

Credit Risk Sharing

April 2024



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Section 1

PGGM Overview

A 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.

PGGM is an independent pension fund service provider in The Netherlands with assets under management of € 240 billion

- Largest client is Pensioenfond's Zorg en Welzijn ('PFZW'), the Dutch pension fund for the health care and welfare sector, with € 238 billion total assets belonging to more than 3 million participants

- Other clients include Pension Funds for Architects, Private Security, Painters, General Practitioners and Smurfit Kappa, together with € 2.5 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 2023

Section 2

Risk Sharing Transactions

Sharing in core credit risks banks have on their balance sheets

Focus on long-term partnership

Mutual benefits

PGGM

- ✓ Attractive risk-return profile
- ✓ Exposure to illiquid and unique credit risks
- ✓ Close cooperation with high-quality credit originator

Partner Bank

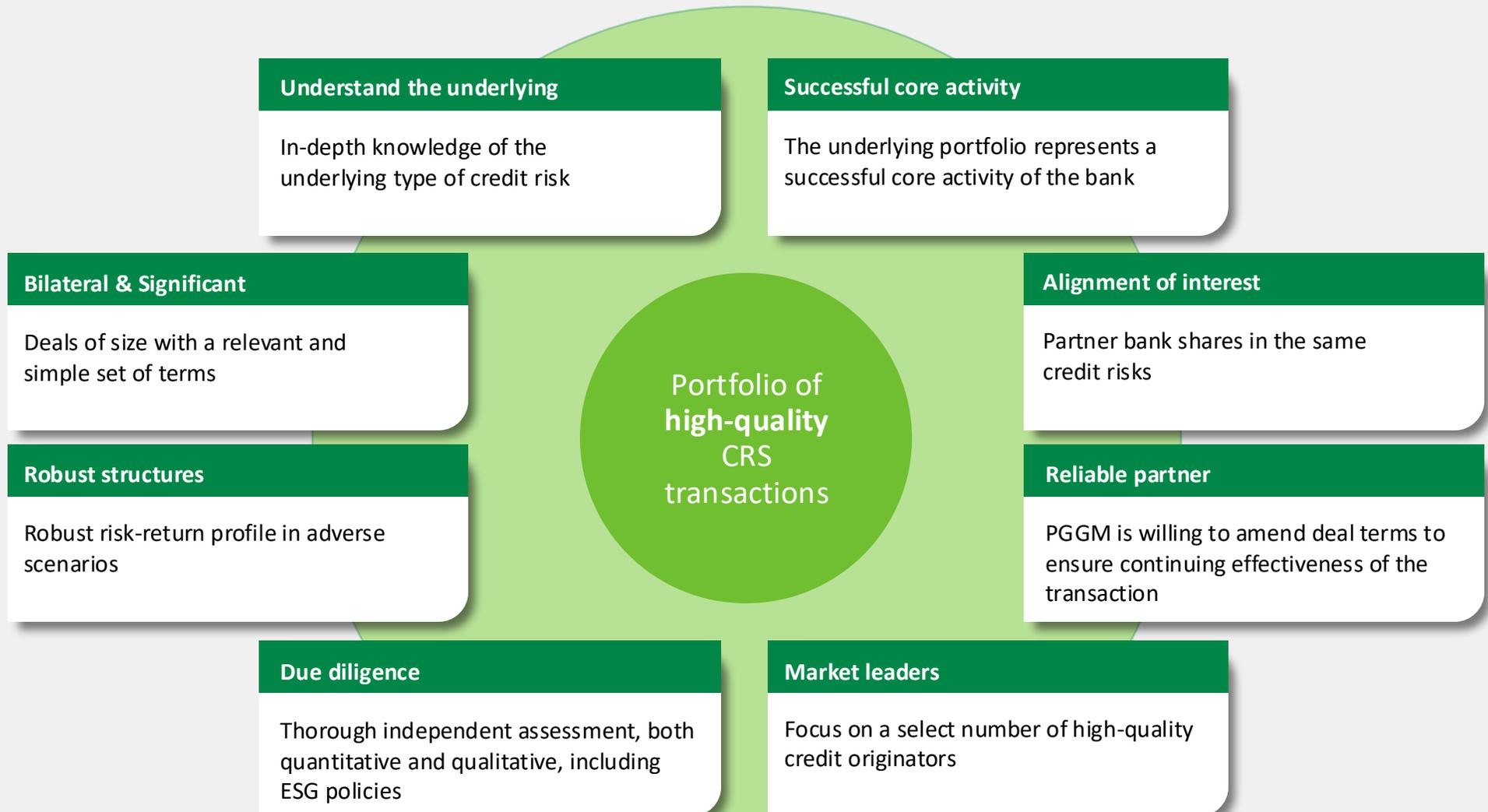
- ✓ Efficient capital management
- ✓ Perfect hedge of credit risks
- ✓ Applicable across multiple loan books

