



Bank Hipoteczny

# PKO Bank Hipoteczny Issuer of Mortgage Covered Bonds in PKO BP Group

Investor presentation  
September 2022

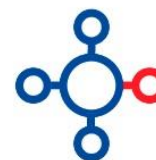
# Key investment highlights of PKO Bank Hipoteczny



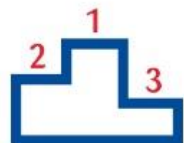
Bank Hipoteczny



The biggest mortgage Bank in Poland  
with residential mortgages loan portfolio  
value of PLN 20.8 bn\*



Effective business model  
synergies with its parent company PKO BP –  
leader of Polish banking sector



The biggest issuer of covered bonds in Poland  
with PLN 9.9 bn of outstanding which is 50.4%  
of market share\*



First issuer of EUR denominated  
benchmark green covered bonds  
out of Poland and Central & Eastern Europe



Covered Bond rating Aa1  
- the highest achievable by Polish  
debt securities



Green covered bonds  
in line with ICMA and certified by  
Climate Bonds Initiative



Strongly committed to ESG  
with eligible portfolio of green assets

# 1 Overview of the Polish economy and its banking sector

## 2 Polish property market and residential mortgage lending

## 3 PKO BP Group overview

## 4 PKO Bank Hipoteczny – covered bonds issuer

## 5 Green Covered Bonds as an important addendum to the funding mix

## 6 Appendices

# Poland as a leader of economic growth in EU



Bank Hipoteczny

## Macroeconomic and banking sector forecasts

		2019	2020	2021	2022 forecast
GDP	% y/y	4.7	-2.2	5.9	4.9
Consumption	% y/y	4.0	-3.0	6.1	6.4
Investments	% y/y	6.1	-4.9	3.8	-2.0
Fiscal balance*	% GDP	-0.7	-6.9	-1.9	-2.8
CPI Inflation	%	2.3	3.3	5.1	12.5
LFS unempl. rate	%	3.3	3.2	3.4	2.7
NBP reference rate	% eop	1.50	0.10	1.75	6.50
EUR/PLN	PLN eop	4.26	4.61	4.60	4.55

Source: Statistics Poland, Ministry of Finance, National Bank of Poland, PKO Bank Polski forecasts

\* In ESA2010 terms.

**Population** of 38.2 m (5th largest in the EU) covering area of 312,696 sq km

**GDP\*\*** in 2021: EUR 574,4 bn

**GDP per capita\*\*\*** in 2021: USD 34.4 thousands (in PPP)

Source: Statistics Poland, \*\*Eurostat, \*\*\*IMF

## Poland's credit ratings

**A2**  
outlook  
stable

Moody's

Source: Moody's, Fitch, S&P

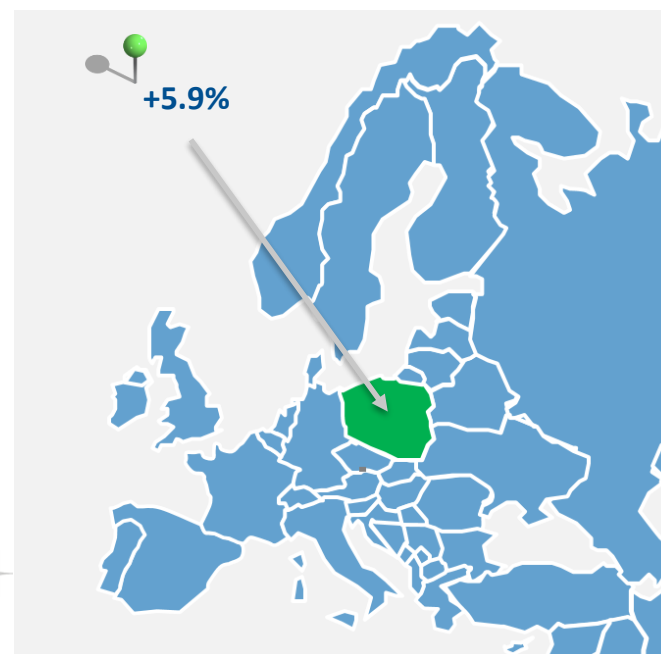
**A-**  
outlook  
stable

Fitch  
Ratings

**A-**  
outlook  
stable

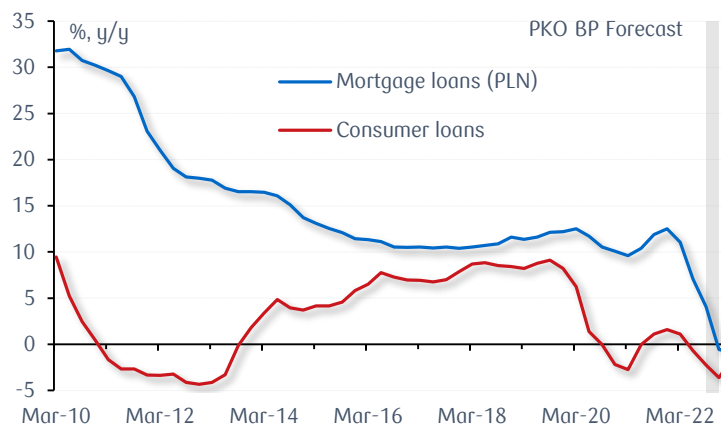
STANDARD  
& POOR'S

## GDP growth in 2021

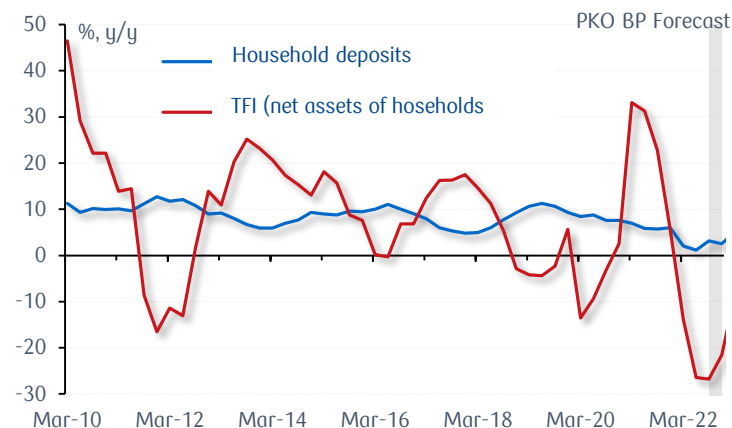


# Development of loan and deposit market (FX adjusted)

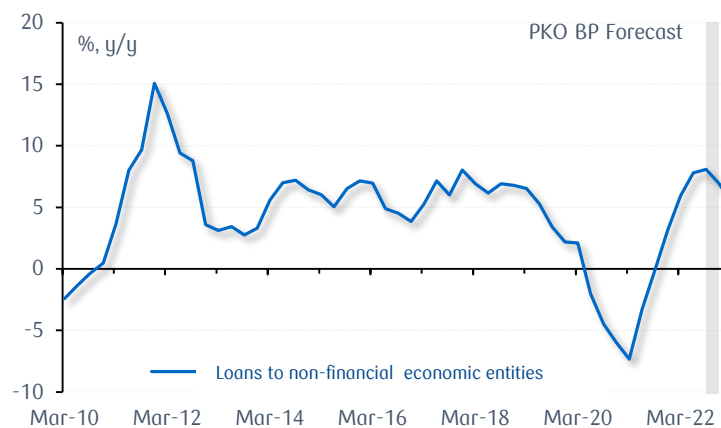
## Mortgage and consumer loans



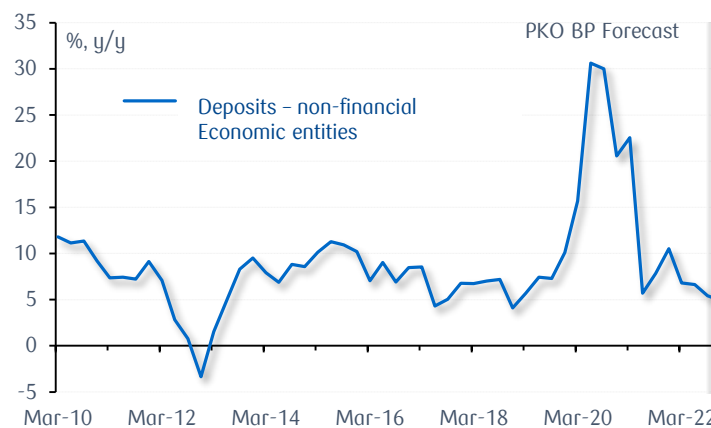
## Households deposits and net assets (TFI)



## Loans to non-financial economic entities

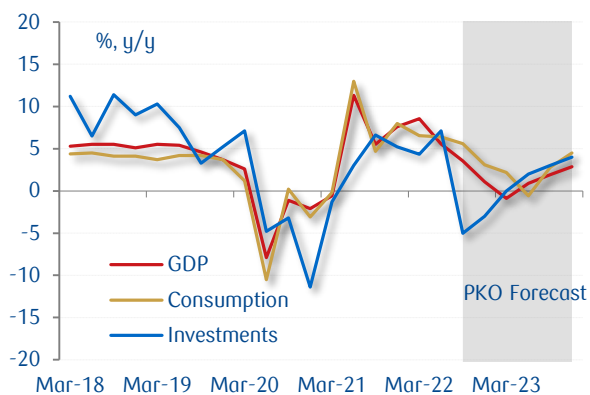


## Deposits of non-financial economic entities

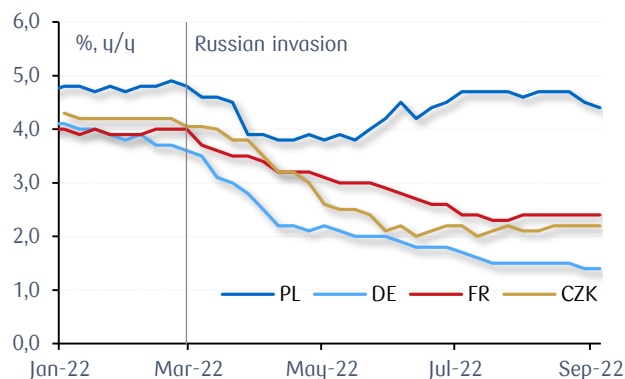


# The economy is slowing down

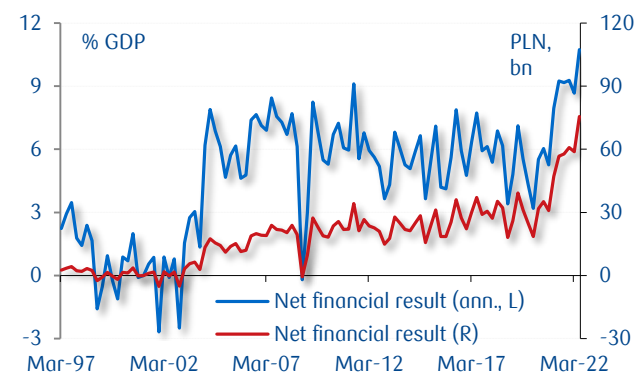
GDP slowdown ahead



2022 GDP Consensus for Poland back at the pre-war level



Record high profits in the enterprise sector\*

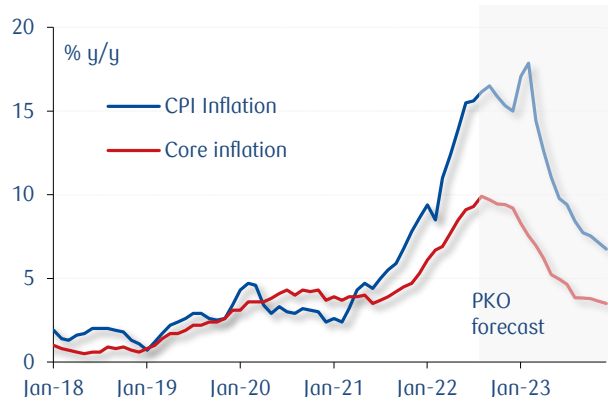


Source: GUS, Bloomberg PKO Bank Polsk, \* non-financial enterprises employing 50+ employees

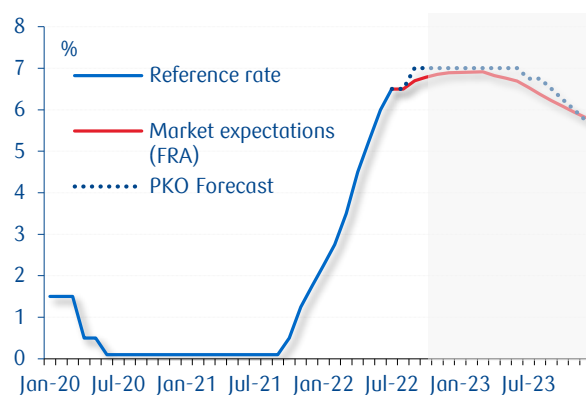
- In 2q22 GDP continued to grow strongly in y/y terms, although the first symptoms of some slowdown in private consumption have already appeared and the inventories cycle has started to reverse. These tendencies will likely deepen in the second half of 2022 and the economy has entered the phase of technical recession.
- Since 2q21 corporate profits have been record high, both in absolute terms and in relation to GDP. Enterprises have successfully rebuilt their financial position after the pandemic and look well prepared for the approaching slowdown.

