Credit Risk Sharing

April 2025



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Section 1

PGGM OverviewA permanent fixture in health and welfare

We work for good, affordable and sustainable pensions for pension funds - our clients - and their participants. We also contribute towards a liveable world, occupational health and retaining vitality in old age.

Introduction

PGGM is an independent pension fund service provider in The Netherlands with assets under management of € 261 billion

- Largest client is Pensioenfonds Zorg en Welzijn ('PFZW'), the Dutch pension fund for the health care and welfare sector, with € 259 billion total assets belonging to almost 3 million participants
- Other clients include Pension Funds for Private Security, Painters, General Practitioners and Smurfit Kappa, together with € 2.4 billion total assets

PGGM adds value by focusing on two clear objectives

- Realising a valuable future by investing with a long-term focus and taking sustainability into account across all asset categories
- Generating a high and stable return for our clients: realised average annual return for PFZW of 7.5% between 1971 and 2024

Section 2

Risk Sharing Transactions

Sharing in core credit risks banks have on their balance sheets

Focus on long-term partnership

Mutual benefits PGGM Partner Bank ✓ Attractive risk-return profile ✓ Efficient capital management ✓ Exposure to illiquid and unique credit risks ✓ Perfect hedge of credit risks ✓ Close cooperation with high-quality credit ✓ Applicable across multiple loan books originator Multiple risk sharing transactions over time

Pricing and structuring will benefit from gained experience as the relationship develops

Our philosophy

Understand the underlying

In-depth knowledge of the underlying type of credit risk

Successful core activity

The underlying portfolio represents a successful core activity of the bank

Bilateral & Significant

Deals of size with a relevant and simple set of terms

Robust structures

Robust risk-return profile in adverse scenarios

Portfolio of high-quality CRS transactions

Alignment of interest

Partner bank shares in the same credit risks

Reliable partner

PGGM is willing to amend deal terms to ensure continuing effectiveness of the transaction

Due diligence

Thorough independent assessment, both quantitative and qualitative, including sustainability policies

Market leaders

Focus on a select number of high-quality credit originators

Our objectives

Long-term partnership

Aiming to build a long-term partnership focused on closing multiple transactions over time

Unique exposures

Different types of credit risk from geographies across the globe

Meaningful size

€ 100 – € 750 million per investment

Following banks' processes

Using banks' internal ratings and settling actual realised losses following workout by the bank

Objectives

Strong alignment of interest

Minimum 20% of credit losses retained by partner bank

Long-term returns

Seen as alternative to equity: equal return for less risk

Strategy

Buy-and-hold

Asset allocation of PFZW

As of December 2024 € 6.7 billion, equalling 2.6% of PFZW's assets

Main benefits for partner bank

Benefits for a bank of entering into a risk sharing transaction with PGGM:



Reliable and experienced long-term partner familiar with different legal structures



Risk capital provider to core & successful activities



Provides a means to efficiently manage capital and to perfectly hedge illiquid credit exposures



Tailor-made transactions: working together to define effective set of portfolio criteria and deal structure



Flexible: willing to adapt to new situations by amending existing deal contracts or investigate better fitting solutions



Dedicated to a **sustainable regulatory environment and market** for risk sharing transactions

