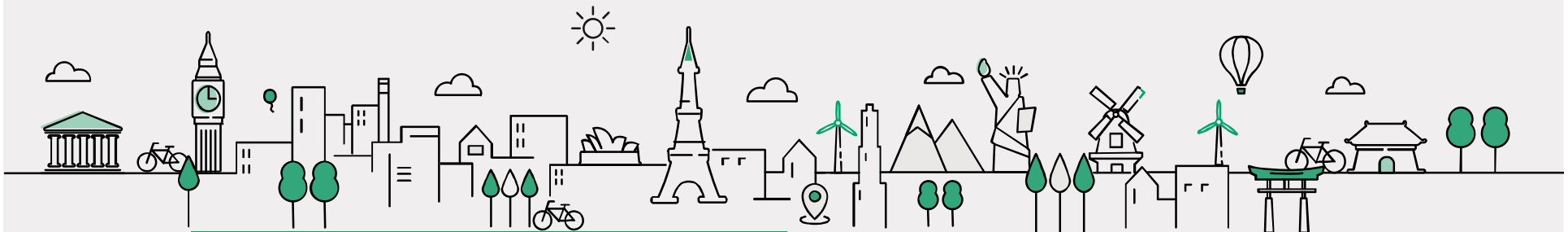


FOR PROFESSIONAL INVESTORS  
MARKETING COMMUNICATION

# CASHFLOW DRIVEN INVESTING: BECOMING A MAINSTREAM SOLUTION



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HEAD OF PENSION SOLUTIONS, BNPP AM



**BNP PARIBAS**  
ASSET MANAGEMENT

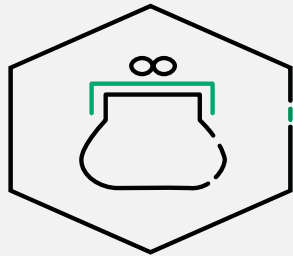
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# 1 INTRODUCTION

## THE VALUE OF CASHFLOW DRIVEN INVESTING (CDI)

CDI IS USING CREDIT TO ENABLE PENSION FUNDS TO MATCH THEIR LIABILITY CASH FLOWS



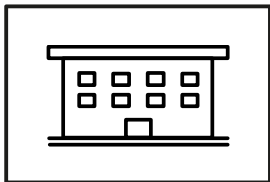
It creates a diversified portfolio of stable **income generating assets**



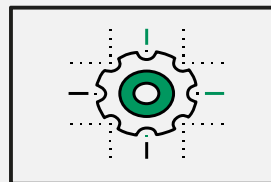
A CDI approach supplements liquid credit with **illiquid private credit**

# TYPICAL CDI ASSETS

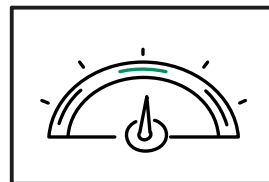
Using selected asset classes it is possible to structure and maintain a **cashflow matching allocation** for defined benefit pension funds.



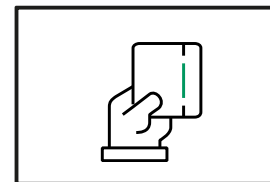
**Mortgaged Back Securities**



**Senior Infrastructure Debt**



**Mid-Market/SME Loans\***



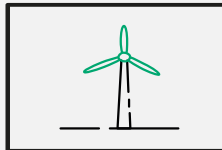
**Asset Backed Securities**



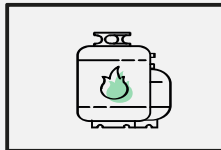
**Commercial Real Estate Debt**



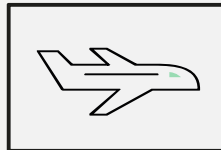
**Social Housing**



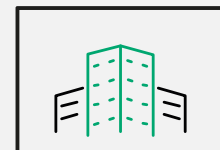
**Renewable energy**



**Utilities**



**Transport**



**Office**



**Retail**



**Logistics**

\* SME: Small, Medium Enterprises

# THE BENEFITS OF CDI



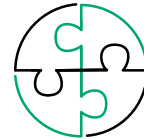
Excess return generated by alternative credit investments



Granular structuring



Diversification leading to more robust portfolios



Duration matching



Stable expected cash flows



Attractive long-term expected risk and return profile

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**2**

# BUILDING A CDI SOLUTION

## CDI SOLUTION – OBJECTIVES AND CONSTRAINTS

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1

Understanding a pension scheme's **objectives and constraints** is the first step in structuring the appropriate CDI portfolio.

