary to address the SDGs. This mindset has been a guiding light to the SDC Framework, and the structuring hypothesis has been constantly tested against the end goal of fostering the creation of a functioning market for synthetic securitisation for SDG focussed investing.

Case Studies 2 and 3 above clearly illustrate the need to focus on carefully considered and replicable market building initiatives if new sources of capital are to be mobilised at the scale and the pace necessary to address the SDGs.

The resulting guiding principles are:

1. **A bank ‘friendly’ framework:**
Banks are uniquely positioned to make this market work. They must therefore embrace it and not merely find it compatible with their current *modus operandi*.
2. **Operational efficiency:**
The lightest operational framework possible must be aimed for, using the lowest common denominator for all the stakeholders and specifically for the targeted originators, i.e. DFIs and MDBs. Interaction with DFI and MDB teams has validated the need for such an approach, as excessive operational complexity will make it difficult or impossible for resource constrained operational teams at DFIs and MDBs to participate. Complexity and flexibility can be introduced only once the marketplace is established, and not at the outset.
3. **Self-motivated Stakeholders:**
For a market to emerge, all stakeholders must find self-motivation to participate and engage, above and beyond their adhesion to impact investing or the SDGs. A comprehensive stakeholder outreach validated the hypothesis that the banking sector would be forthcoming as their commercial interest is clear, and very positive and dynamic responses were observed from investment banks on both sides of the Atlantic.

The situation at DFIs and MDBs is more complex. The initial hypothesis that the private capital mobilisation objective that most of these institutions have now incorporated in their mission statements would be a sufficient source of motivation for their self-motivating participation was largely disproved through direct conversations with operational teams at most institutions.

The prospect of additional revenue and the additional lending and investment capacity generated by securitisation was met with interest, but given the diversity of funding levels, political priorities, and availability of human resources, such interest was not uniform across all DFIs and MDBs and does not seem to currently form a strong enough basis for self-motivated engagement.

Engagement was however forthcoming when the conversation turned to prudential regulatory frameworks, whether they be linked to Basel III or IFRS 9 guidelines. DFIs and MDBs are increasingly subjected to the same constraints and regulatory frameworks as commercial banks. In addition, operating in emerging markets poses specific challenges for both banks and development finance institutions. Referring to Basel III, the president of the ISDA explained in his April 2019 address that:

For banks in emerging markets, implementation poses some particular challenges. These include barriers to entry, a shortage of data and concerns about the treatment of sovereign debt. While it is important for the framework to be implemented as consistently as possible, it is also imperative that regulators and market participants monitor and understand the impact on emerging market banks and economies.

To provide the context of the structuring choices underpinning the SDC Framework, it is therefore useful to review the salient features of the current prudential regime from a DFI and MDB viewpoint and in the context of synthetic securitisation, as is the subject of the following section.

06

THE EUROPEAN UNION'S REGULATORY ENVIRONMENT FOR SECURITISATION^{III}

OVERVIEW

Amongst other things, true sale securitisations offer the dual attraction of providing funding to the originator of the pool of exposures by way of the sale of the assets and also transferring the assets off the balance sheet (which in turn can offer regulatory capital and accounting benefits, depending on whether the transfer meets applicable regulatory requirements and the accounting regime recognises the transfer of the assets). In contrast, synthetic securitisations have historically offered capital relief but, lacking the sale of the assets inherent in a true sale securitisation, have not afforded the originator the benefit of adding cash to its balance sheet, derived from such a sale. Therefore, synthetic securitisations have traditionally found most favour with financial institutions seeking capital relief from engaging in such transactions.

^{III} Chapter compiled by Reed Smith

In addition, because the true sale securitisations involve a true sale of the assets by the originator, the investors are typically immune from the credit risk of the originator and their recourse is limited to the assets transferred into the securitisation. Conversely, the covered portfolio will need to be substantially transferred and any retention by the originator (whether for regulatory or marketing reasons) will involve some relatively complex structuring. In contrast, the transfer of the credit risk under a synthetic structure avoids due diligence and transfer of title inherent in a true sale. However, in order to avoid the investors incurring credit risk to the originator, the proceeds of the investments (e.g. the subscription moneys from the CLNs) are retained in the securitisation entity. Usually this is a bankruptcy remote SPV to which the recourse of the investors, the originator and other creditors is limited to its assets. As the notes issued by the SPV are written down to the extent that it is required to make credit protection payments to the originator, the collateral derived from the subscription moneys is effectively used twice – once to collateralise the repayment obligations on the note and once to collateralise the contingent credit protection payments to the originator – whilst remaining sufficient to meet both obligations. If a bank is used instead of a SPV, then the investors and the originator are exposed to the bank's credit risk, for the investors in the same way as they would be if they had bought CLNs issued off the bank's balance sheet, and for the originator in the same way as if it had bought protection under an uncollateralised credit derivative.

As noted above, a synthetic securitisation structured this way does not afford the originator access to the cash proceeds of the note issuance. In the Room2Run transaction, the cash collateralisation of the RPA is achieved by the transfer of cash to the AfDB against the issue surety instrument. This exposes the protection sellers under the RPA to AfDB credit risk on its repayment obligation (to the extent to which it is not written down to meet credit protection payments under the RPA) which, presumably is an acceptable risk for the protection sellers.

EU SECURITISATION REGULATIONS

In broad terms, the EU regime applicable to the securitisation element and the issuance element of the SDCs can be found in two primary sources. One is the Capital Requirements Regulation (EU) No 575/2013 (the "CRR"). The CRR addresses the requirements for own funds for regulated entities, such as banks (or credit institutions) and broker/dealers (investment firms)^{iv}. Own funds are the capital (both equity and debt) that an institution subject to the CRR is allowed to count as its capital when calculating its capital ratio and differs from the economic capital it reports in its accounts. The CRR also addresses the capital charges that accrue to a regulated institution by virtue of its exposures to third parties and intra group entities. These exposures are subject to risk weightings prescribed in the CRR and which when applied to a regulated institution's exposures, produce RWAs against which own funds must be held in a ratio at least equal to the capital ratio prescribed by the institution's regulator.

In essence, the CRR is the EU wide implementation of the BCBS's Basel III rules. There are some differences in the way that the CRR applies Basel III from that of other regulators (e.g. those in the US, Australia, Japan etc.), although the broad thrust of the CRR is in line with the intent and principles underlying Basel III. As discussed above, some DFIs and MDBs are either regulated as credit institutions (either by legislation or voluntarily) and others adopt procedures and techniques which are analogous to those applicable to commercial financial institutions. In light of the number of European DFIs and MDBs, this paper considers the potential impact of CRR on MDBs and DFIs. It also considers the impact of the securitisation and issuance on intermediary entities and investors. For the regulatory capital treatment of securitisations applicable to credit institutions and investment firms there is also an amending regulation addressing the prudential regulation of securitisations, Regulation (EU) 2019/876 (the "CRR Amending Regulation"). For convenience, references in this paper to the CRR include the CRR Amending Regulation, as applicable.

^{iv} There is also EU legislation applicable to pension funds, insurance and reinsurance entities and alternative investment funds but these are beyond the scope of this paper.

The other relevant piece of EU regulation is the EU's Securitisation Regulation 2017/2402 (the "Regulation"). This was introduced to harmonise the rules and requirements for parties involved in securitisation transactions, namely investors, originators, sponsors, original lenders and securitisation special purpose entities ("SSPE" – i.e. SPVs). It is supplemented by Securitisation Prudential Regulation (EU) 2017/2401 (the "SPR"). For convenience, references in this paper to the Regulation include the SPR as applicable. The Regulation and the SPR came into force on 1 January 2019. Whilst the SPR replaces the CRR for aspects of the regulatory capital treatment of securitisation positions held by EU credit institutions and investment firms, other regulatory aspects of securitisation structures, for example the recognition of credit risk mitigation techniques (such as credit derivatives and guarantees) as reducing regulatory capital charges, remain within the CRR.

The Regulation is supplemented by various regulatory technical standards (RTS), regulatory guidance and formal questions and answers. As of today, not all of the required RTS' have been finalised or entered into force.

Both the CRR and the Regulations are "regulations" in both name and in EU legislative terms. This means that they take direct effect in the laws of each EU member state without any additional implementing legislation being enacted by the member states. Whilst this legislative technique produces a degree of regulatory standardisation across the EU, the absence of domestic legislation precludes interpretative guidance (outside the EU regulatory bodies' RTS and Q&As) at a national level and therefore raises the possibility of some national interpretation (for example in the field of sanctions for non-compliance).

DEFINITION OF A SECURITISATION

The main focus of the definition of a securitisation for the purpose of the Regulation and the CRR is that a securitisation is a transaction or scheme where the credit risk is **tranching**:

"securitisation" means a transaction or scheme, whereby the credit risk associated with an exposure or a pool of exposures is tranching, having all of the following characteristics:

- *payments in the transaction or scheme are dependent upon the performance of the exposure or of the pool of exposures;*
- *the subordination of tranches determines the distribution of losses during the ongoing life of the transaction or scheme;*
- *the transaction or scheme does not create exposures which possess all of the characteristics listed in Article 147(8) of Regulation (EU) No 575/2013."*

The definition is therefore very broad and is capable of capturing a wide range of arrangements. Whilst it applies to synthetic securitisations as well as true sale securitisations, the Regulation is written with true sale securitisations very much in mind. In addition, synthetic securitisations must comply with the criteria for credit risk mitigants set out in the CRR in order to generate regulatory capital relief.

CAPITAL FRAMEWORK

Given the broad definition of securitisation within EU legislation, it is likely that any of the structures considered in this paper will be considered to be securitisations if credit risk is tranching at any point in the structure, regardless of whether market or specific risk is or is not tranching at the same time. Therefore, it is assumed that any structure which has potential commercial traction will be a securitisation for the purposes of EU legislation. The SPR is intended to harmonise the capital treatment of securitisations across originators, arrangers and investors. Whilst it has relevance for originating MDBs and DFIs, it will also impact on any intermediary bank and also investors which are EU regulated financial institutions. The SPR provides for a hierarchy of approaches, depending on the sophistication of the capital modelling of the financial institution.