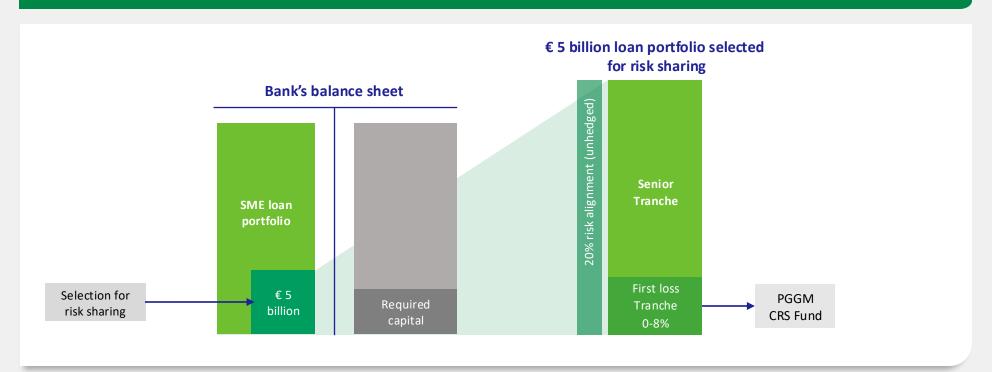
Section 3

Timeline and Structures

Working together to find the optimal structure

General structure

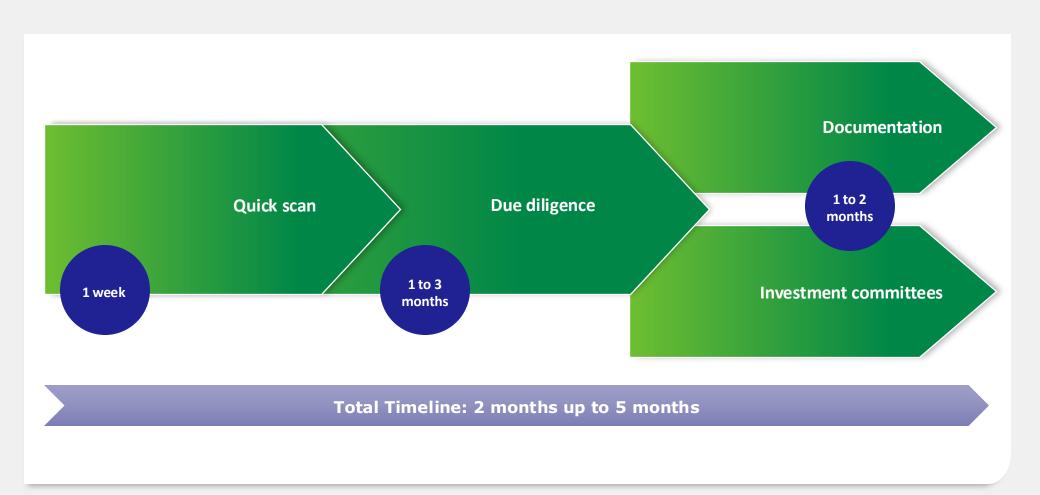
Example first loss tranche



The bank transfers the first loss position to the investor, being the PGGM CRS Fund:

- ✓ Perfect hedge for credit events such as bankruptcy, failure to pay, and restructuring
- ✓ At least 20% risk alignment: for each credit event resulting in a loss, a maximum of 80% is covered by the investor and at least 20% of the realised loss affects the bank's P&L account

Timeline



Timeline: Quick scan



Requirements

PGGM's requirements to be adhered to:

- Portfolio represents core activity of the partner bank
- Alignment of interest is at least 20%
- Fully funded upfront with cash safely invested or collateralised (investing cash in short-dated high-quality securities, enter into a reverse repo, or invest in a money-market fund; no unsecured cash deposit)

Initial analysis

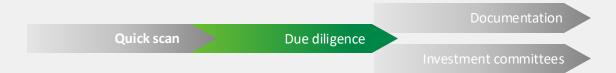
PGGM performs initial analysis on:

- Partner bank
- Type of credit risk
- Transaction size
- Proposed transaction structure
- Fit of proposed transaction in overall portfolio

1 week

Approval of PGGM team to allocate capacity to continue the due diligence of potential risk sharing transaction

Timeline: Due diligence



PGGM performs a thorough **independent assessment** of the bank through:

Qualitative analysis

- Processes regarding credit origination, monitoring and recovery management
- · Business strategy for the credit risk generating activity
- Division of roles and responsibilities across different parts of the organisation
- Role of Credit Portfolio Management team
- Sustainability policies

Quantitative analysis

- Long-term track record in credit risk management
- Internal credit rating models and procedures
- Selection process for and composition of risk sharing portfolio

1 to 3 months

Timeline: Documentation



Initial agreement and finalising legal documentation

- Initial structure and economics agreed between the bank and PGGM needs to be approved by up to three investment committees. In parallel, work will commence on legal documentation
- During due diligence the bank and PGGM have reached initial agreement on:
 - Form of contract (for example direct CDS, Credit Linked Note or Financial Guarantee Note)
 - Tranche size, alignment of interest, price and collateralisation of cash
 - Composition of initial portfolio including replenishment rules and exclusion list of PFZW