# Interest rate hikes cycle close to its end

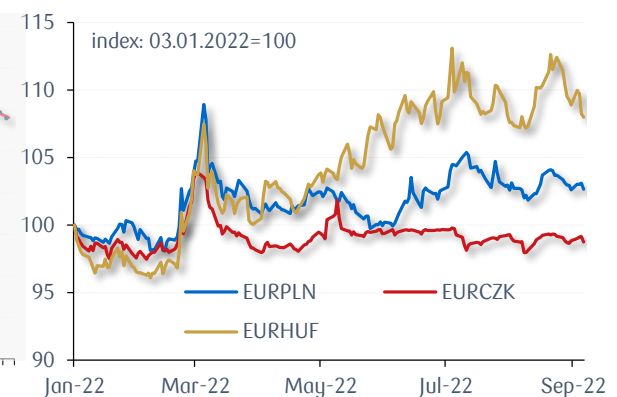
## Inflation has reached the turning point



## The final stage of monetary tightening



## EURPLN back to normal volatility

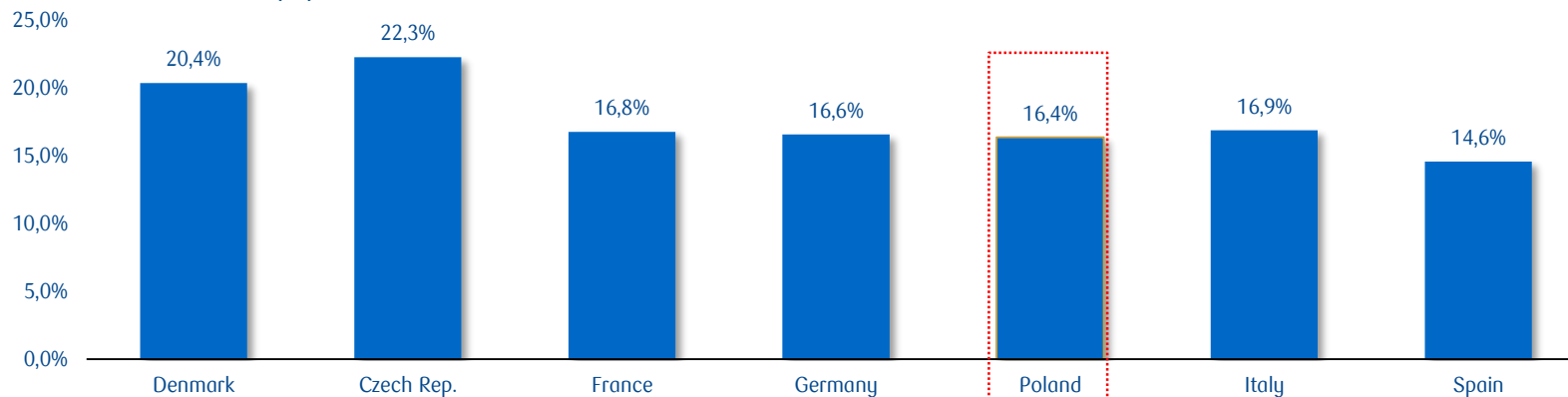


Source: GUS, Refinitiv Eikon, Eurostat, Macrobond, PKO Bank Polski

- The strongest ever cycle of interest rate increases, combined with the global economic downturn, is starting to curb inflation. In 3q22 core inflation should start to gradually decline. CPI inflation will temporarily increase at the beginning of 2023, but mainly due to changes in administered prices (energy).
- The market is pricing-in the upcoming end of the tightening. This expectation is backed by the improvement in inflation prospects along with first symptoms of economic slowdown. Also in the region the tightening cycle seems to be coming to its end.
- The situation on the FX market has stabilized after the surge of volatility and the PLN depreciation caused by the war outbreak. The zloty has even began to recover some of the losses.

# Polish banking sector

Tier 1 as of 31.12.2021 (%)



Source: <https://www.statista.com/>



KPIs of the Polish banking sector as of 30.06.2022

KPIs	Banking sector
TCR	18.6%*
ROE	5.8%
ROA	0.4%
C/I	57.3%
Total NPL ratio (Stage 3)	5.6%
NPLs in % of mortgage loans	2.4%

Source: KNF, NBP

\*As of 31.03.2022

Key market parameters




	31.12.2019	31.12.2020	31.12.2021	30.06.2022
				
WIBOR 3M	1.72%	0.21%	2.54%	7.05%
				
EUR/PLN	4.26	4.61	4.60	4.68

Source: NBP, GPW Benchmark



# Polish banking sector - governmental borrowers' support

Due to significant increase in cost of debt for retail clients the government approved the measures to support retail mortgage borrowers. Three pillars of support were implemented:

-  **Borrowers Support Fund**
  - The Fund was established in 2015. The fund is going to be increased from PLN 0.6 bn to PLN 2 bn. The fund is designed to subsidize troubled borrowers to strengthen the resilience of the Polish banking sector. Funding comes from banks.
  - The amendments do not have a material impact on the Bank's financial position.
-  **Credit reference rate**
  - The new RFR benchmark replacing Wibor - a main reference rate in PLN - is expected. The market expects WIRD to be a new RFR rate since 2025.
  - Some products including mortgages are expected to be implemented by banks on voluntary basis with a new rate based on WIRD since 2023.
-  **Credit holidays**
  - Loan payment moratoria in 2022 and 2023 to all borrowers who finance their own housing needs. Four out of six installments in 2H2022 and one loan installment per quarter in 2023 are subject to moratoria. Moratoria are voluntary for the borrowers.

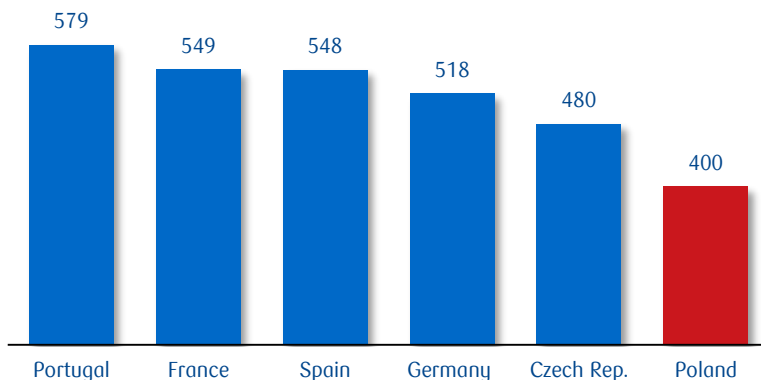
## Impact of Credit holidays on the results of PKO Bank Hipoteczny

- Suspensions of repayment of principal and interest installments required the recalculation of future flows. A behavioral model was developed, based on which it was estimated that 63% of the Bank's customers would take advantage of the repayment suspension.
- Under the International Accounting Standards the suspension of payments of principal and interest requires the recalculation of future flows under the loans. Since the result of this recalculation should be recognised upfront in the Bank's accounting records as an adjustment to the gross carrying amount and in profit and loss statement, the Bank recognized in H2 2022 adjustment of PLN 644 million.
- Credit holidays adversely effect profitability of the Bank in 2022 as well as capital ratios of PKO Bank Hipoteczny.
- Suspension of payments under the mortgage loans adversely impact applicable interest coverage limits however due to OC at 61,7% and available liquidity which Bank may draw from credit lines, the quality of the cover pool remains solid.

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# Polish residential market - considerable development potential

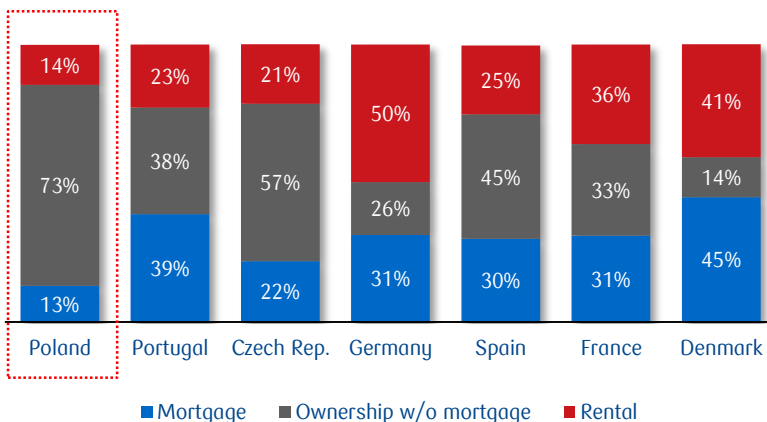
Dwellings per 1,000 inhabitants in selected EU countries for 2021



Source: Deloitte Property Index report published in August 2022

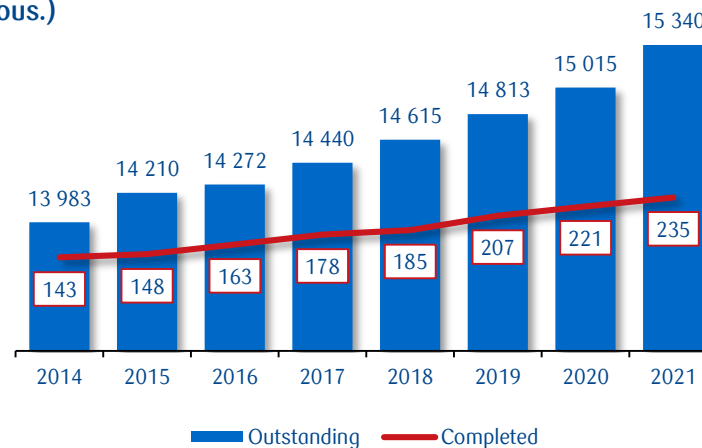
- Relatively low number of dwellings per thousand inhabitants in comparison to other EU countries.
- Constantly growing number of completed and outstanding dwellings. In 1H22 number of dwellings completed was 3% higher than in 1H21, but the number of construction projects started decreased by 20% (however it was not lower than in 1H of 2018-2020).
- Polish ownership rates are among the highest in the EU and relatively low in terms of rental dwellings.
- The housing shortage in Poland is estimated at about 1 million apartments.
- The number of dwellings in Poland has been growing on average by about 205,000 p.a. over the last five years.

Dwelling ownership status for 2020 (%)



Source: Eurostat

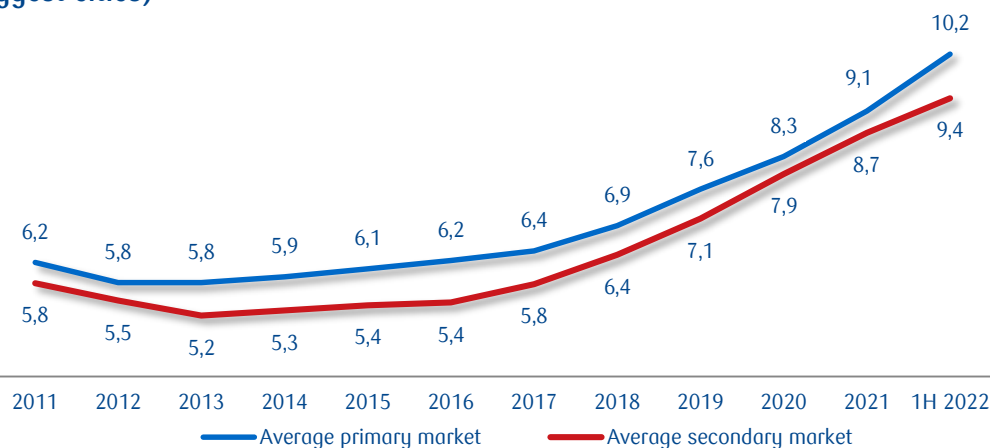
Growing number of dwellings in Poland (thous.)