SEC-IRBA

This approach must be used where the following criteria are met:

1. There is sufficient information on the underlying pool of exposures to calculate the capital charge (KIRB) on the pool. As discussed above, the opacity of some MDB/DFI pools will mean that this test may not be met for all MDBs/DFIs.
2. The pool is an IRB pool, i.e. the MDB/DFI has permission or uses the IRB Approach under the CRR and therefore calculate its RWAs for all the exposures in the pool using IRB or, where the pool is mixed that KIRB can be determined to 95% or more of the pool. Again, this may prove problematic for some MDBs/DFIs which don't use IRB or have blind pools. The national regulator has not proscribed the use of SEC-IRBA because of a complex or risky feature in the structure.

There are a number of variables which are then applied – the attachment and detachment points of the tranches, the granularity of the pool, the weighted average loss given default, tranche seniority and maturity. Embedded in the model is a surcharge which covers the risks considered by the regulators to be intrinsic to a securitisation.

The result is used to determine the risk weights of the various tranches. Whilst this

will impact the investors (or any intermediary bank which is acquiring tranching risk from the MDB/DFI), it also impacts on the originator of the pool because the other component of the calculation is the amount of capital which would be held against the pool if it had not been securitised. This is done by taking the product of capital requirement of the securitisation exposure ($K_{SSFA}(K_{IRB})$) and 12.5.

The foregoing calculation only applies to those tranches which absorb losses above to the unsecuritised pool capital charge (e.g. the senior tranche). For those tranches which absorb losses below that (e.g. the junior tranche or first loss piece) the RWA will be 1250%.

The risk weights under the SEC-IRBA are subject to a floor of 15% (or 10% for simple, transparent and standardised ("STS") securitisations – see below).

SEC-SA

If the SEC-IRBA cannot be used, then the SEC-SA is to be used. This determines the capital requirement of the unsecuritised pool (KSA) using the Standardised Approach under the CRR. As the Standardised Approach is a simpler model, it will be the model used by those MDBs/DFIs who do not use the IRB Approach. It would also be in more widespread use by investors. Given that it is a simpler model, it will generate higher capital charges for securitisation positions than the SEC-IRBA. The result ($K_{SSFA}(KSA)$) is subject to the same multipliers on the tranches the same surcharge and the same floors as the SEC-IRBA.

SEC-ERBA

If an MDB/DFI or an investor in a tranche using the SEC-SA would have a result that

- Results in a risk weight of more than 25% for an STS tranche; or
- Results in risk weight higher than 25% or the use of the SEC-ERBA would result in a risk weight more than 75 of a non-STS tranche.

Then the SA-ERBA must be used. The SA-ERBA uses the seniority of the tranches, the tranche thicknesses, maturity and tranche ratings. Inferred ratings can be used where there are other rated tranches in the securitisations.

RE-SECURITISATION

Re-securitisation transactions (securitisation transactions where the underlying exposures include securitisation positions) are prohibited under the Securitisation Regulation (save for limited exceptions and with the approval of the relevant competent authority).

A re-securitisation is defined as a securitisation in which any one of the underlying exposures is a securitisation position. Therefore, to the extent the reference pool is already a securitised or tranchised position, there may only be a single tranche of Notes funding the purchase of, or participation in, the relevant assets.

RESTRICTIONS ON SELLING SECURITISATIONS TO RETAIL CLIENTS

Specific conditions will have to be met before a securitisation position can be sold to a retail investor. The Regulation contains suitability requirements for securitisation exposures sold to retail investors, as well as limits on the proportion of the portfolio that can be securitisation positions. Specifically, Article 3 of the Regulation limits the sale of securitisation positions to retail clients i) whose financial instrument portfolio does not exceed EUR 500,000; ii) who does not invest more than 10% (aggregate amount) of that financial instrument portfolio into securitisation positions; and iii) where the initial minimum amount invested into one or more securitisation positions is EUR 10,000.

These restrictions, alongside the Markets in Financial Instruments Directive II ("MIFID II") and Packaged Retail and Insurance-based Investment Products ("PRIIPS") regimes^v, means that originators, issuers and other parties involved in marketing and distribution will have to be very careful about the 'target market' for securitisations.

SUMMARY

The new regime which came into effect from the beginning of 2019, the effect was to raise the capital charges for securitisation positions. It also penalises granular and blind pools.

It does, however, generate advantages for originators and Investors which use the IRB approach under the CRR with comparable benefits for regulated entities which invest in securitisation tranches and use the IRB as opposed to the Standard Approach. That said, the SEC-SA and SEC-ERBA allow institutions using the less sophisticated approach under the CRR to engage in securitisations.

CORE OBLIGATIONS

The Regulation imposes a number of obligations on parties involved in a securitisation. The core requirements relate to transparency, credit quality criteria, due diligence and risk retention.

Article 7 of the Regulation imposes an obligation on originators, sponsors and SSPEs (i.e. SPVs) to disclose certain information to investors as well as the relevant regulator. These obligations apply to both public and private securitisations (although the specific disclosure obligations differ slightly). All transaction documentation (and not just the offering documents) must be disclosed "before pricing"^{vi}. A transaction summary must be prepared for private securitisation transactions and either quarterly or monthly reports, as well as event driven reports must be disclosed to investors and the regulator using the applicable standardised templates (although the UK Financial Conduct Authority ("FCA") has adopted a lighter touch approach in relation to disclosures to the FCA regarding private securitisations). For these purposes, the term "investor" also includes potential investors and the information must be published in a medium that meets the Regulation's standards (for public securitisations this means via a 'securitisation repository' (where available) or a website).

In accordance with Article 9 of the Regulation, the originator, the original lender (if different) and the sponsor must grant all credits (i.e. loans) giving rise to the underlying exposures on the basis of "sound and well defined criteria and clearly established processes for

^v Please refer to "Other EU Legislation" on page 41.

^{vi} The level of pre-closing disclosure to the regulator may differ from EU member state to member state.

approving, amending, renewing and financing those credits and have effective systems in place to apply those criteria and processes to ensure that credit granting is based on a thorough assessment of the borrower's creditworthiness ("Credit Granting Criteria"). Where the assets are acquired from a third party, Article 9 of the Regulation requires the originator to verify that the assets were granted pursuant to Credit Granting Criteria. Securitised assets should not be chosen such that they perform significantly worse than "comparable assets held on the balance sheet of the originator" over the life of the transaction.

The originator, original lender or sponsor (or multiple originators, multiple original lenders or multiple sponsors) (the "Retainers") are required to retain, on an ongoing basis, a 5% material net economic interest in the securitisation (the "Minimum Risk Retention Amount"). The regulation provides that the Minimum Risk Retention Amount can be held in the following ways:

1. **Vertical slice:** retention of at least 5 percent of the nominal value of each of the tranches;
2. **Revolving Assets originator interest:** retention of an interest in the revolving assets which is equal to at least 5 percent of the nominal value of the underlying assets
3. **Random Selection:** retention of an interest in randomly selected assets equal to at least 5 percent of the nominal value of the assets in the portfolio. Selection must be made from a pool comprising not less than 100 percent of the assets
4. **First loss tranche in securitisation:** retention of the most junior (subordinated) payment obligation in the transaction;
5. **First loss exposure:** retention of the first loss position in 5 percent of the underlying assets.

The Minimum Risk Retention Amount must not be split amongst different types of Retainers and must not be subject to credit risk mitigation or hedging. This is intended to ensure that the Retainer(s) have exposure to the risk and any losses incurred in relation to the performance

of the underlying assets ("skin in the game").

A Retainer is required to disclose certain information to investors and the regulator regarding the retention of the Minimum Risk Retention Amount.

The Regulation provides that the originator must not be an entity that has been established or operates for the "sole purpose" of securitising exposures. Rather, it must be an entity of substance with a broad business strategy, capital, assets, fees and income (disregarding any capital assets, fees and income from the securitisation transactions), and decision makers with the experience to pursue the broad business strategy (including appropriate corporate governance arrangements).

Furthermore, what is known as a "type (b)" originator must purchase a third party's assets "for its own account" before securitising such exposures. This requires the type (b) originator to own or be under a binding obligation to purchase the third-party assets (undefined) for a period before such assets can form part of the securitisation.

Article 5 imposes certain due diligence obligations on institutional investors. Broadly speaking, institutional investors must verify that various elements of the transaction comply with the requirements in the Regulation, including those relating to transparency, risk retention and the credit-granting process of the originator. Institutional investors are also required to have processes and procedures in place, which allows them to understand the risks associated with investing in securitisation transactions (including performing regular stress tests and reporting to the governing body). Ongoing compliance with the requirement in the Regulation must also be monitored.

The Regulation prohibits re-securitisations (i.e. the underlying exposures in a securitisation transaction must not include a securitisation position) and there are restrictions on marketing securitisation positions to retail investors.

Failure to comply with the requirements in the Regulation may result in the imposition of a fine, public censure or other regulatory scrutiny.

The Regulation also creates a specific framework for STS securitisations, which is aimed at making it easier for investors to understand and analyse the risks involved in a securitisation investment and affords better regulatory capital treatment to such exposures.

A different set of STS criteria apply depending on whether the transactions is asset-backed commercial paper or not. Non-performing loans, commercial mortgage-backed securities transactions and managed collateralised loan obligation transactions are not capable of being characterised as an STS. The originator and sponsor must notify the European Securities and Markets Authority and the national regulator if the securitisation transaction is to be an STS. Whilst originators and sponsors may engage a third-party verification agent to verify that the transaction meets the STS criteria, the originator and sponsor remain liable for compliance with the STS criteria. Furthermore, institutional investors still need to conduct their own due diligence on the transaction, regardless of its STS classification.