Verification agent procedures

Verification agent procedures consist of the following steps:

- Check the eligibility of the credit event
- Check the eligibility of the referenced loan, if included:
 - in initial portfolio adhering to agreed portfolio guidelines at inception
 - in replenished portfolio adhering to agreed portfolio guidelines during replenishment
- Check the alignment of interest is at least 20%
- Check if initial loss is equal to contractually agreed initial loss determination
- Check if loss rate at work-out completion corresponds to the loss booked in bank's P&L account

1 to 2 months

Timeline: Investment committees

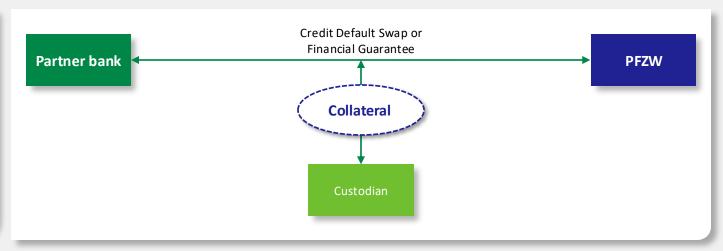
Quick scan Investment committees month Proposals of extraordinary nature **PFZW** In special cases the PFZW Investment Committee will need to approve based on CILI team and Risk Proposals > € 150 million **Analysis** inputs **PGGM Investment Committee** • In case PFZW IC approval is **PGGM Investment Committee** needed the investment proposal decides on investment proposals is discussed in their regular 6weekly meeting exceeding € 150 million • In case of urgency, email All proposals **PGGM Investment Committee is** procedure is available authorised to approve **PGGM** team Investment Committee transactions up to any size fitting PGGM team decides on every the mandate investment proposal Authorised to approve transactions not exceeding € 150 million 3 days 1 week > € 150 million Extraordinary 2 weeks to 1 month

Timeline and Structures

Different options available for structuring transactions

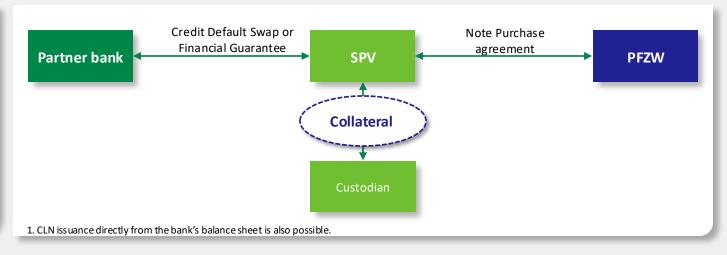
Direct Credit Default Swap (CDS)

The bank enters into a protection agreement directly with PFZW. PFZW fully funds the transaction.

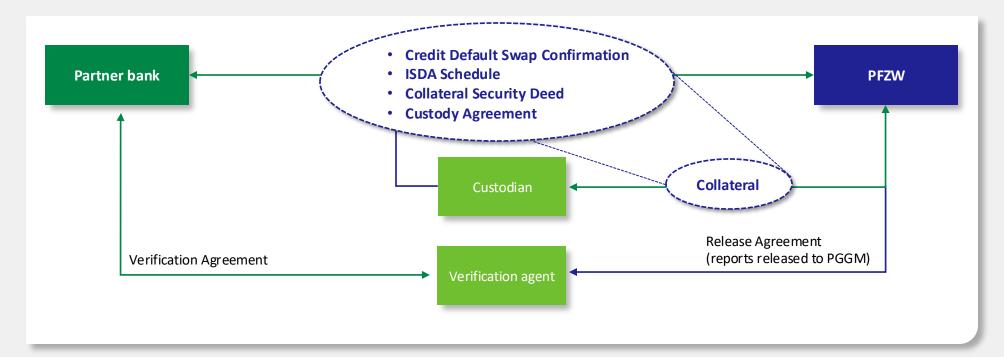


Credit Linked Note with Financial Guarantee / CDS¹

The bank enters into a protection agreement (CDS or Financial Guarantee) with the SPV. The SPV is funded through the sale of credit-linked notes, which are purchased by PFZW. PFZW fully funds the transaction.



