For professional investors – Marketing communication – July 2019

A PRACTICAL GUIDE TO DIVERSIFIED PRIVATE CREDIT

BNP PARIBAS
ASSET MANAGEMENT

The asset manager
for a changing
world

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1. AN INTRODUCTION TO DIVERSIFIED PRIVATE CREDIT

With UK Defined Benefit pension schemes turning increasingly cashflow negative and traditional Liability Driven Investment (LDI) portfolios offering lower returns, schemes are turning to cashflow driven investing (CDI) to better match cashflows while generating higher risk-adjusted returns. For Small and Medium-sized Defined Benefit (DB) and Defined Contribution (DC) schemes, where CDI isn't necessarily appropriate, they too can benefit from alternative credit through Diversified Private Credit (DPC) portfolios.

Many of the underlying asset classes that comprise CDI and DPC portfolios are contractual in nature, offer illiquidity premia relative to listed equivalents, have lower default rates than equivalently rated investment grade credit (e.g. infrastructure debt[1]), are backed by tangible collateral and are marked to model, lowering overall portfolio volatility. At BNP Paribas Asset Management (BNPP AM) we are able to offer investors a broad blend of underlying private market and real assets exposure, a unique dual proprietary origination model and co-investment with the BNP Paribas Group.

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Prior to that Julien worked for Goldman Sachs, Aon, P-Solve and Lazard. With investment banking and consulting experience stretching over 26 years Julien has spent over 15 years advising institutional clients on structuring and implementing pensions and insurance solutions for national and cross-border clients.

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Philip is Head of Sales (UK & Ireland) at BNP Paribas AM having joined in November 2017 from Allianz Global investors where he spent 16 years working with institutional clients. During his time with the Allianz Group, Philip was involved in the creation of a number of new products across multi-asset, listed and private markets, including the launch of the first UK fund to facilitate primary greenfield transactions in infrastructure debt for institutional investors.

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1. Moody's 'Default and recovery rates for project finance bank loans, 1983-2010', 31 January 2012.

2. THE VALUE OF DIVERSIFIED PRIVATE CREDIT

WHAT IS DIVERSIFIED PRIVATE CREDIT?

Diversified private credit portfolios allow DB and DC pension schemes to access private market assets that would traditionally have been the preserve of banks. Encompassing direct lending to infrastructure projects, real estate projects and corporate entities such exposures can dampen portfolio volatility and enhance the overall risk/return profile of the pension scheme.

WHAT ARE TYPICAL DIVERSIFIED PRIVATE CREDIT ASSETS?

The universe of private credit assets available to pension schemes has expanded rapidly over the past decade. More stringent capital requirements on banks has seen the disintermediation of traditional financing models by asset managers and institutional investors across a broad range of asset classes such as:

- infrastructure debt
- Commercial real estate debt
- Mid-market loans
- Asset backed securities
- Mortgage backed securities
- Social housing
- Ground rents

In creating a portfolio of secure income generating assets, diversification is of critical importance. Often idiosyncratic in nature, the underlying asset classes diversify well against each other and traditional liquid components of institutional portfolios, minimising tail risks.

Equally, a holistic multi-asset approach with active asset allocation minimises timing risks and reduces the potential for opportunity costs that traditional static allocations can suffer from. For small and mid-sized DB schemes who may lack the scale and/or governance budget to make allocations to multiple, singular asset classes, a diversified private credit approach is an efficient means of exploiting private markets. In addition as spreads are cyclical in nature a dynamic approach to asset allocation over time can help pension schemes find relative value in the market through time,.

THE BENEFITS OF A PRIVATE CREDIT APPROACH

At BNPP AM, we believe a portfolio of secure private credit and real assets provides investors with a better match of liabilities as well as other tangible benefits that liquid strategies do not. The incremental benefits of a private credit approach can be summarised as follows:

- Additional returns above gilts and investment grade credit
- Cashflows backed by high quality collateral
- Cashflows that provide inflation linkage
- Long-term cashflows
- Highly covenanted, secure income streams
- Limited market exposure
- Lower default rates
- Improved overall portfolio sharpe ratios

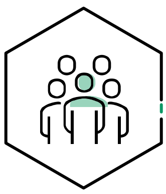
3. OUR APPROACH TO PRIVATE CREDIT AND REAL ASSETS

BNPP AM's Diversified Private Credit strategy leverages the specialist investment teams that comprise the Private Debt and Real Assets (PDRA) investment group of over **50 investment professionals**, in addition to privileged access to the origination capabilities of the wider BNP Paribas Group. With origination teams focused on corporate lending, infrastructure debt and real estate across the globe. BNPP AM's investment teams have privileged access to this pipeline. In addition BNPP AM is able to structure loans with the bank to suit client portfolios e.g. converting typically short-dated, floating rate commercial real estate debt to long-dated fixed rate tranches.