Source: Statistics Poland (GUS)

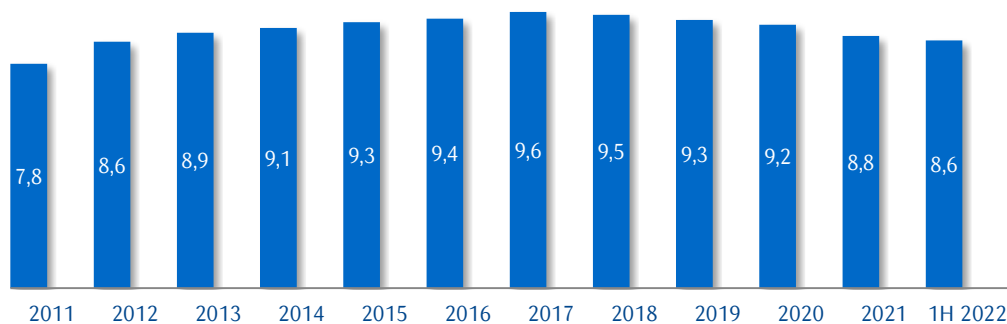
# Rising housing prices on the Polish housing market persist

Dwelling transaction prices (PLN ths/sqm) on primary and secondary markets (6 biggest cities)



Source: PKO BH calculation based on NBP and Statistics Poland (GUS) data

Affordability on primary market (transaction prices (PLN ths/sqm) vs average annual salary)



Source: PKO BH calculation based on NBP and Statistics Poland (GUS) data

## PRIMARY MARKET

- Average house prices on secondary and primary markets have increased by about 40% on average since 2011.
- Average price growth between 2017 and 2021 was ca. 8,5% p.a.
- Affordability remains stable due to significant increase of average wages.
- Houses purchasing power rose by 2 sqm during last 10 years.

## SECONDARY MARKET

- Average house prices on secondary market are ca. 5% lower compared to the primary market.
- Average price growth between 2017 and 2021 was ca. 9.2% p.a.

## REAL ESTATE PRICES

- Despite the slowdown on real estate market in H1 2022 (mainly due to an increase in interest rates) the dynamics of the growth in residential properties prices did not decrease.
- We estimate that in H2 2022, the price growth will drop to ca. 5%.

# Current situation and prospects for the end of 2022

In the first quarter of 2022, home purchases with a mortgage loan accounted for about 50% of the transaction volume.

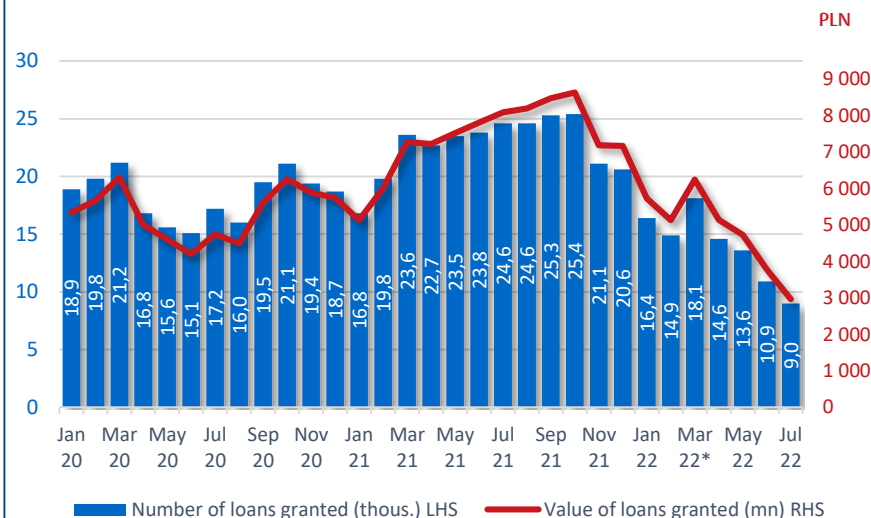
A similar percentage was recorded for the consumer demand of flats as compared to the overall investment demand at housing market.

The increase of interest rates and changes in the rules in calculating creditworthiness recommended to banks by the Polish Financial Supervision Authority (KNF) resulted in a decrease in creditworthiness by more than a half in April 2022, compared to average of 2021.

We estimate that the number of loans granted in 2022 will drop from 250 thousand in 2021 to 150 thousand in 2022 (86 thous. reported in H1 2022), which means a decrease from PLN 85 to 50 billion in terms of loans' value (30,5 bilion reported in H1 2022). This significant reduction of the demand for flats may not be compensated by investment purchases.

We estimate that the scale of **the outflow of investment demand may now be temporarily even slightly stronger**. Investment demand is more likely to be sustained in large cities where we observe strong pressure to increase rental rates and interest from Private Rental Sector funds.

## Granted mortgage loans



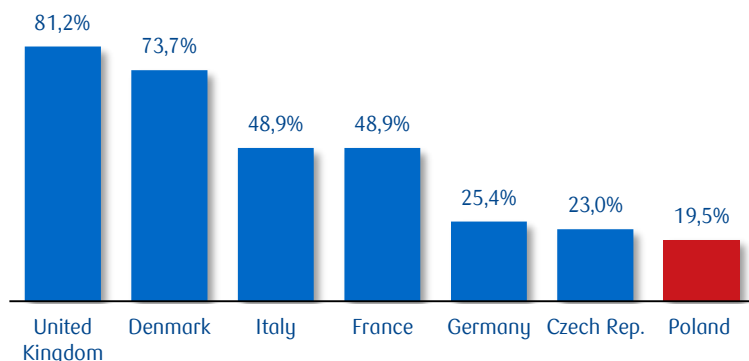
Source: PKO BH calculated on BIK data

\* Temporary increase in March 2022 was connected to expected tightening of credit policy as of April

In the second half of 2022, the decreased demand for dwellings will be accompanied by a lower supply of new flats, which will ensure a relative supply-demand balance. **As a result, the price growth will drop to ca. 5%.**

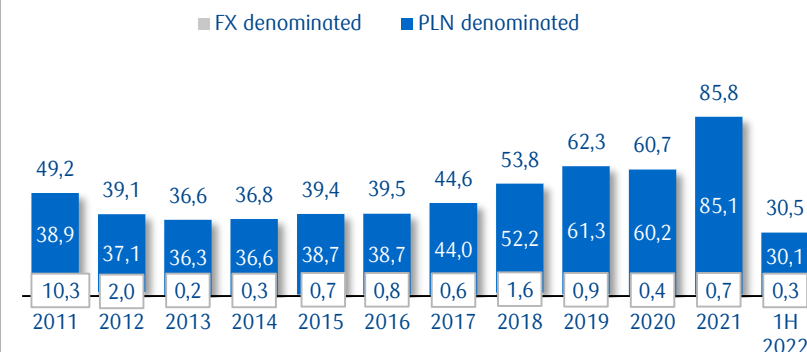
# Stable situation on the mortgage market

Ratio of total outstanding residential mortgage loans to GDP ratio for 2021 (%)



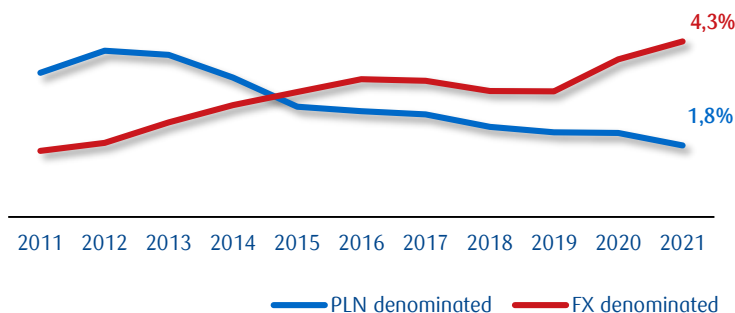
Source: EMF Quarterly review Q4 2021, <https://www.statista.com/>

Value of newly signed residential mortgage loans in Poland (PLN bn)



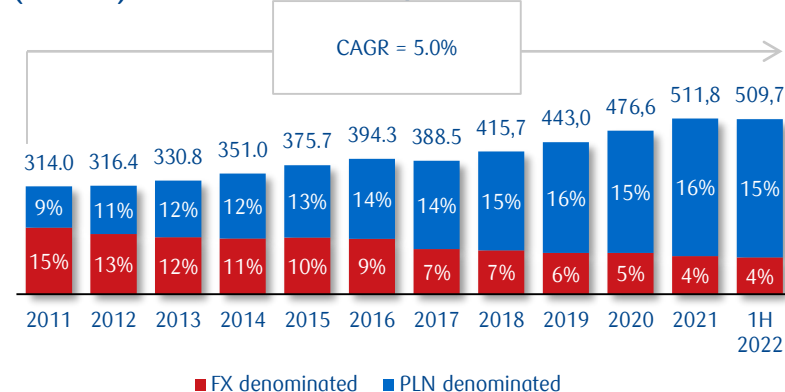
Source: Polish Banking Association

NPLs of mortgage loans in the Polish banking sector (%)



Source: NBP, Polish Financial Supervision Authority

Outstanding value of residential mortgage loans in Poland (PLN bn) as % of total banking assets



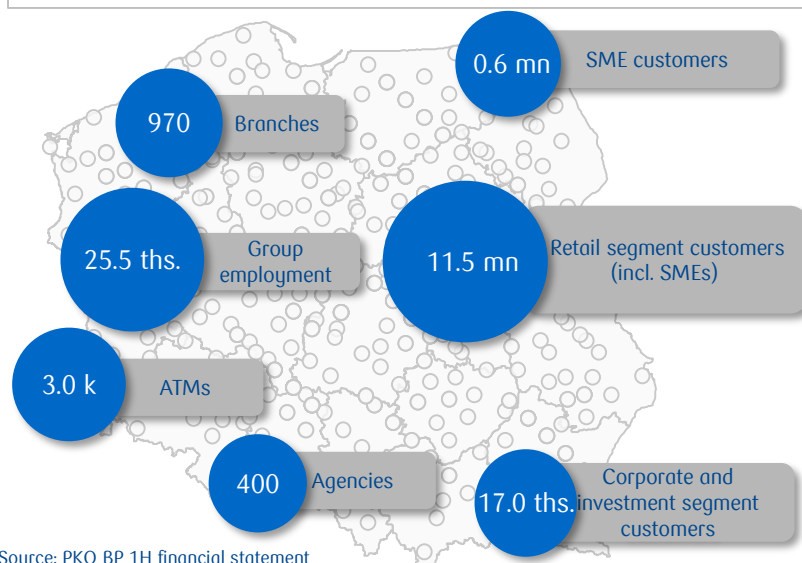
Source: PKO BH calculation based on NBP and KNF data

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# PKO BP Group – a leader in the Polish banking sector

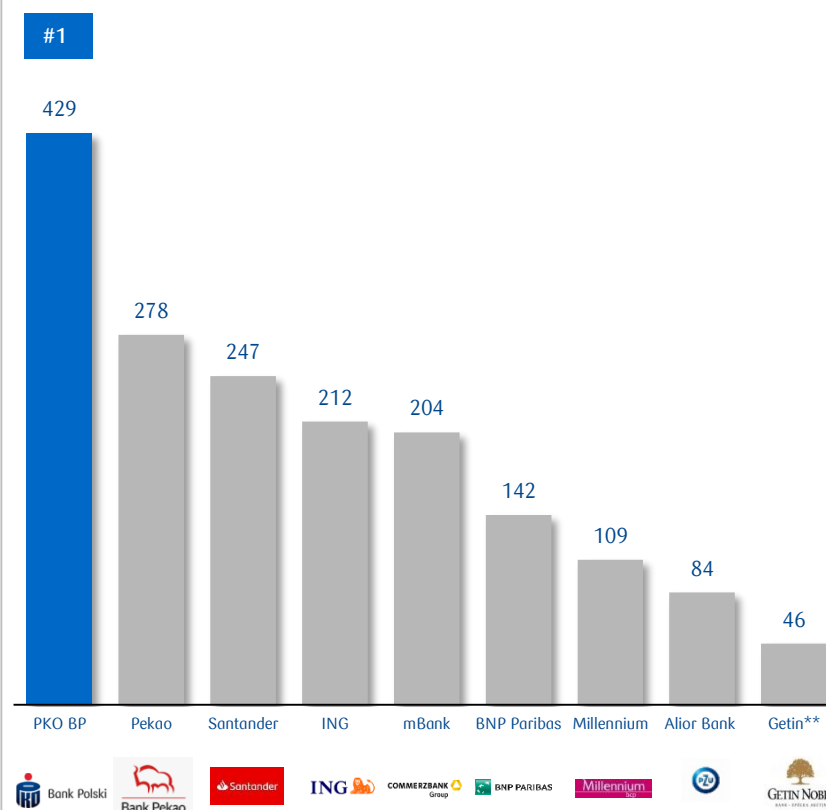
## General description of PKO BP Group\*:

- Leader in the Polish banking sector in terms of total assets, net income, total equity, loan and deposit portfolios, number of customers and size of distribution network, mobile banking.
- Long-term debt (senior unsecured) rating by Moody's at A3 with stable outlook.
- PKO BP Group is the biggest bank listed at WSE with capitalisation of PLN 33 bn as of 31.07.2022.
- PKO Bank Polski included in FTSE Russel index covering leading European companies.
- Bank paid out PLN 2.3 bn dividend for 2021.
- The State Treasury of Poland owns 29.43% of PKO BP shares.