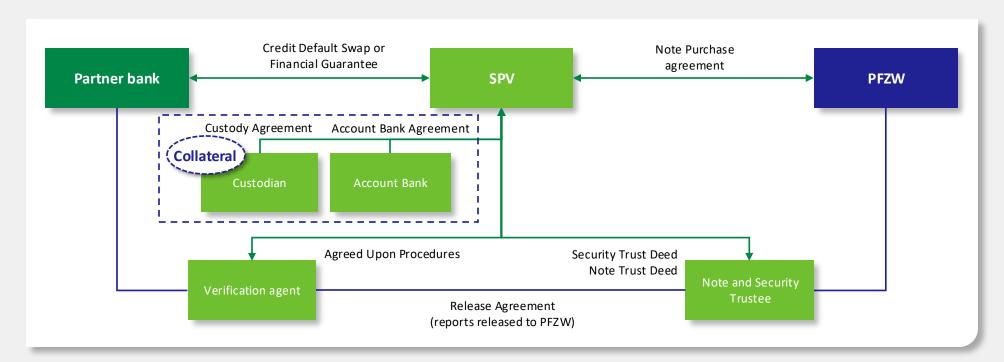
Direct CDS



Basic process

- Bank buys protection from PFZW through a direct CDS contract
- Custody and cash account specifically for transaction in name of PFZW and pledged to risk sharing bank
- PGGM (on behalf of PFZW) transfers notional cash as initial margin to cash account, 100% funded
- Cash proceeds are invested in 3-month high-quality collateral, reinvested every quarter, held in the custody account
- Verification agent verifies eligibility of referenced loan, credit event and loss amount
- Custodian pays credit event claims after verification. No separate approval by PFZW or PGGM is required.

Credit Linked Note with Financial Guarantee/CDS



Basic process

- Bank buys protection through CDS or Financial Guarantee entered into with SPV
- SPV issues notes (listed if required), PFZW buys the notes and SPV receives cash
- SPV deposits cash at Account Bank, which uses cash to buy 3-month high-quality collateral each quarter
- Custodian holds collateral in custody account. Collateral is pledged to the partner bank (to cover loss claims) and PFZW (to cover note principal)
- Verification agent verifies eligibility of referenced loan, credit event and loss amount
- Note and Security Trustee receives credit event notification from risk sharing bank and, after checking, provides instructions to Account Bank and
 Custodian to pay the risk sharing bank the appropriate amount. No separate approval by PFZW is required.

Avoiding counterparty risk for partner bank and PFZW

The transaction is always structured in a way that avoids counterparty risk for both the partner bank and PFZW.

This has three reasons:

- 1. The bank needs certainty that they can successfully claim losses in the portfolio in a timely manner
- 2. Counterparty risk for both sides would complicate the risk-return profile and should then be priced in separately
- 3. On the side of PFZW counterparty risk would consume counterparty lines on the bank, which PFZW prefers to use for different purposes Therefore, the full notional is invested in repo or in high-quality securities in the base currency of the transaction.

Example



Start of risk sharing transaction

- 1. The full amount of the investment notional (initial margin) is transferred into a cash account opened in name of the transaction.
- 2. This cash is used to purchase high-quality collateral that matures at next payment date.
- 3. The collateral is held by a highly-rated Custodian and segregated from other assets, ensuring virtually no counterparty risk for partner bank and PFZW.

Upon (any) payment date

- 1. The collateral securities are redeemed.
- 2. This cash is used to pay the bank for any claims related to verified (initial or final) credit losses in the risk sharing portfolio. This ensures timely settlement of losses.
- 3. Interest proceeds of collateral securities are paid out to PFZW (in case of negative interest rates, CDS premium is partially used to repair the remaining notional amount).
- 4. The remainder of the cash will be reinvested in new 3-month high-quality securities.