BNPP AM's approach to Diversified Private Credit relies on specialist investment teams accessing the underlying asset classes, namely Global Loans, SME Lending, US Mid-Market Lending, Structured Finance, Infrastructure Debt and Commercial Real Estate Debt. Each team offers a long-term track record in the technical under-writing of private credit with established networks of project sponsors offering sustainable origination, supplemented by proprietary BNP Paribas Group origination partners.

EXPERIENCE IS EVERYTHING

50
PRIVATE DEBT AND REAL ASSET PROFESSIONALS



BNP Paribas Group has been financing the real economy for **150 years** with market leading positions in real estate and infrastructure financing. For both the Group and BNPP AM, our goal is to provide quality investment solutions for our clients, building strong, lasting relationships based on confidence and trust. Within private markets and real assets this confidence and trust helps support origination as our specialist investment teams have a reputation for rigour, scale and execution.

Whilst private markets can be illiquid we believe active portfolio management significantly mitigates the associated risks. Across asset classes, a focus on diversification and strict credit risk assessment offers institutional investors access to high quality assets and co-investment opportunities that deliver long-term performance.

A RESPONSIBLE INVESTOR

BNPP AM has been involved in responsible investment since 2002. ESG criteria are systematically incorporated into the investment processes of our private debt solutions. An initial ESG filter is applied, followed by an in-depth analysis. The definition and implementation of a specific taxonomy for each asset class makes it possible to refine the ESG analysis from a qualitative perspective. Furthermore many of the underlying asset classes, such as infrastructure debt or social housing, have a tangible impact on the real economy providing additional societal benefits. The UN PRI has recognised this by defining social housing and SME lending as forms of **Impact Investing**.

4. OUR APPROACH TO DIVERSIFIED PRIVATE CREDIT

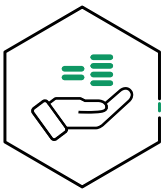
SYNTHETIC REPLICATION OF PRIVATE CREDIT EXPOSURE

While we believe at BNPP AM we have a competitive advantage, with unrivalled access to the origination capabilities of a Tier One global bank, one of the challenges of implementing private credit portfolios is the material time that it can take to source high quality assets. As credit terms, covenants and spreads are cyclical in nature, single asset class commitments can suffer as individual managers feel compelled to find assets irrespective of the assessment of the underlying environment.

Active asset allocation can allow a multi-asset private credit manager to allocate to where value exists at any point in time. However, even with this approach there is likely to be a lag between receipt of cashflow and ultimately the identification of a suitable asset. The simplest (and most common) way to solve such an issue is to 'park' assets in cash or liquid investment grade credit prior to identification of suitable assets.

Whilst providing the requisite liquidity such an approach may not be optimal as there is an opportunity cost and a cashflow risk associated with such an approach. BNPP AM together with BNP Paribas Group has designed a **synthetic replication approach** that can offer clients the desired liquidity and a spread to more traditional liquid investment grade credit. Alternatives do exist and depending on the underlying sleeves to be incorporated into the mandate, a synthetic portfolio can be built on a temporary basis using listed and synthetic assets. Such an approach is particularly valuable to DC pension schemes seeking evergreen exposure with monthly liquidity (contributions, principal repayments and interest) re-invested in an efficient manner.

A **SYNTHETIC REPLICATION** APPROACH GIVING CLIENTS THE DESIRED LIQUIDITY



For example, listed infrastructure (or utility) bonds can be used to provide a yield pick up to long-dated investment grade credit whilst offering a high degree of correlation to underlying infrastructure debt transactions. This is particularly pertinent as often they are used as the benchmark by which infrastructure debt managers provide marked to model valuations of their own assets.

One step further would be to incorporate into the replication portfolio the use of over-the-counter **real estate, equity** and **credit derivatives** (like equity default swaps and credit-default swaps) as shown in the illustrative table below.