Source: PKO BP 1H financial statement

## Market position by total assets as of 30.06.2022 (PLN bn)



Source: Financial statements of the banks

\* PKO BP Group includes among others PKO Bank Polski S.A., PKO Leasing S.A. Group, PKO Towarzystwo Funduszy Inwestycyjnych S.A., PKO Finance AB and PKO Bank Hipoteczny S.A.

\*\*Data as of YE 2021



# PKO BP with excellent strategy execution

	2019	2020	2021	6M 2022	Strategic goals 2022
ROE	10.0%	-6.0% adjusted: 7.1%	12.1%	11.5%	12.0%
C/I	41.3%	40.9%	40.6%	42.1%	~41%
COST OF CREDIT RISK	0.46%	0.78%	0.55%	0.58%	0.60%-0.75%
NET RESULT	4.0 mld PLN	(PLN 2.6 bn) adjusted: PLN 3.2 bn	PLN 4.9 bn	PLN 1.8 bn	>5 mld PLN
EQUITY	TCR: 19.9% TIER 1: 18.6%	TCR: 18.2% TIER 1: 17.0%	TCR: 18.2% TIER 1: 17.0%	TCR: 17.3% TIER 1: 16.1%	Ability to pay dividends

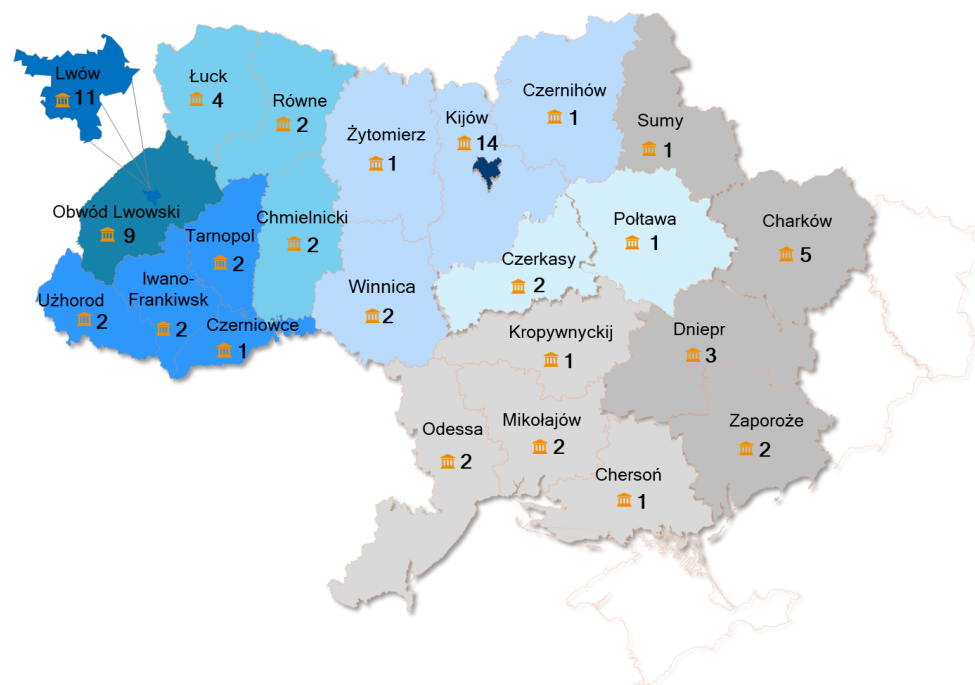
Source: PKO BP FY2021 and 2Q2022 presentations of results

\* Return on equity and net result of 2020 adjusted for the costs of legal risk and other impacts of the EGM's decision to enter into voluntary settlements with the foreign currency mortgage borrowers.

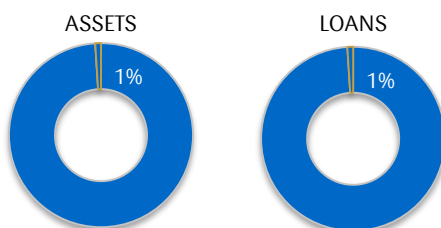
# Kredobank as a Ukrainian part of business at PKO BP Group

KREDOBANK S.A. is an universal bank servicing both retail and SME clients, operating mainly in western part of Ukraine and Kiev region.

- Continuation of activities in regions not affected by active hostilities. 17 branches were located in the regions most affected by the war.
- ~20% of the company's loan portfolio is located directly in or close to the war zones, of which less than 4% is located in areas under temporary occupation or active military action.
- KREDOBANK S.A. maintained its solvency at a stable, safe level; the company did not report a decrease in solvency measures or an outflow of deposits.
- KREDOBANK S.A. was classified by the National Bank of Ukraine as a systemically important bank in Ukraine.



KREDOBANK'S SHARE OF THE GROUP'S RESULTS  
June 30, 2022:



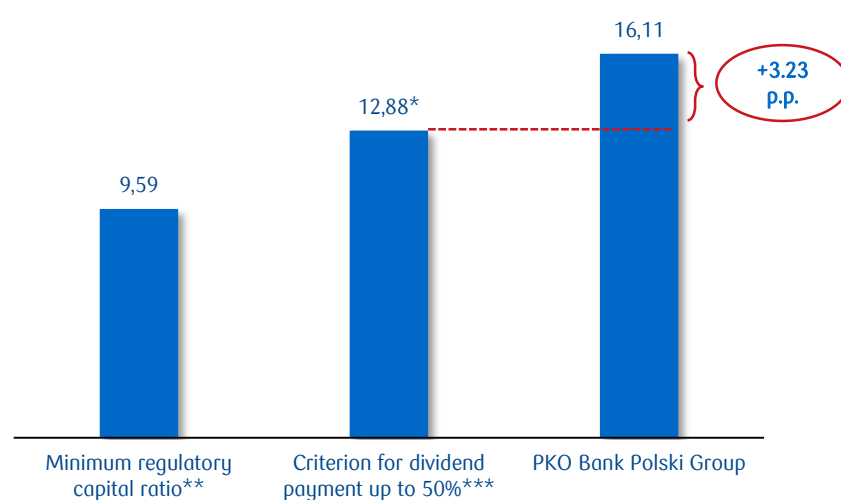
KREDOBANK S.A. (PLN mln)	Jun 30, 2022	Jun 30, 2021	Δ
Gross loans	2 177	2 345	-7%
Gross deposits	3 326	2 610	27%
Total assets	4 168	3 784	10%
Equity	512	490	4%
	6M 2022	6M 2021	Δ
Net income	8	58	-86%

73  
branches

1 590  
employees

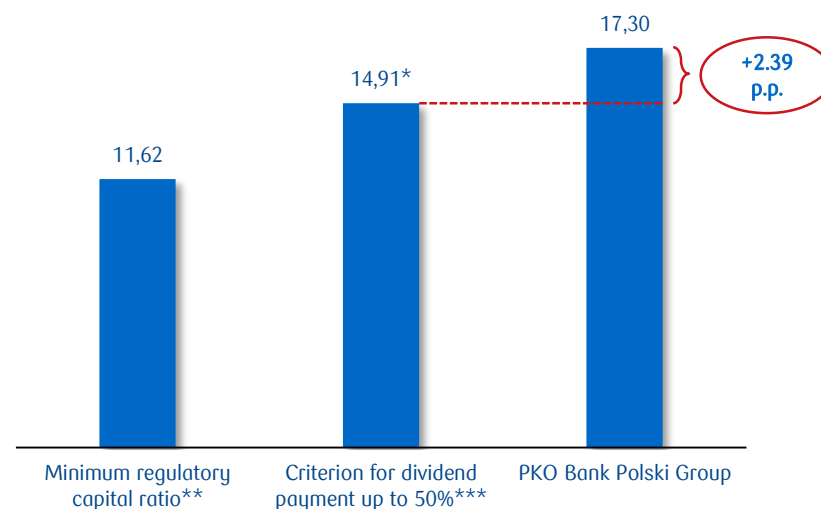
# Solid capital position of PKO BP Group

Tier 1 capital ratio [%] as of 30.06.2022



Source: PKO BP 2Q22 presentation of results

Total capital ratio (TCR) [%] as of 30.06.2022



Source: PKO BP 2Q22 presentation of results

\*PFSA's buffer for bank's sensitivity to an adverse macroeconomic scenario recommended in Pillar II is 0.29% (basic buffer 0.17% and additional buffer 0.12%)

\*\*Tier 1: CRR 6% + conservation buffer 2.5% + OSII buffer 1% + countercyclical buffer 0.01% + FX buffer for the Group 0.08%,  
TCR: CRR 8% + conservation buffer 2.5% + OSII buffer 1% + countercyclical buffer 0.01% + FX buffer for the Group 0.11%.

\*\*\*Dividend payment minimums after adjusting the dividend payout ratio by the following criteria:

K1 - share of the foreign currency mortgages for households in total receivables of PKO from the non-financial sector (2Q'22: Bank: 6,9%; Group: 5,7%); adjustment by - 20 p.p., when 5%<K1<10%.

K2 - share of the foreign currency mortgages granted in 2007/08 in PKO's total portfolio of foreign currency mortgages (2Q'22: Bank: 36,2%; Group 35,1%); adjustment by -30 p.p., when 20%<K2<50%.

# PKO BP Program of settlements for Swiss franc borrowers



Bank Hipoteczny

Almost 28 ths motions submitted for mediation  
Almost 16 ths mediations concluded successfully

Process mostly performed in remote channels (81%)

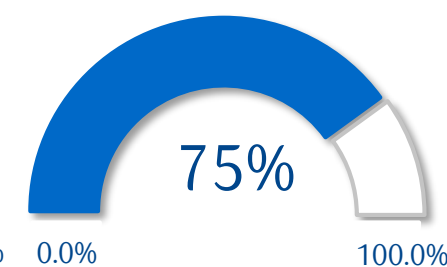
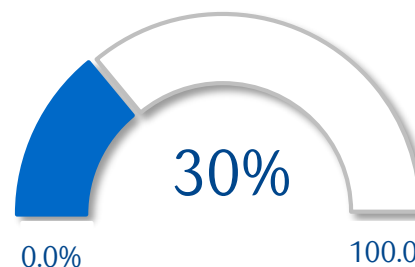
Avg. 58 days since the submission of the motion to annex signing

In June, the scope of products for which settlements were available was extended to include MIX mortgage loans granted in CHF for housing needs (purchase of real estate or repayment of other liabilities)

Data as of 30.06.2022

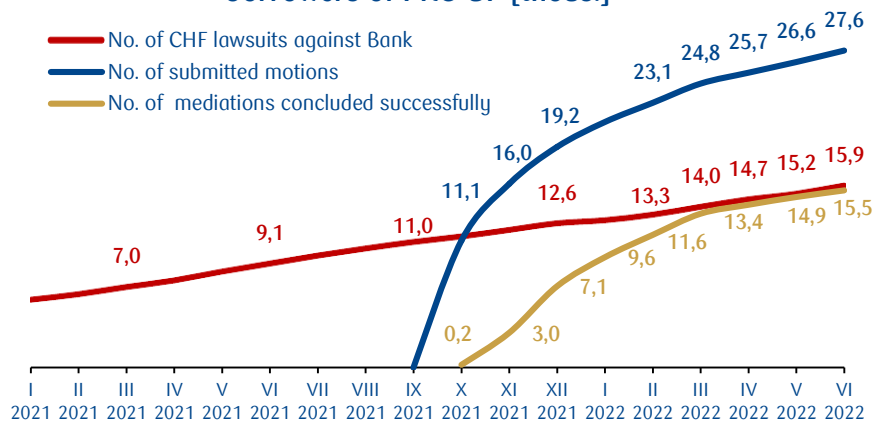
Share of motions submitted

Share of successfully completed cases in total completed cases



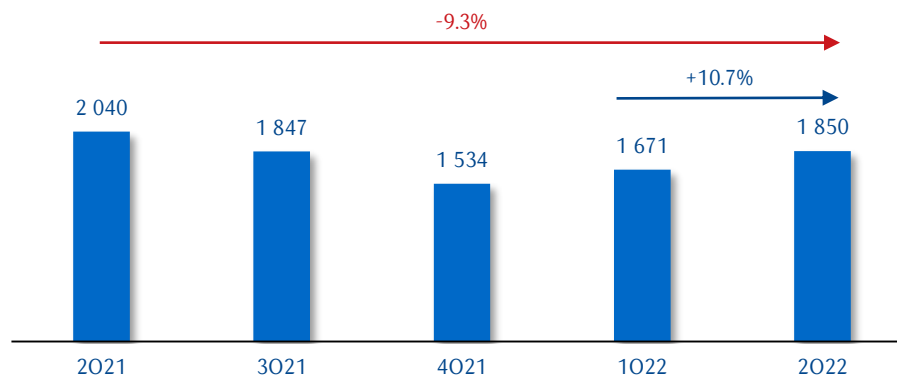
Source: PKO BP 2Q22 presentation of results