Multi-currency risk sharing portfolio

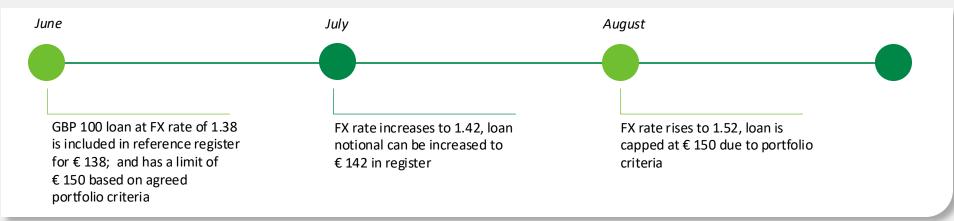
Many banks wish to hedge multi-currency portfolios

- Exposure to an international portfolio of borrowers
- Exposure in a multitude of currencies to existing (domestic) clients, for the purpose of international business and trade finance

Risk sharing transactions are ideally suited

- Underlying loans are not sold, therefore no currency risk at time of inclusion
- CDS premium is paid in base currency and not dependent on cash flows of underlying loans
- Agreed limitations such as single obligor limits, country limits and sector limits are determined in base currency
- The notional in base currency per obligor group can fluctuate with the FX rates within the ranges of the agreed portfolio guidelines
- At time of default FX rates of defaulted loans are fixed, and that rate is used during work-out, avoiding complicated and imperfect currency hedging arrangements

Example



Credit Risk Sharing Fund and PFZW

PGGM CRS Fund

- As of Q1 2020 a PGGM CRS Fund (CRS FGR) has been set up for future investments.
 - FGR is a Dutch concept which means fund for joint account in English.
- PFZW is the sole participant in this fund. PGGM is the asset manager of the fund.
- The PGGM CRS Fund has entered into a co-investment agreement with Alecta.
- PFZW will settle new CRS transactions in the CRS Fund. Existing transactions will remain on PFZW's balance sheet until maturity.

Co-Investment Agreement

Alecta has entered into a co-investment agreement with CRS FGR. The co-investment agreement makes clear that Alecta makes its own decision on a deal-by-deal basis whether it will invest or not. Alecta settles its own investments directly and holds the CRS transactions on its own balance sheet.

About Alecta

Alecta, one of Sweden's largest pension funds, manages occupational pension funds of 2.6 million people and 35,000 businesses across Sweden. It was established in 1917, and like PGGM it is a mutual company, owned by its customers. As of December 2024, Alecta's assets under management amounted to SEK 1,315 billion (approximately equal to € 119 billion).



Section 4

Track Record and Team

Since inception PGGM has realised over 90 transactions and has been building long-term relationships with partner banks

Introduction

Over 90 risk sharing transactions since inception in 2006

- PFZW has given PGGM an exclusive mandate to invest up to 3% of its assets in risk sharing transactions
- PFZW allocates to risk sharing transactions as an alternative to equity, hence the long-term target return is similar to that of an allocation to equity, for less risk
- Since December 2006 executed new risk sharing transactions every year, now totalling over 90 transactions

High-quality transactions with good performance

- For every risk sharing transaction, a base case, head wind and stress return is determined at start
- The portfolio has been delivering a better return than expected in base case thanks to experiencing fewer credit event losses than expected
- Realised average annual return of around 12%
- Since inception the cumulative amount invested in new risk sharing transactions is € 19 billion



"First risk sharing transaction executed by PGGM"



"Contribution to CRT"
Winner SCI CRT Awards 2023

Examples of risk sharing transactions executed by PGGM

Rabobank

€ 750 million

Pommes III Dutch and US Corporate Loans

December 2024



PLN 5.2 billion

K2 II Polish SME and Corporate Loans

November 2024



€ 2.0 billion

Verano IV Corporate Loans

October 2024



€ 2.0 billion

Morava Czech and Slovak **SME** and Corporate Loans October 2024



€ 4.0 billion

Aries V Corporate Loans

October 2024



HKD 19.5 billion

Agua I Corporate Loans

August 2024

End of December 2024 the total portfolio references approximately € 102 billion notional of underlying portfolios



US\$ 2.0 billion

Sumeru V EM Corporate Loans

June 2024

NatWest

£ 3.5 billion

Lang I SME Loans

June 2024



US\$ 800 million

Patagonia I Chilean SME and Corporate Loans

June 2024



US\$ 3.5 billion

Terra XVII Global Corporate Loans

March 2024



€ 10 billion

Resonance XI Corporate Loans STS transaction

December 2023

JPMORGAN CHASE & CO.