Multiple risk sharing transactions over time

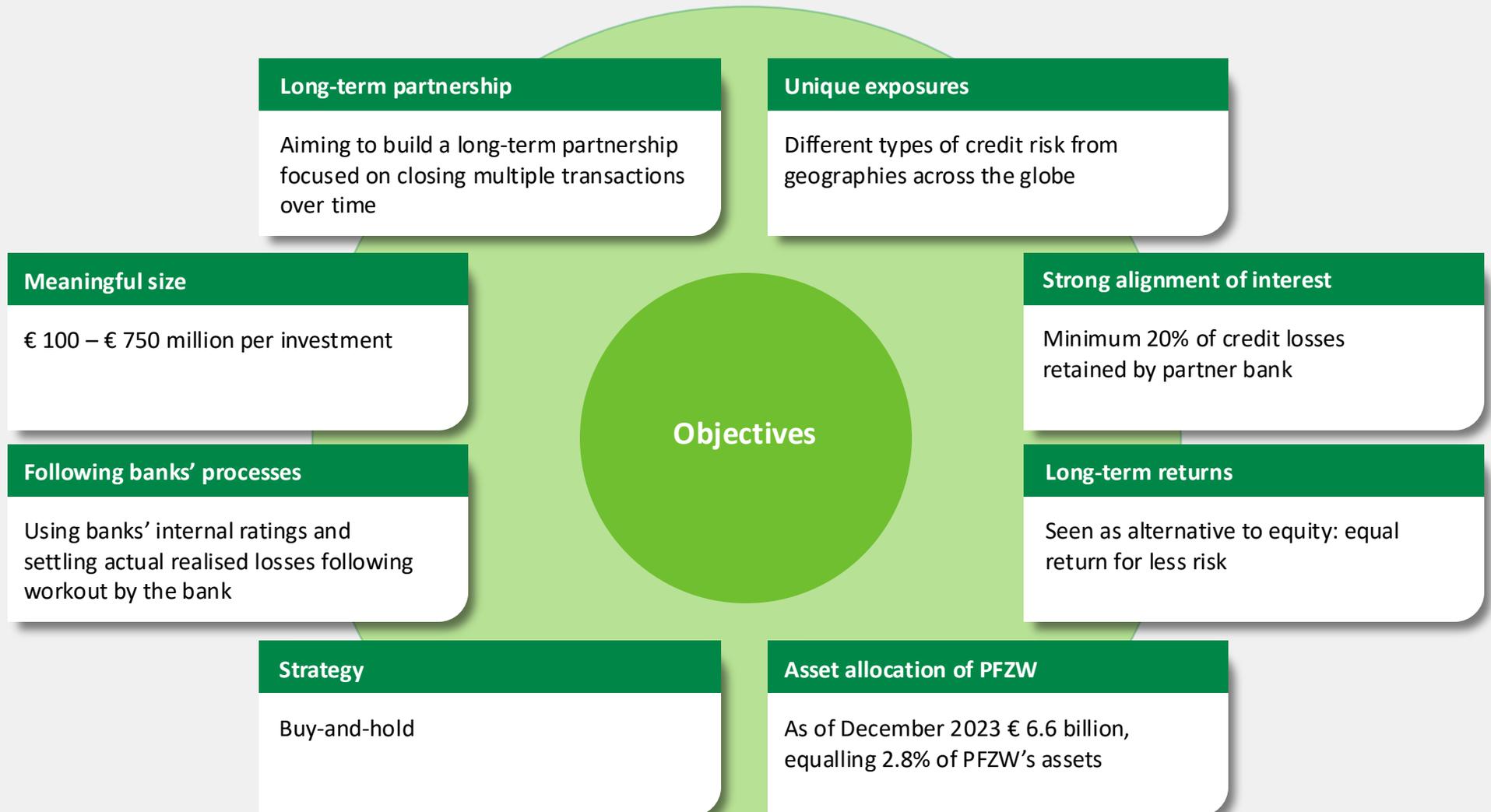
Pricing and structuring will benefit from gained experience as the relationship develops



Our philosophy



Our objectives



Main benefits for partner bank

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

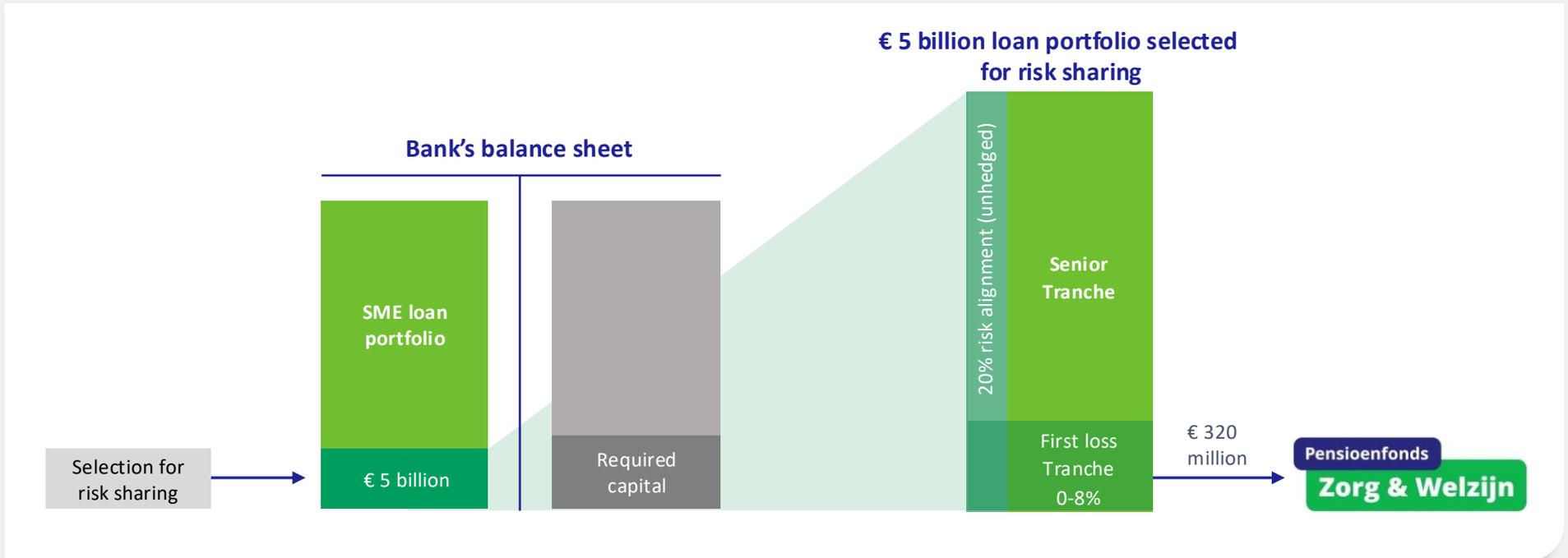
- **Reliable and experienced long-term partner familiar with different legal structures**
- **Risk capital provider to core & successful activities**
- **Provides a means to efficiently manage capital and to perfectly hedge illiquid credit exposures**
- **Tailor-made transactions:** working together 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