## Number of cases regarding settlements of CHF borrowers of PKO BP [thous.]



Source: PKO BP 2Q22 presentation of results

## The number of new court proceedings per quarter [Items]



Source: PKO BP 2Q22 presentation of results

Data starting from the moment when program of settlements for CHF borrowers was launched

# Improving ESG ratings of PKO BP (Sustainalytics, FTSE Russell, V.E)

## Reduction of greenhouse gas emissions



## Elimination of the exposure to the coal mining sector by 2030\*\*



## >=3x value of exposure to „green” financing vs. „brown” financing



## Increase of green financing



## Updating the Procurement Policy to be in line with the ESG principles

## ESG survey among the PKO BP's key suppliers

## Adoption and implementation the Supplier's Code of Ethics

## Women's share employed in key managerial positions



## Employee rotation rate



## Voluntary employee resignation rate



\* - base year 2019, \*\* - share of financing of the coal and lignite mining sectors in total assets



**20.7 Medium Risk** ↑  
(25.7 in 2020)



**A** ↑



**3.7** ↑  
(3.1 in 2020)



**46** ↑  
(29 in 2020)

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# Strategy of PKO Bank Hipoteczny for 2020-2022

## We do care about the Bank's stakeholders responsibly by ensuring:



For our clients - credit products tailored to their needs in the area of residential property financing



For our investors - long-term mortgage covered bonds with a high level of security

## Strategic goals of PKO Bank Hipoteczny:



Diversification of financing sources of the Bank and PKO BP Group by maintaining the ability to obtain long-term financing in the form of mortgage covered bonds for residential mortgage lending



Maintaining a conservative level of risk in the Bank's operations, in particular with regard to the loan portfolio and capital ratios



Optimal use of the assets and competences of PKO Bank Hipoteczny and PKO BP in order to achieve synergies within the PKO BP Group



Issuing green covered bonds and taking actions in the field of sustainable development

# Key Achievements 1H 2022 – financial highlights

Net profit

PLN 50.8 mn

ROE 5.0%

Stable assets

Total assets:  
PLN 22.5 bn

Strong capital base

Total equity: PLN 1.9 bn  
TCR 22.7%  
CET1 22.7%

Covered bonds volume

PLN 9.9 bn

Effective cost control

C/I=23.7%\*

Residential mortgages portfolio

PLN 20.8 bn

Low cost of risk

0.01%

No. of loans in 1H 2022

# 113,212



Employees

#54

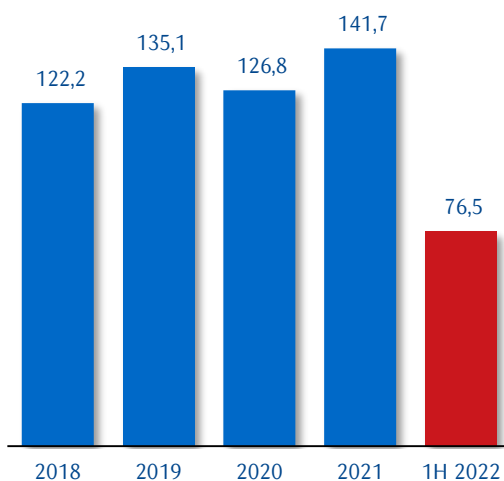


\* Annualized ratio without accounting for the tax on other financial institutions.

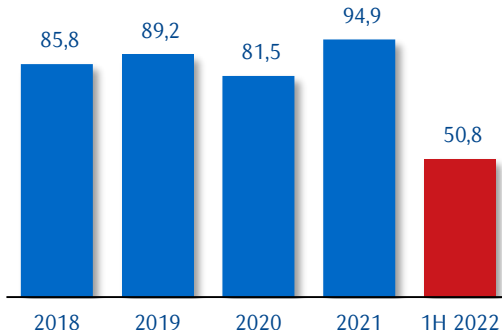


# Results in 1H 2022 – profitable and safe

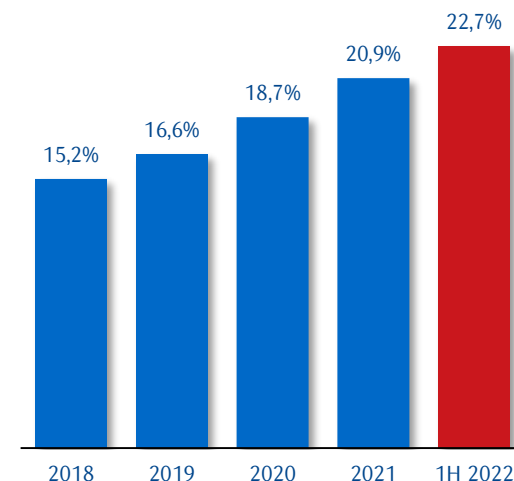
Operating profit (in PLN mn)



Net profit (in PLN mn)



Total capital ratio (in %)



Source: PKO Bank Hipoteczny financial statements

- Profitable business model and the Bank's business activity due to stable mortgage loan portfolio
- Results impacted by the contribution to the Bank Guarantee Fund's compulsory resolution fund (in the first half of 2022 regulatory costs of PLN 31.0 mn and banking tax of PLN 37.0 mn)
- Solid capital position attest to the safety and stability of the Bank's operations

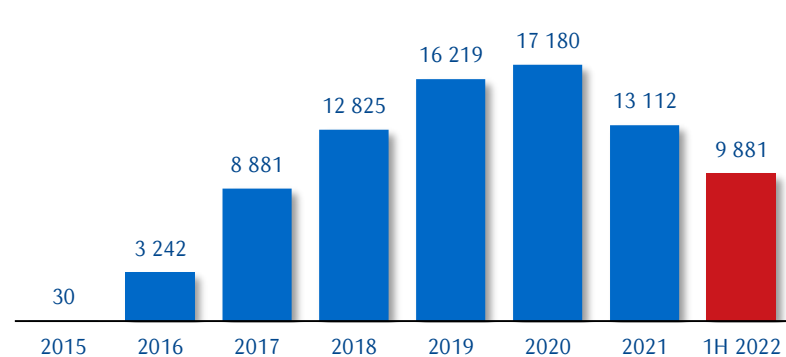
# Stable volumes of covered bonds and PLN-denominated residential mortgage loan portfolio

**Residential mortgage loan portfolio - outstanding**  
(PLN mn)



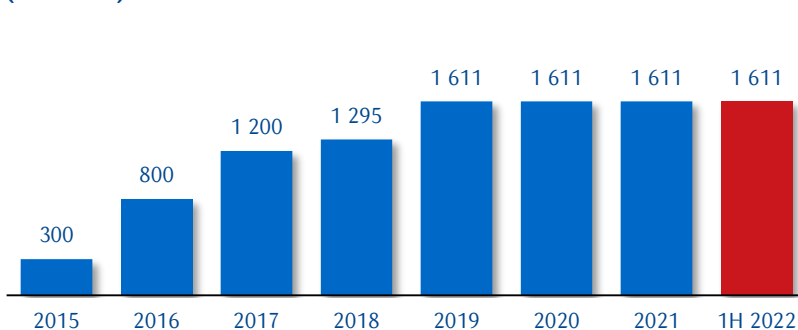
Source: PKO Bank Hipoteczny financial statements

**Covered bonds outstanding\***  
(PLN mn)



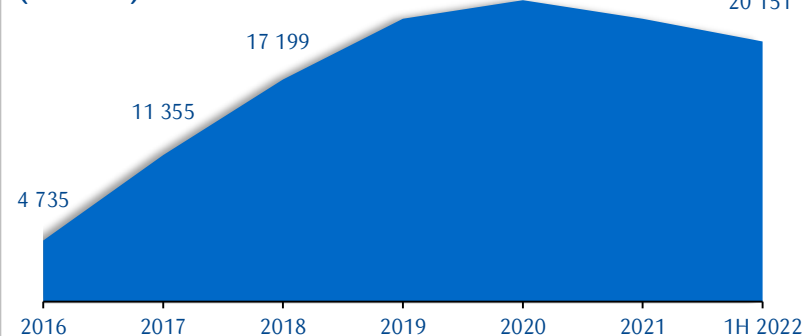
Source: PKO Bank Hipoteczny cover pool reports

**Share capital**  
(PLN mn)



Source: PKO Bank Hipoteczny yearly financial statements

**Cover pool\*\***  
(PLN mn)



Source: PKO Bank Hipoteczny cover pool reports

\*EUR denominated issues converted by EUR/PLN NBP fixing rate as of the end of particular periods

\*\*Without hedging instruments included into the cover pool; liquidity buffer included but not counting towards coverage and OC

# Safe lending criteria

Criteria	
Polish banking regulations	1 LTV (market value) $\leq$ 80%*
Polish regulations on mortgage banks	2 LTMLV (mortgage lending value) $\leq$ 100%
	3 First-ranking lien in mortgage register
	4 Legal title: ownership or perpetuity
PKO Bank Hipoteczny criteria (current offer)	5 PLN loans only
	6 Residential mortgages (principal dwelling only)
	7 Contractual maturity: up to 35 years
	8 Interest rate: floating and fixed for 5 years (8.3% of the credit portfolio as of 30 June 2022 )
PKO Bank Hipoteczny criteria	9 New construction (selectively) and secondary market
	10 Collateral: flats or houses
	11 Not in arrears (in case of pooling)
Subject to approval by the Cover Pool Monitor, the receivables are registered in the cover pool	

*Strategic decision of the Group  
(included in the Prospectus)*

\* In the case of using credit insurance of the required financial contribution and in a situation where the loan is secured by a mortgage established on a dwelling, LTV  $\leq$  90% is allowed.

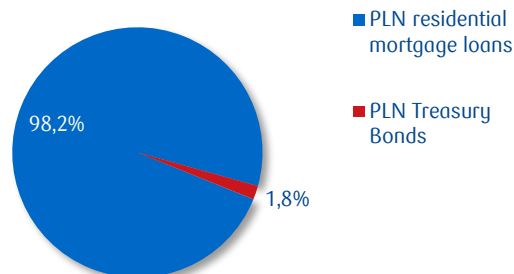
# High-quality cover pool of purely residential mortgages in PLN

## PKO Bank Hipoteczny cover pool as of 29 July 2022

### Cover pool value

PLN  
20.0 bn

### Cover pool structure (%)



Mortgages – PLN only

Mortgages – residential only

*Strategic decision of the Group  
(included in the Prospectus)*

Overcollateralisation above regulatory limits: 61.7% (vs. 5% required)

Number of loans: 111,816

Average loan value PLN 175.3k / EUR 37.0k

Average indexed LtV 39.8%

10 Largest Exposures: 0.05% of total exposures

### Features of standard residential mortgage loans in the Cover Pool

**Variable** interest rate based on WIBOR rate or **fixed** interest rate for 5 years

Amortizing **monthly**  
(no interest-only)

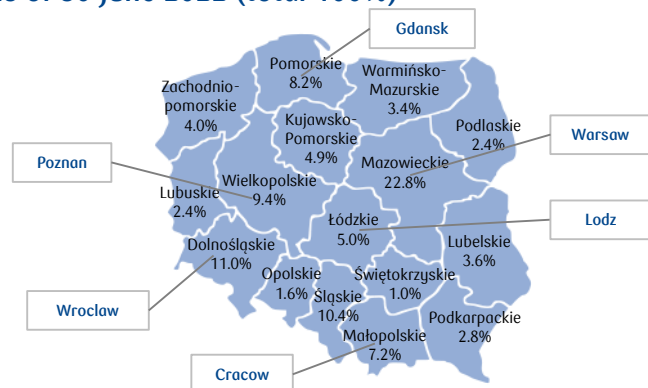
For **own housing** purposes  
(no buy-to-let)

Source: PKO Bank Hipoteczny data including: <https://www.pkobh.pl/en/reports/cover-pool-reports/>