US\$ 3.8 billion

Appia I Corporate Loans

December 2023

• Multiple risk sharing transactions with the majority of our partners



f 2.0 billion

Helium I **UK Corporate** Loans

December 2023

COMMERZBANK (______

€ 1.8 billion

Garda II Corporate Loans

December 2023

Deutsche Bank

€ 6.0 billion

Darts IV Corporate Loans

May 2023



€ 1.2 billion

Artemis I Derivative Counterparty Credit Risk March 2023

Nordea

€ 2.0 billion

Sisu II Corporate Loans

February 2023

BMO M



US\$ 10 billion

Algonquin I Corporate Loans

November 2022



US\$ 9.7 billion

Colonnade Global V Corporate Loans

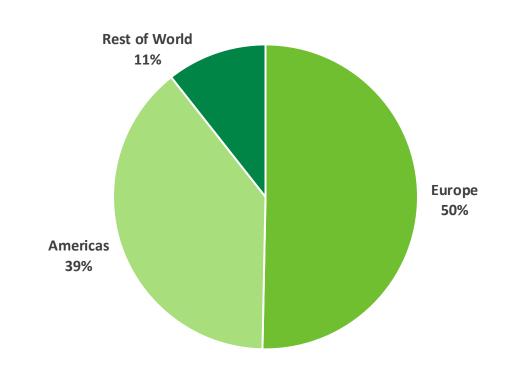
September 2022

Portfolio of risk sharing transactions spread across the globe

Exposure to loans in more than 80 countries across all continents

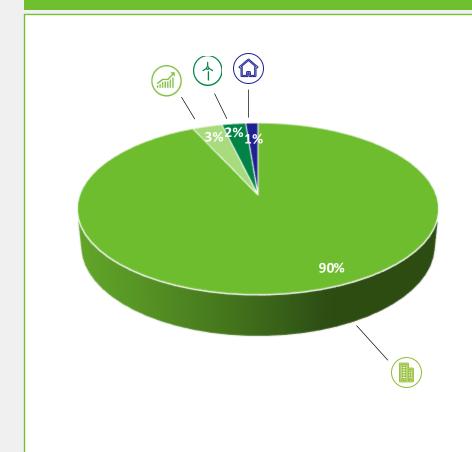
Country exposure (Top 10)

United States	32%
United Kingdom	14%
Germany	12%
Hong Kong	4%
Canada	3%
France	3%
Switzerland	3%
Poland	2%
Netherlands	2%
Spain	2%



Types of credit risk

Exposure to different types of credit risk financing the real economy



- Corporate Credit
 - Emerging and Developed Markets
 - (Sub)Investment grade
 - Large, mid and small cap
- Real Estate
- (†) Infrastructure
- Derivative Counterparty Credit Risk

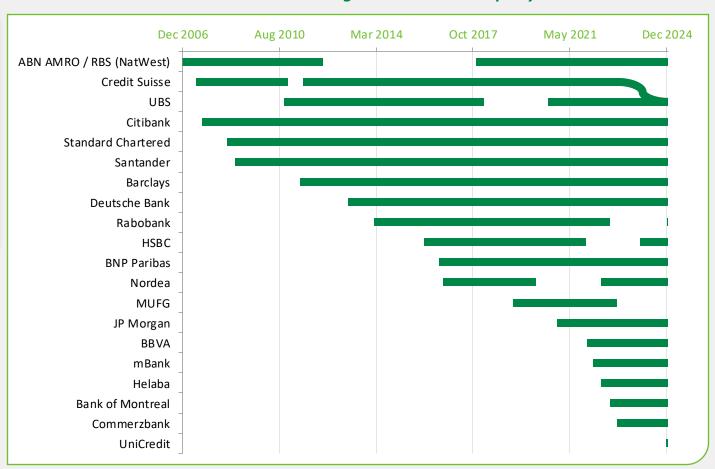
Diversified exposure across sectors

- Exposure to the real economy
- Well diversified over many different economic sectors
- All sector exposures < 12%

Long-term relationships

Period in which deals have been outstanding with each counterparty

PGGM values longterm relationships with risk sharing partners. Upon maturity most transactions are rolled over into new transactions, ensuring continued credit protection for PGGM's partner banks.