Apart from limited exceptions, synthetic securitisations do not currently benefit from the STS regime and therefore need to comply with higher regulatory capital charges than STS compliant securitisations. However, Article 45 of the Securitisation Regulation mandated the European Banking Authority (the "EBA") to publish a report on the feasibility of a specific STS framework for balance-sheet synthetic securitisations. By 2 January 2020, the European Commission is required to submit a report to the European Parliament and the Council of Europe on the criteria for a specific framework for STS synthetic securitisations, albeit these are limited to balance sheet synthetic securitisations, together this a legislative proposal if appropriate.

At the end of 2015, the EBA submitted a report to the European Commission on synthetic securitisations. The report acknowledged that synthetic transactions that are used by credit institutions to transfer the credit risk of their lending activity off-balance sheet (i.e. balance

sheet synthetics) have performed relatively well in the market. On this basis, the EBA advised the European Commission to extend preferred regulatory capital treatment to senior retained tranches of synthetic transactions, if specific criteria are satisfied. In this regard, it stated that, among other things, the synthetic securitisation would need to be comprised of fully cash-funded credit protection provided by private investors in the form of cash deposited with the originator institution.

On 24 September 2019, the EBA published a discussion paper on its proposals for an STS framework for synthetic securitisation (the "Discussion Paper"). The EBA recommended that, for any synthetic securitisation to be eligible as "STS" synthetic securitisation, it should comply with (i) the current criteria on simplicity, standardisation and transparency as set out in the Regulation, as adapted for the specificities of synthetic securitisations; and (ii) additional criteria specific to synthetic securitisations such as those on mitigating counterparty credit risk, including on eligible protection contracts, counterparties and collateral; those addressing various structural features of the securitisation transaction; and those ensuring that the framework only targets balance sheet synthetic securitisation.

The Discussion Paper also examines the rationale of the STS synthetic product and assesses positive and negative implications of its possible creation and the application of the label "STS".

Finally, the Discussion Paper provides an analysis of the possible introduction of a limited and clearly defined differentiated regulatory treatment for STS synthetic securitisations.

The public consultation will be open until 25 November 2019. A public hearing was held at the EBA's offices on 9 October 2019. It is expected that the EBA will deliver its recommendations to the European Commission by June 2020.

SYNTHETIC SECURITISATIONS

As mentioned above, synthetic securitisations must not only comply with the SPR and the Regulation but must also meet the criteria for credit risk mitigants set out in the CRR.

The CRR sets out eligibility criteria for the recognition of credit risk mitigants for capital relief purposes generally and then supplements these with specific criteria for certain types of mitigants. In the context of synthetic securitisation the specific criteria are those for unfunded credit protection, funded credit protection and the eligibility of collateral.

For unfunded credit protection, the credit protection provider must be an eligible protection provider as specified in the CRR. Banks are eligible providers of unfunded credit protection (although the amount of capital relief that they provide is limited to their risk weighting – effectively substituting the risk weight of the eligible protection provider for that of the protected exposures). SPVs are not eligible protection providers. However, the credit protection that they provide will be recognised where the exposure of the protection buyer to the SPV is collateralised with eligible collateral, treated in accordance with the CRR. If the CRR criteria for eligible collateral is met, then the risk weighting of the collateral may be applied in substitution for the risk weights of the exposures in the securitised pool.

In circumstances where the collateral is held by the protection buyer, then the credit protection can be treated as funded credit protection provided the requirements for funded credit protection are met and the risk weighting of the pool reduced to the extent of the funding. However, as discussed above, that may result in the funding provider acquiring an exposure to the funded credit protection buyer to the extent of the funding.

The CRR expressly contemplates the use of guarantees as unfunded credit protection. It also recognises credit derivatives in the form of:

- Credit default swaps;
- Total return swaps; and
- Cash funded CLNs.

Interestingly, the CRR does not treat sub-participations as credit risk mitigants in the context of securitisations. Instead, it defines a 'traditional securitisation' as:

"a securitisation involving the economic transfer of the exposures being securitised. This shall be accomplished by the transfer of ownership of the securitised exposures from the originator institution to an SSPE or through sub-participation by an SSPE."

For these purposes, an SSPE is a SPV in a securitisation. Whilst sub-participations have legal mechanic analogous to funded/unfunded credit risk mitigants, the implication is that they should be treated as traditional or true sale securitisations for the purposes of the CRR and the Regulation.

SYNTHETIC SECURITISATIONS AND TRUE SALE

In relation to a traditional securitisation, the term "true-sale" is used to describe a sale of the assets being securitised in a manner that ensures their isolation from the insolvency of the originator. Under English law, a sale may be by way of assignment (legal or equitable), declaration of trust or novation.

Alternative mechanisms to a true sale that may be encountered under English law are subrogation of rights against the receivables debtors, subparticipation of rights against the debtors, or a limited recourse loan with security over the cash-flows.

Where a true sale is used, advice will be sought from legal counsel that, given certain assumptions, there is no circumstance in which a liquidator or creditor of the originator could seek to unwind the transaction and claim that the receivables are available to the general creditors of the originator, leaving the purchaser (the SPV) to sue for return of the purchase price.

For the alternative mechanisms to true sale such as the synthetic structure outlined in 3.1.1, a similar analysis will need to be performed to ensure that an insolvency of the originator would not prejudice the SPV and in any event, the credit rating of the transaction wouldn't be able to exceed the rating of the originator (unless the risk is wrapped by a higher rated entity).

OTHER EU LEGISLATION

Whilst much of the EU legislation applicable to securitisations is to be found in the CRR and the Regulation, there is a large amount of ancillary legislation which is applicable to the structuring of securitisations and the marketing, sales and holding of securitisation tranches. Whilst an analysis of this legislation is beyond the scope of this paper, such EU legislation includes:

The European Market Infrastructure Regulation (EU) No 648/2012, amended by Regulation (EU) No 2019/834 ("EMIR"). EMIR imposes requirements to improve transparency and reduce the risks associated with the derivatives market.

Prospectus Regulation (EU) 2017/1129, sets out the requirements for the drawing up, approval and distribution of a prospectus and its content, format, approval and publication when securities are offered to the public or admitted to trading on a regulated market situated or operating within a Member State.

Transparency Directive 2004/109/EC, amended by Directive 2010/73/EU and Directive 2013/50/EU. The Transparency Directive provides for the harmonisation of transparency requirements across the EU by requiring issuers of securities admitted to trading on a regulated market to disclose a minimum level of information to the public.

Market Abuse Regulation (EU) No 596/2014, establishes a new, common regulatory framework on market abuse, as well as measures to prevent market abuse to ensure the integrity of the EU financial markets and enhance investor protection and confidence in those markets

Credit Rating Agencies Regulation (EC) No 1060/2009, introduces a common regulatory approach in order to enhance the integrity, transparency, responsibility, good governance and reliability of credit rating activities, contributing to the quality of credit ratings issued in the Community, thereby contributing to the smooth functioning of the internal market while achieving a high level of consumer and investor protection. It lays down conditions for the issuing of credit ratings and rules on the organisation and conduct of credit rating agencies to promote their independence and the avoidance of conflicts of interest.

MiFID II (2014/65/EU) and Markets in Financial Instruments Regulation ("MiFIR") (600/2014/

EU). MiFID II is the framework for investment intermediaries that provide services to clients around shares, bonds, units in collective investment schemes and derivatives, and the organised trading of financial instruments. MiFIR contains standards and requirements for trading platforms and investment firms, their systems as well as their trading processes.

PRIPs Regulation (EU) No 1286/2014, sets out uniform rules on the format and content of the key information document to be drawn up by PRIIP manufacturers and on the provision of the key information document to retail investors in order to enable retail investors to understand and compare the key features and risks of the PRIIP.

Benchmark Regulation (EU) 2016/1011, regulates the production, contribution and use of benchmarks in order to ensure that benchmarks are not subject to conflicts of interest, are used appropriately and reflect the actual market or economic reality they are intended to measure.

07

THE SDC FRAMEWORK: A BLUEPRINT

The purpose of this section is to provide a high-level blueprint for the process through which synthetic securitisation can be used to transfer exposure from the balance sheets of DFIs and MDBs to private capital markets through the issuance of bond-like structured notes.

7.1. OBJECTIVES AND THE DATA ISSUE

7.1.1. Scope of the Exercise, Limitations, and Assumptions

The objective is to illustrate the concepts underpinning, and the dynamics affecting, the model, rather than to arrive at precise quantitative outputs. The quantum of (a) the regulatory capital relief made available to the DFI or MDB, (b) the risk transferred to the investors, and (c) the returns made available to them will evidently be specific to each issue.

This section is not a depiction of a specific transaction. The absence of any officially shared or publicly available data means that it is not possible to provide a precise quantitative illustration as part of this paper. The main purpose is therefore to illustrate the mechanics of the SDC issuance process, rather than the attractiveness of a specific transaction, or to give guidance to what the terms of transactions should be.

This paper would be remiss not to point out the barriers presented by the scarcity of publicly available data on the performance of the investments made by DFIs and MDBs. This constitutes a significant hurdle to any modelling efforts conducive to the creation of a replicable securitisation model, and more importantly to the scalable mobilisation of private capital.

A number of simplifying assumptions have been made, and for example the dynamics linked to amortisation, including the introduction of non-call period and clean-up call clauses have been excluded from the high level model.

7.1.2. Hidden GEMS and the Challenge of a Lack of Transparency

This paper would be remiss not to point out the barriers presented by the scarcity of publicly available data on the performance of the investments made by DFIs and MDBs. This constitutes a significant hurdle to any modelling efforts conducive to the creation of a replicable securitisation model, and more importantly to the scalable mobilisation of private capital. Whilst allowances can be made for the lack of time available to DFI and MDB teams to entertain requests for data, the fact is that some of this data is available as part of the GEMS database many of these institutions contribute to. The GEMS database is currently not accessible, even for research purposes.

Given that the database is the result of the aggregation of contributions from numerous publicly funded institutions, it seems anomalous that the content of this database should not be accessible to the public for non-commercial pursuits.