2

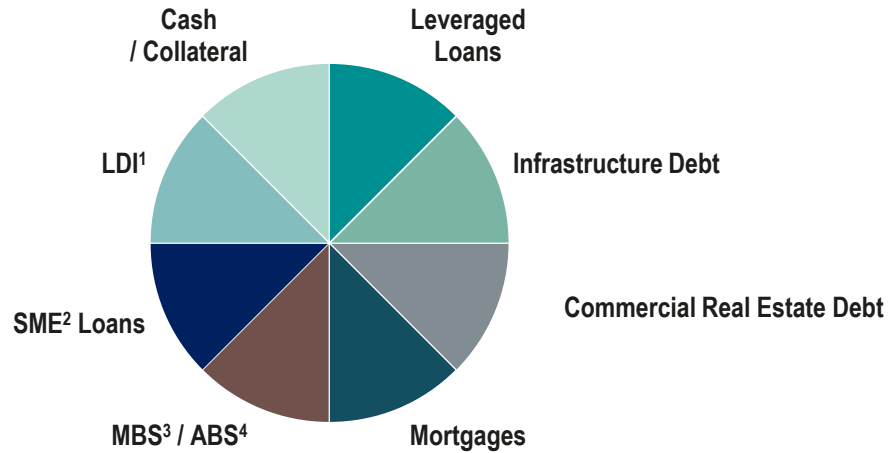
Both long-term expected return and risk tolerance limits are usually embedded into a pension scheme's long-term flightpath according to; asset performance, risk profile and solvency levels; and de/re-risking triggers.

3

In practice, CDI asset allocations generate a growing part of the excess return and of the risk budget, and de-risking or re-risking triggers affect the composition of the CDI portfolio: each time a trigger is hit, cash and / or growth assets are held and the allocation to CDI assets is held or increased.

# CDI SOLUTION ARCHITECTURE

## CDI / LDI portfolio solution



1: Liability Driven Investment

3: Mortgage Back Securities

2: Small and medium-sized Enterprises

4: Asset Backed Securities

Source BNP Paribas AM, September 2018.