MAKING USE OF OVER-THE-COUNTER REAL ESTATE, EQUITY AND CREDIT DERIVATIVES

	Underlying proxy types	Listed alternatives	Reverse convertible	Equity default swaps	Credit default swaps
ABS	**Debt / derivatives:** • Credit card Leasing • Auto / Equipment Hire • Consumer Loans	✓			
(LEVERAGED) LOANS	**Corporate debt**	✓			✓
REAL ASSETS	**Corporate debt / derivatives:** • Forestry Timber	✓	✓	✓	✓
INFRASTRUCTURE DEBT	**Debt / derivatives:** • Agricultural Operations • Heavy Construction • Engineering and R&D • Pipelines	✓	✓	✓	✓
COMMERCIAL REAL ESTATE DEBT	**Debt / derivatives:** • REITS • Home Builders • Estate Management • Operation	✓	✓	✓	✓

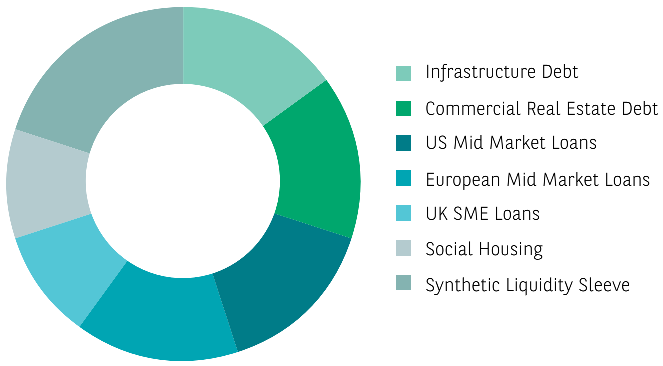
Source: BNPP AM November 2018.

DIVERSIFIED PRIVATE CREDIT PORTFOLIO CHARACTERISTICS

Diversified Private Credit can offer investors access to a broad range of underlying asset classes. The data presented below assumes allocation to senior debt only. Returns could be further enhanced by blending mezzanine or junior debt into each underlying asset class, though this would equally lead to a commensurate increase in risk.

Asset Class	Return Expectation	Average Weighted Average Life (WAL)
Infrastructure Debt	LIBOR + 200-260bps	8-10-years
Commercial Real Estate Debt	LIBOR + 200-225bps	5-7-years
US Mid-Market Loans	LIBOR +450-500bps	5-7-years
European Mid-Market Loans	LIBOR +450-500bps	5-7-years
UK SME Loans	LIBOR +700-800bps	5-7-years
Social Housing	LIBOR + 100-150bps	5-7years

Source: BNP Paribas Asset Management – January 2019. No assurance can be given that investment objectives will be achieved.



Source: BNPP AM as at January 2019.

IMPLEMENTATION OPTIONS FOR INSTITUTIONAL CLIENTS

BNPP AM can offer institutional clients access to private credit through segregated mandates and pooled fund solutions. Presently the commonest pooled fund structures are closed-ended UK GP/LP vehicles that enable multiple institutions to co-invest in a diversified underlying portfolio. These are suitable for DB schemes wishing to co-mingle commitments to create scale. However, there are ongoing consultations (via the FCA, the Treasury and the Investment Association) that are examining the UK funds regime and what changes will be required to allow institutional investors access to illiquid assets via traditional open-ended fund structures.

Presently open-ended vehicles are limited to Non-UCITS (NURS) funds which may be incompatible with the liquidity requirements of many market participants e.g. platform providers and the growing DC pension fund market. As a consequence consultation is focused on the eligibility criteria and liquidity constraints associated with UCITS-OIECs and NURS funds.It is therefore highly likely that 2019 will offer greater flexibility to asset managers in offering pooled fund products that afford access to private credit.

5. WHY BNP PARIBAS ASSET MANAGEMENT FOR DIVERSIFIED PRIVATE CREDIT

1.

ACCESS TO SPECIALIST PRIVATE CREDIT AND REAL ASSETS TEAMS

BNPP AM's Diversified Private Credit (DPC) capability offers institutional investors access to a broad range of private credit and real assets capabilities encompassing infrastructure debt, commercial real estate debt, loans, SME lending and structured securities. Leveraging over **50 investment professionals** located in the UK, Europe and the US.

2.