7.2. BUILDING THE SDCS

7.2.1. The Portfolio

At the beginning of each transaction, the reference portfolio needs to be identified by the DFI or MDB and the SDC issuing entity. The following points are not intended to be prescriptive, but rather general principles that apply:

- A diversified portfolio displaying as low a level of inter-instrument correlation as possible is preferable
- Loans should be performing
- Where possible, maturities and amortisation profiles should be selected to match the maturity of the proposed SDC instrument to maintain constant exposure

7.2.2. VAR and ECL

The risk loss of the loan portfolio can be expressed as Value at Risk (“VaR”) given a time horizon (one year) and a confidence level (“CL”) usually presented as 95%, 99%, or 99.9%. What this means is that there is a 1-CL probability of the portfolio incurring a loss greater than VaR over a one-year horizon.

The VaR in turn is decomposed as follows:

$$VaR = Expected\ Loss + Unexpected\ Loss$$

Where: $Expected\ loss = \sum_i^n PD * LGD * Asset\ Value$

With: $PD = Probability\ of\ Default$
 $LGD = Loss\ Given\ Default$
 For asset i where i ranges from 1 to n

And: $Unexpected\ Loss = \sqrt{\sum_i \sum_j \rho_{ij} w_i w_j UL_i UL_j}$

With: assuming a constant correlation matrix for assets i to j
 ρ_{ij} = correlation of default between individual assets i and j
 UL_i = Unexpected loss of individual asset
 w_i : Portfolio weight of individual asset

And: $UL_i = Asset\ Value_i * \sqrt{PD_i^2 * \sigma^2_{LGD_i} + LGD_i^2 * \sigma^2_{PD_i}}$

With: $\sigma^2_{LGD_i}$ = variance of Loss Given Default for asset i
 $\sigma^2_{PD_i}$ = variance of Probability of Default for asset i

The unexpected loss reflects potential losses that are likely not to be predicted. It is as is illustrated above dependent on the level of correlation between the individual loans.

Importantly for the purpose of this exercise, whether for economic capital or regulatory capital calculations, the risk weight (“RW”) of each asset is a function of its contribution to the portfolio’s VaR. Economic capital calculations would use internal simulation models, whilst regulatory capital calculations use prescribed risk weights calculated through the supervisory formula in the Basel III framework. The spirit is however aligned to the VaR approach.

The IFRS 9 allowance for Expected Credit Losses (“ECL”) is equivalent to the Expected Loss (“EL”), with a time horizon of 12 months. It should however be noted that for compliance to IFRS 9, DFIs and MDBs are required to adjust their calculation for allowances made for ECL, to be equal to the Current Expected Credit Losses (“CECL”). This in effect means adding a dependency on the probability of default over a lifetime (beyond 12-month horizon).

These considerations have important implications for the following steps of the SDC process.

7.2.3. Waterfall and Portfolio Tranches

The next step is to create a portfolio waterfall of interest payments. This is essentially looking at all the cash flows associated with the loans in the portfolio and re-organising them by order of risk. This delivers a portfolio spectrum that has a 'senior' end where the most reliable interest payments are concentrated and a 'junior' end where the riskiest of cash flows reside.

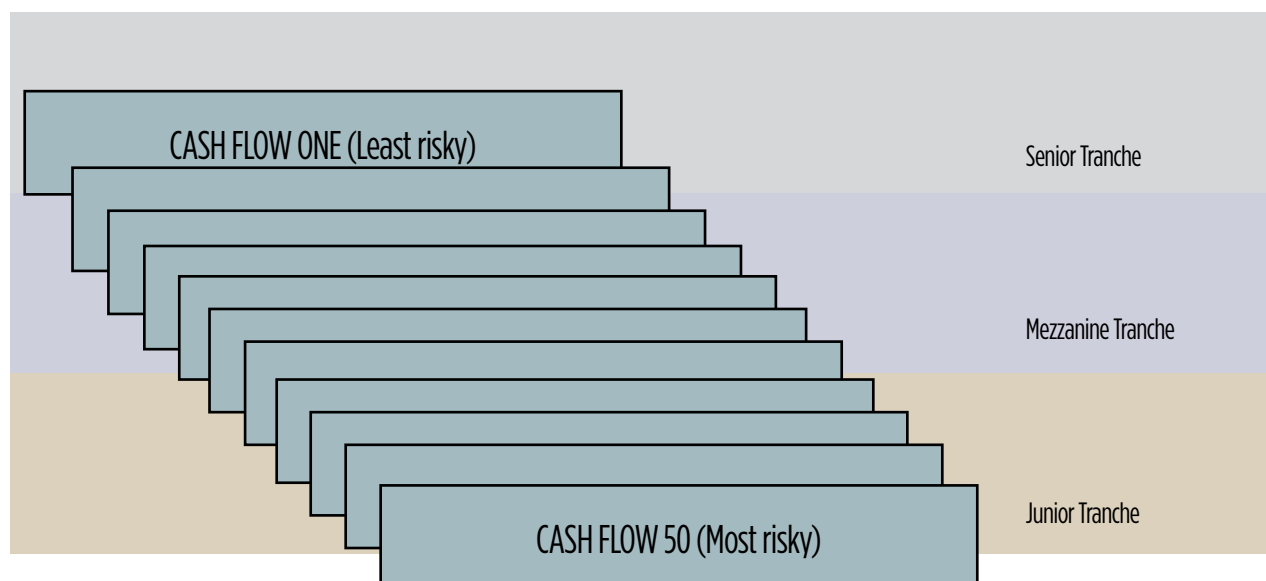


Figure 8 – Cash Flow Waterfall

As shown by *Figure 8* above, the portfolio can then be sliced into tranches displaying different characteristics. The thickness of a tranche is the size of that tranche expressed as a percentage. The beginning of such a tranche (its 'riskiest' end) is referred to as its 'attachment point', and the end of the tranche as its 'detachment point'. The yield of each tranche, in the absence of arbitrage, is determined by the interest payments of which it is comprised.

The riskiest of interest payments can thus be carved into a 'junior' tranche. Its attachment point is zero, and its thickness, and therefore its detachment point can be defined to cover most, or all, of the EL defined above. The DFI or MDB will usually retain that tranche, for which it will typically have made allowances or provisions in accordance, for example and where relevant, with IFRS 9 requirements.

The following tranche, referred to as the 'mezzanine' tranche, will be defined to concentrate most of the risk associated with the UL defined above. This is the tranche that would typically be the focus of the securitisation exercise and be synthetically transferred to investors via the use of the SDC Framework.

The senior tranche, encompassing the highest credit quality payments and the lowest risks, would typically be retained by the DFI or MDB.

Figure 9 below provides an illustration of the loan portfolio distributions across the tranches. In particular, it provides visual evidence of how these losses are concentrated across the junior and SDC mezzanine tranches, making the relatively 'thick' senior tranche a high-quality residual asset for the DFI or MDB to retain.

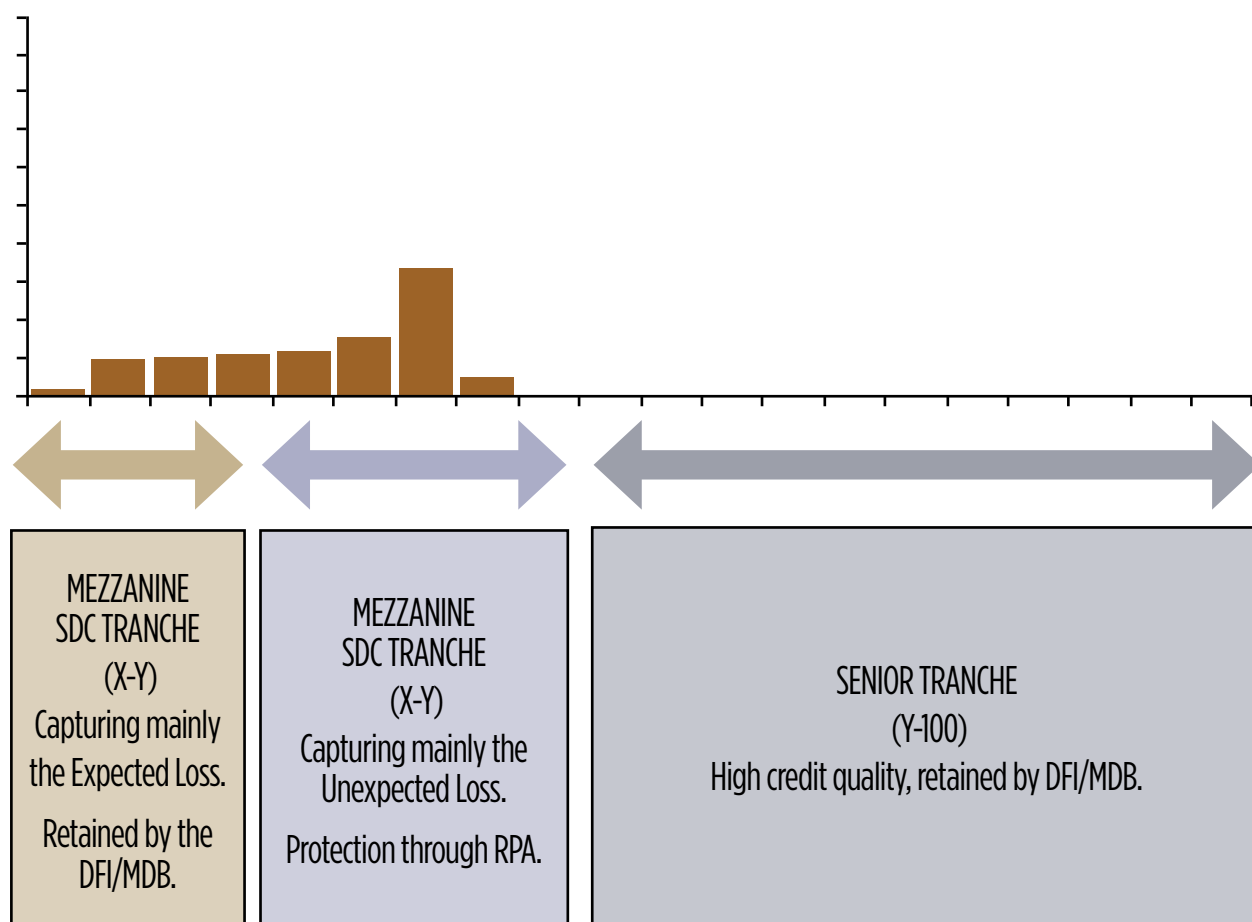


Figure 9 – Loan Portfolio Loss Distribution

Default Correlation

The high default correlation associated with a poorly diversified portfolio increases the total VAR of the portfolio, which results in increased loss frequency in the junior tranche and senior tranche. This could be interpreted as higher EL and higher UL and is not beneficial for the protection buyer of the SDC mezzanine tranche as it creates large tails.