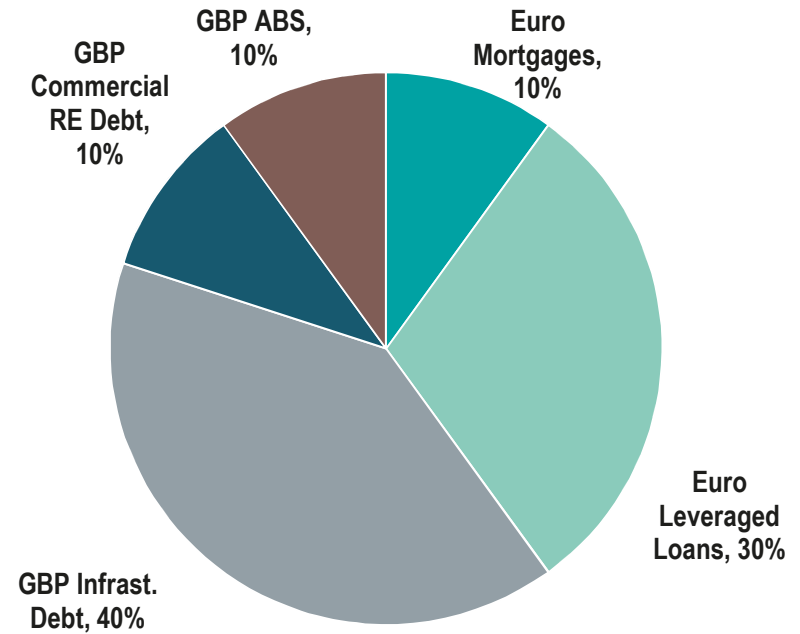
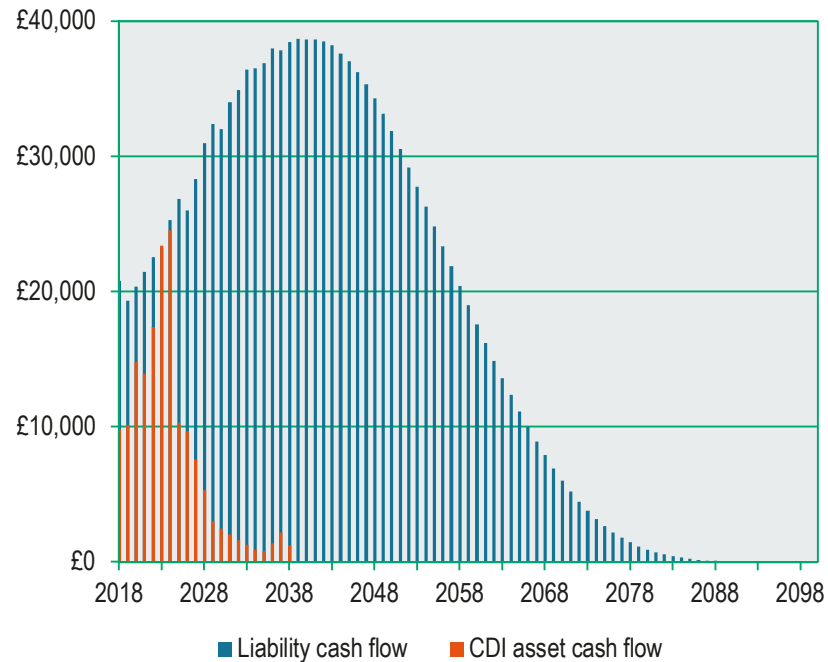
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# CASHFLOWS AND ILLIQUID CREDIT ALLOCATION



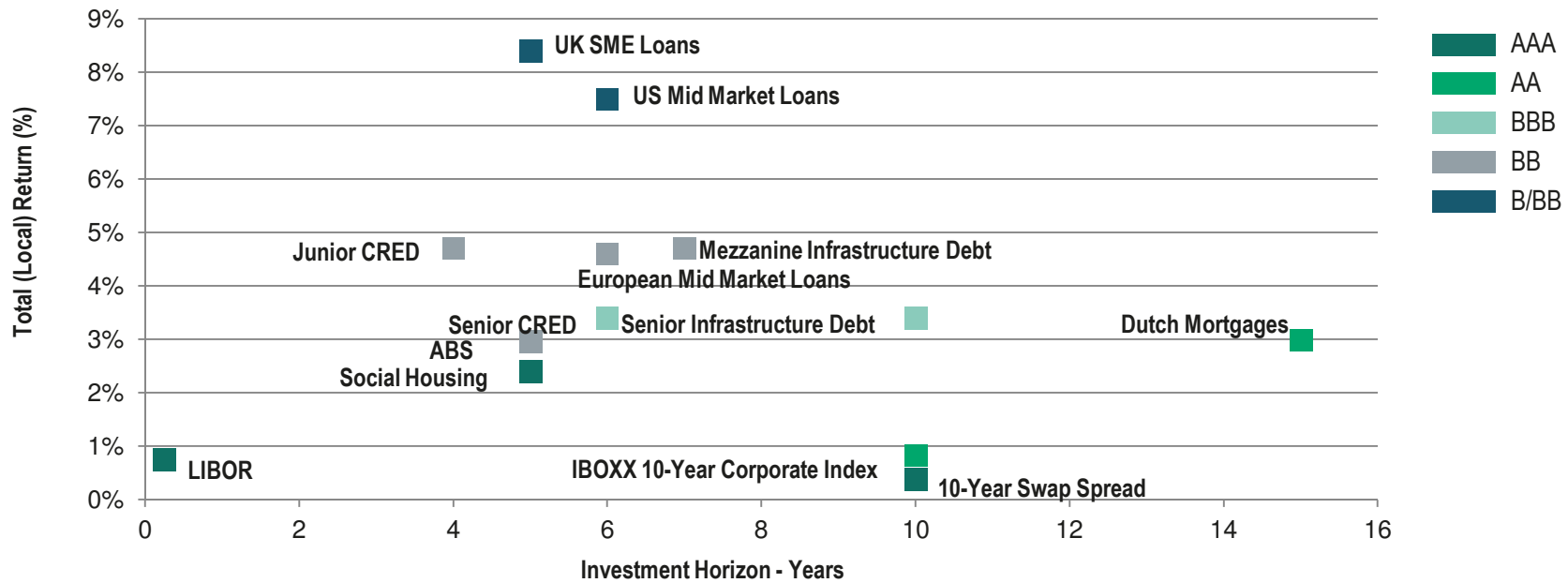
Source BNP Paribas AM, September 2018. This is for illustrative purpose only and does not constitute any investment advice or recommendation. Past performance is not an indicator of future returns. No assurance can be given that any forecast, target or opinion will materialise.