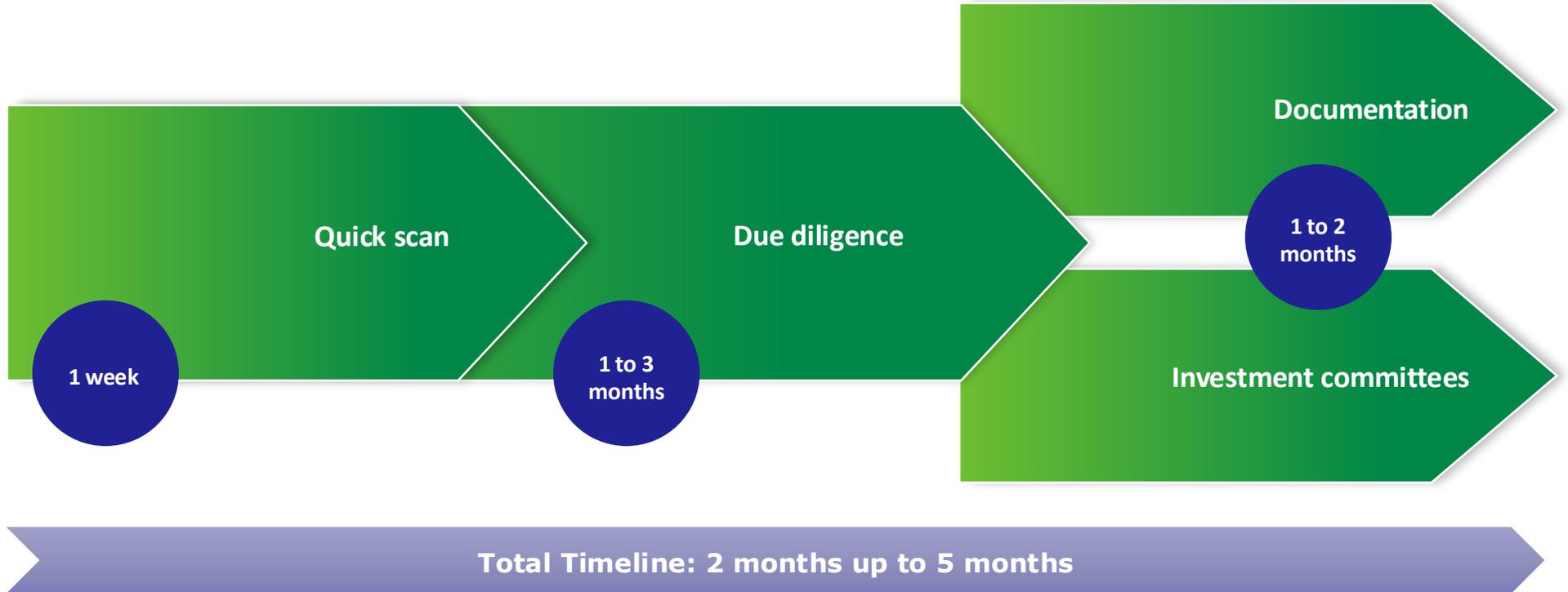
Example first loss tranche



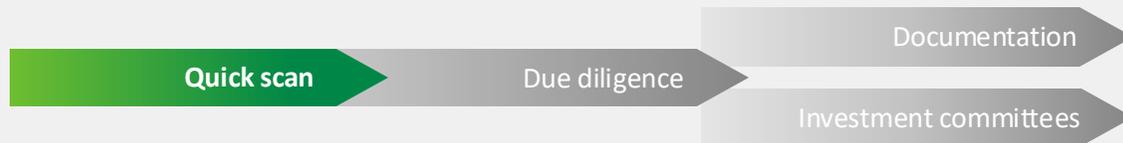
The bank transfers the first loss position to PGGM's client PFZW:

- ✓ **Perfect hedge** for credit events such as bankruptcy, failure to pay, and restructuring
- ✓ **Up to 20% first loss position:** for each credit event resulting in a loss, a maximum of 80% is covered by PFZW 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

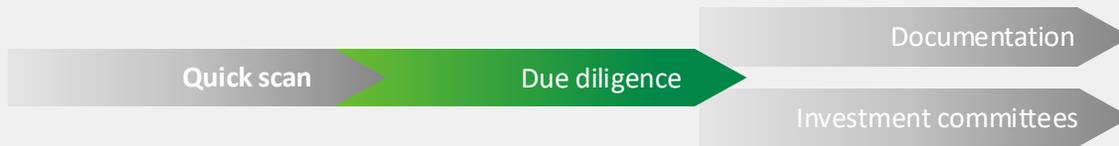
PGGM performs initial analysis on:

- 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

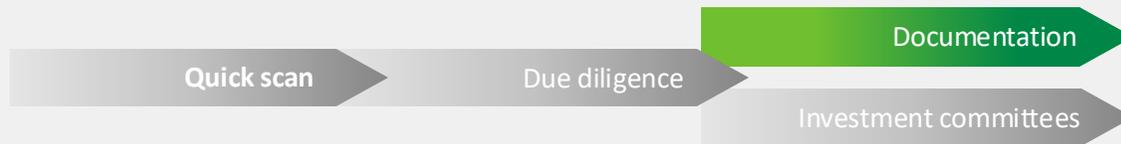
- Processes regarding credit origination, monitoring and recovery management
- Business strategy for the credit risk generating activity
- Division of roles and responsibilities across different parts of the organisation
- Role of Credit Portfolio Management team
- ESG/Sustainability policies