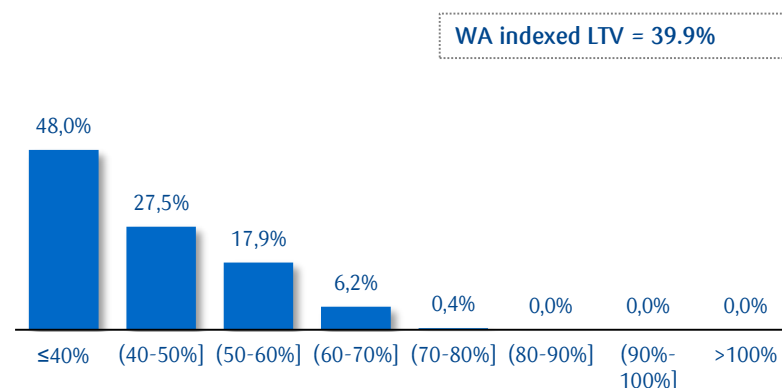
EUR/PLN NBP fixing rate as of 29.07.2022, 1 EUR=4.7399

## ...with good diversification and low LTV ratio

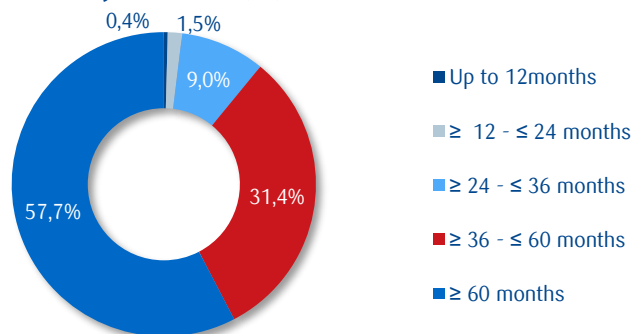
Cover pool composition by geographical location in Poland as of 30 June 2022 (total 100%)



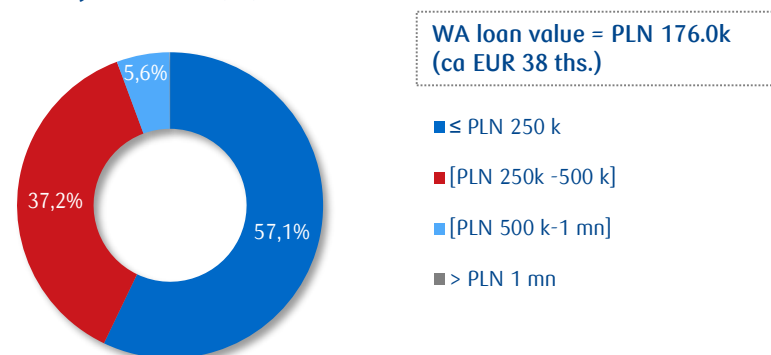
Cover pool composition by LTV as of 30 June 2022 (%)



Cover pool composition by loan seasoning as of 30 June 2022 (%)



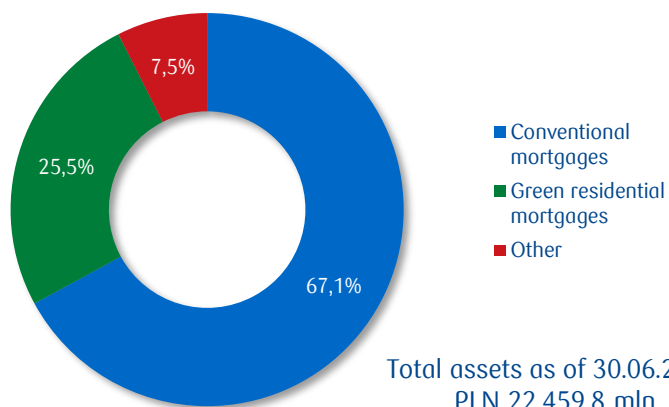
Cover pool composition by loan value as of 30 June 2022 (%)



Source: PKO Bank Hipoteczny data including <https://www.pkobh.pl/en/current-reports/cover-pool-reports/>

# Asset and liability structure

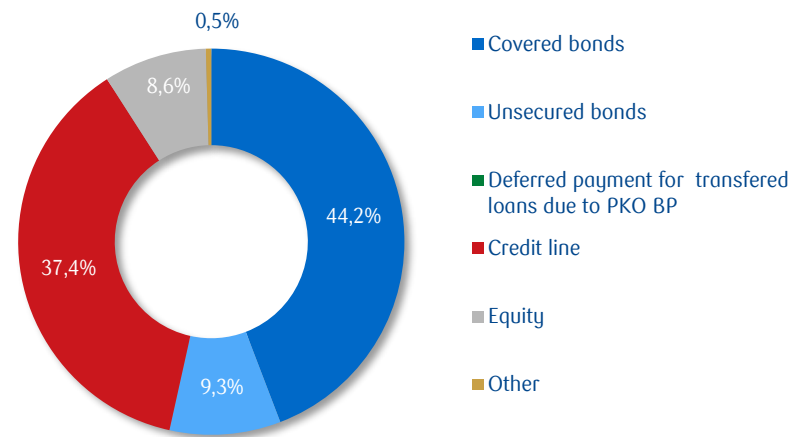
PKO Bank Hipoteczny assets' structure as of 30.06.2022 in %



Total assets as of 30.06.2022:  
PLN 22,459.8 mln

Source: PKO Bank Hipoteczny 1H 2022 financial statement

PKO Bank Hipoteczny funding structure as of 30.06.2022 in %



Source: PKO Bank Hipoteczny 1H 2022 financial statement

Green assets in cover pool as of 31.07.2022

Total  
PLN 5,669 mn

Available for new issues  
PLN 2,799 mn

Source: PKO Bank Hipoteczny Cover pool report as of 31.07.2022

Total assets in cover pool as of 31.07.2022

Total  
PLN 19,958 mn

EUR\* 4,211 mn

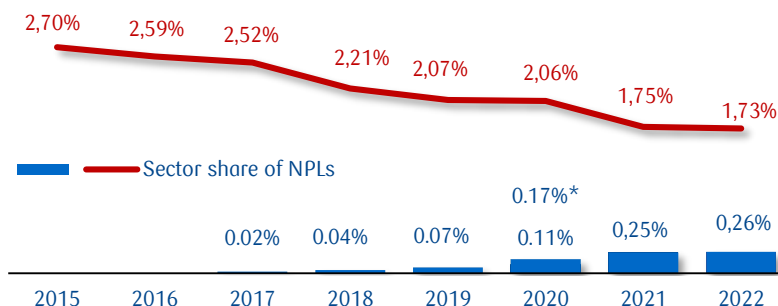
Source: PKO Bank Hipoteczny Cover pool report as of 31.07.2022

\*EUR/PLN NBP fixing rate as of 31.07.2022, 1 EUR=4.7399

# Excellent quality of the housing loan portfolio at PKO Bank Hipoteczny

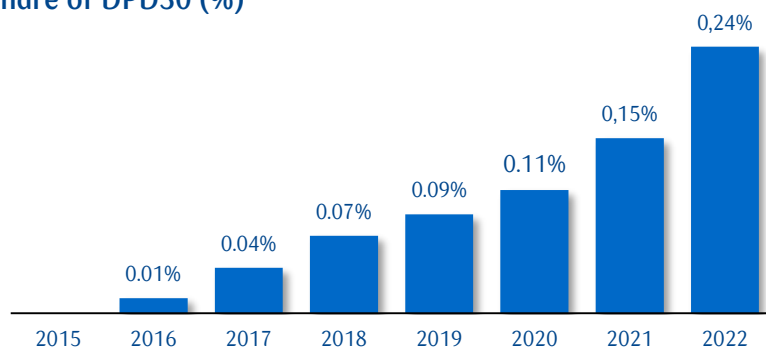
- Careful selection of the loans purchased in the pooling model
- Reminder actions taken by the Bank at an early stage of the arrears of the loans
- Active management of the impaired loan portfolio (NPL) aimed at returning to timely service
- Lower credit risk in 2021 connected with amortization of credit portfolio and better macroeconomic outlook for GDP and unemployment rate

## Share of NPLs (%) vs. sector PKO Bank Hipoteczny NPL ratio significantly below the sector level



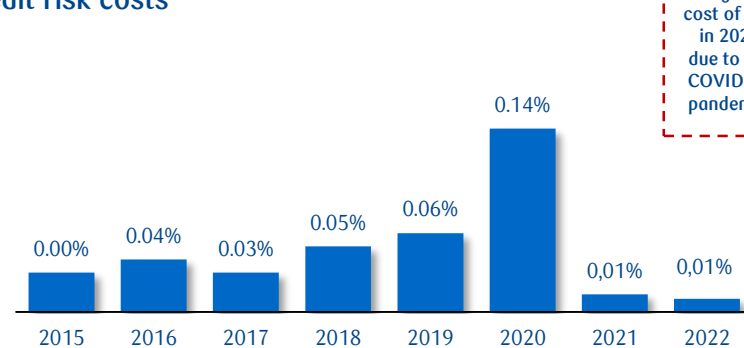
Source: PKO Bank Hipoteczny data / NBP Banking sector financial data

## Share of DPD30 (%)



Source: PKO Bank Hipoteczny data

## Credit risk costs



Higher cost of risk in 2020 due to the COVID-19 pandemic.

Source: PKO Bank Hipoteczny data

\*Increase in the number and share of NPLs due to implementation of EBA Guidelines on the application of the definition of default under Article 178 of Regulation (EU) No 575/2013. This is a change in the definition without affecting the quality of the portfolio and the cost of risk.

# “Covered Bond Act” implementing the Covered Bonds Directive into Polish law



## The main amendments of the Covered Bond Act which came in force since 8th July 2022:

- the decrease of the minimum level of overcollateralization of covered bonds to 5% from 10%
- the change of the minimal principal amount of a covered bond in documentary form (including in the new global covered bond form) to EUR 100,000 or its equivalent in another currency (currently, under the Covered Bonds Act the principal amount of a covered bond in documentary form must exceed EUR 100,000 or its equivalent in other currency)
- expansion of the mandatory items to be included in the terms and conditions of covered bonds (e.g. provisions setting out the manner of performance of the bank's obligation under the covered bonds in case of resolution of the mortgage bank)
- the alignment of the liquidity buffer of mortgage banks to the level set out in the Covered Bonds Directive (currently, mortgage banks are required to maintain a liquidity buffer equivalent to at least six months of nominal interest income on mortgage bonds outstanding to ensure the timely servicing of interest receivables on mortgage bonds)
- clarification of the requirements for derivatives to be registered in the cover pool
- introducing an obligation for the mortgage bank to provide KNF with information on mortgage bond issuances and specifying the scope of this information, as well as certain other information required to be on the bank's website
- new provisions concerning the fines and sanctions that may be imposed on mortgage banks by KNF
- introduction of new rules regarding the labelling of covered bonds



# Covered bond rating at country ceiling level

MOODY'S

Government of Poland rating

A2/P-1

stable outlook

+4 notches



PKO Bank Polski rating

A3/(P)P-2

stable outlook

+5 notches



PKO Bank Hipoteczny rating

A3/P-2

stable outlook

+5 notches



PKO Bank Hipoteczny  
Covered Bond Rating  
(PLN & EUR)

Aa1

*Poland country ceiling = Aa1*

PKO Bank Hipoteczny covered bond rating is based on:

- High cover pool quality
- OC at the minimum level of 5% (Moody's OC consistent with Aa1 rating is 0.5%)
- Legally defined and predictable bankruptcy procedure

# The first Polish EUR benchmark-size bond issuer in the international markets, with solid debt capital market track record built over recent years

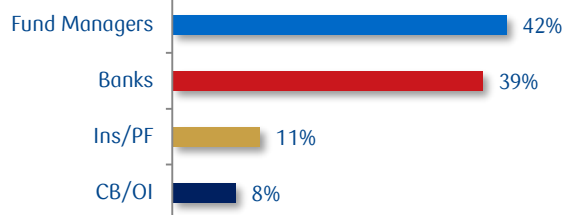


Bank Hipoteczny

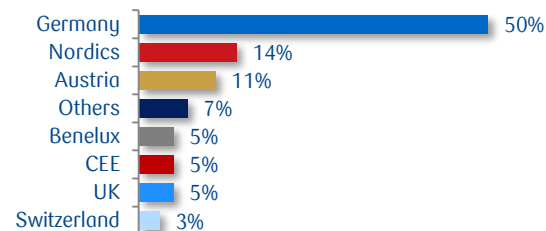
	#2 Benchmark issue	#3 Benchmark issue	#4 Benchmark issue	#1 private issue	#2 private issue	#6 Benchmark issue
Issue size	500,000,000 EUR	500,000,000 EUR	500,000,000 EUR	25,000,000 EUR	54,000,000 EUR	500,000,000 EUR
Moody's rating	Aa1	Aa1	Aa1	Aa1	Aa1	Aa1
Re-offer spread	MS + 27 bp	MS + 28 bp	MS + 23 bp	MS + 20 bp	MS + 34 bp	MS + 36 bp
Annual coupon	0.625%	0.750%	0.750%	0.820%	0.467%	2.125%
Price/Yield as of issue date as of issue date	99.972/0.630%	99.906/0.764%	99.892/0.769%	100/0.820%	100/0.467%	99.98/2.132%
Issue date	30.03.2017	27.09.2017	22.03.2018	02.02.2017	02.11.2017	04.07.2022
Maturity date	24.01.2023	27.08.2024	24.01.2024	02.02.2024	03.11.2022	25.06.2025
Stock Exchange listing venue	Luxemburg and Warsaw	Luxemburg and Warsaw	Luxemburg and Warsaw	Luxemburg	Luxemburg	Luxemburg and Warsaw
ISIN	XS1588411188	XS1690669574	XS1795407979	XS1559882821	XS1709552696	XS2495085784