Dedicated Team - CRS



Team Head: Mascha Canio



Deputy Head: Barend van Drooge



Senior Directors: Angelique Pieterse Luca Paonessa



Joost Hoogeveen







Oliver Friedt



Meindert De Jong



Niels Las



Jan Stribny

Directors: Jurryt Pietersma Alien Pauw



Senior Policy Advisor: Anna Bak



Jan Peeters Weem



Yuain Liu



Associates: Daniël Vlaardingerbroek Andreas Knabe

Investment Managers:

Carlo Mazzanti

Analysts: Ruben Groenhuijsen Apoorva Goel

Qualifications

12 years average work experience

Ranging from 1 to over 30 years

International working experience

Netherlands, UK, Singapore, Italy, France, Germany, China, US, Czech Republic

Diverse professional backgrounds

Asset Management, Banking, Law, Physics, Quantitative Analytics, Credit Structuring, Fixed Income Sales, Frontier Markets, (Re)insurance, Risk Modelling, Private Equity, Quantitative Trader

Broad (post-) academic background

Business Administration, Finance, Economics, Econometrics, Risk Management, Physics, Law, Aerospace Engineering, Management, Applied Mathematics, Cognitive Neuroscience, PhD, CFA

8 different nationalities

Dutch, Italian, Chinese, German, Czech, Polish, British, Indian

10 different languages

Dutch, English, Italian, Spanish, French, Mandarin, German, Czech, Polish, Hindi

1 Team Head 6 Directors 2 Associates 1 Deputy Head 1 Senior Policy Advisor 2 Portfolio Analysts 3 Senior Directors 3 Investment Managers

Recognition and press





Winner

SCI Capital Relief Trades Awards 2019







eading up a team responsible for one of the largest investment portfolios in the sector that has driven market growth while setting a benchmark that others follow would perhaps be enough. But Mascha Canio's personal contribution extends further as one of the most long-standing and visible investors and an advocate for a focus on risk-sharing and transparency to ensure the capital relief trade market's future sustainability.

PGGM

MASCHA CANIO

Winner:
Personal
Contribution to
the Industry –
Mascha Canio

SCI

Personal Contribution to the Industry



Recognition and press

PGGM doet mee aan leningenpakket BNP Paribas van €8 mrd

Marcel de Boer 2 feb 00:30





In recognition of the deal being the largestever securitised portfolio in Central and Eastern Europe (at PLN9bn); the first-ever STS synthetic securitisation from Poland:

the first Polish SRT trade with a credit-linked note issued directly by a bank; and the first transaction in the Polish market executed entirely with a private sector investor

2022 Winner: Investor of

Relief Trades

Capital

Awards

Winner: Innovation of the Year -Sumeru IV (Alecta, PGGM, Standard

Honourable Mention: Transaction of the year Project K2

Standard Chartered prints capital relief trade

the year

Standard Chartered, PGGM and Alecta have finalized a synthetic securitisation that references a US\$1.5bn portfolio of Asian, Middle Eastern, African, North American, and Western European corporate loans. Dubbed Sumeru four, the capital relief trade renders Standard Chartered the first bank to benefit from capital relief in Hong Kong

Alecta and PGGM agree co-investment in Credit Risk Sharing

PGGM - Alecta co-Today Alecta the SEK 900 billion Swedish pension fund and P investment 252 billion asset manager for Dutch pension funds announce agreement (2020) signed a unique co-investment agreement to invest in credit ris transactions.