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

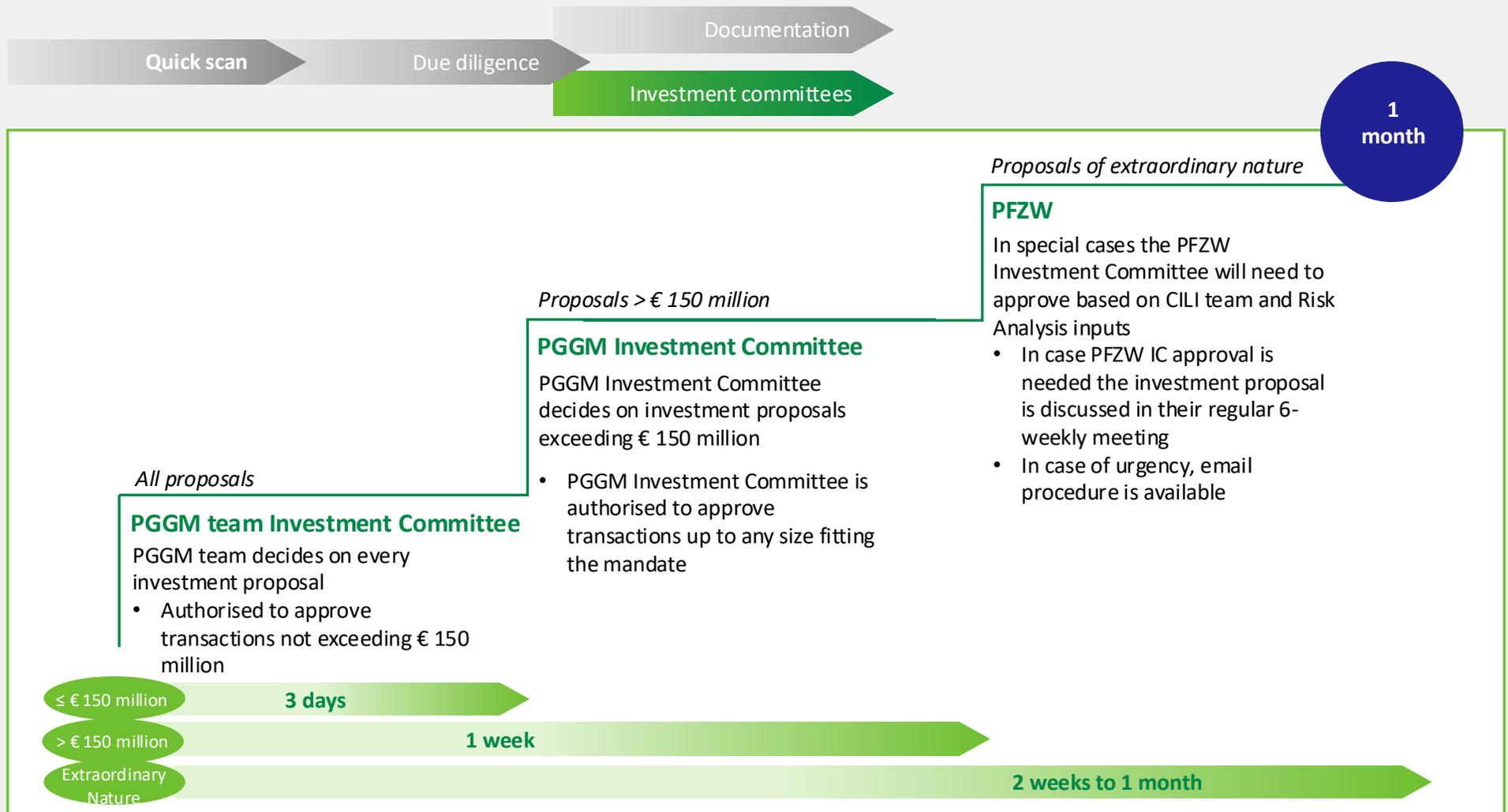
Verification agent procedures

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

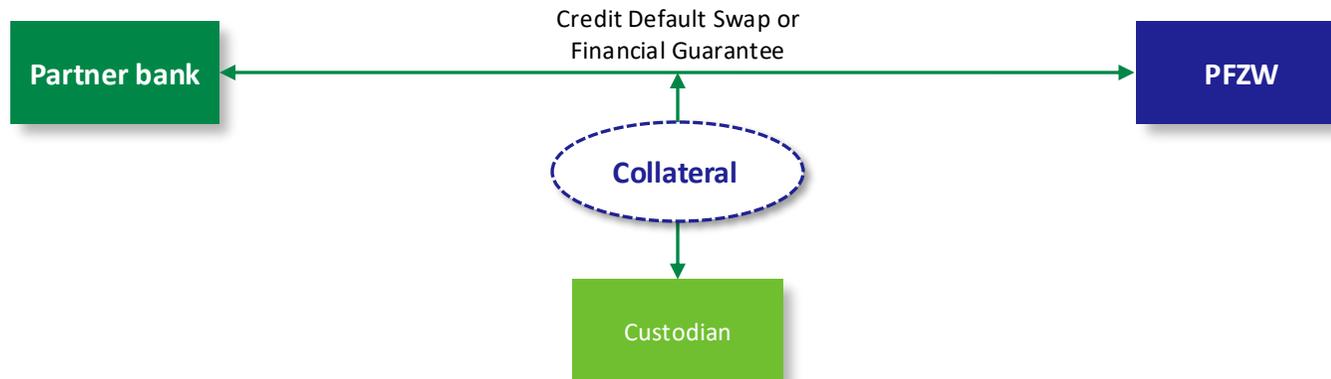
Timeline: Investment committees



Different options available for structuring transactions

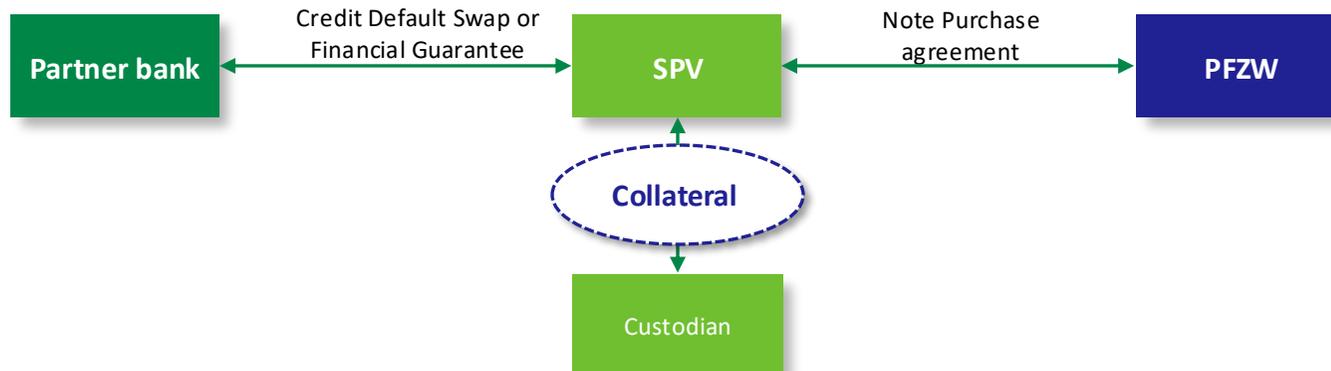
Direct Credit Default Swap (CDS)