Loss Given Default

Loss given default (“LGD”) is the first order risk of the portfolio as it reflects the potential loss of each asset upon default. A higher weighted average LGD evidently implies a higher risk of the portfolio, therefore a higher VaR.

A higher weighted average LGD increases the larger tails for the loss distribution in the senior tranche. This in addition results in a higher cost of carry in the senior tranche. A higher weighted average LGD spreads the loss frequency from the junior tranches to senior tranches. This is not beneficial for the protection buyer of the SDC mezzanine tranche.

7.3. ISSUING THE SDC

The SDC Framework is comprised of two legs; the Issuance Leg and the Securitisation Leg.

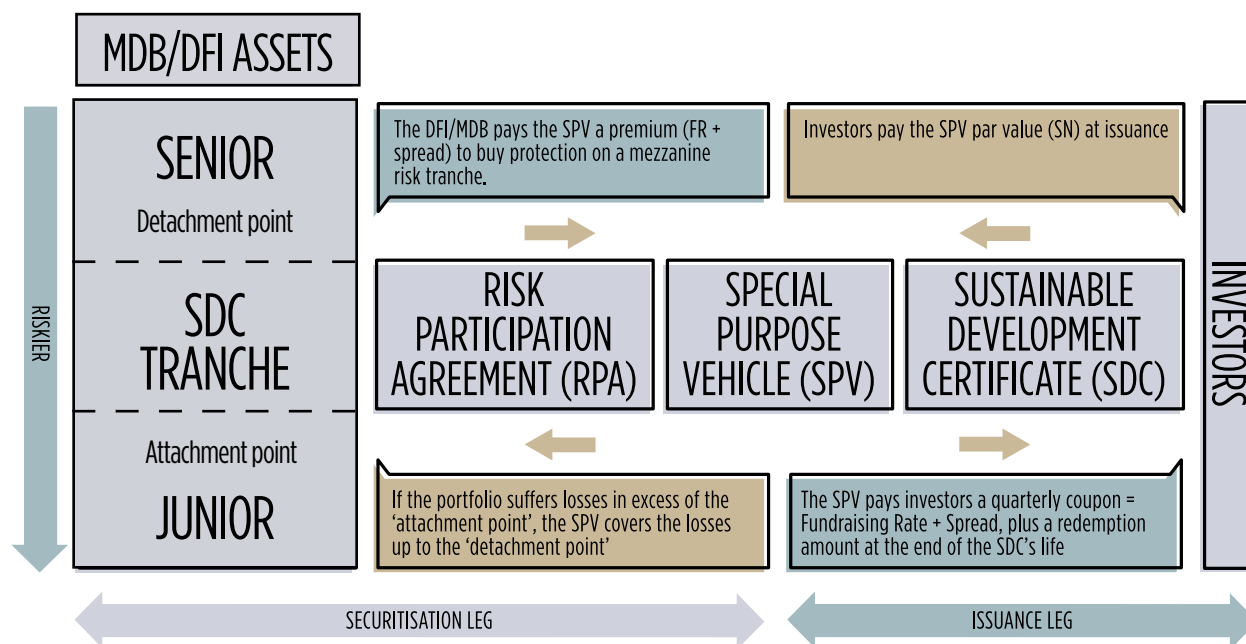


Figure 10 – SDC Framework Overview

Once the SDC mezzanine tranche is defined, an RPA can be drafted, providing the operational and legal framework for the synthetic securitisation transaction between the DFI or MDB and an SPV as structured by an investment bank. This is the Securitisation Leg of the SDC Framework.

7.3.1. The Securitisation Leg

As described in *Chapter 3*, the Securitisation Leg of the SDC Framework is engineered to transfer the credit risk of a tranche of the portfolio from the DFI or MDB's balance sheet. This is done through a fully collateralised RPA.

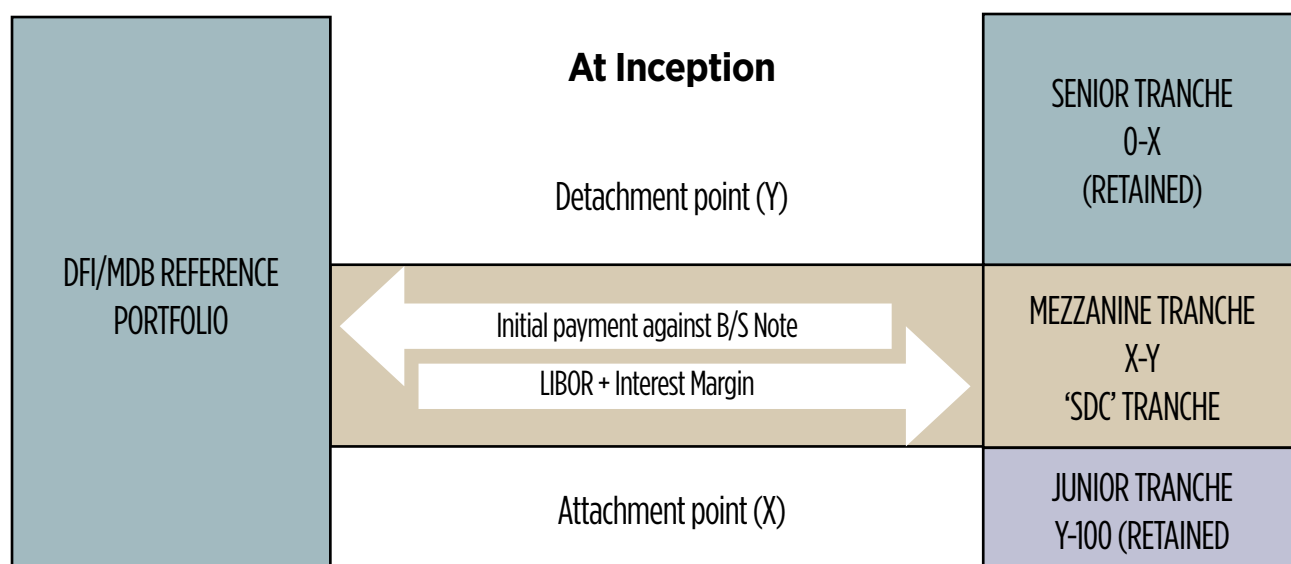


Figure 11 – RPA at Inception

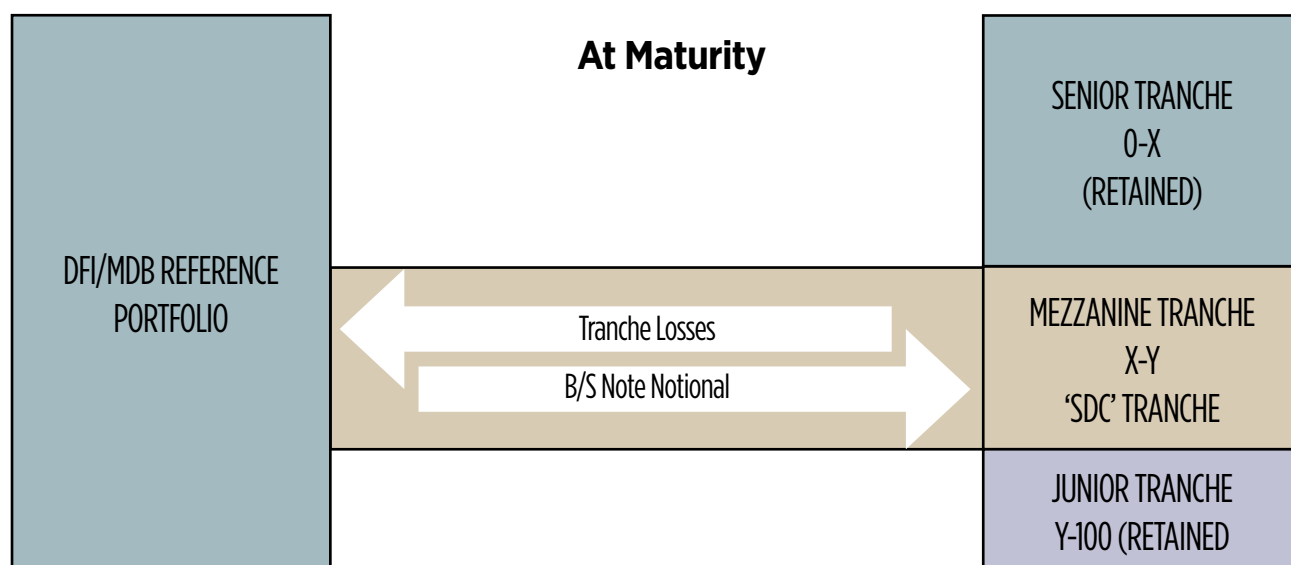


Figure 12 – RPA at Maturity

07 The SDC framework: a blueprint

This will be specific to each individual transaction, but, besides the static characteristics of the RPA (nominal size, duration, coupon payment periodicity etc) the following characteristics are important:

- To address the counterparty risk faced by the DFI or MDB and maximise the capital relief impact of the transaction, the RPA is fully collateralised at inception.
- Taking inspiration from previous transactions, this could be done through the purchase by the SPV of a 'balance sheet note' issued by the DFI or MDB on which the SPV in turn provides the DFI or MDB with surety.
- This in turn means that the DFI or MDB will pay the SPV a funding rate plus a spread over LIBOR.
- The SPV will hold two positions: the balance sheet note and the RPA
- Throughout the life of the SDC, some loans may default, thereby reducing the 'performing' part of the tranche.