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**3**

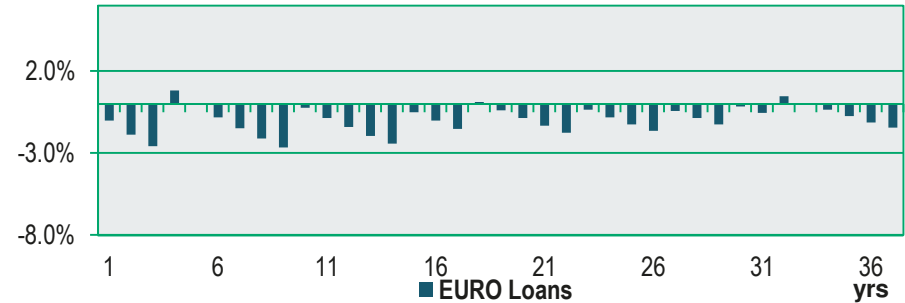
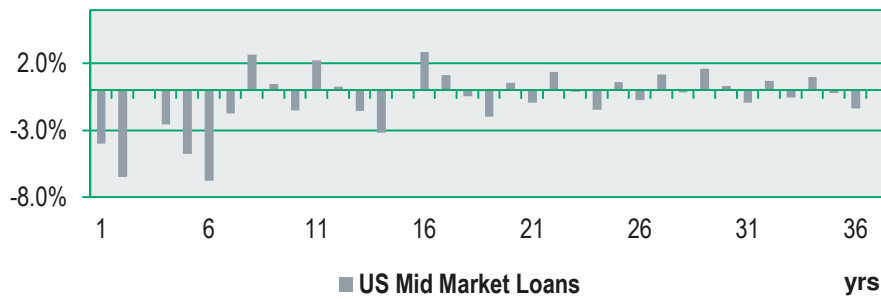
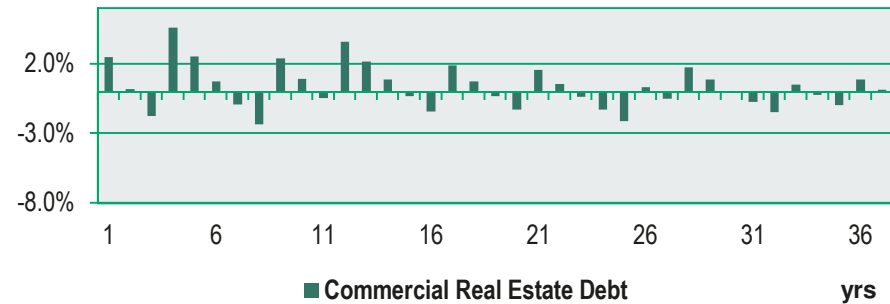
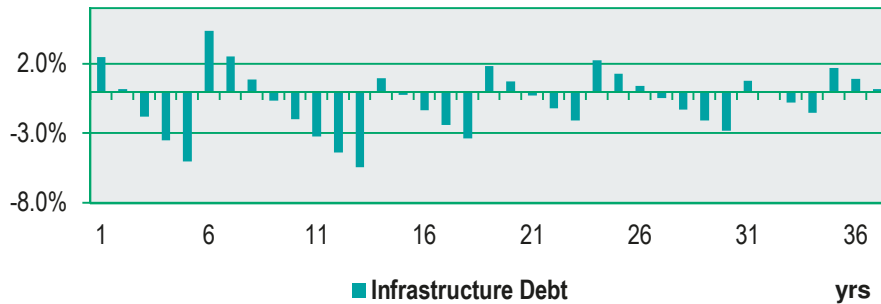
# CRITICAL ASPECTS