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



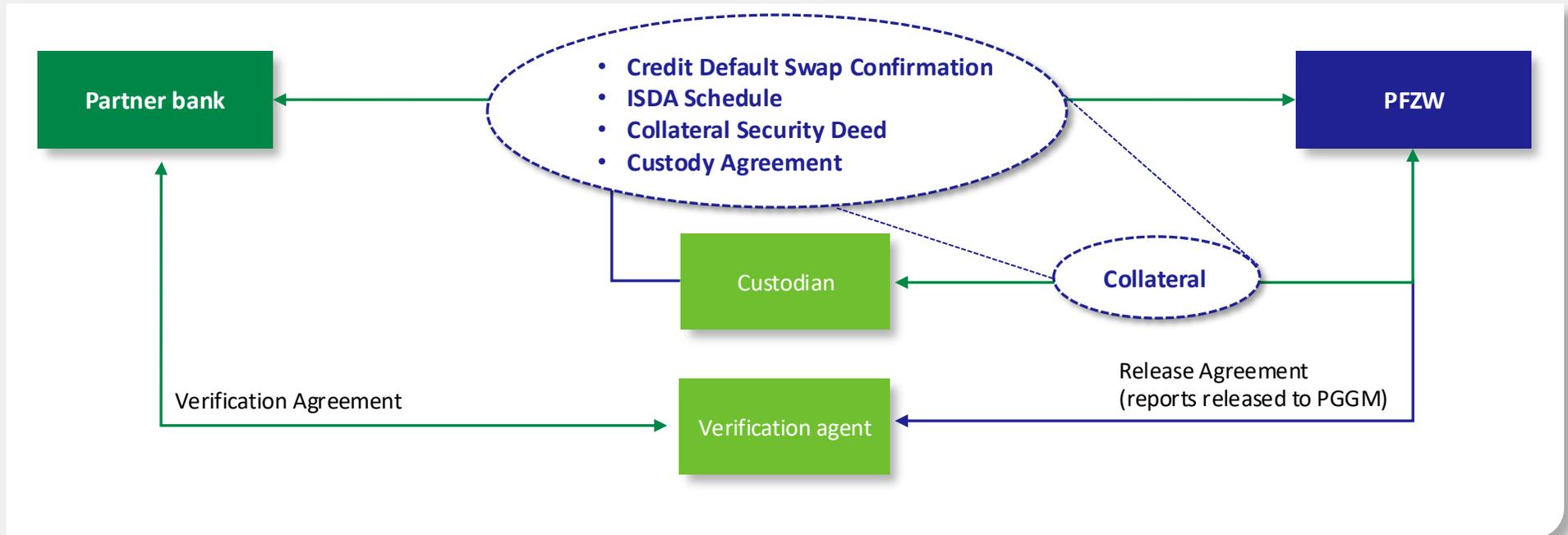
Credit Linked Note with Financial Guarantee / CDS¹

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.



1. CLN issuance directly from the bank's balance sheet is also possible.

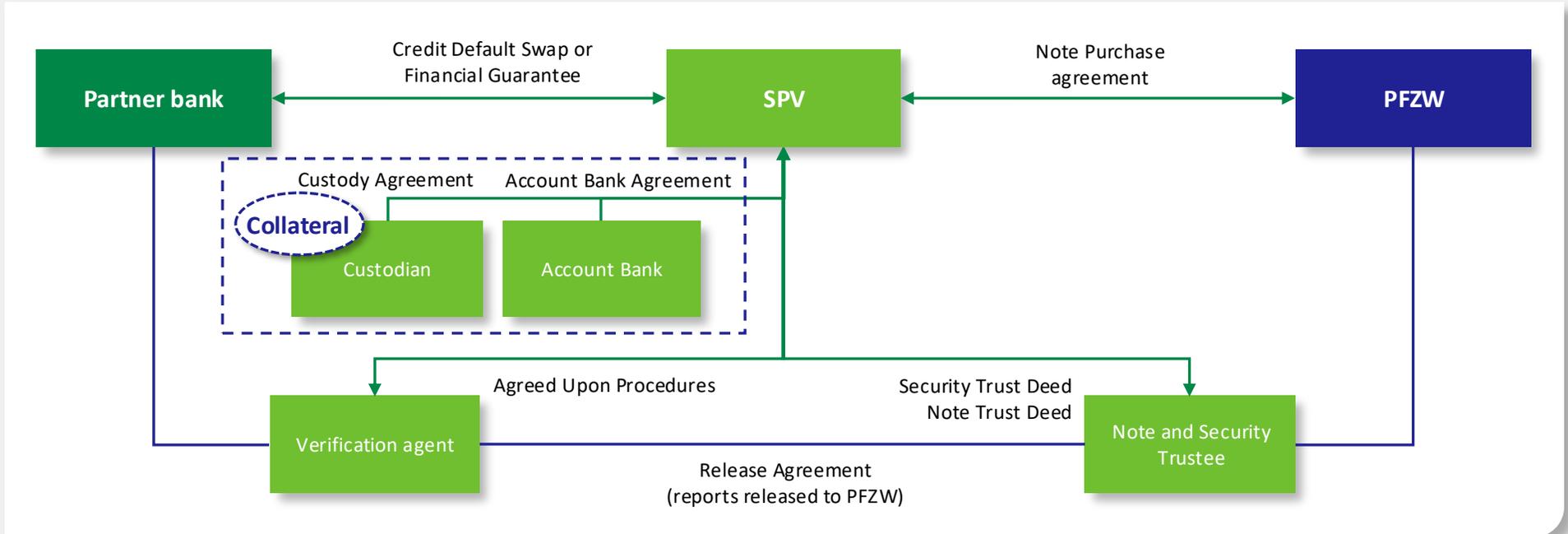
Direct CDS



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

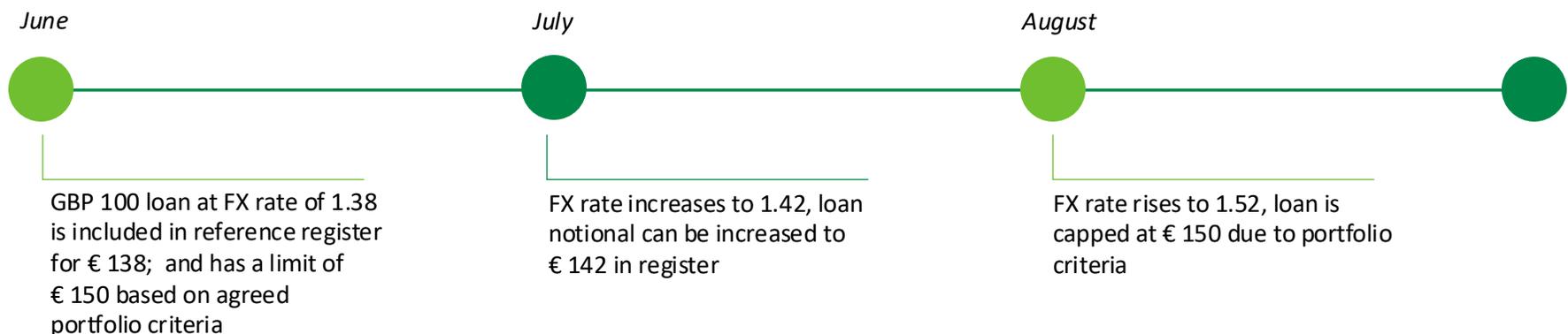
Many banks wish to hedge multi-currency portfolios

- 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 2.8 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 2023, Alecta's assets under management amounted to SEK 1,245 billion (approximately equal to € 108 billion).

The logo for Alecta, featuring the word "alecta" in a bold, lowercase, blue sans-serif font.