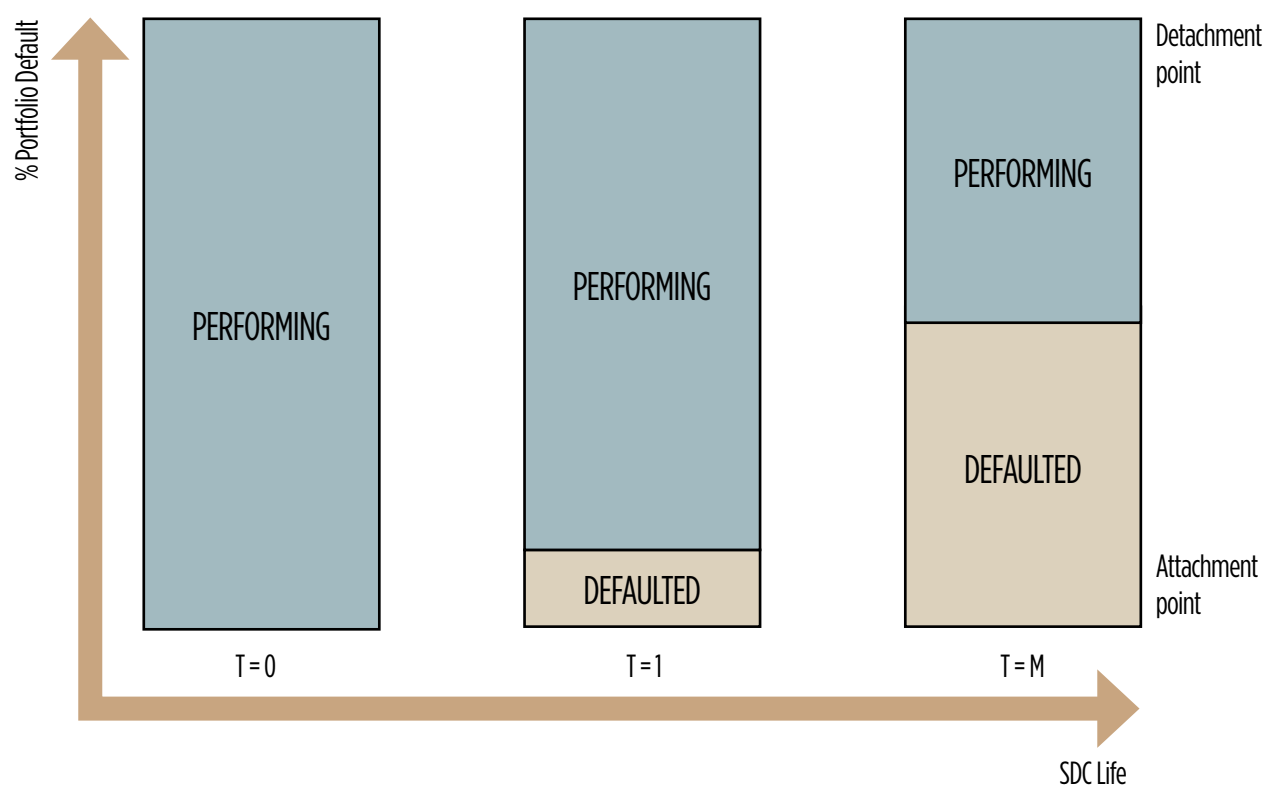


Figure 13 – Tranche Performance Over Time

The spread is periodically calculated as:

Spread = Fixed Coupon $\times ((\text{Min}(\text{Max}(\text{Performing}, 0), \text{Tranche Thickness})) / (\text{Tranche Thickness}))$

Where:

Tranche Thickness = Detachment Point – Attachment Point

At the end of the SDC's life, the balance sheet note is redeemed and the DFI or MDB receives a payment to compensate for the 'defaulted' part of the tranche. The SPV therefore receives a redemption amount equal to:

Redemption Amount = Minimum($R + N_p$, N)

Where:

R = Sum of Recovery Values of Defaulted Assets

N_p = Sum of outstanding Notional of Performing Assets

N = Notional initially posted as collateral

Cost benefit analysis for the DFI or MDB: RAROC

The Risk Adjusted Return on Capital ("RAROC") is calculated as:

$RAROC = (PTI - ECL) / (\text{Capital charge})$

Where:

PTI = Pre-Tax Income – Revenues – cost of debt – operating costs

ECL = Expected Credit Loss as per IFRS 9

Capital charge = calculated as a function of Risk Weighted Assets

The synthetic Securitisation Leg effectively reduces the capital charge at the expense of the PTI. The capital charge is reduced as a result of the reduction of risk weighted assets, and the PTI is increased by the spread paid out to the protection seller. The resulting change to the RAROC illustrates the enhanced profitability.

Given the assets are synthetically pooled, the diversification factor allows a greater concentration of risk by tranches (following the waterfall logic) without affecting the exposure on an asset by asset basis, and consequently the margin of the loan portfolio. The DFI or MDB is therefore able to achieve a greater reduction of risk at a proportionally lower margin and maintain the size of its balance sheet.

DFIs and MDBs could develop risk taxonomy by asset maturity (development, construction, operation/termination) and risk type (political/contractual, macro-economic, technical), which could provide ground for pre-securitisation risk hedging, better articulation, and embedding of its risk appetite, and a more precise calibration of revenue margins generated by assets to investor demand.

7.3.2. The Issuance Leg

‘Vanilla Scenario’

Having established the terms of the RPA with the DFI or MDB, the SPV proceeds to issue structured notes, i.e. the SDCs, to investors. This is done either directly to institutional investors and fund managers, or through distribution channels such as private banks.

The notional amount raised through the issue, minus the costs of issuance, constitutes the notional amount available for the RPA.

On a quarterly basis, the spread payment from the RPA and the funding rate payment from the balance sheet note are received from the DFI or MDB and passed on to the investors, minus the costs of running the SPV.

At the end of the SCD's life, the ‘Redemption Amount’ is equally passed on to the investors minus any residual costs associated with the operations of the SPV.

Toning it Down a Notch

The return from such an SDC can be nominally attractive, but the risk is as described that of a specific tranche of the portfolio which, whilst buffered by the super-junior tranche retained by the DFI or MDB, contains a concentration of unexpected losses.

The risk/return profile of the SDC structured notes can be modulated by only allocating part of the funds raised to the RPA. For example, a balance sheet note can be purchased for 100% of the funds raised net of issuance costs, but the notional amount of the RPA can be set as only 75% of the funds raised net of issuance costs.

This effectively results in an ‘over-collateralised’ situation, and a significantly lower risk/return profile.

This would however prove insufficient in most cases for the SDCs to achieve an investment grade credit rating and therefore become investable by a large universe of institutional investors. To achieve an investment grade credit rating, or to avoid the dilution associated with the over-collateralisation scenario described above, a blended finance approach is likely to prove necessary. This is the subject of the next chapter.

Simplified Example SDC Term Sheet:

Issuer:	Bank A SPV Ltd
Maturity:	5 Years
Settlement Date:	1 February 2020
Maturity Date:	31 January 2025
Specified denomination:	USD 1000
Offer price:	USD 1000
Coupon periodicity:	Quarterly
Coupon:	3M LIBOR + X % on performing notional outstanding at payment date
Redemption amount:	Redemption amount as described above
Listing:	XYZ Stock Exchange

08

CREDIT ENHANCEMENT: APPLY A DOSE OF BLENDED FINANCE

The SDC Framework lends itself particularly well to the use of blended finance tools with directly observable and measurable outcomes. This is a credit enhancement and mitigation mechanism that can be applied either to the Securitisation Leg or to the Issuance Leg of the framework.

8.1. WHERE TO APPLY

8.1.1. The Securitisation Leg

As illustrated by the Room2Run transaction, concessional capital can facilitate the transaction by providing credit protection on a tranche of the portfolio. In the Room2Run case, the European Commission is providing such protection on concessionary terms on a tranche senior to the tranche protected by private investors. It thereby renders the transaction more financially attractive to the AfDB, and crucially provides a buffer against any changes in the S&P methodology that might affect the rating

of the resulting portfolio. This route could be used in the context of the SDC Framework.

Alternative scenarios could see a provider of blended finance concessionary capital (see below):

- **Scenario 1:** Providing credit protection on a tranche junior to the SDC tranche, thereby further buffering investors against portfolio losses and reducing the risk/return profile of the SDC.
- **Scenario 2:** Providing credit protection on a portion of the SDC tranche alongside SDC investors, but at concessionary pricing, thereby either reducing the cost to the DFI or MDB or allowing for enhanced returns for SDC investors.