# CRITICAL ASPECTS 1: SOURCING



Source: BNPP AM as at 01/02/19. For illustrative purposes only.

# CRITICAL ASPECTS 2: CASHFLOW MANAGEMENT



Source: BNP Paribas AM. This is for illustrative purposes only and does not constitute any investment advice or recommendation.  
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## CRITICAL ASPECTS 3: SYNTHETIC REPLICATION

Asset Class	Underlying proxy types	Listed alternatives	Credit default swaps
Infrastructure debt	Infrastructure debt / derivatives	✓	✓
Commercial real estate debt	Real estate debt / derivatives	✓	✓
Asset Back Securities (ABS)	Debt	✓	
(Leveraged) Loans	Corporate debt / derivatives	✓	✓

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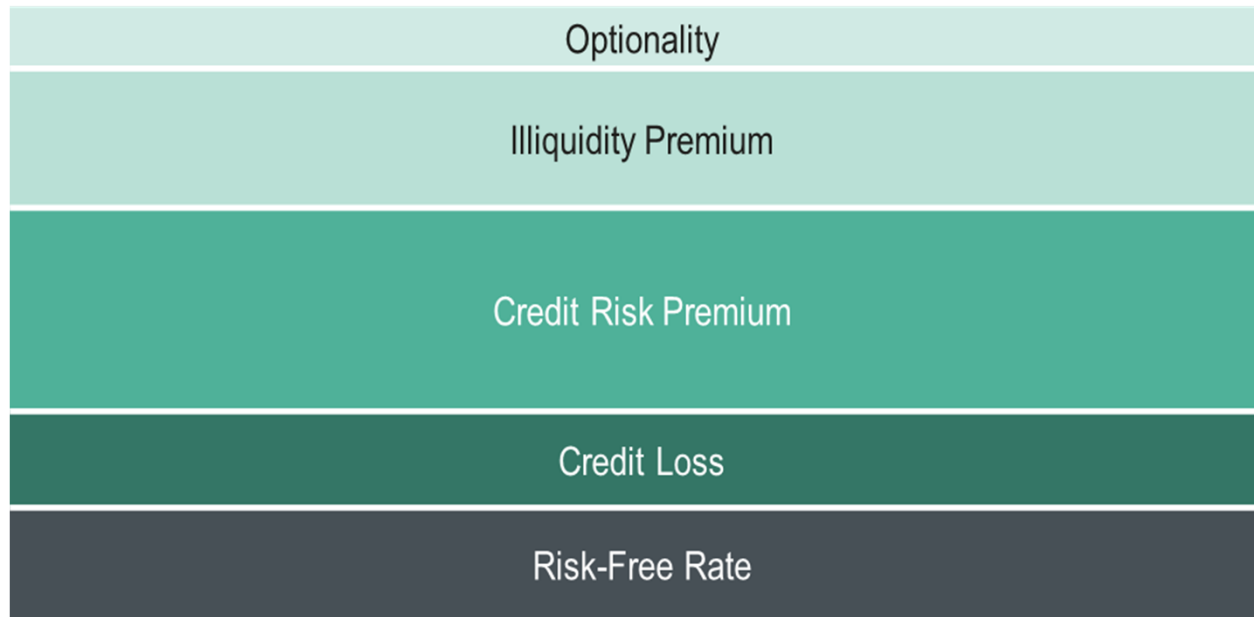
*Source: BNP Paribas AM, December 2018*



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## CRITICAL ASPECTS 4: YIELD

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As at May 2019.

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