Section 4

Track Record and Team

Since inception PGGM has realised over 80 transactions and has been building long-term relationships with partner banks

Introduction

Over 80 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 80 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 € 17.6 billion



€ 15.5 billion

PRAR
Corporate Loans

December 2006

“First risk sharing transaction executed by PGGM”



***“Contribution to CRT”
Winner SCI CRT Awards 2023***

Examples of risk sharing transactions executed by PGGM

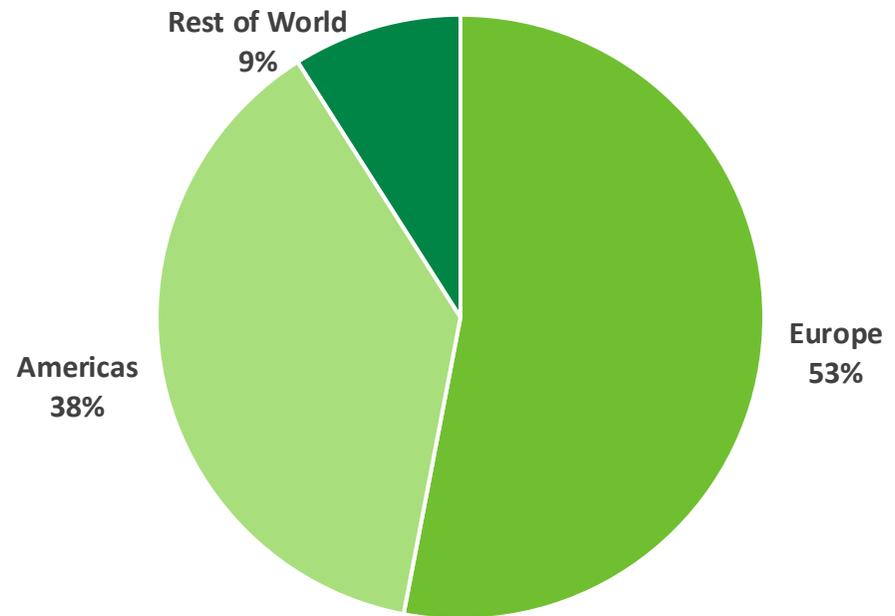
<p>JPMORGAN CHASE & CO.</p> <p>US\$ 3.8 billion</p> <p>Appia I Corporate Loans</p> <p>December 2023</p>	<p> HSBC</p> <p>£ 2.0 billion</p> <p>Helium I UK Corporate Loans</p> <p>December 2023</p>	<p> BMO</p> <p>US\$ 10 billion</p> <p>Algonquin I Corporate Loans</p> <p>November 2022</p>	<p> CREDIT SUISSE</p> <p>US\$ 3.3 billion</p> <p>Guilden XXIII US and European Corporate Loans</p> <p>June 2022</p>	<p> mBank</p> <p>PLN 9.0 billion</p> <p>K2 I Polish SME and Corporate Loans</p> <p>March 2022</p>	<p> BNP PARIBAS</p> <p>€ 10 billion</p> <p>Resonance XI Corporate Loans STS transaction</p> <p>December 2023</p>	<ul style="list-style-type: none"> End of December 2023 the total portfolio references approximately € 76 billion notional of underlying portfolios
<p> Standard Chartered</p> <p>US\$ 2.0 billion</p> <p>Shangren VI EM Trade Finance</p> <p>March 2022</p>	<p> Standard Chartered</p> <p>US\$ 1.5 billion</p> <p>Sumeru IV EM Corporate Loans</p> <p>March 2022</p>	<p> BARCLAYS</p> <p>US\$ 9.7 billion</p> <p>Colonnade Global V Corporate Loans</p> <p>September 2022</p>	<p> Helaba</p> <p>€ 2.1 billion</p> <p>Kingston I Corporate Loans</p> <p>June 2022</p>	<p> Santander</p> <p>€ 2.3 billion</p> <p>Boadilla III European Project Finance</p> <p>December 2017</p>	<p> BBVA</p> <p>€ 750 million</p> <p>Verano III Project Finance</p> <p>November 2023</p>	
<p> NatWest</p> <p>£ 4.6 billion</p> <p>Nightingale UK SME and IPRE</p> <p>November 2017</p>	<p> BNP PARIBAS</p> <p>€ 1.2 billion</p> <p>Artemis I Derivative Counterparty Credit Risk</p> <p>March 2023</p>	<p> Nordea</p> <p>€ 2.0 billion</p> <p>Sisu II Corporate Loans</p> <p>February 2023</p>	<p> Deutsche Bank</p> <p>€ 6.0 billion</p> <p>Darts IV Corporate Loans</p> <p>May 2023</p>	<p> UBS</p> <p>US\$ 1.3 billion</p> <p>Gemini III Derivative Counterparty Credit Risk</p> <p>May 2023</p>	<p> citi</p> <p>US\$ 4.0 billion</p> <p>Terra XI Global Corporate Loans</p> <p>September 2021</p>	<p> COMMERZBANK</p> <p>€ 1.8 billion</p> <p>Garda II Corporate Loans</p> <p>December 2023</p>

Portfolio of risk sharing transactions spread across the globe

Exposure to loans in more than 75 countries across all continents

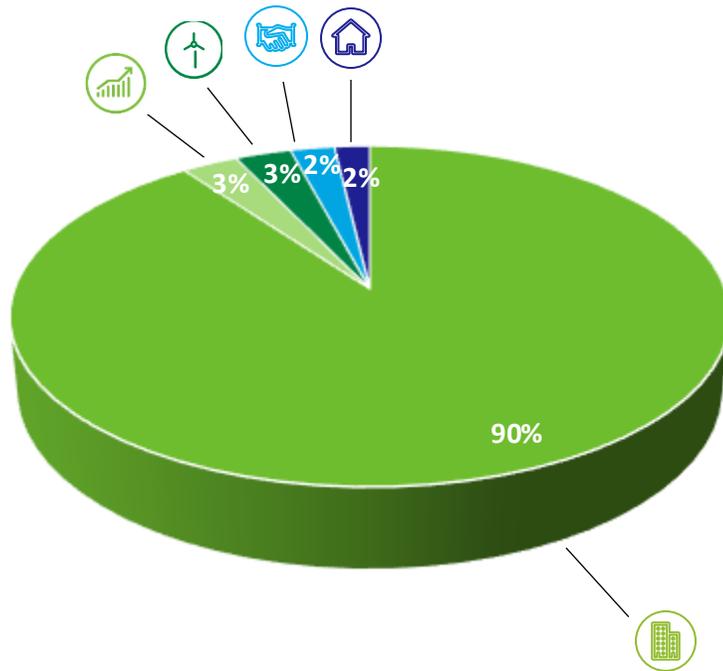
Country exposure (Top 10)