Distribution of all outstanding EUR – denominated benchmark covered bond issues of PKO Bank Hipoteczny

## By investor type








## By region



- 
- 1 Overview of the Polish economy and its banking sector
  - 2 Polish property market and residential mortgage lending
  - 3 PKO BP Group overview
  - 4 PKO Bank Hipoteczny – covered bonds issuer
  - 5 Green Covered Bonds as an important addendum to the funding mix**
  - 6 Appendices

# Green covered bonds as a financing tool for PKO Bank Hipoteczny mortgages

PKO Bank Hipoteczny as a first bank in Poland has identified a significant influence of buildings on climate and decided to establish a strategic project to acquire green assets and issue green covered bonds

Documentation/ Framework	<ul style="list-style-type: none"><li>➤ PKO Bank Hipoteczny green covered bonds are in line with ICMA Green Bond Principles (GBP)</li><li>➤ <b>Second Party Opinion</b> of PKO Bank Hipoteczny Green Covered Bond Framework has been issued by <b>Sustainalytics</b></li><li>➤ PKO Bank Hipoteczny green covered bonds are certified by <b>Climate Bonds Initiative</b></li></ul>	 <p>Climate Bond Certified</p>
Methodology	<ul style="list-style-type: none"><li>➤ Criteria and methodology to identify energy efficient residential buildings in the Bank's loan portfolio was developed by green buildings consultant <b>Drees &amp; Sommer</b></li><li>➤ PKO Bank Hipoteczny methodology is approved by <b>Climate Bonds Initiative</b> under their <b>Low Carbon Criteria</b> as proxy for energy-efficient residential properties in Poland</li></ul>	 <p>SUSTAINALYTICS</p>  <p>DREES &amp; SOMMER</p>
Special Offer for green mortgages	<ul style="list-style-type: none"><li>➤ Dedicated offer for financing of energy efficient mortgages with valid EPCs in PKO BP</li></ul>	
Energy Efficient Mortgage Label	<ul style="list-style-type: none"><li>➤ PKO Bank Hipoteczny joined the <b>Energy Efficient Mortgage Label</b> in February 2021</li><li>➤ We do report in HDT format since 1Q22</li></ul>	 <p>Energy Efficient Mortgage Label</p>

Updated in June 2022

# PKO Bank Hipoteczny Green Covered Bonds are in line with ICMA GBP

## Use of Proceeds

- Financing and refinancing of eligible assets on PKO Bank Hipoteczny's balance sheet.
- Eligible assets include loans for residential buildings as defined in the eligibility criteria:
  - i. new or existing residential buildings representing top 15% low carbon buildings in Poland;
  - ii. existing residential buildings in Poland, which have undergone a property upgrade (major renovations, refurbishment, thermo-modernization or efficiency upgrade) achieving a 30% Energy efficiency improvement.

## Project Evaluation and Selection

- PKO Bank Hipoteczny has established a **Green Covered Bond Committee (GCBC)** which is comprised of one representative from each of the following areas of the bank: **Treasury, Residential Mortgage Loans, Risk, Compliance, Controlling and The Cover Pool Register.**
- GCBC reports directly to the Management Board of the Bank.
- GCBC's role is to oversee the process for evaluation and selection of eligible loans according to the adopted methodology.

## Management of Proceeds

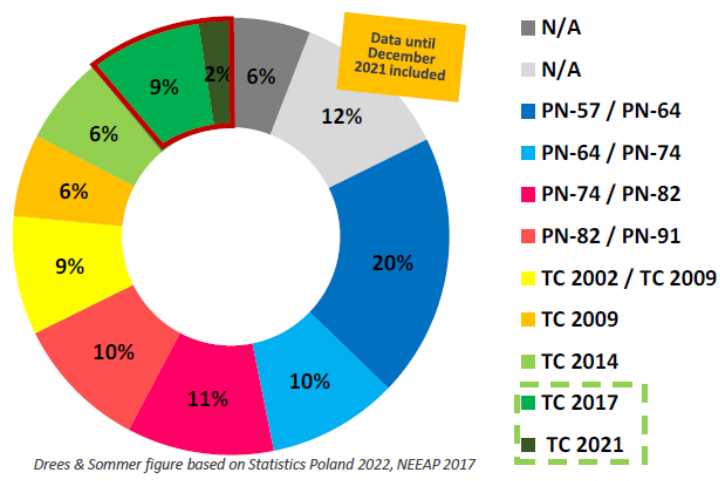
- The proceeds from green covered bonds can be allocated either to refinance existing portfolio or to finance new loans which fulfill eligibility criteria.

## Reporting

- **Allocation reporting** is available to investors after every green covered bond issuance and annually thereafter, until the bonds have been fully repaid.
- **Impact reporting** is done on an annual basis on climate benefits associated with the green eligible loans on:
  - i. estimated annual primary energy savings in MWh;
  - ii. estimated annual GHG emissions avoided in tons of CO<sub>2</sub> equivalent.

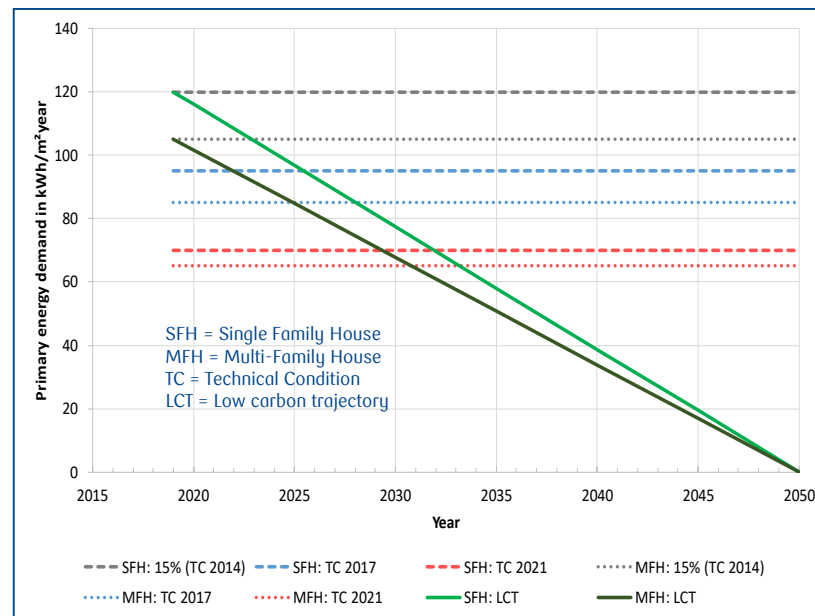
# PKO Bank Hipoteczny Green Covered Bonds Methodology

- Based on the statistical analysis of buildings and mandatory building energy performance codes minimum criteria for a green bond were determined
- Buildings are deemed to be within the Top 15% of its local market if: Technical Condition is TC 2017 or newer
- Our eligibility criteria are not static and are in line with the trajectory provided by CBI (aimed at climate neutrality by 2050).
- New buildings complying with Technical Note 2017 or later by year of construction are automatically eligible for qualification for bonds where the mid-point of the bond term is no later than 2025.



Drees & Sommer figure based on Statistics Poland 2022, NEEAP 2017

## A Low Carbon Trajectory



Source: <https://www.climatebonds.net/files/files/Residential%20Proxy%20Poland%281%29.pdf>

### A low carbon trajectory (LCT) connects:

- the basis requirements of TC 2014 (SFH: PED ≤ 120 kWh/m<sup>2</sup>/year | MFH: PED ≤ 105 kWh/m<sup>2</sup>/year) as the start of the year 2019

### towards

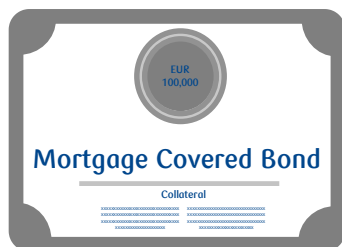
- the Zero-Emission-Goal in 2050 with zero non-renewable primary energy.

The low carbon trajectories for single- and multifamily houses serve as the 15<sup>th</sup> percentile baseline for the local Polish residential market.



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- 1 Overview of the Polish economy and its banking sector
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# Robust regulatory regime



1. Covered bonds and mortgage banks in Poland are regulated by the Polish Covered Bond Act. **Covered Bond Directive to be implemented into Polish Law in July 2022.**
2. By law, only **specialized mortgage banks** are entitled to issue covered bonds in Poland
3. **Segregation of assets** in the cover pool (only mortgages, cash, sovereign debt or similar\*)
4. **Constant supervision by the independent Cover Pool Monitor** (appointed by KNF) over mortgage bank activities and its cover pool
5. Conservative approach of determining **the mortgage lending value** (through-the-cycle) of real estate with rules approved by KNF
6. **Strict regulatory limits on mortgage banks and covered bonds** including:
  - min. 10% overcollateralisation (OC) (to be lowered to 5% since July 2022)
  - liquidity buffer to cover covered bond interest payments for 6 months
  - coverage and liquidity tests
7. **Mandatory FX risk limitation**
8. **Legally defined and predictable bankruptcy procedure (not at the discretion of the issuer) designed to achieve best-possible outcome for covered bond holders** (12 months extension period after issuer's default and switch to pass-through if available liquidity will not be sufficient to repay the bonds within 1 year.)
9. **Covered bonds exempt from bail-in protocol (BRRD)\*\***

\*Securities issued or guaranteed by the State Treasury of the Republic of Poland, the National Bank of Poland, the ECB, governments and central banks of the EU and OECD member states (except for states that have restructured their external debt in the past five years).

\*\*In the event of compulsory restructuring of mortgage banks, covered bonds may be subject to compulsory write-down and/or conversion to the extent the value of the covered bonds exceeds the value of the cover pool.



# PKO BH Green Covered Bonds – EU Taxonomy – eligibility criteria for climate change mitigation

Economic activity	Screening Criteria	Residential <i>Single-Family</i> <sup>1</sup>	Residential <i>Multi-Family</i> <sup>2</sup>
7.1 Construction of new buildings Built after 31/12/2020	<b>Nearly Zero-Energy Building</b> Primary energy demand minus 10%	At least 10% lower than the requirements for the primary energy demand of the "Nearly Zero-Energy Building" standard (NZEB). Based on the "Energy Performance of Buildings Directive (EPBD)", the NZEB-standard is implemented in the implemented in Technical Condition 2021 (TC 2021) requirements.	
	Indicative reference values:	PED ≤ 63 kWh/(m <sup>2</sup> year)	PED ≤ 58.8 kWh/(m <sup>2</sup> year)
7.2 Renovation of existing buildings Built before 31/12/2020	<b>Major Renovation</b> Cost optimal level	The building renovation complies with the applicable requirements for major renovations as defined in the Energy Performance of Buildings Directive (EPBD), based on the cost optimal level as defined in Technical Condition 2014 (TC 2014).	
	<b>Property Upgrade</b> Relative improvement ≥ 30% in primary energy demand	Relative improvement in primary energy demand ≥ 30% in comparison to the performance of the building before the renovation. Reductions through renewable energy sources are not taken into account.	
7.7 Acquisition and ownership of buildings Built before 31/12/2020 <sup>3</sup>	top 15% of the national existing building energy code	Technical condition TC 2017 or newer	
	top 15% of the national existing building stock	PED ≤ 95 kWh/m <sup>2</sup> year FED ≤ 67.7 kWh/m <sup>2</sup> year	PED ≤ 85 kWh/m <sup>2</sup> year FED ≤ 60.6 kWh/m <sup>2</sup> year

<sup>1</sup> SFH: Single-Family house with 1-2 units | <sup>2</sup> MFH: Multi-Family house with >2 units | PED = primary energy demand | FED = Final energy demand | <sup>3</sup> For buildings built 01/01/2021 or newer, the criteria in 7.1 are required to comply with.