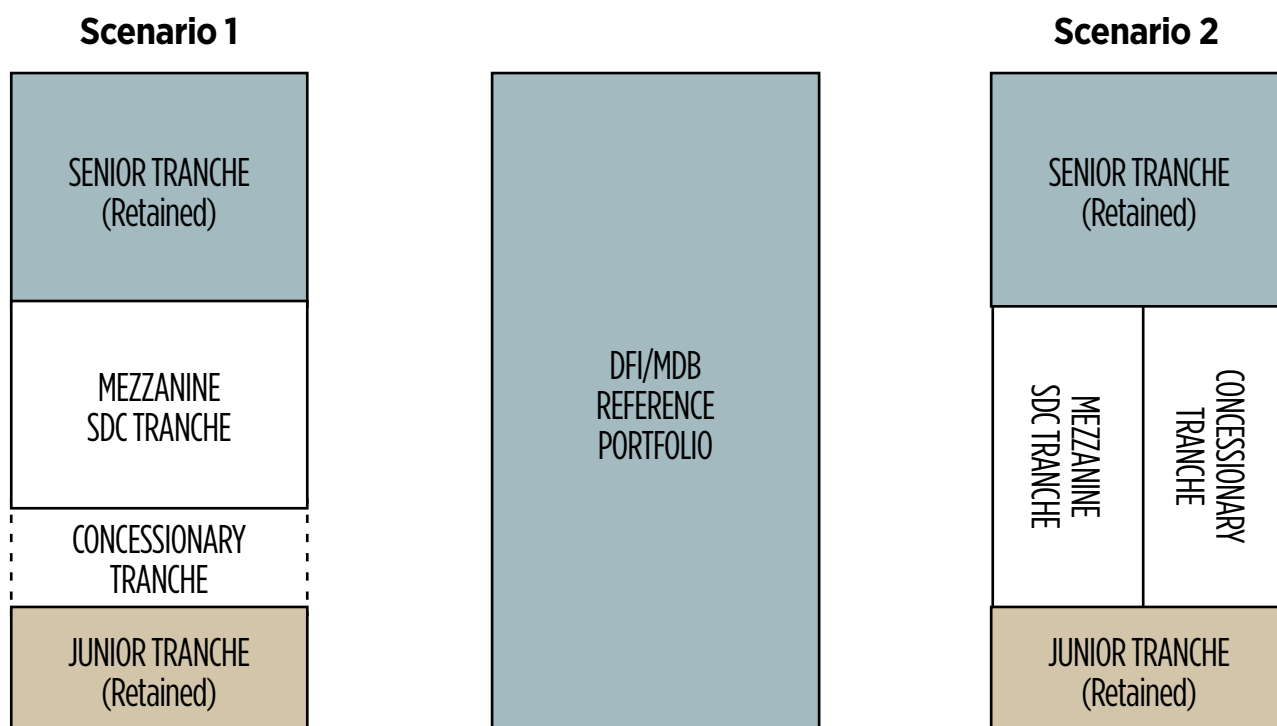


Figure 14 – Blended Finance Possibilities

Beyond the EC's role in the Room2Run transaction, *Case Study 4* below offers evidence that other multilateral institutions have first-hand experience of providing tranche-based credit protection.

CASE STUDY 4:

IFC DEVELOPING COUNTRY SYNTHETIC SECURITISATION RISK TRANSFER

The IFC's Synthetic Securitisation/Reg-Cap Trade provided credit-risk protection to Crédit Agricole Corporate and Investment Bank, involving clients in developing countries. In March 2018 the IFC provided US\$85 million credit risk protection on a US\$2 billion portfolio of Crédit Agricole CIB's emerging market trade finance and corporate loans. In this synthetic risk transfer, Crédit Agricole CIB was committed to using freed-up capital to make US\$510 million of what it terms as 'Social Loans' in emerging markets, which are in compliance with the Social Bond Principles 2017. Crédit Agricole says it will grant pricing reductions to potential borrowers if it does not achieve its target of US\$510 million additional social lending within two years.



8.1.2. The Issuance Leg

There are two primary routes whereby blended finance elements could be introduced in the issuance of the SDCs.

Route 1 – Multiple Notes Issuance

It has thus far been assumed that the SPV only issues one class of structured notes, i.e. the SDCs, to investors. It is however usual for securitisation vehicles to issue notes of different levels of seniority. For the purpose of the SDC Framework, the SPV could therefore in addition issue junior notes, effectively acting as a first loss protection benefiting the investors who hold the senior SDC notes. The interest payments made to the holders of the junior notes would as a result in turn reduce the returns of the SDCs. This particular solution cannot however be implemented in the European Union, as it will fall within the scope of the Regulation's re-securitisation rule, as described in *Chapter 6*.

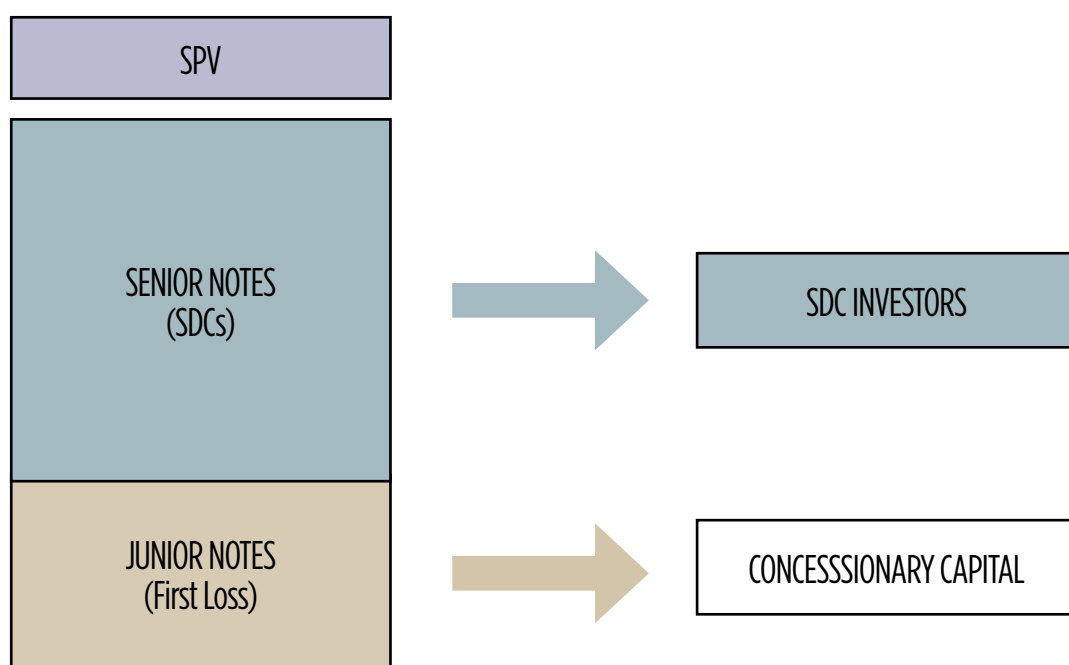


Figure 15 – Multiple Notes Issuance

There are a handful of transactional examples of securitisation vehicles issuing different classes of notes. For example, *Case Studies 5 and 6* below highlight securitisations that focus on developing country assets. Both are transactions where it is envisaged that multiple providers of concessionary capital will be involved as investors, most likely in the more junior tranches.

CASE STUDY 5:

MULTI TRANCHE EMERGING MARKETS SECURITISATION

In July 2019, OPIC announced an involvement in a US\$175 million blended finance emerging market loans securitisation transaction in Armenia. OPIC were the key investor, providing the catalytic capital necessary to mobilise the private institutional investment in the blended finance vehicle – which was a securitisation of loans to SME-finance institutions in emerging markets. The proceeds will be used to fund financial intermediaries providing capital to 30 000 small businesses and 5.6 million microfinance borrowers, 81% of the whom are women. Denominated in US\$ and with an expected maturity of three years, the securitisation provides investors a choice of three different risk return profiles (senior, mezzanine, and junior) in a listed, transferable bond format. The senior and mezzanine notes earn fixed interest rates and junior note returns will depend on performance of the underlying loan portfolio. Other key investors include Alecta and Calvert Impact Capital. Responsibility Investments AG is the originator and servicer of the loan portfolio.

CASE STUDY 6:

MULTI TRANCHE GREEN SECURITISATION

Albion Capital is a boutique which completed in July 2019 an asset-backed securitisation of a receivables fund in Brazil (the 'Green FIDC'). The Green FIDC mechanism raises funding for projects in two stages. First, capital is raised in a mezzanine tranche from public funders, such as MDBs, to finance the construction and development of green projects. Then, once underlying projects are operational, they are refinanced through the issuance of senior tranches in the Brazilian capital markets to local private sector investors. In this way, the Green FIDC's disintermediates access of green projects to Brazilian capital markets, which can reduce the cost of capital and facilitate long-term financing. A pilot Green FIDC in the residential solar market has been progressing successfully, and Albion and CPI have a project pipeline of close to BRL1 billion. Other Participants were the Climate Policy Initiative and Convergence is funding the research, structuring, and fundraising activities required to bring renewable energy/energy efficiency projects to the Brazilian capital markets.

Route 2 – Guarantees

The second route is for a provider of concessionary funding to provide a guarantee to the holders of the SDCs, for example expressed as a percentage of the notional value of the SDCs and calculated to attain a specific credit rating or otherwise determined according to investor requirements. There is a growing catalogue of facilities that could potentially provide such guarantees.

Blended finance transactions should be structured with policy and regulatory conditions in mind. Considerations around policy and regulation are particularly important for certain institutional investor segments, like commercial banks.

Blended finance transactions should be structured with policy and regulatory conditions in mind. Considerations around policy and regulation are particularly important for certain institutional investor segments, like commercial banks. Consequently, it should be noted that guarantees have the potential to catalyse private sector financing to development projects only to the extent that their structuring and enforceability is aligned with financial markets regulation.

The challenges of structuring optimal guarantees are not the focus of this paper. This topic is comprehensively discussed in the Milken Institute's April 2018 report entitled 'Guaranteeing the Goals: Adapting Public Sector Guarantees to Unlock Blended Financing for United Nations' Sustainable Development Goals'.

The report highlights the view that guarantees are the most effective leveraging instruments in the development finance system. They resulted in 45% of all private capital mobilisation while representing only 5% of development finance commitments. However, when analysing the

guarantee and insurance products of major guarantee providers it was revealed that that approximately half of their agreements are not structured to maximise the mobilisation of private capital. With improvements in terms of best practice standards, harmonisation, and enhanced regulatory treatment, a strong case can be made that guarantees could have the biggest impact of any instrument in the blended arena.

8.2. WHO TO APPLY TO?

Some of the main institutions, with programmes that could be utilised in this instance to potentially provide protection on concessionary terms for an SDC-type proposition, are highlighted below. This list is not intended to be exhaustive, and does not include entities such as Convergence who, whilst not having an official programme, could be integral to many initiatives such as this in the blended finance arena. It should be noted that synthetic securitisation is a relatively new concept to the world of development finance and consequently few of the below institutions have a track record of protection in this regard.