BESPOKE DYNAMIC IMPLEMENTATION

BNPP AM is able to create bespoke solutions for institutional clients. This can include segregated multi-asset private credit mandates, or fund solutions where closed and open-ended structures are created to facilitate investment from DB and DC pension schemes. The design, dynamic implementation, governance and reporting is overseen by a **dedicated team of 130 multi-asset**, quantitative and solutions investment professionals.

3.

SUPPORTED BY AN A-RATED BANK INFRASTRUCTURE

Supported by an A-rated bank infrastructure BNPP AM's DPC approach is supported by the infrastructure and resources afforded to the company by our parent BNP Paribas, including solutions in capital markets, securities services, advisory, finance and treasury. This allows the underlying teams to leverage proprietary origination, structuring and distribution capabilities from the wider BNP Paribas Group including 62 Commercial Real Estate Debt and Infrastructure Debt professionals.

4.

CO-INVESTMENT CREATES AN ALIGNMENT OF INTEREST

In many instances BNP Paribas Group will retain a proportion of the underlying loans within their balance sheet creating a clear and transparent **alignment of interest** between third-party investors and the Group.

5.

SYNTHETIC PRIVATE CREDIT REPLICATION

BNPP AM is able to leverage the capabilities of the BNP Paribas Group to offer institutional clients **synthetic 'liquid' replication** of illiquid private credit. This offers a spread to liquid investment grade corporate bonds whilst allowing for the patient deployment of underlying capital.

6.

IMPACT INVESTING WITH ESG EMBEDDED WITHIN THE CREDIT PROCESS

BNP Paribas Group has been financing the real economy for **150 years** with market leading positions in real estate and infra structure financing. The bank's UK growth plan is predicated on expanding its UK client base and increasing **sustainable lending** e.g. to UK housing associations. From SME lending to infrastructure debt BNPP AM's CDI strategy offers investors a stake in the real economy investing in a range of asset classes that play a vital role in promoting economic growth. In addition to social impact ESG is also embedded across the underlying asset classes providing further coherence and consistency with our **Group-wide sustainability policies.**

BNP PARIBAS ASSET MANAGEMENT

BNP Paribas Asset Management is the investment management arm of BNP Paribas, one of the world's major financial institutions.

- Managing **EUR 421 billion in assets**(1)
- A comprehensive range of active, passive and quantitative investment solutions covering a broad spectrum of asset classes and regions
- More than **530 investment professionals** and around **500 client servicing specialists** for individual, corporate and institutional investors
- More than **3000 employees**(2) in more than **30 countries**
- A **major player in sustainable** and responsible investing **since 2002**
- We manage, as of 31 December 2018, **EUR 222 billion** in assets that integrate ESG analysis
- Backed by BNP Paribas Group, **one of the best rated banks in the world (A+)**(3)

Sources: BNP Paribas Asset Management as at March 2019

(1) Managing and advising EUR 565 billion

(2) Joint Ventures included

(3) Standard & Poor's, 5 April 2019

EUR 421 billion[1] in assets

530 investment professionals

500 client servicing specialists

3 000[2] employes all around the world

EUR 222 billion in assets ESG analysis

"A" Standard & Poor's rating[3]

Sourcing DPC assets: Sourcing of DPC assets may prove difficult, especially since many asset managers are chasing the same type of assets. The available assets may not meet the client's objectives or may not be attractively priced. The ramp up period can be long for large DPC investments and necessitate the use of synthetic DPC portfolios. **Liquidity risk:** There is a risk that DPC assets may become illiquid if the economic or market situation deteriorates. Consequently, it may not be possible to sell or buy DPC assets at all or quickly enough before their expiry. **Mark-to-market risk:** Given the illiquid nature of DPC assets, their mark-to-market may be adversely affected by changing market conditions. **DPC portfolio risk:** Because of the inherent complexity of such a strategy and the lack of liquidity of some DPC assets, a DPC portfolio may not always deliver the expected cash flows. **Basis risk:** By nature, there is a difference between pension liability cash flows and DPC assets. It is important to keep this aspect in mind when structuring a DPC portfolio in order to minimize basis risk. **Governance risks:** Given the multiple DPC asset classes and the potentially long ramp up period, the required level of governance is quite high and can involve performance, risk, trigger and exposure monitoring as well as the use of synthetic DPC assets. Assessment of relative value between synthetic proxies and real assets may also need some governance. Not providing the appropriate level of control and governance could negatively impact the long-term performance of the DPC strategy.

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