Source: Drees & Sommer low carbon building criteria are based on EU Taxonomy (Delegated Act – July 2021).  
Criteria are valid for assets located in Poland. Status: May 2022

# PKO BH Green Covered Bonds Methodology – Climate Bonds Initiative (CBI) certified eligibility criteria

Green Bond criteria - <i>The object fulfills one of the following criteria:</i>				Residential <i>Single-Family</i> <sup>1</sup> and <i>Multi-Family</i> <sup>2</sup>
Climate Bonds Initiative	New Construction or Existing Buildings	1)	Energy standard or year of construction is equal or newer <i>based on CBI's low carbon buildings criteria in compliance with CBI's established residential market proxy for Poland</i>	New buildings complying with Technical Note 2017 or later by year of construction are automatically eligible for qualification for bonds where the mid-point of the bond term is no later than 2025.
	Existing Buildings	2)	Property upgrade <i>in compliance with CBI's established residential property upgrade methodology</i>	Major renovation with an improvement in the CO2 emissions figure from EPC from before and after the retrofit, based on tenor of bond, which meet the requirement of Technical Note 2014 (issued after July 2015). Minimum improvement in carbon emissions ≥ 30%. Term 1-5 years: 30% improvement Term 5-30 years: 30%-50% linear improvement Term ≥ 30 years : 50% improvement

Source: Drees & Sommer low carbon building criteria are based on EU Taxonomy (Delegated Act – July 2021).  
Criteria are valid for assets located in Poland. Status: May 2022

# Regulatory safeguards built into bankruptcy procedure

Process	Covered bond repayment	Recourse and Priorities	Hedging
P1. Clear process of bankruptcy declaration	C1. Avoidance of time subordination	R1. Dual recourse (separate bankruptcy asset pool and general bankruptcy estate)	H1. Hedging arrangements will survive declaration of bankruptcy and will be extended by 12 months.
P2. Clear deadlines for key actions of bankruptcy procedure defined in the legal framework	C2. Explicit rules for early repayment of covered bonds	R2. Clearly defined order of priorities of payments from the separate bankruptcy asset pool	H2. Possibility of the bankruptcy receiver to enter into hedging transactions (provided tests are passed)
	C3. Explicit procedure for treatment of covered bonds, which became due before declaration of bankruptcy		

Covered bondholders entitled with option to intervene in bankruptcy procedure			
Coverage test	passed	passed	failed
Liquidity test	passed	failed	n/a
Covered bonds repayment	<ol style="list-style-type: none"> <li>Covered bonds repaid according to terms and conditions of the covered bonds, taking 12 months extension into account</li> <li>Receiver may enter into hedging transactions</li> </ol>	<ol style="list-style-type: none"> <li>Maturity date of all covered bonds extended to the date falling three years after the latest cover asset maturity date</li> <li>Distinct rules for pro-rata repayment before extended maturity date</li> </ol>	
Holders option	Resolution of covered bondholders with 2/3 majority to sell the separate bankruptcy asset pool to another bank	Resolution of covered bondholders with 2/3 majority <ol style="list-style-type: none"> <li>to disapply maturity extension or</li> <li>to sell cover assets to another bank or non-bank</li> </ol>	

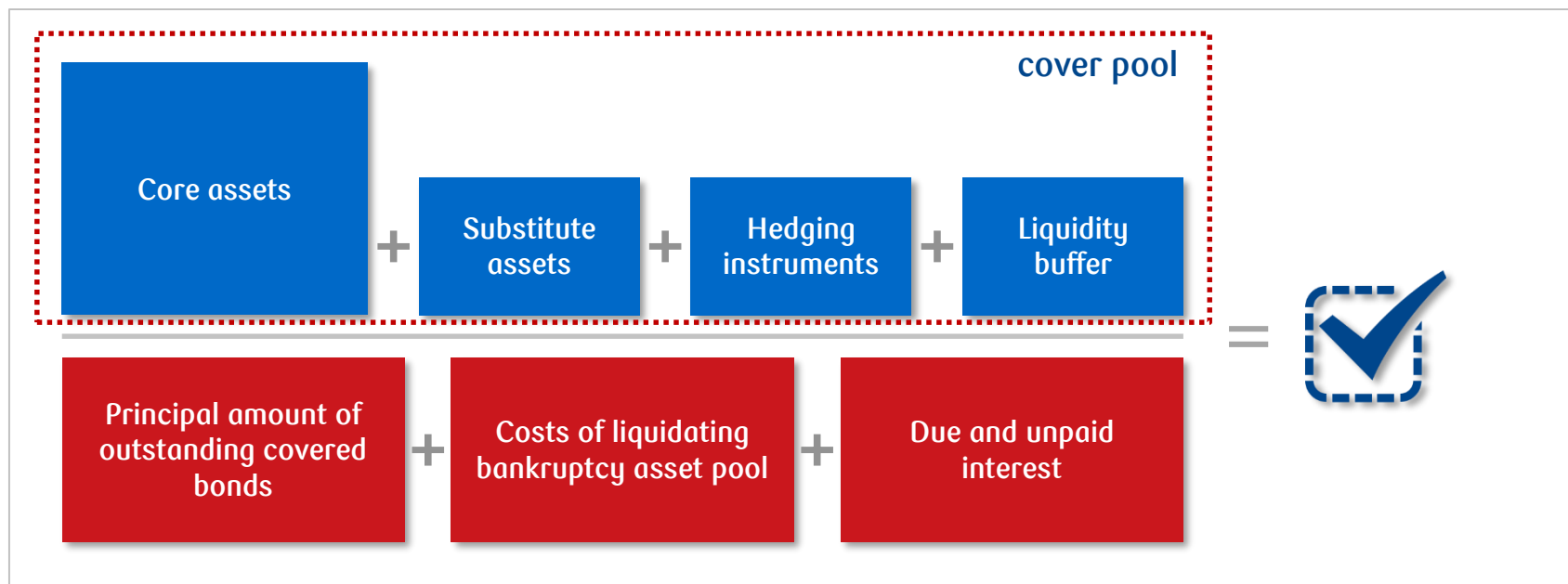
Probability of default according to Moody's Idealised Cumulative Default Probabilities table:

- Baa1: 5Y - 1.10%; 7Y - 1.67%; 10Y - 2.60%
- A3: 5Y - 0.73%; 7Y - 1.11%; 10Y - 1.80%

# To ensure the safety of the Covered Bonds the Bank is obliged to perform the Coverage Test...



Bank Hipoteczny



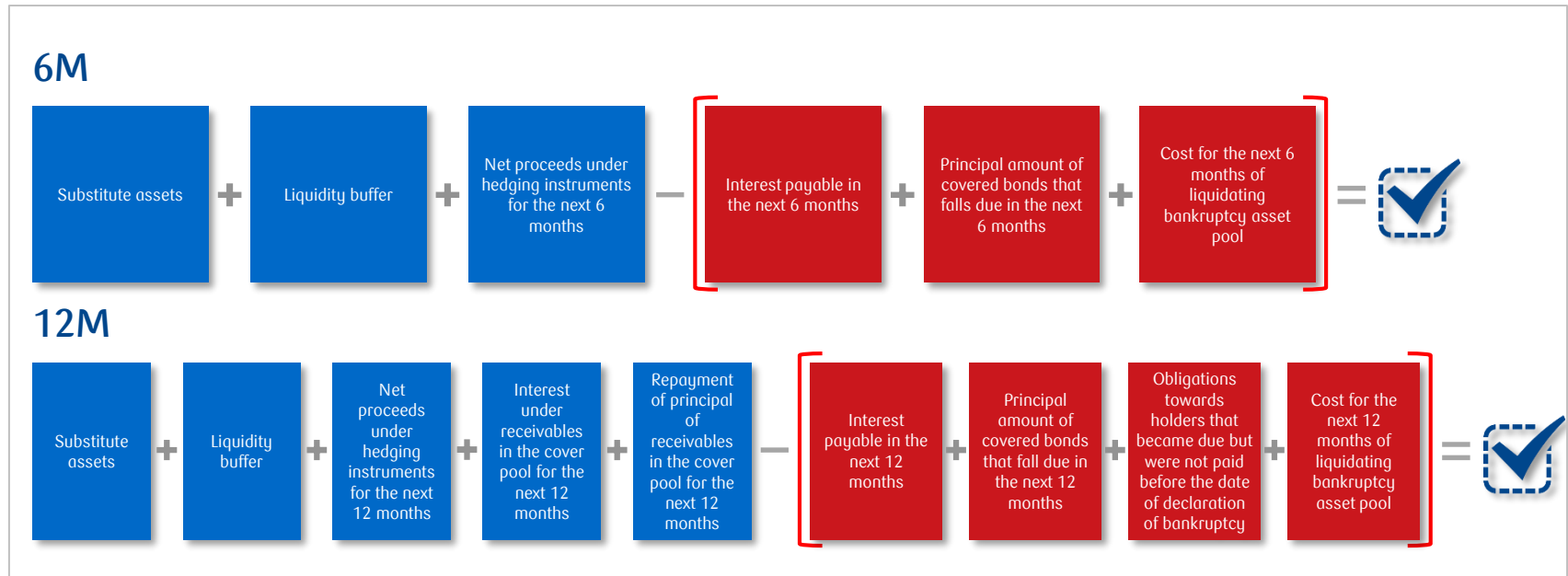
The coverage test **verifies whether the value of assets in a cover pool allows for full satisfaction of all claims** under outstanding covered bonds.

The coverage test must be **performed every six months**.

The test is performed based on the following sets of data:

- real data as of day of testing
- scenarios concerning changes of FX rates

## ...and the Liquidity test



The purpose of the liquidity test is to **verify that assets in a cover pool are sufficient for full satisfaction of all claims** under outstanding covered bonds, even if their maturity is extended in bankruptcy proceedings.

The liquidity test must be **performed at least every three months**.

The test is performed based on the following sets of data:

- real data as of day of testing
- scenarios concerning changes of FX rates
- scenarios concerning the shift of interest rate curves

# Experienced management team



**Jakub Niesłuchowski**

Member of the Supervisory Board  
delegated to perform the duties of the  
Member of the Management Board

graduate of the Warsaw School of Economics  
with a degree in finance and banking. Since  
2015, he has been associated with the  
PKO BP Group as Deputy CEO and CFO in  
PKO Bank Hipoteczny.

Responsible for internal audit, HR, compliance  
and financial controlling departments.



**Katarzyna Surdy**

Vice President of the Management Board

graduate of the Faculty of Law at the  
University of Warsaw. Since 2014, she has  
been associated with the PKO BP Group  
where she participated in the project of  
establishing of PKO Bank Hipoteczny.  
Responsible for treasury, legal and product  
departments.

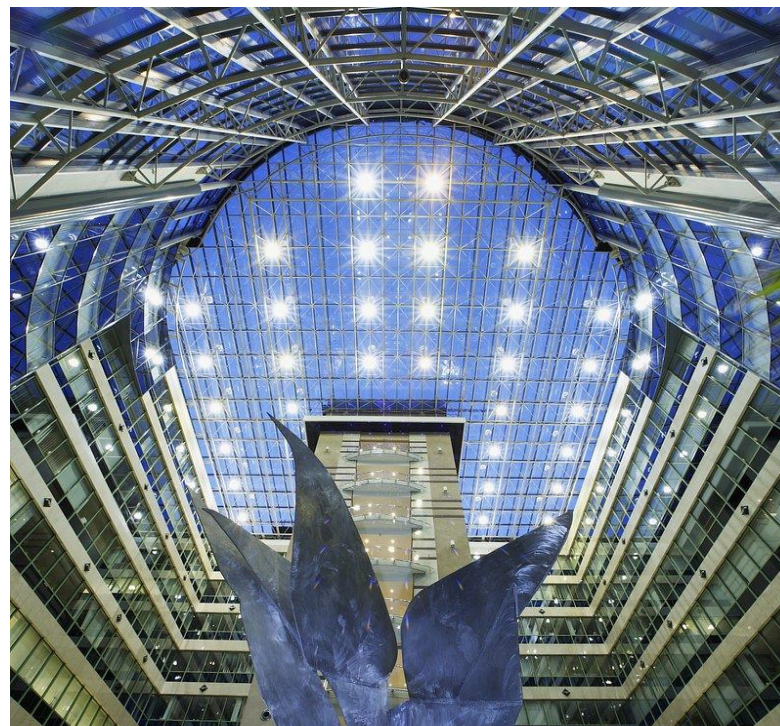


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