SCI Capital Relief Trades

Rising Star Award 2021-Meindert de Jong

RISING STAR AWARD

Winner: Meindert de Jong, PGGM

"WORKING WITH SUCH A CLOSE AND SUPPORTIVE TEAM HAS HELPED ME TO DEVELOP"

Verano IV: Transaction featuring **ESG-linked** coupon (2024)



BBVA and PGGM entered into €2Billion **ESG-Linked Corporate Loan Credit Risk** Sharing transaction

BBVA Corporate & Investment Banking (CIB) entered into a groundbreaking €2 billion risk sharing transaction with PGGM, which is uniquely structured with an ESG-linked pricing mechanism that ties 40% of the portfolio to Environmental, Social, and Governance (ESG) performance metrics. By linking capital costs to sustainability targets, this transaction sets a new industry benchmark for integrating ESG factors into capital markets. It also marks RRVA's fourth partnership with Dutch pension fund investor PGGM further strengthening a long-term collaboration focused on advancing sustainable

Landmark SRT launched

First Polish STS transaction (2022)

mBank debuts polish synthetic ABS

mBank and PGGM have finalized a direct CLN backed by a PLN9bn portfolio of large, small and medium sized polish corporate loans. The transaction is the first Polish significant risk transfer trade sold to private investors as well as the first STS synthetic securitisation in the country.

CONTRIBUTION TO CRT WINNER: PGGM

Winner: Contribution to **CRT**

Relief Trades

2023

Winner: **Emerging Markets** Transaction of the Year

EMERGING MARKETS TRANSACTION OF THE YEAR

Winner: Project Patagonia (IFC, PGGM, Santander)





Relief Trades Awards



Beliefs

Sustainable Financial System

Risk sharing transactions add value to the real economy and contribute to a sustainable financial system:

- Risk sharing transactions free up capital for banks enabling them to lend more to the real economy
- Credit risks are shared outside of the banking system, leading to a more stable banking sector

Promoting a growing securitisation market

As an experienced investor PGGM is committed to promoting a growing and safe securitisation market through:

- Actively sharing knowledge and beliefs via our position papers, to contribute to the development of sound standards for the CRS market
- Engaging in dialogue with peers and regulators to develop simple, transparent and standard securitisations
- Actively contributing to the consultations by regulators across the globe

Unique approach and focus

Investing in Credit Risk Sharing Transactions with:

- Focus on successful core lending activities of a select number of high-quality credit originators
- Strong alignment of interest, with the partner bank sharing the same credit risk
- Thorough independent assessment, both quantitative and qualitative, including sustainability policies
- Shared objective of building a long-term relationship

Papers



Papers are available on PGGM's website:

https://www.pggm.nl/en/blogs/embrace-internal-model-diversity/

Green securitisation: it's all about the data | PGGM

https://www.pggm.nl/en/blogs/sts-for-credit-risk-sharing-is-proving-a-success/

 $\underline{https://www.pggm.nl/media/5aek3m10/pggm-position-paper-synthetic-securitisations_november_2015.pdf}$

https://www.pggm.nl/media/da1e3kpi/pggm-credit-risk-sharing-uk.pdf

 $\underline{https://www.pggm.nl/media/t5rlaehq/joint-paper-the-benefits-of-securitisation-june-2016.pdf}$

 $\underline{https://www.pggm.nl/en/blogs/securitisation-and-the-big-short-food-for-thought/}$

https://www.pggm.nl/media/quifc0im/pggm-paper-esma-templates-not-fit-for-risk-sharing-transactions-november-2019.pdf

Transparency List

On PFZW's website you can find the Transparency List which provides information on the outstanding credit risk sharing transactions:

Overzicht Credit Risk Sharing - Over PFZW | PFZW

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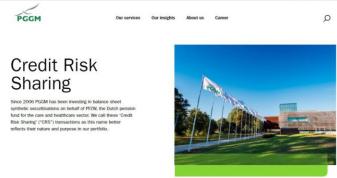
3700 AC Zeist

The Netherlands



Information on PGGM: www.pggm.nl/en/

Information on Credit Risk Sharing: www.pggm.nl/en/our-services/credit-risk-sharing/





Information on PFZW: https://www.pfzw.nl/over-pfzw/wij-zijn-pfzw.html