United States	33%
United Kingdom	16%
Germany	12%
France	5%
Switzerland	3%
Canada	3%
Spain	3%
Netherlands	2%
Poland	2%
Sweden	1%



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
-  Trade Finance
-  Real Estate
-  Infrastructure
-  Derivative Counterparty Credit Risk

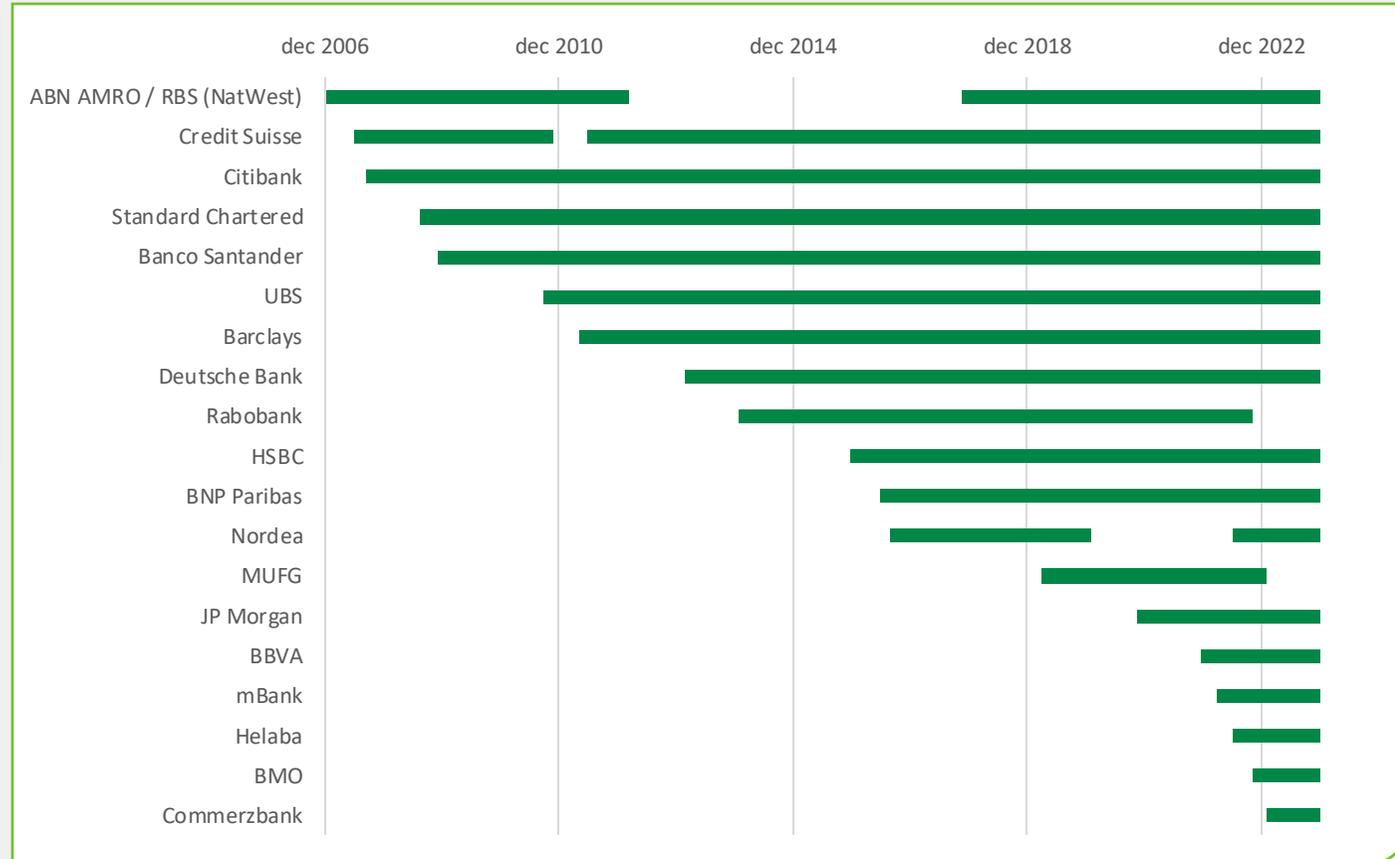
Diversified exposure across sectors

- 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 long-term 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



Team Head



Deputy Head



Senior Directors



Directors



Senior Policy Advisor



Associate Director



Investment Manager



Associates



Portfolio Analysts

- 1 Team Head
- 1 Deputy Head
- 3 Senior Directors
- 5 Directors
- 1 Associate Director
- 1 Senior Policy Advisor
- 1 Investment Manager
- 2 Associates
- 4 Portfolio Analysts

Qualifications

11 years average work experience

Ranging from 1 to over 25 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

Recognition and press



Winner:
Innovation of the Year
(PGGM - Alecta co-investment)

Winner:
Alternatives

Winner:
Credit & Alternatives

Nominee:
Professional Pension Fund



Winner:
Investor of the Year (Alecta and PGGM)



Terra I:
Emerging Market transaction with Citi in 2007

THE WALL STREET JOURNAL.
World U.S. Politics Economy Business Tech Markets Opinion Arts Life

EUROPEAN BUSINESS NEWS
Pensions Help Smooth Bumpy Credit Market
Funds Provide Hedge Against Risky Loans; 'A Natural Savior'



Winner:
2016
IIR Securitisation Award



Pommes
transaction with Rabobank in 2014

fd.
het financieel dagblad

MOELLER'S TIJDEN
Na harde ingrepen klant adviesbureau BoerCroon weer uit het dal → Pagina 14

BEWEGINGSVERZICHT
IN BEWEGING PROF...
BEWAARDINGS VAN TAPSEL
LIJN RAADT VRAAGT UIT...

PENSIOENSELD
Zorgfonds belegt in bedrijfskrediet van Rabobank



Pensioenfonds Zorg en Welzijn + Add to myFT

PGGM to agree €2.3bn synthetic securitisation deal with Santander

Dutch pension fund manager to sell credit insurance against potential losses

Victoria:
Spanish SME transaction with Banco Santander in 2015



Winner
Personal Contribution to the Industry

SCI Capital Relief Trades Awards 2019

SCI

H leading 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.