Nonetheless, likely players include:

- The **World Bank's IDA Private Sector Window**, which became operational in July 2017, is a development finance tool to crowd-in more private sector investment. It is implemented through four facilities, three of which relate to risk mitigation instruments (i) the Risk Mitigation Facility to provide project-based guarantees focusing on infrastructure or public-private partnership projects without sovereign backing, (ii) the Multilateral Investment Guarantee Agency ("MIGA") a guarantee facility to expand coverage of MIGA guarantees through shared first-loss and risk participation, (iii) a blended finance Facility to mitigate financial risks by providing loans, equity, and guarantees to pioneering IFC investments across sectors with high development impact and positive externalities. The US\$2.5 billion allocation from IDA-18 for IFC and MIGA will rebalance the risk-reward profile for private sector projects in the poorest countries eligible to borrow from the IDA, and fragile and conflict-affected situations.

- The **EU External Investment Plan** aims to increase private investment in Africa and the EU neighbourhood, the main vehicle being the European Fund for Sustainable Development. Through the provision of new guarantees and blending loans and grants, it aims to foster investment and attract private investors into junior tranches in a catalytic manner, and to be part of the process of encouraging investors and rating agencies to refine their approaches to relevant regional assets over time. The Room2Run transaction, referred to previously, is the main relevant example.
- The **United States Agency for International Development (“USAID”)**, through the Development Credit Authority (“DCA”) and using credit guarantees, provides credit for any development purpose specified by the Foreign Assistance Act. Partial guarantees cover up to 50% of risk lending to projects that advance USAID objectives of catalysing the private sector in developing countries.
- Also in the US, **OPIC (soon to become the DFC)**, has previously announced a willingness to provide political risk insurance products designed to enhance bonds, including securitisations.
- The **Swedish International Development Cooperation Agency (“Sida”)** is another agency that deploys partial credit guarantees as just one of many tools for engaging the private sector in sustainable development. In the IFC’s Managed Co-Lending Portfolio Program (“MCLPP”) the IFC is providing credit enhancement through a first-loss tranche. To make this happen, IFC partnered with the Sida who in turn provided a guarantee on a portion of IFC’s first loss, which improved the risk-return profile of IFC’s investment.

09

CONCLUSION

The combination of securitisation and structured notes issuance can play a key role in building the necessary bridge between the development finance system and capital markets.

The building blocks are already in existence; existing legal frameworks and financial structuring techniques can be leveraged on, and the Room2Run transaction has demonstrated that there is common ground to be found.

The SDC Framework, or any iteration thereof, has the potential to combine the unique expertise of DFIs and MDBs with the power of banking institutions and capital markets, allowing each stakeholder to focus on their strengths.

The SDC Framework, or any iteration thereof, has the potential to combine the unique expertise of DFIs and MDBs with the power of banking institutions and capital markets, allowing each stakeholder to focus on their strengths. DFIs and MDBs can deliver on their private capital mobilisation mandate without putting their deployment objectives at risk. Banks can provide their clients with a consistent supply of aggregation products that can both be structured according to their mandates and provided to meet the growing interest in impact investing among their clients, without compromising on the level of developmental impact delivered.

If the principles of market creation discussed in *Chapter 5* are adhered to, this combination can deliver the scale required, at the pace required, to make decisive progress towards the achievement of the SDGs. In this regard, the motivation of stakeholders is key, and presents the most significant institutional barrier to any private capital mobilisation initiative. All stakeholders must in addition adhere to the principle of transparency. Bespoke, isolated transactions can play an important role in providing pioneering examples but, in the absence of transparency, are conducive neither to learning nor to scaling through replication. The overall lack of available data is symptomatic of the complicated dynamics and entrenched practices of the development finance system, and is an issue that will need to be addressed if the power of the capital markets is to be harnessed.

DFI and MDB professionals are faced with several unique challenges, including difficulties associated with the deployment of capital on the ground, a necessary recourse to small individual investment tickets, and to operating in challenging environments where they have long worked in isolation. The inherent conflict between absolute deployment objectives and private capital mobilisation agendas is one sustainable development stakeholders ignore at their peril. The SDC Framework detailed in this paper is an attempt to solve this conundrum.

Finally, while not the topic of this paper, it must be acknowledged that any initiative aimed at increasing the quantity of capital available for investment through or alongside DFIs and MDBs cannot be envisaged without a concurrent reflection on what needs to be done to increase the demand for that capital, or in other words the supply of investable projects on the ground. Stakeholders must continue to identify opportunities to support and stimulate deal flow through, among other avenues, the provision of technical assistance and significant increases in ODA.

KEYPOINT

Securitisation has the potential to be a game-changing addition to the array of tools at the disposal of DFIs and MDBs. The technology is tried and tested, and financial institutions are both equipped and increasingly willing to play their part in addressing the dearth of appropriate sustainable development investment opportunities their clients are faced with. This can however only come to fruition if decisive, cohesive, and objective-based engagement between DFIs, MDBs, and the financial institutions that hold the keys to capital markets can be initiated and sustained. There lies the true challenge behind scaling sustainable development investment.



10

BIBLIOGRAPHY

10 Bibliography

1. Lee, N. Billions to Trillions? Issues on the Role of Development Banks in Mobilizing Private Finance | Center For Global Development. (2017). Available at: <https://www.cgdev.org/publication/billions-trillions-issues-role-development-banks-mobilizing-private-finance>. (Accessed: 18th November 2019)
2. Willem Te Velde, D. *The role of development finance institutions in tackling global challenges*. (2011).
3. Massa, I. *Impact of multilateral development finance institutions on economic growth Acknowledgements*. (2011).
4. Prizzon, A. & Engen, L. A guide to multilateral development banks | Overseas Development Institute (ODI). (2018). Available at: <https://www.odi.org/publications/11149-guide-multilateral-development-banks>. (Accessed: 25th November 2019)
5. UNCTAD. World Investment Report 2014. (2014).
6. United Nations. *Addis Ababa Action Agenda of the Third International Conference on Financing for Development Addis Ababa Action Agenda of the Third International Conference on Financing for Development Contents*. (2015).
7. G20. *Multilateral Development Banks Action Plan To Optimize Balance Sheets*. (2015).
8. Kong, K. T. S. Prospects for Asset Securitization within China's Legal Framework: The Two-Tiered Model. *Cornell Int. Law J.* 32, 237–272 (1999).
9. Schwarcz, S. L. Securitization and Structured Finance. in *Encyclopedia of Financial Globalization* (Elsevier, 2011).
10. International Monetary Fund. Restarting Securitization Markets: Policy Proposals and Pitfalls. in *Global Financial Stability Report* (World Economic and Financial Surveys, 2009).
11. IOSCO. *Securitization and Securitized Debt Instruments in Emerging Markets Final Report*. (2010).
12. BlackRock. *Securitisation: A tool for European Growth*. (2014).
13. AFME. *Securitisation Data Report Q2 2019*. (2019).
14. Delivorias, A. *Synthetic securitisation – a closer look*. (2016).
15. Skandinaviska Enskilda Banken (SEB), White & Case, S&P Global Ratings, G. S. *Towards A Sustainable Infrastructure Securitisation Market: The Role of Collateralised Loan Obligations (CLO)*. (2018).
16. Climate Bonds Initiative. *Green Securitisation: unlocking finance for small-scale low carbon projects*. (2017).
17. Humphrey, C. Channeling private investment to infrastructure – what can multilateral development banks realistically do? 534, (2018).
18. Bavoso, V. *Simple, Transparent and Standardised Securitisation Business as usual?* (2016).
19. G20. *Multilateral Development Banks Action Plan to Optimize Balance Sheets*. (2015).
20. African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, European Investment Bank, Inter-American Development Bank, International Monetary Fund, W. B. & Group. *From Billions to Trillions: Transforming Development Finance*. (2015).
21. G20. *Second Report on MDB Action Plan*. (2017).
22. Kraemer-Eis, H., Passaris, G. & Tappi, A. *SME Loan Securitisation 2.0 Market Assessment and Policy Options*. (2013).
23. Kraemer-Eis, H., Passaris, G., Tappi, A. & Inglis, G. *Kraemer-Eis, Helmut; Passaris, George; Tappi, Alessandro; Inglis, Giovanni*. (2015).
24. Aiyar, S., Al-Eyd, A., Barkbu, B. & Jobst, A. *Revitalizing Securitization for Small and Medium-Sized Enterprises in Europe*. (2015).
25. Gabor, D. *Securitization for Sustainability Does it help achieve the Sustainable Development Goals?* (2019).
26. Morris, S. *The International Development Finance Club and the SDGs*. (2018).
27. World Bank. *World Bank Launches First Sustainable Development Notes Linked to New Global Sustainability Signatories Index*. (2018). Available at: <https://www.worldbank.org/en/news/press-release/2018/09/10/world-bank-launches-first-sustainable-development-notes-linked-to-new-global-sustainability-signatories-index>. (Accessed: 27th November 2019).



EIGHTEEN EAST

For more information:

Please contact Eighteen East Capital at info@18eastcapital.com with any comments or questions about this report.

Legal Disclaimer:

This publication has been prepared solely for informational purposes, and has been prepared in good faith on the basis of information available at the date of publication without any independent verification. The information in this publication is based on historical or current political or economic conditions, which may be superseded by later events. Eighteen East Capital Ltd and The Rockefeller Foundation do not guarantee or warrant the accuracy, reliability, adequacy, completeness, or currency of the information in this publication nor its usefulness in achieving any purpose. Charts and graphs provided herein are for illustrative purposes only. Nothing contained herein constitutes investment, legal, tax, or other advice nor is it to be relied on in making an investment or other decision. Readers are responsible for assessing the relevance and accuracy of the content of this publication. This publication should not be viewed as a current or past recommendation or a solicitation of an offer to buy or sell securities or to adopt any investment strategy. The information in this publication may contain projections or other forward-looking statements regarding future events, targets, forecasts, or expectations described herein, and is only current as of the date indicated. There is no assurance that such events, targets, forecasts, or expectations will be achieved, and any such events, targets, forecasts, or expectations may be significantly different from those shown herein. Past performance is not indicative of future results. Neither Eighteen East Capital Ltd nor The Rockefeller Foundation will be liable for any loss, damage, cost, or expense incurred or arising by reason of any person's using or relying on information in this publication.