Winner:
Personal Contribution to the Industry – Mascha Canio



PROFESSIONAL PENSIONS

Admin/Tech Benefits Buzz DB DC Investment Law & regulation Risk re

Netherlands
PGGM, ABN AMRO enter loan deal worth €15.5bn

Damian Clarkson
19 December 2008

PRAR:
1st CRS with ABN AMRO Bank in 2006

Recognition and press

PGGM doet mee aan leningenpakket BNP Paribas van €8 mrd

Marcel de Boer 2 feb 00:30



STS transaction with BNP Paribas in 2021

Alecta and PGGM agree co-investment in Credit Risk Sharing

Today Alecta the SEK 900 billion Swedish pension fund and P 252 billion asset manager for Dutch pension funds announced signed a unique co-investment agreement to invest in credit risk transactions.

PGGM - Alecta co-investment agreement (2020)



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”



PGGM, Alecta sign €500m credit risk sharing deal with BBVA

BY TJIBBE HOEKSTRA | 14 JANUARY 2022

PGGM and Alecta have entered into a credit risk sharing deal with BBVA, covering a portfolio of project loans, a third of which consists of projects in emerging markets.

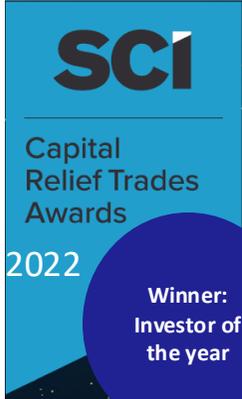
PGGM - Alecta co-investment agreement (2020)



Winner: Contribution to CRT



CONTRIBUTION TO CRT WINNER: PGGM



HONOURABLE MENTION: PROJECT K2 (mBANK, PGGM, UNICREDIT)

In recognition of the deal being the largest-ever 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 the year

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

Honourable Mention: Transaction of the year Project K2

Standard Chartered prints capital relief trade

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.



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.

PGGM has closed 79 transactions since the inception of its credit risk-sharing (CRS) mandate in 2006, investing €16bn globally across diverse asset types and partnering with 19 global and regional banks through the GFC, Covid-19 pandemic and now during the current environment of inflationary pressures and geopolitical unrest. The firm is SCI's pick for the Contribution to CRT award not only because it is one of the most experienced and largest end-investors in the risk transfer field, but also in recognition of its promotion of high transaction standards and a robust market, as well as its industry advocacy and engagement.

As a prudent long-term pension fund investor, PGGM has consistently applied its own high pension fund standards to its CRS transactions based on understanding the underlying and a genuine sharing of credit risk between the bank and the investor. Indeed, the firm applies three key principles to its investments: adequate risk alignment of 20% mitigation of counterparty credit risk to the bank by collateralising the funded notional; and having the right data to evaluate the credit risks of the loan portfolio and estimate expected losses throughout the economic cycle. PGGM also influences the adoption of high-quality transaction standards through its co-investment agreement with Swedish pension fund Alecta, with the goal of helping



Bernd van Drooyge, PGGM

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

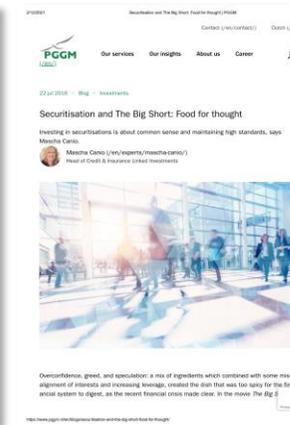
As an experienced investor PGGM is committed to promoting a growing and safe securitisation market through:

- 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 ESG policies
- Shared objective of building a long-term relationship



Papers are available on PGM's website:

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

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

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

https://www.pggm.nl/media/t5rlaehq/joint-paper-the-benefits-of-securitisation-june-2016.pdf

https://www.pggm.nl/en/blogs/securitisation-and-the-big-short-food-for-thought/

https://www.pggm.nl/media/quif0jm/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:

https://www.pfwz.nl/over-pfwz/zo-beleggen-we/waar-in-we-beleggen/overzicht-credit-risk-sharing.html

Contacts

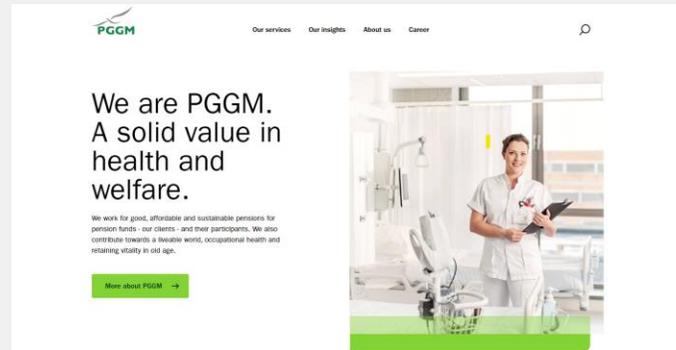
PGGM Vermogensbeheer B.V.

Visiting Address

Noordweg Noord 150
3704 JG Zeist
The Netherlands

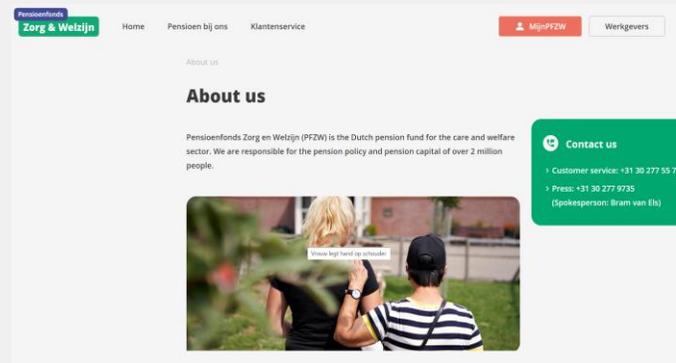
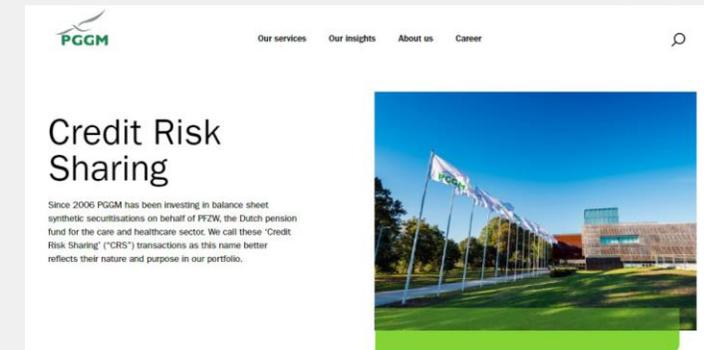
Postal Address

P.O. Box 117
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>